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    RESEARCH METHODOLOGY

    RESULTS & DISCUSSION

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    RECOMMENDATIONS/SUGGESTIONS

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- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio" Ohio State University, Nigeria.

CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

UNPUBLISHED DISSERTATIONS AND THESES

- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, KurukshetraUniversity, Kurukshetra.

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WEBSITES

- Garg, Bhavet (2011): Towards a New Natural Gas Policy, Political Weekly, Viewed on January 01, 2012 http://epw.in/user/viewabstract.jsp

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FORECASTING OF ELECTRICITY DEMAND USING SARIMA AND FEED FORWARD NEURAL NETWORK MODELS

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ABSTRACT

In this paper, Seasonal ARIMA and neural network models are compared for short term and long term forecasting. Electricity consumption of California data is used for modeling, which has a strong seasonal trend. Multiple SARIMA models are considered for forecasting and to compare the results with that of Neural network model. SARIMA model fits well the data and it resulted small RMSE values. Feed forward neural network model is also fitted the data but RMSE of fitted data is larger than that of SARIMA models. When 6 months forecast values are compared for SARIMA and Neural network models , the neural network model resulted lower RMSE than that for SARIMA models. Thus neural network model performed well for short term forecasting when seasonality is low whereas SARIMA model performed better for long term forecasting for the fitted model since seasonality effect is high.

KEYWORDS

ARIMA, Forecast, Electricity Demand, Feed Forward Neural Network, Forecast, SARIMA, Seasonal ARIMA.

INTRODUCTION

In practice, ARMA models on time series data are applied after removing any trend including seasonality trend as ARMA (Autoregressive Moving Averages) models do not allow skipping lags. But in the scenarios of monthly observations which depends on both the previous month and the month one year ago, SARIMA (Seasonal Autoregressive Integrated Moving Average) models can be applied as they allow skipping lags. In this paper , we compared SARIMA and Neural network models for forecasting electricity demand of California.

Hong-Choon Ong, and Shin-Yue Chan[1] have applied SARIMA   and neural network models for forecasting water consumption, both the models performed well but double layered MLP (Multilayer Perceptron) neural network performed better than single layered MLP. Liu Hong, Cui Wenhua, and Zhang Qingling [2] have improved RBF(Radial Basis Function) neural network model with a nonlinear relationship mapping by combining single forecasting results with RBF input layer. Siddarameshwara et al [3], have applied Elman recurrent (feedback) neural network for short term load forecasting using MATLAB tool to allow loops and backward links in the network. Michael Nelson, Tim Hill, Bill , and Marcus [4] have compared neural network for seasonal and de-seasonal data, they observed that the neural network was more accurate for de-seasonal than that for seasonal data. Pei Liu et al [5] worked on cement supply chain for forecasting demand using SARIMA and neural network models, the results indicated that neural network has given more accurate forecast values than that of SARIMA for the quarterly data. Karin Kandananond[6] found that Neural Network model performed better than ARIMA in forecasting electricity demand of Thailand. Ramakrishna et al [7] have applied SARIMA and Neural networks to forecast monthly electricity demand of Andhra Pradesh and they have indicated that Neural Networks has performed better than SARIMA.

In this paper , SARIMA and neural network model are applied for forecasting electricity demand of California and for comparing the models. A data population of California residential electricity consumption for each month between 1973-2011 is considered for modeling and forecasting. California data is a monthly data extracted from public domain in internet. A sample data of 72 observations between 2006-2011 is considered where 66 observations are used for model fitting and 6 observations for comparing with predicted values. SPSS tool is used for neural network modeling and R programming for SARIMA modeling.

Time series plot of California residential electricity consumption in Figure 1 shows that there is an upward and downward trend in the time series and also some periodicity.

FIGURE 1 – TIME SERIES PLOT	FIGURE 2 – ACF PLOT	FIGURE 3 – PACF PLOT
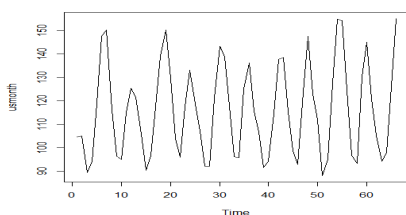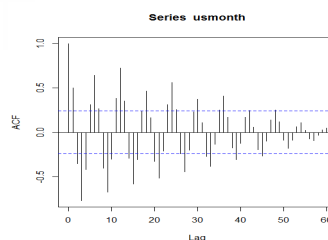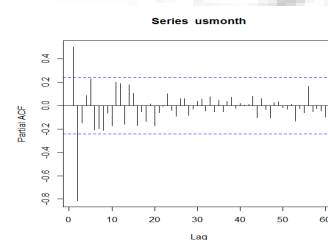
ACF and PACF plots   in Figure 2 and 3 respectively indicate that there are autocorrelations and a seasonal trend in the data.

SARIMA MODELING

Seasonal ARIMA is represented as ARIMA(p,d,q)x(P,D,Q)$_s$ where p is the number of autoregressive terms, d is the number of non-seasonal differences, q is the number lagged forecast errors in the prediction equation, P the number of seasonal autoregressive terms, D the number of seasonal differences, Q the number of seasonal moving average terms, and s is the periodicity , 12 in this case. R project is used to fit SARIMA model.

In ARIMA(p,d,q)x(P,D,Q)$_{12}$, the order of p, d, q and P,D, and Q are changed iteratively. For each iteration, AIC and RMSE (Root Mean Square Error) values are captured in the Table 1.

TABLE 1 – SARIMA MODEL IDENTIFICATION

ARIMA/SARIMA		AIC	RMSE	ARIMA/SARIMA		AIC	RMSE	ARIMA/SARIMA		AIC	RMSE
(1,0,1)		526.9	12.16	(1,1,1)	(0,1,1)$_{12}$	351.3	5.193	(1,0,1)	(1,1,1)$_{12}$	344.2	4.758
(2,0,2)		487.9	8.715	(1,1,1)	(1,1,1)$_{12}$	342.1	4.654	(1,1,2)	(1,1,2)$_{12}$	343.1	4.458
(2,1,2)		484.9	8.878	(1,1,1)	(1,1,0)$_{12}$	340.4	4.676	(2,1,0)	(1,1,0)$_{12}$	346.3	5.109
(2,0,0)		485.5	8.828	(0,1,1)	(0,1,1)$_{12}$	348.5	5.301	(1,1,2)	(0,1,1)$_{12}$	339.1	4.457
(2,1,0)		516.9	12.08	(1,1,0)	(0,1,1)$_{12}$	349.9	5.324	(2,0,2)	(0,2,2)$_{12}$	301.1	3.574
(1,1,0)		560.8	17.38	(1,1,0)	(1,1,1)$_{12}$	350.6	5.278	(2,0,2)	(0,1,1)$_{12}$	346	4.654
(2,0,1)		487	8.795	(1,1,0)	(1,1,0)$_{12}$	348.8	5.286	(2,0,2)	(0,2,1)$_{12}$	303.5	4.83
(1,1,1)		543.4	14.87	(2,1,0)	(0,1,1)$_{12}$	345.2	4.978	(3,0,2)	(0,2,2)$_{12}$	492.8	8.669
(0,1,1)		541.4	14.87	(2,1,1)	(1,1,1)$_{12}$	341.5	4.483	(3,0,1)	(0,2,2)$_{12}$	489.6	8.602
(1,0,1)	(0,1,0)$_{12}$	348.9	5.215	(2,1,0)	(1,1,0)$_{12}$	340.7	4.595	(3,0,3)	(1,2,2)$_{12}$	474.4	7.003
(1,0,1)	(0,1,1)$_{12}$	342	4.654	(2,1,0)	(0,1,1)$_{12}$	339.6	4.47	(3,0,3)		472.4	7.129
(1,0,1)	(0,2,1)$_{12}$	299.8	5.007	(1,1,1)	(1,2,1)$_{12}$	304.1	4.81	(3,0,3)	(0,1,0)$_{12}$	355.5	5.059
(1,0,1)	**(0,3,1)$_{12}$**	**247.7**	**6.521**	(0,0,1)	(0,1,1)$_{12}$	340.5	4.69	(3,0,3)	(0,2,1)$_{12}$	304.4	4.371
(1,0,1)	(0,3,2)$_{12}$	249	7.219	(0,0,2)	(0,1,1)$_{12}$	342	4.656	**(3,0,3)**	**(1,2,2)$_{12}$**	**306.9**	**3.294**
(1,0,1)	(0,3,3)$_{12}$	251	7.275	(1,0,1)	(0,2,2)$_{12}$	297.3	3.569	(3,0,3)	(0,3,1)$_{12}$	254.2	6.278

From the Table 1, it is observed that there are three models of SARIMA identified for comparison with unique characteristics : (1) SARIMA-1 model (1,0,1)x(0,3,1)$_{12}$ has the lowest AIC and RMSE of fitted data 6.52 (2) SARIMA-2 model (1,0,1)x(0,2,2)$_{12}$ has AIC 297.32 and RMSE 3.57 (3) SARIMA-3 model (3,0,3)x(1,2,2)$_{12}$ has AIC of 306.93 and lowest RMSE of 3.29. AIC and RMSE of SARIMA-2 fall between that of SARIMA-1 and SARIMA-3. These 3 models are considered for comparison of forecasted values with that of Neural Network model.

Ljung-box Test is carried on the residuals of 3 models identified and p-values are captured in the Table 2. The p-value of 3 models are > 0.05 level of significance indicate that the residuals are random.

TABLE 2 – LJUNG-BOX TEST	FIGURE-4 ACF OF SARIMA-1	FIGURE-5 ACF OF SARIMA-2	FIGURE-6 ACF OF SARIMA-3

Model		p-value
SARIMA-1	(1,0,1)x(0,3,1)	0.629
SARIMA-2	(1,0,1)x(0,2,2)	0.901
SARIMA-3	(3,0,3)x(0,3,1)	0.935

FIGURE-4 ACF OF SARIMA-1 — Series fitsarima$residuals

FIGURE-5 ACF OF SARIMA-2 — Series fitsarima2$residuals

FIGURE-6 ACF OF SARIMA-3 — Series fitsarima3$residuals
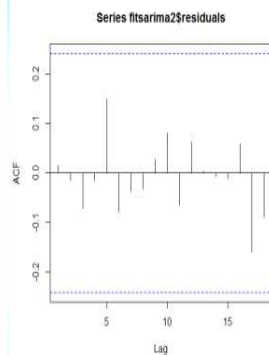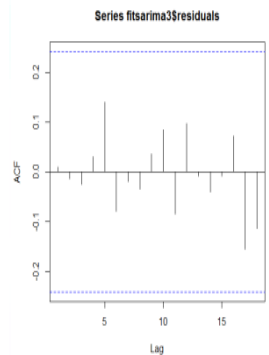
ACF plot of residuals of 3 models are shown in Figure 4 , Figure 5 and Figure 6 respectively , indicates that there are no autocorrelations in the residuals except in one case in SARIMA-1. Thus, the identified models are adequate for fitting the data and for forecasting electricity demand.

The residuals are checked for any heteroskedasticity using McLeod Li Test. The p-values are plotted in Figure 7, Figure 8, and Figure 9 for the 3 models.

FIGURE 7 – MCLEOD-LI TEST OF SARIMA-1 **FIGURE 8 – MCLEOD-LI TEST OF SARIMA-2** **FIGURE 9 – MCLEOD-LI TEST OF SARIMA-3**
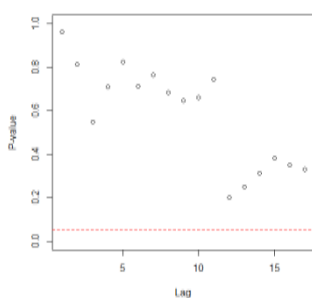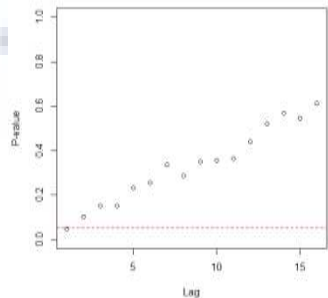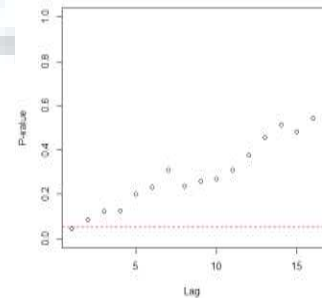
All p-values are > 0.05 level of significance. Thus there is no heteroskedasticity in the residuals of all the 3 SARIMA models.

The estimated coefficients of 3 models and standard errors are shown in the Table 3

TABLE 3 - ESTIMATION OF COEFFICIENTS OF SARIMA MODELS

Coefficients	SARIMA-1		SARIMA-2		SARIMA-3	
	Estimation	Std error	Estimation	Std error	Estimation	Std error
ar1	-0.2979	0.1916	0.2574	0.289	0.0174	1.9557
ar2					0.3151	1.3834
ar3					-0.231	0.5226
ma1	1	0.3087	0.2903	0.2937	0.5381	1.9905
ma2					-0.1535	1.8611
ma3					0.056	0.5809
sar1			-1.7708	0.8146	-0.1486	0.3422
sma1	-0.999	0.8284	0.9987	0.8278	-1.8045	1.0562
sma2					0.9953	1.0592

From the table 3 , it is observed that the standard errors of SARIMA-3 are larger than that of SARIMA-1 and SARIMA-2

FORECASTING USING SARIMA MODEL

6 months forecasting is done using SARIMA estimated coefficients. The forecast values are captured in the Table 4 along with the actual values for error computation.

TABLE 4 – 6 MONTHS FORECAST VALUES OF 3 MODELS AND ACTUAL OBSERVED VALUES

Month	Observed	SARIMA-1	SARIMA-2	SARIMA-3
67	154.8885	180.3524	148.0356	147.219
68	153.6875	174.8095	143.3671	141.0729
69	122.8422	132.3018	120.4806	118.8866
70	94.57597	92.06967	96.89929	96.05149
71	93.12583	92.27572	92.35208	91.89427
72	116.0872	141.5576	132.4909	132.3498

The forecast accuracy is the difference between the actual value and the forecast value for the corresponding period.

$E_t = Y_t - F_t$ (1)

Where E is the forecast error at time period t, Y is the actual value at period t, and F is the forecast for period t.
The following measures are widely used in the industry to analyze the accuracy forecast values.

Mean Absolute Percentage Error $MAPE = \frac{\sum_{t=1}^{N} |\frac{E_t}{Y_t}|}{N}$ (2)

Mean Squared Error $MSE = \frac{\sum_{t=1}^{N} E_t^2}{N}$ (3)

Mean Absolute Error $MAE = \frac{\sum_{t=1}^{N} |E_t|}{N}$ (4)

Root Mean Squared Error $RMSE = \sqrt{\frac{\sum_{t=1}^{N} E_t^2}{N}}$ (5)

The above measures are computed for 6 month forecast values of 3 SARIMA models. The computed measures are captured in Table 5.

TABLE 5 – FORECAST ACCURACY - MEASURES OF AGGREGATE ERROR

	SARIMA-1	SARIMA-2	SARIMA-3
Sum of Squared Error (SSE)	1839.7777	434.1280	501.7612
Mean Absolute Error (MAE)	14.1454	6.5059	7.2015
Mean Squared Error(MSE)	306.6296	72.3547	83.6269
Root Mean Squared Error (RMSE)	17.5108	8.5062	9.1448
Mean Absolute Percentage Error (MAPE)	0.1056	0.0508	0.0555

One can notice from the Table 5 that RMSE of forecast values is lowest in the case of SARIMA-2, thus, SARIMA-2 is the best fit model from forecast accuracy perspective. The forecast values are plotted with the fitted data , shown in Figure 10, Figure 11, Figure 12 for SARIMA-1, SARIMA-2, and SARIMA-3 respectively. The forecast values are within 95% confidence boundaries for all models but the boundary range is larger in the case of SARIMA-1.

FIGURE 10 – SARIMA-1 WITH FORECAST VALUES   FIGURE 11 – SARIMA-2 WITH FORECAST VALUES   FIGURE 12 – SARIMA-3 WITH FORECAST VALUES
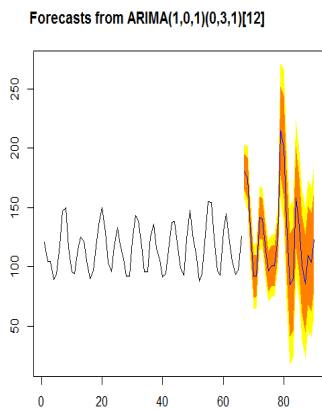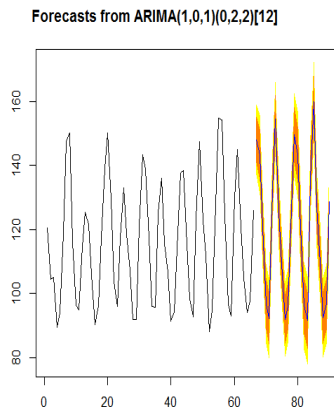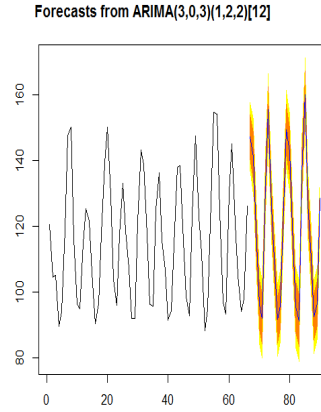
It is observed from Table 1 that RMSE of entire fitted data is lowest in the case of SARIMA-3 whereas RMSE of only Forecast values in the Table 5, is lowest in the case of SARIMA-2. And AIC is the lowest for SARIMA-1. The 3 SARIMA models were selected in the beginning to analyze the impact of AIC , significance of coefficients, and RMSE. Thus , a model needs to be chosen based on the data and it is important to analyze the forecast accuracy measures for fitted model and forecast values   apart from AIC as the criteria for selection of a model. Since most of the statistical computations are automated in the tools, the iterative process is faster using any data mining tool and thus it is advised to look for lowest AIC as a guideline to select a model in the initial stages but subsequently it is useful to carry out an iterative method to look for accuracy measures such as RMSE to arrive at a suitable model for a given data.

From the above analysis it is observed that the relationships between inputs and outputs are playing important role to identify an appropriate model. Neural Networks are widely used modeling technique in the case of complex relationships between inputs and outputs and also to analyze complex patterns in data. If the underlying process of how the results are achieved , is not important then Neural Networks is a good modeling technique since it has inherent flexibility in dynamically interpreting the relationships between inputs and outputs to select linear regression or non-linear regression models but the synaptic weights of a neural network are not easily interpretable.

NEURAL NETWORKS MODELING

The most common neural network model[8] is the multilayer perceptron (MLP) which is a function of predictors/inputs/independent variables that minimize the error of outputs. MLP neural network model has been chosen to fit electricity consumption data of California and for forecasting monthly electricity demand. MLP consists of 3 layers – input, hidden, and output. MLP with Feed Forward Architecture is considered for forecasting California monthly electricity demand. IBM SPSS tool is used for neural network modeling and forecasting.

The scale-dependent variable is a time series data of monthly electricity consumption of California for 72 months. Two more inputs are considered ,one month lag and 12 month lag scale dependent variables, these two variables lag1 and lag12 are taken as covariates. The data is partitioned into training, testing and holdout. The training sample is used to train the neural network. The testing sample is used to track errors during training in order to prevent overtraining. The holdout sample is another independent group of records used to assess the final neural network. The covariate variables are rescaled using standardized method to improve network training. The training parameters are set in the tool as shown in Table 8. The architecture selection is automatic with 1 to 50 max units.

TABLE 8 – SPSS TOOL TRAINING PARAMETER SETTINGS

Parameter	Value
Training Criteria	Mini-Batch
Optimization Algorithm	Gradient descent
Initial learning rate	0.3
Lower Boundary of learning rate	0.001
Momentum	0.9
Learning rate reduction, in Epochs	10
Interval cetner	0
Internal Offset	0.5
Stopping rule-error steps	1
Max Training time	default

The partitioning of data is done by assigning relative number to training, testing and holdout sets. The relative numbers are changed iteratively to get best possible partition , for each iteration RMSE of testing is captured in Table 9. For the given data 70%-25%-5% partition has given lowest RMSE for testing records. The processed records summary is shown in Table 10 where 46 records considered for training, 10 for testing and 4 for holdout.

TABLE 9 – PARTITION AND RMSE OF TESTING

Partition	RMSE of Testing
70,20,10	0.185
70,25,5	0.118
80,15,5	0.273
85,10,5	0.230
60,30,10	0.252
65,30,5	0.204
75,20,5	0.287
55,40,5	0.243
50,45,5	0.170

TABLE 10 – SUMMARY OF DATA PROCESSED

Partition Summary		N
Sample	Training	46
	Testing	10
	Holdout	4
Valid		60
Excluded		12
Total		72

TABLE 11 – MODEL SUMMARY

Training	Sum of Squares Error	3.080
	Relative Error	.137
	Stopping Rule Used	1 consecutive step (s) with no decrease in error[a]
	Training Time	00:00:00.040
Testing	Sum of Squares Error	.140
	Relative Error	.023
Holdout	Relative Error	18.736

Dependent Variable: VAR00001

a. Error computations are based on the testing sample.

The feed forward neural network model summary is shown in Table 11, computed RMSE of testing is 0.118. The network information is shown in Table 12, it shows 2-3-1 architecture of one input layer with 2 neurons lag1 and lag12 , one hidden layer with 3 neurons, one output layer with one neuron of forecast values, the monthly load is the dependent variable. The network architecture is shown pictorially in Figure 13.

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TABLE 12 – NETWORK INFORMATION

Network Information				
Input Layer	Covariates	1	lag1	
		2	lag12	
	Number of Units^a			2
	Rescaling Method for Covariates		Standardized	
Hidden Layer(s)	Number of Hidden Layers			1
	Number of Units in Hidden Layer 1^a			3
	Activation Function		Hyperbolic tangent	
Output Layer	Dependent Variables	1	Monthly_Load	
	Number of Units			1
	Rescaling Method for Scale Dependents		Standardized	
	Activation Function		Identity	
	Error Function		Sum of Squares	

a. Excluding the bias unit

FIGURE 13 – NEURAL NETWORK ARCHITECTURE WITH 70-25-5 PARTITION AND 2-3-1 UNITS (EXCLUDING BIAS)

Hidden layer activation function: Hyperbolic tangent
Output layer activation function: Identity
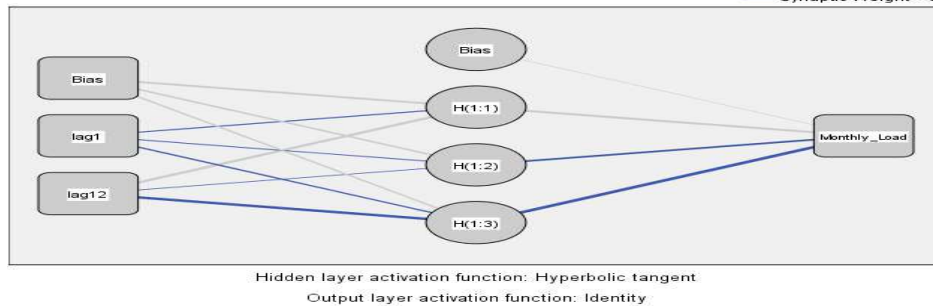
The estimates of coefficients of neural network model are shown in Table 13, indicate relationships among input layer units ,hidden layer units, and output layer units .

TABLE 13 – PARAMETER ESTIMATES OF NEURAL NETWORK MODEL

		Predicted			
		Hidden Layer 1			Output Layer
Predictor		H(1:1)	H(1:2)	H(1:3)	VAR00001
Input Layer	(Bias)	-.108	-.099	-.319	
	lag1	.133	.499	.187	
	lag12	-.537	.210	-.343	
Hidden Layer 1	(Bias)				-.138
	H(1:1)				-1.484
	H(1:2)				.718
	H(1:3)				-.277

FORECASTING USING FEED FORWARD NEURAL NETWORK MODEL

The selected Feed Forward Neural Network model is used to forecast the monthly electricity demand of California. The 6 months forecast of neural network model is compared with SARIMA-1, SARIMA-2, and SARIMA-3 forecast values in Table 14. RMSE computed for all the four models indicate the neural network model has lowest RMSE for the 6 months forecasts, though RMSE of fitted.

TABLE 14 – 6 MONTHS FORECAST OF SARIMA AND NEURAL NETWORK

Actual	SARIMA-1	SARIMA-2	SARIMA-3	NN
154.888	180.352	148.036	147.219	149.664
153.688	174.809	143.367	141.072	151.561
122.842	132.302	120.481	118.887	128.793
94.576	92.069	96.899	96.051	98.850
93.126	92.275	92.352	91.894	94.634
116.087	141.558	132.491	132.35	128.578

RMSE values of SARIMA and neural network models of entire series and 6 months forecast values are shown in Table 15

TABLE 15 – RMSE OF ENTIRE SERIES AND 6 MONTHS FORECAST VALUES OF SARIMA AND NEURAL NETWORK

	SARIMA-1	SARIMA-2	SARIMA-3	NN
RMSE of Fitted Model	6.521	3.569	3.294	6.103
RMSE of 6 Months Forecast	17.511	8.506	9.145	6.374

FIGURE 14 – ACTUAL, FITTED & FORECAST VALUES PLOT OF THREE SARIMA, AND NEURAL NETWORK MODELS
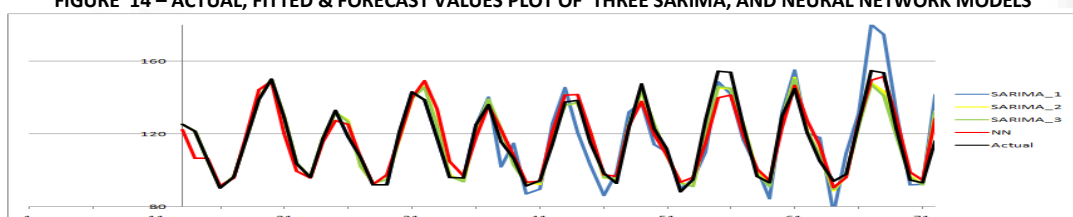
From the table 15, one can notice that RMSE of fitted models is lowest for SARIMA-3 whereas RMSE of 6 months forecast values is lowest in the case of neural networks model and SARIMA-2 among SARIMA models . From fitted model perspective, SARIMA has shown lower error than that of Neural network, but from forecasting perspective neural network model has shown better results. Thus, SARIMA may be a good model for a long term forecasting as seasonality trend and has influence on the model fitment whereas for short term forecasting neural network model is a better option as it reduces errors with time due to learning progress from training process and also seasonality trend effect is low for short term. Fitted along with Forecast values vs. Actual values for all the models are shown in Figure 14, SARIMA-2 and SARIMA-3 fitted values are more closer to Actual than that of Neural network.

CONCLUSION

In this paper, SARIMA and Neural network models are compared with forecasting 6 months electricity demand of California. 3 models of SARIMA are considered for comparison purpose one with lowest AIC, one with lowest RMSE and another one in between model. And Neural network model is selected with a partition of data for training and testing based on the lowest RMSE. Forecast from 3 SARIMA and Neural network models are compared along with RMSE. SARIMA-2 has given the best Forecast among 3 SARIMA models based on RMSE of Forecast values while fitted model(i.e. entire series) of SARIMA-2 has AIC closer to SARIMA-1 and RMSE closer to SARIMA-3. It is observed that among SARIMA models and Neural network model, fitted data of SARIMA models have given better RMSE than that of neural network model. And in the case of 6 months forecast values, neural network has given lower RMSE compare to that of SARIMA models. Since error judgment is an important factor in forecasting though the model selection may be done on a different criteria such as AIC or significance level of coefficients and other factors. The model needs to be fine tuned objectively to reduce the errors hence, it is advisable to select multiple models with multiple criteria for comparing error level depending on the data. Thus, it is concluded that for forecasting California electricity demand , while neural network is a better model for short-term forecasting for the given data whereas seasonality trend impact is low, SARIMA is a better model for long term forecasting as seasonality trend is high for long term.

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FINANCIAL LITERACY FOR SUSTAINABILITY: A STUDY ON RURAL INDIANS WITH SPECIAL REFERENCE TO KARNATAKA

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ABSTRACT

Financial literacy is the set of skills and knowledge that makes us to understand the financial principles to manage financial affairs. One way of assessing financial literacy is to look at how well people are managing their saving, spending and borrowing choices. Financial literacy influences how people save, borrow, invest and manage their financial affairs. It therefore affects their capacity to grow their wealth and income, and has significant implications for people's lifestyle choices. Financial literacy has a significant part to play in influencing how financial institutions such as banks, non -banking intermediaries – manage their affairs and what products they provide. Because financial literacy influences people's investment decisions, including risk/return tradeoffs, it also affects how resources in the economy are allocated. In turn, this has implications for the potential growth rate and stability of the economy. This research papers tries to evaluate the awareness levels of rural Indians with respect to availability of key financial products, basic financial concepts, expenditure pattern, making good financial decisions competently. This study has sought to develop a comprehensive understanding of the financial literacy of rural Indians.

KEYWORDS

tradeoffs, competently, comprehensive.

INTRODUCTION

The father of the nation Mahatma Gandhi said "India lives in Villages and its true spirits lives in rural areas". Rural India is the real face of India as it includes over 50 percent of the Indian population. There was a time when rural India was pictured as of wrecked villagers, kids with distended bellies and ragged clothes and a future as grim as the fractured, sun-baked earth. But the picture has changed drastically over the past few years which not only equipped the villagers to find a self sufficient way of living but also made rural India a huge consumer market.

According to the country's Eleventh National Development Plan, more than 300 million rupees were kept for rural development. The country has been successful in reducing the proportion of poor people from about 55 per cent in 1973 to about 27 per cent in 2004. The incidence of rural poverty has declined somewhat over the past three decades as a result of rural to urban migration. On the map of poverty in India, the poorest areas are in parts of Rajasthan, Madhya Pradesh, Uttar Pradesh, Bihar, Jharkhand, Orissa, Chhattisgarh and West Bengal.

A major cause of poverty among India's rural people, both individuals and communities, is the lack of access to productive assets and financial resources. High levels of illiteracy, inadequate health care and extremely limited access to social services are common among poor rural people. Microenterprise development, which could generate income and enable poor people to improve their living conditions, has recently become a focus of the government.

REVIEW OF LITERATURE

The need for financial skills has grown rapidly over the last decade because 'financial markets have been deregulated and credit has become easier to obtain as financial institutions compete strongly with each other for market share' (Beal and Delpachitra, 2003, p. 65). People need to know more about superannuation funds and their operation, to understand their own responsibility and that of their employers and to know the options that are available to them (Abetz, 2005).

Having financial literacy skills is an essential basis for both avoiding and solving financial problems, which, in turn, are vital to living a prosperous, healthy and happy life (CBF, 2005b, p. 4). Financial problems are often the basis for divorce, mental illness and a variety of other unhappy experiences (Kinnunen and Pulkkinen, 1998; Yeung and Hofferth, 1998; Cleek and Pearson, 1985). In addition, "financial hardship can increase isolation, emotional stress, depression and lower self-esteem, which, in turn, can generate or exacerbate marital tensions" that lead to divorce (Wolcott and Hughes, 1999, p. 10).

Thus, financial literacy will continue to be a prominent research topic and it is expected that the focus will lean towards the implementation and evaluation of strategies to improve the financial literacy levels of certain cohorts of populations where a lack of financial knowledge and skill has been identified by previous research (FLF, 2005b; RMR, 2003). Further, the high number of people with low levels of financial literacy presents a serious problem for both the economic well-being of nations and the personal well-being of such individuals (CBF, 2004a; Morton, 2005; RMR, 2003).

NEED

Financial education is need of an hour, it requires for every citizen at every walk of life and it determines his standard of living, life cycle and economic development of individual as well as nation. Hence, the study is very important for sustainable development.

STATEMENT OF PROBLEM

The awareness about financial matters is not up to the mark among the citizens for various reasons, majority of them are not planning the earnings, expenditures and investment and savings related aspects. Hence this study "Financial Literacy for Sustainability A study on Rural Indians *Special reference to Karnataka is undertaken to study the following objectives.*

OBJECTIVES

1. To understand the financial awareness among the rural Indians
2. To determine the factors influencing the financial literacy
3. To documents the hurdles in financial literacy

SCOPE

The study is mainly focuses on the Financial literacy of rural citizens. The purpose of the study is to understand the knowledge level, competency in financial matters, factors influencing and major hurdles in financial literacy of respondents among 200 geographically dispersed rural citizens of Karnataka State which covers rural as well as semi urban citizens.

RESEARCH METHODOLOGY

The research is both exploratory and conclusive in character. Exploratory is non- conclusive design used in the initial part of the research problems and design suitable data collection instrument. Descriptive research is an integral part of the research, under descriptive study extensive data's are collected using a cross section survey.

DATA SOURCES

The research uses primary data. Primary data is collected from the respondents with the aid of designed questionnaires. For the purpose of adequacy of the primary data a cross section survey was undertaken. The primary data is also collected from executives, employees of insurance companies, agents, advisors and other experts.

The sample respondents are selected by using cluster sampling method. The important geographical clusters in the state of Karnataka are treated as a sample unit. Four regions like Northern Region , Southern, Coastal Region and Central Region are consider as sampling clusters, from each region five districts are selected randomly. Bidar, Belgaum, Bijapur, Gulbarga and Bagalkot   districts are taken from Northern Region, Uttar Kannada, Dakshina Kannada and Udupi districts from Coastal Region, Chitradurga, Davanagere, Chikmagalur, Dharwad, and Shivamogga districts from Southern Region. Bangalore, Bangalore Rural, Hassan, Mysore, and Tumkur districts from central regions.

FINANCIAL LITERACY - AN OVERVIEW

Financial literacy is the ability to understand how money works in the world: how someone manages to earn or make it, how that person manages it, how he invests it and how that person donates it to help others. More specifically, it refers to the set of skills and knowledge that allows an individual to make informed and to take effective decisions with their available financial resources.

Financial literacy influences how people save, borrow, invest and manage their financial affairs. It therefore affects their capacity to grow their wealth and income, and has significant implications for people's lifestyle choices. Financial literacy also has a significant part to play in influencing how financial institutions such as banks, non-bank deposit takers and insurers – manage their affairs and what products they provide. Because financial literacy influences people's investment decisions, including risk/return tradeoffs, it also affects how resources in the economy are allocated. In turn, this has implications for the potential growth rate and stability of the economy.

DATA ANALYSIS

This research papers tries to evaluate the awareness levels of rural Indians with respect to understanding of key financial products ,basic financial concepts, Expenditure pattern, Knowledge on Insurance, Make good financial choices and financial competently

TABLE NO. 01: GEOGRAPHICAL AREA OF RESPONDENTS

Geographical Area	No. of Respondents	Percentage
Northern Region	50	25
Coastal Region	50	25
Central Region	50	25
Southern Region	50	25

Source: Primary Data

The respondents are selected from four Regions in Karnataka, such as Northern Region, Coastal Region, Central Region and Southern Region. The above table and represents the geographical area of the respondents and 50 respondents are representing from each of Karnataka.

TABLE NO. 02: CONSOLIDATED TABLE SHOWING AGE, EDUCATION, OCCUPATION, MARTIAL STATUS & INCOME

Parameters	Factors	Gender			Total		
		Male	Female	T.N.R	%	GT	
Age	Up to 20	27	18	45	22.5	200	
	21-30	81	22	103	51.5		
	31-40	28	9	37	18.5		
	Above 40	12	3	15	7.5		
Education	Illiterate	39	16	55	27.5	200	
	Elementary	51	17	68	34		
	Middle School Level	35	11	46	23		
	Higher Secondary	23	8	31	15.5		
Occupation	Student	12	4	16	8	200	
	Un employed	8	3	11	5.5		
	Farmer	39	6	45	22.5		
	Labour	33	9	42	21		
	Employees	27	5	32	16		
	Business	15	4	19	9.5		
	Housewife	0	17	17	8.5		
	Retired	9	2	11	5.5		
	Others	5	2	7	3.5		
Marital Status	Married	112	40	152	76	200	
	Un Married	40	8	48	24		
Income Level (Rs. Per Month)	Up to 5000	56	22	78	39	200	
	5001-10000	50	17	67	33.5		
	10001-20000	28	9	37	18.5		
	20001-30000	10	3	13	6.5		
	Above 30,000	4	1	5	2.5		

Source: Primary Data

TNR: Total Number of Respondents, GT: Grand Total

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The above table shows that out of total 200 respondents 142 are male and remaining 52 are female. Respondent are categorized in to four groups based on age, the groups are (a.) Below 20 years, (b) 21 to 40 years, (c) 41 to 60 years ,(d) Above 60 years. In the above table and highest number of respondents is 103 representing from 21 to 40 years age group and lowest of 15 respondents representing from above 60 years age groups. Based on the education the respondent are categorized into 4 groups like Illiterate, Elementary, Middle School Level and Higher Secondary and Above

Respondents are categorized in to Nine occupational groups such as Student, Un employed, Farmer, Labour, Employees, Business, Housewife, Retired and Others. In Income group 39% of respondents belongs Up to Rs. 5000 PM and 2.5 % belongs to Above Rs. 30,000 PM income group. Out of 200 respondents 152 are married and remaining are unmarried.

TABLE NO. 03: UNDERSTAND THE KEY FINANCIAL PRODUCTS

Sl.No	Factors	Ranking					Total	WAS	Rank
		1	2	3	4	5			
1	Bank Accounts	39	45	67	27	22	200	3.26	4
2	Savings	28	34	79	34	25	200	3.03	5
3	Loans	49	56	82	9	4	200	3.685	2
4	Investments on stocks	19	26	46	49	60	200	2.475	8
5	Bonds and Mutual funds	22	31	54	46	47	200	2.675	6
6	Mortgages	23	31	45	49	52	200	2.62	7
7	Retirement savings	9	17	71	54	49	200	2.415	9
8	Public Provident Funds	11	19	56	65	49	200	2.39	10
9	Pension Funds	7	13	65	54	61	200	2.255	11
10	Post Office Savings	34	48	78	23	17	200	3.295	3
11	Chit Funds	64	61	45	19	11	200	3.74	1

Source: Tabulated Data

The above table represents the respondent's knowledge level regarding understanding of key financial products in which majority are known to Chit funds and they had lack of knowledge in remaining financial products like Savings, Funds, POS, Bonds, MF,s etc

TABLE NO. 04: UNDERSTANDING OF BASIC FINANCIAL CONCEPTS

Sl.No	Factors	Ranking					Total	WAS
		1	2	3	4	5		
1	Compound interest	9	21	52	49	69	200	2.26
2	Simple interest	14	31	58	41	56	200	2.53
3	Reducing balance Int	6	16	61	45	72	200	2.195
4	Flat rate interest	7	19	56	49	69	200	2.23
5	Investment return	31	38	46	46	39	200	2.88
6	Risk/ Return	18	33	47	49	53	200	2.57
7	Portfolio	9	19	51	67	54	200	2.31
8	Processing Fees	11	21	56	41	71	200	2.3
9	Transfer of Funds	17	27	58	47	51	200	2.56
10	Transactions through Cheque	26	34	57	41	42	200	2.805
11	Remittance	8	14	63	43	72	200	2.215

Source: Tabulated Data

The above table represents the respondent's knowledge level regarding understanding of key financial concepts such as interest, Cheque, Risk /Return. Remittance etc in which respondents awareness level in interest rate ,types of interest and calculation mode is not up to the mark while comparing to other factors.

TABLE NO. 05: MAKE GOOD PLANNING IN FINANCIAL CHOICES

Sl.No	Factors (Planning for)	Ranking					Total	WAS
		1	2	3	4	5		
1	Savings	23	32	41	29	75	200	2.49
2	Expenditure	19	27	52	51	51	200	2.56
3	Contingency	7	13	53	47	80	200	2.1
4	Uncertainties	6	16	56	59	63	200	2.215
5	Education	12	28	39	54	67	200	2.32
6	Buying/ constructing a house	16	33	47	49	53	198	2.54
7	Starting a family	11	23	42	53	71	200	2.25
8	Tax planning	3	13	61	59	64	200	2.16
9	Investment	11	21	55	59	54	200	2.38
10	Getting Ready for Retirement	7	13	53	47	80	200	2.1

Source: Tabulated Data

The above table measures the respondent ability to make good Planning and financial choices Such as savings, expenditure, insurance, tax planning, investments etc in which majority are not good at making plan for retirement and contingences and savings, expenditures are planned with WAS of 2.9 and 2.56 respectively.

TABLE NO. 06: RESPOND COMPETENTLY TO CHANGES THAT AFFECT EVERYDAY FINANCIAL ISSUES

Sl.No	Factors	Ranking					Total	WAS
		1	2	3	4	5		
1	General Knowledge in Finance area	19	28	45	48	60	200	2.490
2	Recent collapse of financial markets	14	26	55	51	54	200	2.475
3	Inflation	16	19	51	48	66	200	2.355
4	Balance of Payments	9	16	56	59	60	200	2.275
5	Bankruptcy	21	38	41	47	53	200	2.635
6	Bank Interest rate	29	33	47	34	57	200	2.715
7	Exchange rate	14	29	42	42	73	200	2.345
8	Micro Finance	31	27	61	38	43	200	2.825

Source: Tabulated Data

The table represents the respondent's competently to changes that affect everyday financial Issues such as General Knowledge in Finance area, Recent collapse of financial markets, Inflation, Balance of Payments, Bankruptcy, Bank Interest rate ,Exchange rate and Micro Finance in which majority got competence in microfinance comparing to other factors.

TABLE NO. 07

Sl.No	Factors	Ranking					Total	WAS
		1	2	3	4	5		
1	Will you keep track of their spending	13	26	39	48	74	200	2.280
2	Will you keep track of their Earning	9	19	55	51	66	200	2.27
3	Do you have any Budget	16	21	51	48	64	200	2.385
4	Have you planed for savings	9	18	56	59	58	200	2.305
5	Aware about the % of Amt spent on expenses	11	29	41	47	72	200	2.3
6	Are you saving for retirement?	13	37	50	37	63	200	2.5

Source: Tabulated Data

WAS (weight age average score) for Agreement/disagreement on following questions like Will you keep track of their spending (2.280)Will you keep track of their Earning (2.27 Have you planed for savings(2.385) Aware about the % of Amt spent on expenses(2.305)Are you saving for retirement(2.5) respectively.

TABLE NO. 08: SPENDING HABIT (Rupees Per Month)

Sl.No	Expenses	%
1	Food	40
2	Mobile phones / Currency	7
3	Travel account	5
4	Rent/Housing	14
5	Clothing	5
6	Medical/ Health expenditure	9
7	Education	3
8	Recreations	12
9	Others	5

Source: Tabulated Data

When we compare the expenditure pattern of respondents in rupees per month, it was found that they are spending comparatively less on rent, educations and medical etc.

TABLE NO. 09: INITIATIVES

Sl.No	Statement	Yes (%)	Neutral (%)	No (%)
1	Would you interested in increasing your financial knowledge?	38	24	38
2	Do You think Govt. has to initiate financial literacy?	59	11	30
3	Is Financial Literacy is need of an hour?	35	43	22
4	Financial Literacy improve the Standard of living	39	40	21
5	Would you interested in join training improve your financial knowledge?	29	34	37

Source: Tabulated Data

The above table represents the respondent's Initiative in financial activities in which 59% says that Government has to initiate financial literacy and 29% are interested in join training improve there financial knowledge which is highest and lowest among the group.

TABLE NO. 10: PERCEPTION ON FINANCIAL MATERS

Sl.No	Factors	Ranking					Total	WAS
		1	2	3	4	5		
1	Choosing the right investments to be more stressful than going to the dentist	57	34	51	34	24	200	3.330
2	Financial literacy education that is more critically oriented and broader in focus	35	49	50	34	32	200	3.105
3	Financial failure as an individual problem	31	58	50	31	30	200	3.145
4	Illiterates cant understand Financial terms	43	34	39	43	41	200	2.975

Source: Tabulated Data

Perception on Financial Maters measured by above mentioned statements. the WAS of Choosing the right investments to be more stressful than going to the dentist is highest and Illiterates cant understand Financial terms WAS is lowest among the factors.

TABLE NO. 11: HURDLES FOR FINANCIAL LITERACY

Sl.No	Hurdles	Yes (%)	Neutral (%)	No (%)
1	Profit making Objectives of Financial institutions	38	24	38
2	Lack of initiative of Government	59	11	30
3	Lack of education	35	43	22
4	Less number of bank branches	39	40	21
5	Domination of Money lenders	39	24	37
6	Lack of RBI Guidelines	55	15	30
7	Lack of Control on Banks	49	32	19

Source: Tabulated Data

The above table evaluates the hurdles in financial literacy among the respondents s inn which lack of initiative from the government ranked first and lack of education ranked least .

RECOMMENDATIONS

1. RBI has to play more proactive role by passing the mandates, rules, regulations to tackle this critical issue.
2. Awareness on financial issues needs urgent attention
3. Training and development of relevant skills should incresed
4. Current management system needs a change to concentrates on sustainable issues.

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EMPLOYEES PERCEPTION TOWARDS COMPETENCY MAPPING PRACTICES IN INSURANCE SECTOR : AN EMPIRICAL STUDY

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ABSTRACT

Indian organizations are witnessing a change in systems, management cultures and philosophy due to the global alignment of Indian organizations. There is a need for multi skill development. Over the years, highly skilled and knowledge based jobs are increasing while low skilled jobs are decreasing. This calls for future skill mapping through proper HRM initiatives. Human resource management is a process of bringing people and organizations together so that the goals of each other are met. Human resource and organizational development professionals have generated a lot of interest in the notion of competencies as a key element and measure of human performance. Mapping is a process of identifying key competencies for an organization, the jobs and functions within it. Competency mapping is important and is an essential activity. Every well-managed firm should have well defined roles and list of competencies required to perform each role effectively. Competencies include the collection of success factors necessary for achieving important results in a specific job or work role in a particular organization. Competence is a standardized requirement for an individual to properly perform a specific job. It encompasses a combination of knowledge, skills and behaviour utilized to improve performance. With growing emphasis being placed on competencies as a means to increase organisation's effectiveness, this study seeks to determine if competencies are predictive of professional success in the organisation; understand how competencies vary by type of position within organisation (manager, supervisor, workers and others); determine if there is a relationship between specific competencies and organisational tenure and position in the organisation. Numerous areas are identified as gaps between competencies an employee should possess compared to current competencies necessary to function effectively as strategic business partners.

KEYWORDS

Workforce diversity, HR challenges, Privatization, retention management, work culture Insurance industry. Competence, Competency Mapping, Performance.

INTRODUCTION

In the present economic environment the competition is putting terrific pressure on organisations to provide a better quality service, to improve the speed to market, and to improve organisational preparedness *and* innovation. As organisations try to meet these challenges, they need to be innovative to produce the knowledge intensive services desired by their customers. As an organisation's knowledge base comes to light, it is valued as both organisational intellectual capital and a source of competitive advantage. Every industry in the present scenario is trying to achieve high efficiency and effectiveness in order to survive in this cutthroat competition. With increased importance to operational efficiency, cost-reduction, higher productivity norms and managing with fewer employees than before by corporate, brings competency as the most important yardstick for all Human Resource related decisions like selection, assimilation, development, growth charting and promotion, etc. Competency Mapping is a process of identifies key competencies for an organization and/or a job and incorporating those competencies throughout the various processes (i.e. job evaluation, training, recruitment) of the organization.

Competencies enable individuals to identify and articulate what they offer. Competency for a job can be defined as a set of human attributes that enable an employee to meet and exceed expectations of his/her internal and external customers as well as the other stakeholders that are of great importance to any organization. Competency plays a vital role in selecting, staffing and retaining the right people in the jobs. When the competency required for a particular position is mapped, an accurate job profile is created. With the job profile well defined, the entire selection process becomes easier. The interviewers who interview the resource are sure of what to look for in him/her. This increases the chances of retention as the employee and the company knows what to expect from each other. Too often, ambiguity about the roles desired by the company and the expectations carried out by the employee is a cause of disappointment for both the employee and the employer. Competency for any job position at a particular time is a unique set and as organization has many different job positions, and managing Competency mapping is a great development tool for the employee. It assesses the inherent strengths and weakness of individual and helps him/her develop. In organizational and business context, competency required for a particular job depends on many factors. The factors include social culture, nature of business, business environment, organization culture, work environment, organizational structure, duties and responsibilities. Finding the right fit for the right job is a matter of concern for most organizations especially in today's economic crisis. The. HR role is day- by- day becoming more challenging and strategic in growing fierce market competition. The major challenges ahead in front of HR manager is to retain the talented employees, to recruit and attract new talented pool, deciding on competitive pay package, to prepare employees to accept changes, to properly manage workforce diversity, designing appropriate methods of employee's performance appraisal system, to facilitate healthy work culture for employee's better performance. HRD is neither a concept nor a tool, but is an approach using different personnel systems, depending upon the needs and priorities of the organization. The basic assumption is the belief in human potential and its development by providing a suitable and congenial environment. Competencies are a combination of knowledge, skills and behaviors that are required to achieve good performance in a specified area. They are generally evidenced by consistency, independence, timeliness, accuracy and appropriateness of the work product. HR plays a very vital role in Insurance industry like in banking and other Services sectors. Human resource is the most important & invaluable asset for an organization success. This research is based on LIC, a giant & market leader insurance company and its major competitors like Max new life insurance, ICICI prudential, Birla sun life insurance and some other insurance companies in Uttarakhand state. Present paper focus on the employees perception towards competency mapping practices in the insurance sector industries. The accessibility of researcher with he employees of public and private sector insurance organisation of Dehradun area has motivated him to select them as the preferred choice of sample.

REVIEW OF RELATED LITERATURE

Competency Mapping can be defined as a process through which one assesses and determines one's strengths as an individual worker and in some cases, as part of an organisation. The individual's level of competency in each skill is measured against a performance standard established by the organization. It has emerged as one of the most powerful tools aiding the improvement for the HR professionals in finding the right employee for a job and development of the employed person in doing the assigned job effectively.

Eppler (2001) has pointed out in relation to the concept of mapping knowledge; that it generally consists of two parts: a ground layer which represents the context for the mapping, and the individual elements that are mapped within this context. The ground layer typically consists of the mutual context that all employees can understand and relate to. Such a context might be the visualised strategic model of an organisation, the competency areas of an organisation, the supply chain of an organisation, or a simple organisational knowledge flow map. Michael Crozier shocked the management community by defining the organization as imperfect social compromises .Far from being scientific constructs he depicted a complex organization as a reflection of its actual degree of competency. Despite a growing interest of competency among mangers and human resource professionals in recent years, the modern competency movement in industrial-organizational psychology actually dates from the mid1950's and early 1970's.

In that regard, John Flanagan's work (1954) and Dave McClelland's studies (1970) might be cited as two landmark efforts that originally invented the concept of competency. Concept maps were invented by Joseph Novak in the 1960s for use as a teaching tool. Later in 1986 William Trochim developed the concept map into a strategic planning tool for use in the design of organizational components. Trochim's technique differs significantly from Novak's original school of thought. While Novak's maps are generated for an individual, Trochim's are generated by a group.

David McClelland (Harvard Psychologist) pioneered the Competency Movement across the world and made it a global concept. His classic books on Talent and Society, Achievement motive, The Achieving Society, Motivating economic achievement and power the inner experience brought out several new dimensions of the competency. These competencies exposed by Mc .Cleland dealt with effective domain in Bloom's terminology.

Richard Boyatzis. wrote the first empirically-based and fully-researched book on competency model developments. It was with Boyatzis that job competency came to widely understood to mean an underlying characteristic of a person that leads or causes superior or effective performance. Boyatzis was explicit in describing the importance of clearly-defined competency as reflected in specific behavior and clearly defined performance outcomes when he wrote that "the important points is that specific actions cause, or lead to, the specified results. Certain characteristics or abilities of the person enable him or her to demonstrate the appropriate specific actions"(Boyatzis, 1982, p. 12).

As founding developer of competency modelling in the United States, Boyatzis grounded competency interventions on documented behavioral indicators that caused or influenced effective job performance. Boyatzis, like Flanagan, stressed the importance of systematic analysis in collecting and analyzing examples of the actual performance of individuals doing the work

It has been known from many research studies that the number one reason that people quit their jobs is dissatisfaction with their supervisors and not their paychecks. It has also been seen that unhappy people are four times more likely to leave their jobs than those having nice bosses. There is a link between the opportunities extended by the organization for employees' professional development and employees' commitment. Competency mapping is an important resource in this environment, and is an addition to knowledge management and learning organization nitiatives. Competency refers to the intellectual, managerial, social and emotional competency. Competencies are derived from specific job families within the organization and are often grouped around categories such as strategy, relationships, innovation, leadership, risk-taking, decision making, emotional intelligence, etc.

Competency mapping identifies an individual's strengths and weaknesses in order to help them better understand themselves and to show them where career development efforts need to be directed. Lifelong learning will surely be one of the most important pieces in the set that employees will turn to again and again on their path to meaningfulness and purpose.

Change is the order of the day. As Karl max said "Theory without Practice is futile and Practice without Theory is sterile." This article would look at the new concept of competency mapping and its relevance to the future as more research is being put in this field.

OBJECTIVES AND METHODOLOGY

The present research work is paper focuses on the Employees Perception towards Competency Mapping Practices in Insurance Sector. The objectives of the study was to analyse an overview of the key concepts in competency-based management and to study the different attribute of competency like knowledge, skill, talent, attitude of the employee and their perceived allocation. Another objective was to analyse the linkage between competency mapping practices and association with the performance of the employees and their role. To achieve these objectives both quantitiave and qualitative methods were employed to understand competency mapping practices opted by selected insurance organisation in Dehradun District of Uttarakhand state. . This research was conducted in some selected insurance organisation located in Dehradun district. A random sample of employees from various departments / locations was selected which included non-management, middle level management and senior management employees. Surveys along with a cover letter explaining the significance and the need for conducting the same were sent to all 250 employees across different branches of public and private sector insurance companies located in Dehradun. In order to ensure a good response rate, follow up telephonic calls were made in order to encourage respondents to complete and return the survey. After follow-up 140 questionnaires were returned. After editing 121 responses were found suitable which was taken up for the proposed study? Table 1 shows the demographic characteristics of the respondents

TABLE 1: DEMOGRAPHIC DETERMINANTS

	Category	*Count*	*Percentage*
Age	Upto 25 Years	19	15.7
	26-35 Year	78	64.5
	36-45 Years	5	4.1
	46-55 Years	19	15.7
Gender	Male	87	71.9
	Female	34	28.1
Education level	Graduate and Below	13	10.7
	Post Graduate	41	33.9
	Professional Qualification	67	55.4
Period of association with present organisation	0-03 Years	63	52.1
	4-5 Years	36	29.8
	6-10 Years	3	2.5
	More than 10 Years	19	15.7
Position in the oragansation	Manager	69	57.0
	Supervisor	11	9.1
	Worker	21	17.4
	Others	20	16.5

Managers must understand, embrace, and leverage the demographic differences among their employees if they are to succeed in today's multicultural organizations. Demographic variables, also known as personal characteristics, are frequently used to study the employees perception and attitude. Some of the determinants were examined to have a direct impact on employees perception toward competency, such as age gender, marital status education qualification

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and tenure The data obtained through surveys reveals that sample is dominated by middle aged employees in the age group of 25-35 years, male and well educated people. It also reveals that sample is the composition of person of less experience in the organisation as 52.1% employees shown that they were having experience ranging from, 0-3 years. Remaining employees are having good experience with the organisation. Employees of management cadre account for 57% in the sample.

TABLE 2: ORGANISATION BENCHMARK TO EVALUATE PROGRESS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	28	23.1	23.1	23.1
	No	49	40.5	40.5	63.6
	Do Not Know	44	36.4	36.4	100.0
	Total	121	100.0	100.0	

In today's rapidly changing business world, it is imperative strategy to improve quality and profitability must make sense, work quickly and pay off. If your business needs an effective way to boost quality and maximize competitiveness, it has to benchmark its activity to monitor progress. With this in view, an attempt was made to explore tha information whether organisation benchmark to evaluate its progress. Survey indicates that only 23.1% employees are sure about the presence of such an evaluation benchmarks where as 40.5% have expressed that their organizations do not have any such parameter in place. It is evident that there is a lack of proper knowledge about the necessity of benchmarking and most of them (36.4%) are seem to be unaware of such a system.

TABLE 3: ORGANISATIONAL STRATEGY FOR ENHANCING LEVEL OF COMPETENCY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	23	19.0	19.0	19.0
	No	57	47.1	47.1	66.1
	Do Not Know	41	33.9	33.9	100.0
	Total	121	100.0	100.0	

Competency management encompasses all activities carried out by the organization to maintain or enhance the employee's functional, learning and career competencies. In another word competency management sets the overall strategy and is kind of the umbrella under which a range of activities take place. Competency development is one of these activities and contains all actions that we undertake to develop the competencies of our employees." Within the boundaries of competency management, organizations follow a clear outline in the development of employees' competencies. The study indicates that 19.0% employees are of the opinion that organisation follows an effective strategy to enhance the employees competency. In comparison to this 47.1% employees were against to this . 33.9% employees were were shown their unawareness and were not in position to comment on this issue.

TABLE 4: DEVELOPMENT OPPORTUNITY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	33	27.3	27.3	27.3
	No	67	55.4	55.4	82.6
	Do Not Know	21	17.4	17.4	100.0
	Total	121	100.0	100.0	

Today, we live in a world that is continuously changing. We also see this in our customers as their demands continuously change. As a result, we need employees that can easily change as well and adapt new competencies when needed. Therefore, it is important for our employees to keep on developing their competencies, as new competencies are constantly needed in the organization."The respondents comprises of more than 55.40% of the data clearly indicate that there is absence of a system to create ample opportunity in favour of the employees for their development Only a small portion (27.3%) of the total respondents agrees that their organizations provide the right developmental opportunity and apart from this about 17.4% of the respondents don't clear in this regard.

COMPETENCY MAPPING FACTORS: A DESCRIPTIVE STATISTICS

In order to outline the contributions and the benefits derived from the diverse nature of the employees at workplace various factors of competency are developed on the basis of past studies. Employees are asked to rate the various competency factors on a scale of 1 to 5. The descriptive statistics for all the variables under investigation are calculated with the help of SPSS software. From the mean, it can be conclude that the variable like "Organization sees everything with a positive outlook by Inspiring and motivating others with enlightened insights" is the most important factor of employees competency. It has scored the highest mean of 3.7934. However the higher standard deviation (1.50344) of the variable "Management Understand the business and have sound knowledge of basic facts surrounding the business such as short and long term goals, product knowledge and the roles and relationships between various departments." Indicates that respondents' view on this area is heterogeneous.

TABLE 5: COMPETENCY MAPPING FACTORS: A DESCRIPTIVE STATISTICS

	N	Mean	Std. Deviation
Employees in this organization sees new possibilities to take the organization to a higher area	121	3.1653	1.13539
Organization sees everything with a positive outlook by Inspiring and motivating others with enlightened insights	121	3.7934	.93021
Organization provides the opportunities for developing people by building team work, training people providing reward and recognition establishing communication with people	121	3.3140	1.25852
People in this organization re having high Values and ethics by aligning themselves with company values	121	2.7273	1.07238
Employees in this organization takes ownership on the assigned responsibilities and widely trusted	121	3.1983	.96281
The employees in this orgaisation Sets and achieves ambitious goals and drives for continuous improvement	121	3.4050	1.28827
Management Understand the business and have sound knowledge of basic facts surrounding the business such as short and long term goals, product knowledge and the roles and relationships between various departments.	121	2.8017	1.50344
Management Know the background of management principles including planning, organizing controlling and directing	121	2.9174	1.46962
Management are Aware of what is going on and is perceptive and open to information; hard information such as figures and facts, and soft information such as feeling of other people	121	2.9174	1.23549
Staff at managerial level are hacing Analytical, problem solving and decision-making skill they Weigh the pros and cons in an uncertain and ambiguous situation, calling for a high level of judgment or taking appropriate decision without much delay	121	3.1570	1.29105
Staff in this organization are having Social skills and abilities. They Develop, negotiate, resolve conflict, persuade, use and respond to authority and power so as to get things done	121	3.0826	1.23549
Management deal with emotional stress and strain that arises as consequence of working situations of authority, leadership, power, targets and deadlines	121	3.2314	1.31504
Management respond to the needs of the instant situation, but while making such a response consider the long-term aims and goals and the impact of immediate decision	121	2.9504	1.20313
Employees come up with unique ideas or solutions – either ones own ideas or ideas from another source	121	2.8595	1.16409
Management grasp problems quickly, think about several things at once, understand the whole situation quickly and 'think on ones feet'	121	3.5207	1.00083
Organisation promotes balanced learning habits and skills. Organization use a range of learning process including use of inputs like teaching, discovery from one's own personal experiences and reflection	121	3.1322	1.14704
Management are aware of one's own beliefs, goals, values, feeling, behavior and the part they play in influencing their actions	121	2.9752	.90795
Competency mapping is an effective tool to enhance the performance of employees"	121	3.1240	1.14434
Employees are been updated on a regular basis about the product and services of the company"	121	2.9008	1.17193
The employees are given proper training so that the company can maintain its competency level.	121	2.6942	.99869
The job of the person is well defined during the recruitment and selection process.	121	2.7273	1.16190
The Strategic plans capable of handling the competition in the market. Help of motivation programs are taken to increase the morale of the employees"	121	2.5620	1.12467
Valid N (listwise)	121		

Observable abilities, skills, knowledge, motivations or traits defined in terms of the behaviors are needed for successful performance. Competencies and competency frameworks are proven tools for translating the strategic vision of an organization into the behaviors, employees must display for the organization to be successful. The various competency factor developed by the researcher in the questionnaire was grouped into seven area and are classified as, **Job Description & Specification, Competency And Learning Environment, Organisational Culture &Orientation, Social Skills & Emotional Intelligence, Employee Participation &Continuous Improvement, Training &Development, Strategic Business Orientation.** The composite mean of various factors are calculated with the help of SPSS-15 software. The calculated m**ean of various competency factors across Different designation categories** is presented in the table below.

TABLE 6: MEAN OF VARIOUS FACTORS OUTCOME PROMOTING JOB SATISFACTION OF WOMEN EMPLOYEES ACROSS DIFFERENT DESIGNATION CATEGORIES OF RESPONDENTS

Position in the organisation	Job Description & Specification	Competency And Learning Environment	Organisational Culture &Orientation	Social Skills & Emotional Intelligence	Employee Participation &Continuous Improvement	Training &Development	Strategic Business Orientation
Manager	2.9565	2.9807	3.4444	3.1014	3.0097	2.9227	2.5700
Supervisor	2.4242	2.6667	4.0606	3.4318	3.5758	3.3939	3.1212
Worker	3.7778	3.8889	3.1587	3.4008	3.4762	2.8889	2.8571
Others	2.2500	2.6667	3.2667	2.6625	3.0833	2.9833	2.7333
Total	2.9339	3.0579	3.4215	3.1109	3.1543	2.9697	2.6970

Mean of different variable constructed for identifying the employees perception toward competency factor like **Job Description & Specification, Competency And Learning Environment, Organisational Culture &Orientation, Social Skills & Emotional Intelligence, Employee Participation &Continuous Improvement, Training &Development, Strategic Business Orientation** across the **Different designation categories of Respondents indicates that the** mean of **Competency And Learning Environment** factor has scored highest mean among the employees of worker class. However organisation culture and orientation has cored a mean of 4.0606 among the employees of supervisor categories.

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TABLE 7: ONE WAY ANOVA WITH DIFFERENT CATEGORIES OF EMPLOYEES

		Sum of Squares	df	Mean Square	F	Sig.
Job Description & Specification	Between Groups	27.202	3	9.067	9.212	.000
	Within Groups	115.158	117	.984		
	Total	142.360	120			
Competency And Learning Environment	Between Groups	19.658	3	6.553	6.482	.000
	Within Groups	118.271	117	1.011		
	Total	137.928	120			
Organisational Culture &Orientation	Between Groups	6.459	3	2.153	3.041	.032
	Within Groups	82.823	117	.708		
	Total	89.282	120			
Social Skills & Emotional Intelligence	Between Groups	6.925	3	2.308	3.475	.018
	Within Groups	77.719	117	.664		
	Total	84.644	120			
Employee Participation &Continuous Improvement	Between Groups	5.674	3	1.891	2.153	.097
	Within Groups	102.780	117	.878		
	Total	108.454	120			
Training &Development	Between Groups	2.273	3	.758	1.150	.332
	Within Groups	77.060	117	.659		
	Total	79.333	120			
Strategic Business Orientation	Between Groups	3.657	3	1.219	1.918	.130
	Within Groups	74.343	117	.635		
	Total	78.000	120			

One-way ANOVA analysis was carried out with the assumption that employees opinion about mean of different factors of competency does not differ significant across the designation of respondents. From the table 4, it is clear that calculated value of F is less than the tabulated value of F (2.60, α = .05) for the competency mapping factor like Employee Participation &Continuous Improvement, Training &Development and Strategic Business Orientation. . Hence the null hypothesis is accepted, indicating that there is no significant difference in the opinion of employee in rating the mean of different competency related factors across the different designation category. How ever it is seen that calculated value of F is greater than the tabulated value of F(2.60, α = .05) for the competency factor like Job Description & Specification, Competency And Learning Environment, Organisational Culture &Orientation, Social Skills & Emotional Intelligence and hence null hypothesis is rejected indicating that there is significant difference in the opinion of employee in rating the mean of different competency related factors across the different designation category

TABLE 8: MEAN OF VARIOUS FACTORS OUTCOME PROMOTING JOB SATISFACTION OF WOMEN EMPLOYEES ACROSS EMPLOYEES OF DIFFERENT TENURE   IN THE ORGANISATIN

Period of Association	Job Description & Specification	Competency And Learning Environment	Organisational Culture &Orientation	Social Skills & Emotional Intelligence	Employee Participation &Continuous Improvement	Training &Development	Strategic Business Orientation
0-03 Years	3.1640	3.2593	3.3810	3.2606	3.2963	3.1587	2.8995
4-5 Years	2.9907	2.8611	3.7222	3.0694	3.1574	2.8333	2.3704
6-10 Years	2.4444	3.0000	3.8889	3.1667	3.0000	3.4444	2.7778
More than 10 Years	2.1404	2.7719	2.9123	2.6842	2.7018	2.5263	2.6316
Total	2.9339	3.0579	3.4215	3.1109	3.1543	2.9697	2.6970

Mean of different variable constructed for identifying the employees perception toward competency factor like **Job Description & Specification, Competency And Learning Environment, Organisational Culture &Orientation, Social Skills & Emotional Intelligence, Employee Participation &Continuous Improvement, Training &Development, Strategic Business Orientation** across the **employees of different tenure in the organisation indicates that the** mean of **Organisational Culture &Orientation** factor has scored highest mean among all the employees and has cored a mean of 3.4215 in total.

TABLE 9: ANOVA EMPLOYEES OF DIFFERENT TENURE IN THE ORGANISATION

		Sum of Squares	df	Mean Square	F	Sig.
Job Description & Specification	Between Groups	16.136	3	5.379	4.986	.003
	Within Groups	126.224	117	1.079		
	Total	142.360	120			
Competency And Learning Environment	Between Groups	5.512	3	1.837	1.624	.188
	Within Groups	132.416	117	1.132		
	Total	137.928	120			
Organisational Culture &Orientation	Between Groups	8.941	3	2.980	4.340	.006
	Within Groups	80.341	117	.687		
	Total	89.282	120			
Social Skills & Emotional Intelligence	Between Groups	4.942	3	1.647	2.418	.070
	Within Groups	79.702	117	.681		
	Total	84.644	120			
Employee Participation &Continuous Improvement	Between Groups	5.233	3	1.744	1.977	.121
	Within Groups	103.220	117	.882		
	Total	108.454	120			
Training &Development	Between Groups	7.332	3	2.444	3.971	.010
	Within Groups	72.001	117	.615		
	Total	79.333	120			
Strategic Business Orientation	Between Groups	6.524	3	2.175	3.560	.016
	Within Groups	71.476	117	.611		
	Total	78.000	120			

One-way ANOVA analysis was carried out with the assumption that employees opinion about mean of different factors of competency does not differ significant across the employees of different organisational tenure. From the table 4, it is clear that calculated value of F is less than the tabulated value of F (2.60, α = .05) for the competency mapping factor like Competency And Learning Environment, Social Skills & Emotional Intelligence, Employee Participation &Continuous Improvement and . Hence the null hypothesis is accepted, indicating that there is no significant difference in the opinion of employee in rating the mean of different competency related factors across the different organisational tenure How ever it is seen that calculated value of F is greater than the tabulated value of F(2.60, α = .05) for the competency factor like Job Description & Specification, Organisational Culture &Orientation, Training &Development and Strategic Business Orientation and and hence null hypothesis is rejected indicating that there is significant difference in the opinion of employee in rating the mean of different competency related factors across the employees of different organisational tenure.

CONCLUSION

Today there is a cut throat competition in every industry more so in service industry like insurance industry. It is being crowded with not only national players, but also with global giants. Each player, at regular intervals, is coming out with innovative products and innovative ideas to woo the investors. Insurance companies apart from ensuring security are also offering a fair return to the policy holders and thus competition in the insurance industries has intensified and it has become necessary for the organization to focus on enhancing the competency of the employees. The competency mapping practices has helped the organisation in achieving its objective and prepare them self to remain competitive. Human factor plays an important role in every industry, more so in service industry like insurance industry. Human beings are indispensable in insurance industry. Life Insurance Corporation (LIC) of India is one of the biggest service organizations with huge manpower. Its units are spread throughout the length and breadth of the country. The scope of HRD is broad and hence, the main focus of present study is HRD climate, training and development and   performance appraisal system prevailing in the Life Insurance Corporation (LIC) of India. The climate of any organization gains priority over other HRD sub systems. Training and HRD compliment each other since the former is one of the effective tools of achieving the latter. In view of its importance, modest attempt is made to study the training and development extensively. Competency and its identification is the buzz word in today's corporate world. While organizations have always believed that it is important to have right person at the right time in the right job, it has recently begun to evaluate the competencies. The importance of segregating competencies into different categories such as like Job Description & Specification, Competency And Learning Environment, Organisational Culture &Orientation, Social Skills & Emotional Intelligence, Employee Participation &Continuous Improvement, Training &Development, Strategic Business Orientation etc has gained momentum. The organizations wish to reduce the losses they incur due to wrong allocation of work to the personnel. Hence, understanding the skills, motives, hidden potentials, traits of the persons working in the organization is important. The organizations need to match the competencies of the people with that of the job requirements before allocating the tasks to them. For the purpose, the organizations need to either follow the identified competency approach models that cater to their distinct businesses or need to create their own specific models. On the basis of the prevailing policies, and available resources, the organizations need to evaluate or map the competencies by using the various methods. As organizations turn flexible and change their attitude of valuing their employees, newer versions and models of mapping competency will keep emerging.

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SIMULATION BASED PERFORMANCE ANALYSIS OF TCP VARIANTS

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ABSTRACT
TCP/IP protocol, which was formerly developed for wired links, is now an inseparable part of the Internet. Hence, its competence on wireless links could play a significant role in the performance of the Internet. The use of original TCP/IP protocol on wireless links in spreading the Internet has encountered some serious performance issues, the reason being the wired links are very less prone to channel errors and more affected by congestion. There is no way in TCP to distinguish the correct reason for losses hence losses are not treated distinctively. The research of more than 25 years has gone through different variants of TCP, out of which most up-to-date variant TCP SACK (Selective Acknowledgement) is the most resourceful. Its potential to avoid redundant retransmissions based on SACK information accessible at TCP sender. It should be noticed that even TCP SACK is powerless of judging the concrete cause of loss i.e. corruption or congestion.

KEYWORDS
ns-2, TCP, TAHOE TCP, RENO TCP, NEW RENO TCP, SACK TCP.

1. INTRODUCTION
Today the world is becoming smaller and various ways of communication are being used to avail the facilities for people. Internet is one of the widely used techniques to serve different purposes including above one. It is used to transfer data, for entertainment, for education purpose, for paying bills online, for shopping, to be aware of the new researches and innovations, etc. The Internet is expanding rapidly, major contribution in this expansion is of the global acceptance of the TCP/IP protocol stack and use of wireless links, particularly in case of remote areas. In my paper I want to do the comparison of tcp variants on the basis of their throughput with the error rate.

2. TAHOE TCP
In Tahoe, duplicate acknowledgements (*dupacks*) will be sent by the receiver on arrival of each out of order packet. Sender waits for three *dupacks* to retransmit the dropped packets. Three *dupacks* are required to ensure that the packet was really dropped, not the out of order (delayed) because of connection IP layer. This retransmission is known as "fast retransmission". Thus, source does not have to wait for the timeout, so faster recovery is achieved by this technique. When the third *dupacks* is received at the sender, *ssthresh* (slow start threshold) is set to half of the current *cwnd. cwnd* will be set to *ssthresh* plus three.

3. RENO TCP
TCP Reno is the subsequent version of TCP Tahoe, which retains fast retransmits mechanism of TCP Tahoe in the same manner. Moreover, it triggers fast recovery after fast retransmission, after retransmitting the missing segment, sender would perform the congestion avoidance. The *dupack* conveys more information to sender than just a packet loss. Receiver can generate a *dupack* only after receiving a correct segment, means one segment has left the network and there is chance of sending another. This is "fast recovery" algorithm. After fast retransmitting a segment, o arrival of each *dupack*, *cwnd* will be incremented by segment size. A new packet size can be transmitted if *cwnd* allows. When the new acknowledgement reaches the sender that acknowledges new data, fast recovery is over. *cwnd* will be defined as the *ssthresh* which was set to half the *cwnd*, means this is a congestion avoidance phase as it is cut to half when a packet loss is detected. It enters into fast recovery after three *dupacks*. As a part of fast recovery, sender fast retransmits the lost segment following which *dupacks* were received. TCP sender continues transmission according to network conditions. Fast recovery is ended either on arrival of acknowledgement of *recover* (maximum sequence number at time of initialization of fast recovery) or timeout. Timeout occurs to recover from second loss in the window, in case of multiple losses in the same window. In a way, this is early exit from fast recovery, which leads to unsatisfactory performance.

4. SACK TCP
In case of TCP New Reno, limited information is available to sender about safely reached packets at receiver side. It may result into some unnecessary retransmissions. The Selective Acknowledgement (SACK) technique, combined with a selective repeat retransmission policy, can help to overcome this limitation. The receiving TCP sends SACK blocks to the sender which inform the sender of segments which has already been received. The sender can then retransmits only the missing data segments instead of transmitting all the segments following the lost one like preceding versions. When more than one loss in the same window exist, then performance of SACK TCP will be significantly better.

5. PLATFORM TO BE USED

NETWORK SIMULATOR (*ns-2.35)*, Is a discrete event simulator for networking research, Work at packet level. Provide substantial support to simulate bunch of protocols like TCP, UDP, FTP, and HTTP. Simulate wired and wireless network. Primarily Linux based. Use TCL as its scripting language. Ns-2 is a standard experiment environment in research community. It is a open source software easily download from *ftp://ftp.isi.edu/nsnam/.*

6. BASIC BLOCK DIAGRAM

FIG. 1: SIMULATION BLOCK DIAGRAM
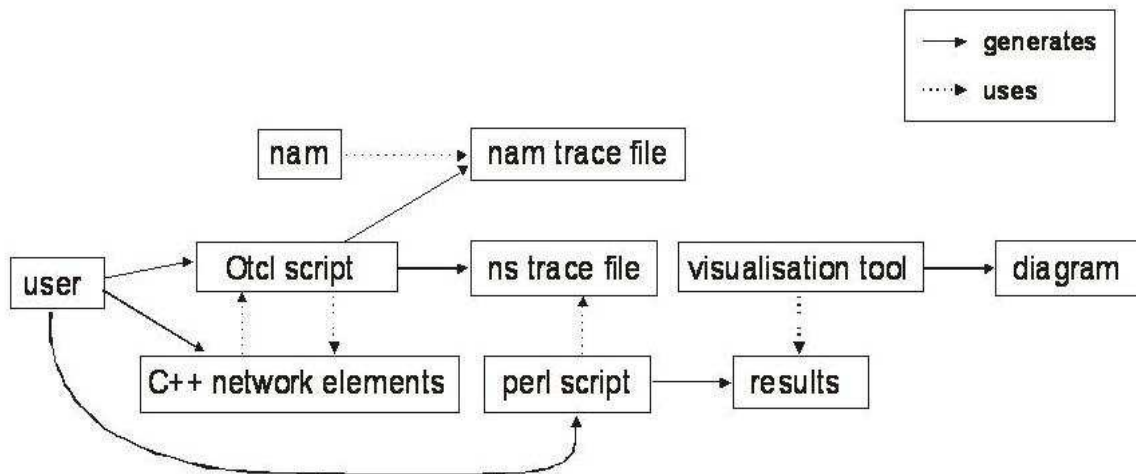
7. ERRORNEOUS ENVIRONMENT

FIG. 2: SIMULATION TOPOLOGY
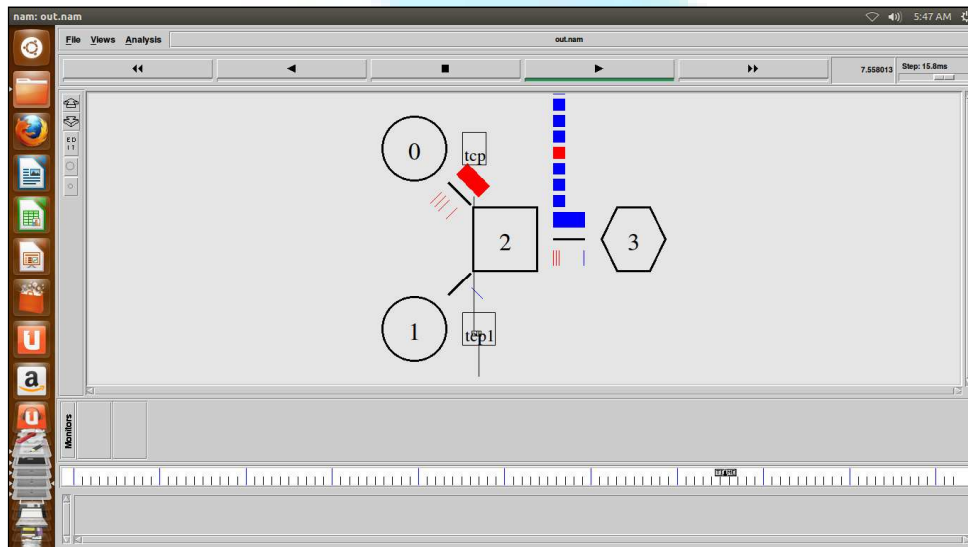
8. BASIC ERROR MODEL

ns2 supports various error models. Errors were handled by an inbuilt basic error model of *ns2* for above both types of simulations. Error model simulate errors by marking packet's error flag or by dumping a packet into drop target. Unit of errors can be specified in terms of bits, packets or time-based. Default unit is packet. File name is *errormodel.cc* which is located under *ns-allinone-2.35/ns-2.35/queue/* directory. Unit of the error was not specified so it would corrupt packets randomly. If error rate is 0.01, then 1% of packets will be corrupted. A *recv( )* function is used to receive the packet and to decide whether to corrupt it by uniform randomness. To determine the status of any packets i.e. to corrupt it or to let it go normally, another function *CorruptPkt( )* is available which is called in execution of *recv()* only. *CorruptPkt()* uses another function *Random::uniform( )* which will return a variable in case of corrupting a packet. Any packet is corrupted by checking out the returned value. This corrupted segment will be dropped into drop target not reach the receiver so receiver will interpret it as a loss.

9. SIMULATION DISSCUSION

As I want to do the comparison of tcp variants, I have written the simulation scripts for above selected topology and then my goal is to analysis the throughput with the change in the error rate .To do the same, I generate the different X-graph with the error rate=0.01 with the change in different variants (TCP, RENO TCP, NEWRENO TCP, SACK TCP) and done the analysis.

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10. SIMULATION RESULTS

FIG. 3: BASIC TCP with error rate=0.01
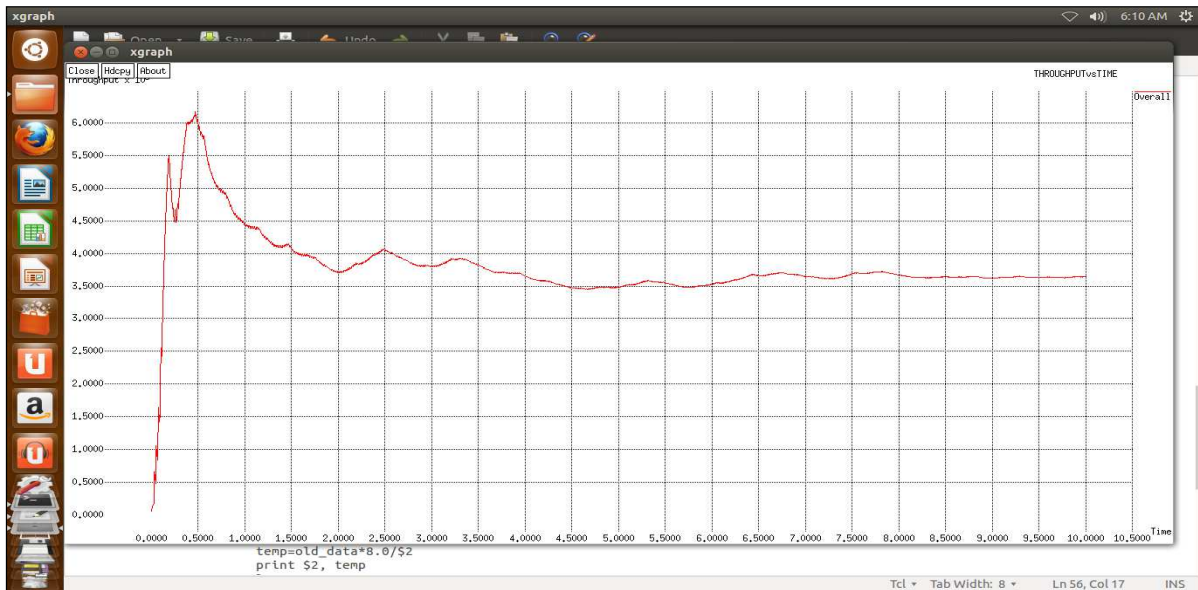
FIG. 4: RENO TCP with error rate=0.01
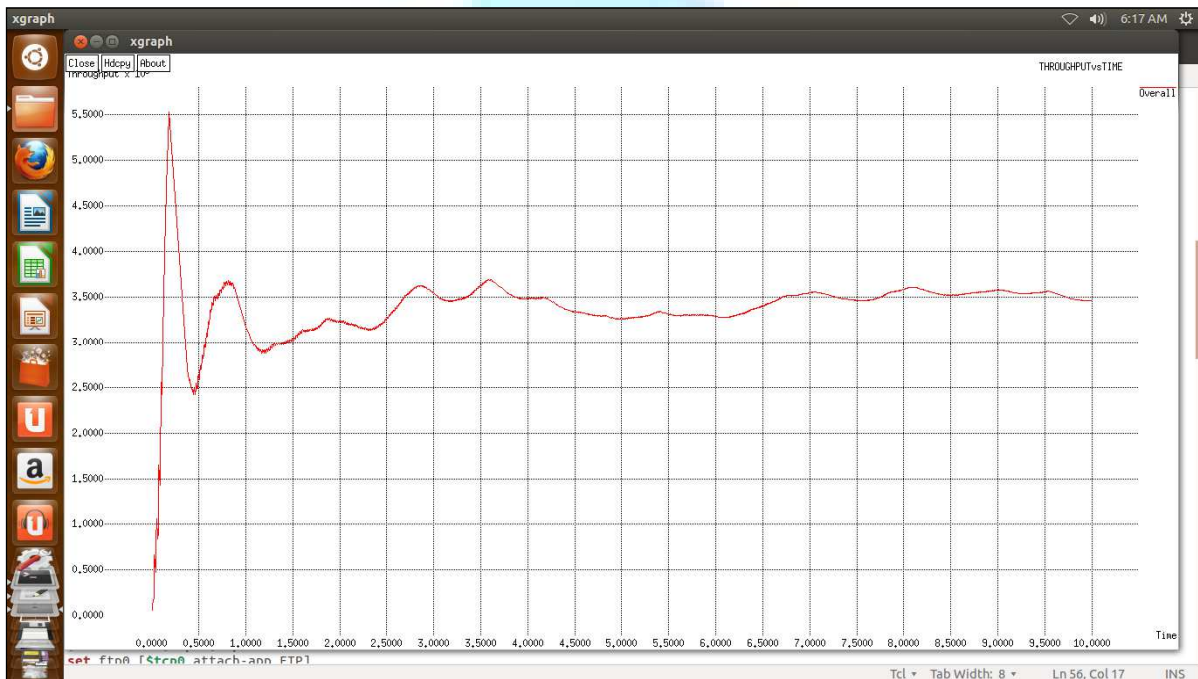
FIG. 5: NEW RENO TCP with error rate=0.01
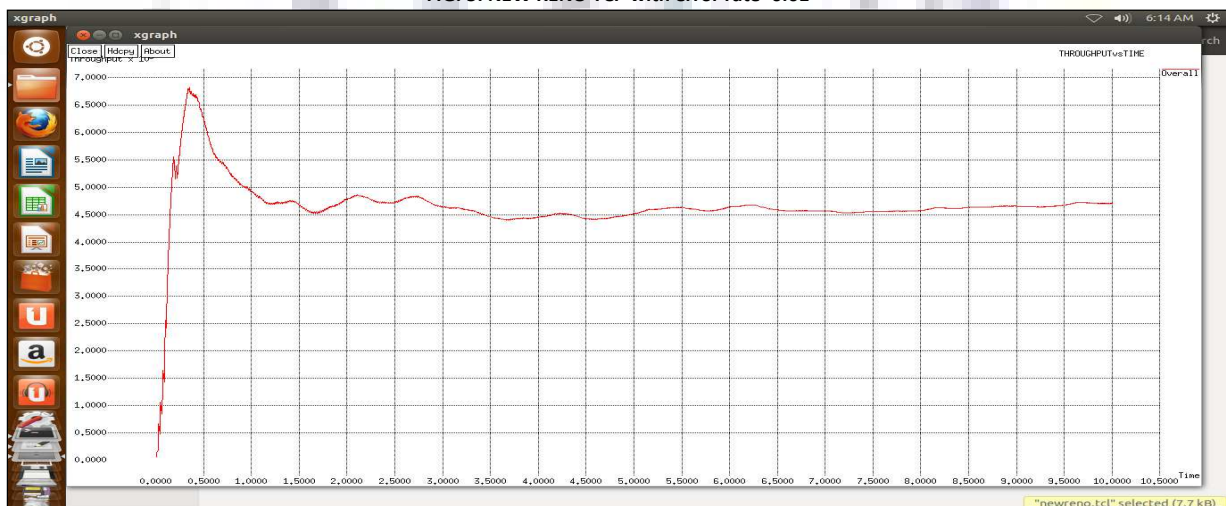
FIG. 6: SACK TCP with error rate=0.001
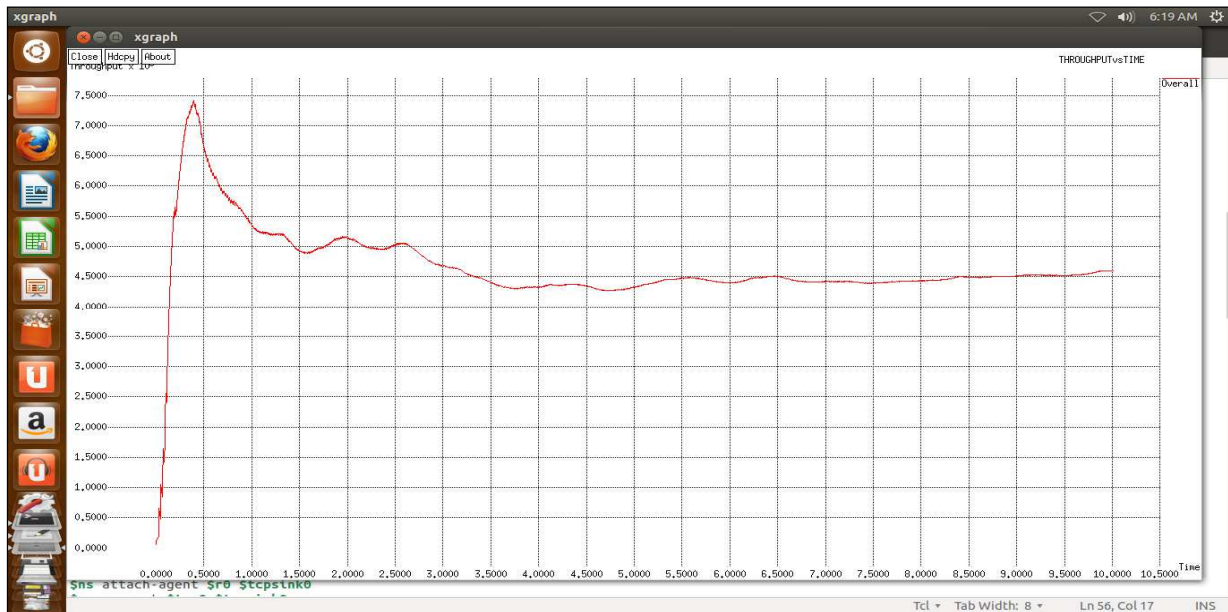
11. CONCLUSION

As I learn about the all the variants of TCP and done the comparatively study, and find that as the matter of the performance TCP SACK is the best in all the four variants. I change the variants and analyze the throughput, and conclude the for the error rate =0.01, Sack give the better performance.

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PERSONALIZED TERRITORIES ARE APPARENT COPING AGENT FOR STRESS AMONG CORPORATE EMPLOYEES: AN EMPIRICAL INVESTIGATION OF CORPORATE WORKSTATIONS WITH REGIONAL CONTEXT

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ABSTRACT

This study attempts to demonstrate that the personalized territories, spatial configuration and design attributes of workstations has the potential to qualify as coping agent for stress among the corporate employees. Furthermore, to establish that coping for stress is a function of personal spaces, spatial configuration and design attributes of the work station. In pursuit of this, the selected concepts of defense mechanism for coping stress identified are: Denial, projection, repression, undoing investigated through observation and collected response from the employees through a set of structured questionnaire in selected workstations of corporate in and around Tiruchirappalli district. The research questions examined here are: 1) Among the employees, does the personalized work station and spatial configuration facilitate the stress coping trait – denial,2) Among the employees, does the intact personal space and territory without infringement facilitate t increased level of the stress coping trait- projection 3) Among the employees, does the personalized setting, markings and levels of natural light and ventilation facilitate exhibit more of the stress coping trait - Repression 4) Among the employees, does the clarity on space and personal claim of the territory influence increased level of the stress coping trait – Undoing . Data collected with questionnaires completed by 233 respondents from selected corporate settings in Tiruchirappalli district were analyzed and the results indicate that the personalized territories with spatial markings and physical attributes of workstations design influence stress coping mechanisms and qualify as a coping agent for stress among corporate employees in their work environment besides the other uncontrolled variables. Thereby, proving the Research hypothesis that coping of stress is a function of personalized territory, spatial markings, and design attributes of work station.

KEYWORDS
Personalized territory, stress, coping agent, Denial, Projection, Repression, Undoing, workstation, corporate environment.

1. INTRODUCTION

The Physical space is the basic unit through which we experience our daily life. Perhaps, by means of built environment we derive it, develop it, utilize it, and affiliate it. Nevertheless, Built environment encompasses all buildings, spaces and products that are created, or modified by people in the form of 'Shelter' – a prime need of human. The purpose of built environment is to protect its inhabitants against unwelcome outside forces and offers them a congenial internal environment. On the other hand, it tries to create an exterior, physically adopted to its functions and visually impressive. Further, it provides a congenial surrounding with physical setting attributes that provokes appropriate behavior in the social environment. However, every built environment attempts to create an order which is socially identifiable and interactive with the members at large so as to get the endorsement of the society that transact with the setting.

In order to perform the activity in line with the socio-cultural norms of their community, People adapt, transform or change their environment in which they live. However, the physical setting forms the building which is an assemblage of many sets of physical features, characteristics and attributes. Physical environments often serve as repositories of individual experiences and social relationships and are therefore, more than a cause of behavior and more than a behavior mechanism. (Irwin Altman, 1993) The fact that buildings are defined by many sets of physical setting attributes and the relationship between themselves has made the process of investigating Human behavior within this context as rich, complex and undeniable in bringing out several theories and models. (Robert Gifford, 2000) Theories could lead to conceptualize a framework for better understanding of the impact of the physical setting attributes in creating privacy, affiliation or accessibility to the spaces. In general territorial behavior at large and in particular the personalized territorial behavior of the occupants themselves. In this circumstances it gives us hope to recollect the statement made by - Winston Churchill: "We shape our buildings, thereafter they shape us."

Though, the designers and planners have long been concerned about the effect of the built environment on human behavior. In the beginning of nineteenth century, there was a massive thrust on the effect of the primary and secondary territory (Irwin Altman, 1975), personal spaces (Robert Sommer, 1969) and its spatial configuration on the privacy , stress and well-being of the community by the physical planning of the neighborhood and started searching for factors that could reduce stress and coping for stress not only among the residents of the neighborhood, but also in other secondary environments like the work environments too, which is considered as a significant point of departure in investigating and identifying coping agents for human stress .

1.1 CONNECTION BETWEEN PHYSICAL ENVIRONMENT AND HUMAN WELL BEING

The connection between human wellbeing and the physical environment is a multi-disciplinary filed that includes contribution from social and behavioral sciences of psychology, sociology, geography, and anthropology as well as from the design disciplines of Architecture, landscape architecture, interior design, and urban and regional planning. Recently it has included contributions from neuroscience research (Ziesel, 2006) and public health (Frumkin, 2003; Northridge&Sclar, 2003).

There are studies that consider person and physical environment as separate entities and emphasize the ways in which the physical environment influences wellbeing of the occupants. Some researchers, on the other hand, start from an assumption of person- environment as unity and propose interlocking and ongoing process of coexistence between people and physical environments.

The studies on territoriality, personal spaces conducted by (Irwin Altman, 1975, Edney, J.J, 1974, Sommer, 1969) have contributed to the development of types of personal spaces and effect of those on the well-being of the occupants. Perhaps, the studies focus on the stress management of the occupants in the primary territories (home), secondary territories like work space, and work stations as well.

There were length of studies and volume of research done in this area .Currently, the planners and designers along with sociologist and environmental psychologist put in their efforts to bring out the desirable outcomes in a personalized setting where there is a scope for reducing the stress by means of coping strategies within the settings. In particular the design of the work station, and personalized attributes are examined on how to nurture coping for stress in a spontaneous way among the employees and maintain the stress levels within the manageable condition.

1.2 DEFINITION AND DISTINCTIONS

The context: Context is any information that can be used to characterize the situation of an entity. An entity is a person, place, or object that is considered relevant to the interaction between a user and a function, including the user and function themselves. In This study, the entity is the corporate employees and the elements are the personalized workstation in selected corporate sectors of a particular city.

Brown (Brown 1996b) defined context to be the elements of the user's environment. They include the following facet of the environment:

• **Collective environment**: available spatial order, physical settings of permanent feature variable, semi-permanent feature and ambience to carry out the function in the physical space.

In this study the collective environment refers to the spatial configuration, physical area of the workstation where the task of employee is performed.

• **Social environment:** location, collection of nearby people, and social situation social, emotional or informational state. Here, the social environment refers to the other employees in nearby work stations and people who are involved in the working ambience.

• **Physical environment:** Work station- corporate working environment: Objective measures of the physical space, and qualities of the personalized space, lighting and noise level. Here, it refers to the actual space available for the activity, the levels of natural lighting, ventilation and the physical comfort in the work stations.

- **Stress:** Defined as any event in which environmental or internal demands tax the adaptive resources of an individual.
- **Coping for stress:** our efforts to master the demands of stress are referred to as coping. It includes thoughts, feelings, and actions that constitute these efforts
- **Defense mechanisms:** the psychological aspect of managing stress can be viewed in two different ways. Some theorists consider coping ability to be a stable personality or trait. Furthermore, it is considered as an acquired defense style. Defense mechanisms are unconscious, automatic responses that enable us to minimize perceived threats or keep them out of our awareness
- The term work stations are Physical space designated for human activity in a formal setting of order ranging in scale from personal office to large-scale corporate working environment.
- **Personalized territory** refers to the spatial configuration of the work stations in which a pattern of behavior and attitudes held by the individual is manifested , Furthermore, markings to indicate one's territorial intention and express one's identity through articulation of the physical attributes in the occupied setting wherein they perform their task on a daily basis.
- **Physical attributes** refers to the basic features of the built setting for a space including forms, proportion, area, openness, enclosure, levels of spaces, articulation of the spatial order, texture, scale, safety, protection, materials used to decorate and create identity to the space. Moreover the finish of the setting.

Eco Psychology, which emerged in 1930's (Goldstein, 1995), shifted to a more balanced perspective on the influences of cognition and emotion in social functioning. As an adaptation of psychoanalytic theory, it signaled a reaction against Freud's heavy emphasis on drives and highlighted the ego's role in promoting healthy social functioning.

- **Ego psychology** represents an effort to build a holistic psychology of normal development

2. OBJECTIVES AND SCOPE OF THE STUDY

The following objectives are formulated for this study:

- To find out the relationship between the physical settings and the coping for stress among corporate employees.
- To identify the spatial factors and design attributes that is responsible for influencing mechanisms for coping stress among corporate employees in the workstation.
- To demonstrate empirically the level of influencing potential for the identified defense mechanism in promoting coping for stress among corporate employees in the workstation.
- To prove that the personalized spatial configuration of the workstation, and markings in the territory has significant contribution in influencing selected defense mechanisms on coping for stress in work stations.
- To empirically prove that the mechanism on coping for stress among corporate employee is a function of personal spaces, spatial configuration and design attributes of the work station.
- The prime motive of this research is to investigate the influence of the personalized territorial spatial configuration and the design attributes of the corporate work stations in influencing increased level of adopting coping mechanisms for stress among corporate employees in the workstations. Thereby proving the proposition that coping for stress among employees is a function of the personalized spatial configuration and the design attributes of the workstation. In particular, this study explores the selected mechanisms for coping stress in the work station of their work environment in a day to day manner and how does that physical setting in context i.e. personalized spatial configuration (form and shape of the work station) and design attributes including the furniture layout of the workstation could be supportive in adopting mechanisms for coping stress in the work environment.

The various studies related to coping stress among the employees has been approached from many directions, but the correlation between personalized territory, Spatial configuration , design attributes of the workstation at corporate environment in Indian context has not been investigated systematically. Moreover, the potential for further research on increased adoption of coping mechanisms for stress is found to be high because the issues related to the personalized territorial space and Physical setting feature variables were not dealt with many situations. It is found that the previous studies related to coping stress pertaining to built environment has not been documented by applying specific theoretical concepts towards the study. Hence, this study has been carried out to deal with the defense mechanisms for coping work environment, through selected concepts identified by Goldstein (1995) are stated as below:

Denial	:	**Negating an important aspect of reality that one may actually perceive.**
Projection	:	**Attributing unacceptable thoughts and feelings to others.**
Repression	:	**Keeping unwanted thoughts and feelings entirely out of awareness.**
Undoing	:	**Nullifying an undesired impulse with an act of reparation.**

The above selected key concepts were empirically investigated whether it could be the Defensive factors in coping for stress among the corporate employee with special reference to software dealings corporate office settings in Tiruchirappalli district in Tamilnadu. Since this is applied for the selected office settings of a district of Tamilnadu, the findings and the results are more specific in nature and the same theory can be applied to other work environmental setting also to get the significant results with appropriate research design.

2.1 PHYSICAL SETTING OF THE CORPORATE WORK STATION AND THEIR DESCRIPTION

Since this study investigates whether the personalized spatial configuration of the workstation and its physical attributes can promote defense mechanisms for coping stress of the employees, it is expected to describe the details of workstation. To substantiate, the workstations selected is in the form of rectangular or square that is constructed with contemporary materials like aluminum sections, brick, steel ,cement with false ceilings and roof supported by RCC beams and columns. The interior is furnished with steel aluminum and wooden furniture which offers space for sitting, writing, group forming, and facilitates official work as well. The previous studies related to this domain evidently proves that the study related to find the influence of personalized spatial configuration and design attributes of the work stations in promoting defense mechanisms for coping stress is exceptionally rare and not much explored. Point to ponder here is that this research focuses on the impact of personalized territory, spatial configuration and physical attributes of the work station of specified corporate work settings to specific defense mechanisms for coping stress of selected employees at the corporate setting at the executive level in Human resource wing in the office. In order to demonstrate that mechanisms for coping stress vior is a function of the personalized spatial configuration and design attributes of the workstation, the selected concepts for understanding Defense mechanisms for coping stress identified by Goldstein (1995): Denial, Projection, repression,

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undoing were investigated through observation and collected response from the corporate employees for a set of structured questionnaire in selected corporate office environments in and around Tiruchirappalli district.

3. REVIEW OF PAST STUDIES

The literature in this area is at an early stage of development, although it is growing rapidly. Results of this research to date, which has been largely cross-sectional, provide a growing body of evidence that shows an association between the built environment and coping for stress at different levels.

Lau, Eley, & Steveson, 2006) Psychological coping in two ways, that is coping seen as a trait and as a state that changes over time depending on the context.

The role of physical setting in the support (or nonsupport) of coping for stress has been known in the literature for some time, for example in a seminal study (Lazarus& lazarus, 1994) demonstrated that there is concrete relationship between the environment and psychological stress management.

FIG: 1- SCHEMATIC REPRESENTATION OF RELATIONSHIP BETWEEN BUILT ENVIRONMENT AND HUMAN BEHAVIOR (Irwin Altman 1967)
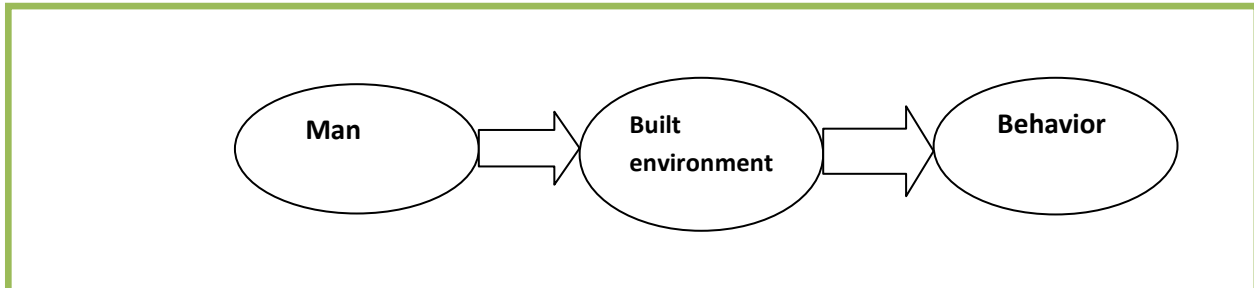
In addition to acting as a communicating medium, spatial layout or an architectural arrangement can also signal the appropriate social roles and responsibilities, for example, jury members seated at the head of a rectangular table assume leadership roles and participate more than members seated on the sides (strodtbeck and hook 1961). Proximity of work spaces has been linked to the occurrence and frequency of both formal communication (conrath 1973), and informal, face-to-face communication (Homans 1954; conrath 1973). By creating greater visual accessibility, open types of workspaces facilitate communication (Lorenzen and jaeger 1968). Experiments in Human learning behavior are valuable in that they can provide a greater understanding. All that happens in the world of human beings will definitely happen in a spatial setting and the design of the setting has a deep and assisting influence on stress among the people in that setting..

The spatial configuration, articulation and physical setting attributes within the contemporary settings manifests moods, communicates messages and remains relevant on the following aspects:

In pursuit of this investigation, our literature study clearly shows that there is a substantiate gap in this area of research involving the personalized spatial configuration and physical setting attribute for assessing the level of adopting the mechanisms for coping for stress among the corporate employee in the work environment . In light of this, the study is carried out by applying the factors identified by Goldstein (1995). In that four concepts were selected to study the research question. Therefore, this study has formulated hypothesis based on the four concepts and as an outcome the following hypothesis were formulated and examined.

4. STUDY HYPOTHESIS: DENIAL, PROJECTION, REPRESSION, UNDOING

H1: The defensive behavior –Projection is positively associated with personalized, intact workstation of the corporate employee.

H2: The defensive behavior –Denial is positively associated with his work station territory without infringement within their work environment.

H3: The defensive behavior –Repression is positively associated with personal markings and Legibility on spatial articulation and ease of perceiving the circulation space and arrangement of workstation.

H4: The defensive behavior –Undoing is positively associated with Adequate levels of natural lighting and ventilation in his work station within their work environment.

To prove the equation $CS = f * n \{ PT+ SCoN +Mark\}$

Where CS = Coping for stress
F = Function of
N = no. of Factors
PT = Personalized territory
SCoN = Spatial Configuration
Mark = Personalized markings of the setting

4.1. RESEARCH METHODOLOGY

To achieve the above objectives the research methodology consists of the following stages:

1) Naturalistic observation in order to capture the work culture of the corporate environment in the daily routine of the employee in workstation

2) Data collection by self-report method by administering questionnaires on Defense mechanisms for coping the stress.

3) Selected concepts for understanding Defense mechanisms for coping stress identified by Goldstein (1995): Denial, Projection, Repression, Undoing were investigated through observation and made up into 4 parcels by collecting response from the employees pertaining to the workstations.

4) Analyze the data to test the research hypotheses.

4.2 METHOD OF STUDY

4.3 SAMPLE: A random sample (F.G.Kaiser, 2000) of 267 were observed, interviewed and examined by self-report method for the study. Of the 267 questionnaires that were set out 242were returned giving a return rate of 90%. Some questionnaire contained considerable missing data and were excluded. Thus 233 subjects who provided complete data were considered for the study. Among them 137 are Male and 96 were Female employees with a mean age 37 years. The sample was 100% professionals with Engineering & technology degree working for the corporate ranging from 5 years to 10 years of work experience from four software offices in and around Trichy district. The names and identity of the corporate offices surveyed for the study and the pictures of their environment are not disclosed here as requested by the corresponding corporate offices.

4.4 PROCEDURE: Before handing out the questionnaire to the subjects they received a short description about the objective of the study. In certain cases subjects were helped to clarify some of the items of the questionnaire the respondents required about 10 minutes to complete.

4.5 INSTRUMENT: First, item pools of 30 questions (F.G.Kaiser, 2000) were created. Most of this was based on the Goldstein (1995) key concepts and Gifford &Gallagher (1985) social interaction aspect of the physical environment. Roger barker's spatial physical setting and its affordances in promoting desirable behavior with mechanisms for coping stress like Denial, Projection, Repression, and Undoing. Ten items were eliminated as it does not fit into the above construct. Finally a set of 20 questions were construed for the survey.

The second step involved asking 8 subjects (four males, four females; age ranging from 19 to 22 years) to read and answer the questionnaire by speaking aloud while answering. When the subjects stopped or hesitated in answering, the experimenter inquired why, and later changed the wording of some items.

Thereafter, statements are framed in a yes or no pattern questions and their response is recorded. Under the components 1) Does the personalized space and intact work station facilitate the Defensive behavior denial in order to cope with the stress among the employees in the work environment 2) Does the intact personal space and territory without infringement in the work station facilitate the Defensive behavior Projection in order to cope with the stress among the employees in the work environment. 3) Does the levels of natural lighting and ventilation in the work station facilitate the Defensive behavior Repression in order to cope with the stress among the employees in the work environment 4) Does the personalized markings and Legibility on spatial articulation and ease of perceiving the circulation space and activity space facilitate the Defensive behavior Undoing in order to cope with the stress among the employees in the work environment.

5. ANALYZING DATA

The set of 20 questions are rated in a bipolar scale with the scores of 'No'= 0 and "yes'= 1. Therefore a maximum total range of score will be 20 which recorded for all the components put together as mentioned earlier. Thus the score of 20 shows a strong influence for coping stress. Here, for the purpose of studying the role and influence of the Factors in a distinctive way the Factors are segregated into 4 parcels and Each parcel share a score of 5 points and obtaining full 5 points in the respective parcel shows significant influence and reveal definite influence of the factors towards promoting mechanisms for coping stress among corporate employees. A score of 3 discloses the moderate influence of the factors towards promoting mechanisms for coping stress among employees. And less than 2 shows lower influence of the factors towards promoting mechanisms for coping stress among employees. And a score of 0 reveals that the factors are highly insignificant to influence mechanisms for coping stress among employees.

The statements on the personalized space and territory and its influence on coping for stress are framed and administered for the questionnaire survey. Details of the questionnaire format for this study. Is provided in appendix-A.

TABLE 1

Range of scores		Mechanisms of coping for stress				
		Repression	Projection	Denial	Undoing	sample
20-15	Strong	73%	57%	58%	71%	233
14-10	Moderate	19%	25%	23%	18%	233
09-05	Weak	5%	10%	11%	6%	233
04-0	Insignificant	3%	8%	8%	5%	233
Physical setting for investigation		Work station and design attributes				

6. INTERPRETING RESULTS

Range of Scores;

20-15	-	Strong in influencing coping for stress
14-10	-	Moderate in influencing coping for stress
9 - 4	-	Low in influencing coping for stress
3 - 0	-	Insignificant in coping for stress

The empirical results are tabulated as below:

Table- I: provides the Tabulated results for each Factor that influence mechanisms for coping for stress stated in the research hypothesis:

7. RESULT

The study results clearly indicate in an empirically that Hypothesis H3 is strongly supported for Repression mechanisms on coping for stress clearly indicates that personalized markings and legibility of the space has significant contribution and connection towards coping for stress. Furthermore, it suggests that Hypothesis H4 Denial is equally supported by this study and has greater importance in coping for stress.

H1 and H2 have moderate significance with Projection and Denial as coping for stress among the employees.

Thus the study equation is proved as $CS = f * n \{PT + SCoN + Mark\}$

8. FINDINGS

The results of this study strongly and evidently support the two researches. Hypothesis made for the investigation. Further with 73% of the sample involved in coping for stress with personalized markings and territory in the work stations and 71% of the sample involved in increased coping for stress to the conducive sensory stimulations like adequate natural lighting and ventilation in the work station suggest that there is a definite causal connection between the personalized built environment and the coping for stress among the corporate employees. Thus personalized spatial configuration and physical attributes of the work station design proves to be the driver in promoting increased coping for stress among the Corporate employees in this context.

9. CONCLUSION

Although this study is done in a corporate settings context, the results indicate that the Built environment can facilitate or constrain mechanisms coping for stress. Likewise, the built environment can be structured in ways that provide employees more or fewer opportunities and choices to make their work environment as stress reliever. The characteristics of the built environment that facilitate or constrain coping for stress may differ depending on the overall intention of the activity. for example: ready access to outdoor environment – Circulatory spaces, fellow mates and in our daily routine which in turn improves levels of coping strategies among the employees depending upon the scale of the built environment.

Built environments that facilitate more social wellbeing and better quality of life could be articulated to provoke desirable emotions. The author believes that research on the relationship between built environment and coping for stress is at a pivotal stage. These types of investigations are highly adaptive in nature and paves way to carry out similar studies in other context depending on the type of stress coping mechanisms and the built setting. The number of investigators and studies are growing rapidly: Nowadays, interdisciplinary approaches are being encouraged; and technologies such as the global positioning system and geographic information systems, and closed circuit television, system are now available to provide and link more objective and detailed measures of both built environment and Mechanisms for stress management in different context too.

This empirical evidence designates built environment as a tangible causal agent in promoting mechanisms for coping stress.

10. FUTURE DIRECTION OF RESEARCH

This research reveals that the importance of coping mechanisms for stress among the employees warrant a strong and continuing research effort to further understand the relationship between the built environment and stress, if the field is to move forward, however different kinds of collaboration and research are needed. More interdisciplinary approach to research would help bring together the needed expertise of the public behavior, social psychologist, urban planners, architects, Interior designers among others, the research found that the interdisciplinary character of its own membership shall greatly facilitate its understanding of the issues. However, longitudinal studies should be carried out in order to measure full range of Mechanisms for coping stress at different context like, semi-urban, urban and cosmopolitan. Likewise rapid-response capability to evaluate natural experiments. Intensification and expansion of national databases are essential if important causal connections are to be researched. Built environment and its settings are the major catalyst in creating social well-being at all walks of our life.

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APPENDIX

APPENDIX –A: QUESTIONNAIRE FORMAT (SAMPLE QUESTION FOR THE PARCEL – REPRESSION)

REPRESSION: KEEPING UNWANTED THOUGHTS AND FEELINGS ENTIRELY OUT OF AWARENESS

1) Do you think that the personalized markings in the work station help you to keep away the unwanted thoughts that cause stress?
Yes/No
2) Is your work station furniture with societal arrangement an important factor in keeping away the undesirable feelings that cause stress among employees?
Yes/No
3) Does the personalized physical attributes of your furniture in the workstation   facilitates you repression in the work environment.
Yes/No
4) Is the legibility of the spatial configuration of your work station makes most of the employees to adopt mechanisms to cope for stress?
Yes/No
5) Did you feel that your work station personalized by you and the design attributes and spatial quality has become a significant component in coping stress?
Yes/No

WORLD TOURISM SCENARIO AND CONTRIBUTION OF TOP 15 COUNTRIES IN INDIA'S FTA

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ABSTRACT

International tourism recovered strongly in 2010 from the blow it suffered due to the global financial crisis and economic recession. International tourist arrivals worldwide registered a positive growth of 6.6% during the year 2010 as compared to negative growth of 3.8% during 2009 over 2008. India's share in international tourist arrivals, increased from 0.40% in 1997 to 0.61% in 2010 Service industry is very fast growing industry in India. Share of service sector in Indian GDP has increased from 15% in 1950 to 55% in 2013. Tourism industry is the part of service industry. It is a main source of Forex in India. The tourism sector and tourism research community focus mainly on international inbound and outbound tourism volumes and expenditures. Inbound tourism is the heart of Indian economy. But international tourism is only one part and certainly in number of arrivals, domestic tourism is several times larger than international. This paper therefore first focuses the development of FTAs numbers over time per country in India. These numbers will be compared to the international inbound and outbound visitor numbers per country. The next step will be the recognition of the economic importance of international tourism compared to domestic tourism. Present paper also focused on the contribution of top 15 countries in Indian tourism. To fulfill these data we analyses the secondary data through mean value, CAGR, graph, percentage etc. International tourism recovered strongly in 2010 from the blow it suffered due to the global financial crisis and economic recession. International tourist arrivals worldwide registered a positive growth of 6.6% during the year 2010 as compared to negative growth of 3.8% during 2009 over 2008. India's share in international tourist arrivals, increased from 0.40% in 1997 to 0.61% in 2010

KEYWORDS
CAGR, FEE, FTA, Inbound tourism, world tourism.

INTRODUCTION

Global market trends indicate that long-haul travel, neighboring country tourism, rural and ethnic tourism, wellness and health holidays, cultural tourism, spiritualism, ecotourism, sports and adventure holidays, and coastal tourism and cruises are a few emerging areas of tourist interest. From a geographic viewpoint, there has been a remarkable rise in Asian tourists, particularly from China and East Asian countries. Further, the average age of the international tourist has also been reducing representing a growing segment of young tourists who would typically travel to take a break from increasingly stressful professional lives.

Given the above factors, robust growth in inbound tourism is likely to continue in the coming years. The World Tourism Organisation (WTO) forecasts over one billion arrivals in 2010 versus approximately 693 million today. Worldwide long-distance travel is likely to grow faster (5.4% each year) than travel within regions (3.8%). Continuing world prosperity, growing recognition of cultural tourism's contribution to employment and economic growth, availability of better infrastructure, focused marketing and promotion efforts, liberalization of air transport, growing intraregional cooperation, and a growing number of Public-Private-Partnerships (PPPs) are seen as the key drivers for tourism in the next decade.

The total count of Indian national's departures to other countries is compiled by the Bureau of Immigration (BOI), from Embarkation cards. The number of Indian national's departures from India during 1991 was 1.9 million, which rose to 12.99 million in 2010 with a compound annual growth rate (CAGR) of 10.5%. The number of Indian national's departures from India during 2010 registered a growth of 9.0% over 2009 as compared to 1.8 % growth in 2009 over 2008.

REVIEW OF LITERATURE

Literature survey is the most simple and fruitful basis of formulating precisely the research problem. For this purpose the researcher has to review the works already done by others. Pierce (1996), in his book, viewed tourist destinations from five broad sector namely attractions, transports, accommodation, supporting facilities and infrastructure. He explained that attractions encourage tourist to visit the location, the transport services enable them to do so, the accommodation and supporting facilities like (e.g. shops, banks, restaurants, hotels) cater for the tourist's well being during their stay and the infrastructure assures the essential functioning of all the above sectors . Suhita Chopra in Tourism Development in tourism in India. Ratandeep Singh (1996) has also thrown light on various issues related to tourism marketing in Dynamics of Modern Tourism .M. M. Anand in Tourism and Hotel Industry in India (1976) has critically evaluated the tourism industry in India. According to Vellas (2002), tourism is a complex economic activity which has multiple linkages to a wide range of other economic sectors and activities, tus having positive multiplier effects and a potential to act as a catalyst for economic development. Tourism is viewed increasingly as an essential sector to local, regional and national reconstruction and development for economies at various scales (Visser and Ferreira, 2011) Tourism has become an important policy tool for development in many parts of the world and from various vantage points has been shown to have both significant impact and potential to influence and change the use of existing economic ,natural and cultural resources ,in addition to a range of other real and imagined attributes.

Muthe, P.R. (2009), in their study Global Recession: Challenges and Opportunities for Indian Tourism and Hotel Industry" found that service sector plays important role in Indian economy which accounted alone 55.1% in 2009. Within the Service sector tourism and hospitality industry (including Hotel industry) has more importance about generating employment, yielding foreign exchange. National income and growth providing base to other industries as like tourism industry directly or indirectly. In Mean time (2008-2009) Recession has affected tourism and Hotel industry marginally; Cause of this tourist arrivals, Currency earnings, and employment in this industry got declined. Health tourism is observing growth despite global meltdown. Indian Tourism and Hotel industry start came out from the impact of recession in 2010 and moving towards the bright future. In short, During Recession period Indian Tourism and Hotel industry has not been much adversely affected.

Hanna J.R P and Millar R.J (1997), providing trustworthy, dependable and reliable information should be the prime motto of tourism websites. Jie Lu and Zi Lu (2004) identify lack of trust as one of the main barriers for visitors not accepting online services because of a negative past online experiences. Information dissemination has three sub factors like presentation, sharing and supporting. Presentation of information includes information of attractions in and around the place, tourism related news, policies and having a count of number of visitors visiting the site. Sharing of information consists of options given to visitors to share ideas, experiences and information and take part in online chats, consultation and email facilities. Allowing users to email requests and replying questions on time is an effective way to attract online customers. The option of language translation would be an added advantage. Support services includes, online queries, surveys, maps, directions regarding reaching destinations and call for advertisements. More and more tourists are utilizing internet and online resources for their information needs regarding visiting places (Gursoy and Mc Cleary, 2004). Once the tourist selects a destination, based on the information obtained from a variety of sources including websites, it helps the tourist in tailoring a holiday to his or her particular needs. The quality and quantity of information obtained during the decision making process has a positive impact on destination satisfaction (Peterson, 1997; Szymanski and Hise, 2000).

A tourism destination is always a feel good factor. The tourists depend on both internal (past experience and knowledge) and external information (internet being one among them) to take a decision. When the internal search provides sufficient information for making a decision, external search is not necessary. Tourists with previous experience of the destination, the effect of internet or website may have on destination will be small as the latter will be determined by

the previous knowledge of destination. Visitors with no previous destination experience, external sources of information will be the ones providing the information the tourist needs (Peterson, 1997)

The greatest challenge to the website developers in case of tourist seeking destination information is the amount of information overload which occurs in internet users because of low cost of information search which leads the user to undertake a more intensive search for information.(Biswas, 2004). The user suffering from information overload becomes very selective with respect to the information taken into consideration in the decision making process and the end result is the drop in the quality of decision taken. Ease of use will be instrumental in averting the threat of information overload from the internet using tourists. Interaction and Interchange functions: Interactivity is the uniqueness with online marketing. Bender (1997) defined interactivity helps the viewers of the website to "interact" with the information that has been placed there. Users can control their viewing experience within the limitations of available information. Information relevant to tourism is presented such as train timetables, hotels and souvenir information, supporting information such as maps and product catalogues need to be provided. Users are provided email addresses in the website to allow them to make enquiries about products and services by providing contact email. Online exchanging experience would be a great enticing and motivating factor for visitors to visit the website on a regular basis. E mail booking allows customers to make bookings via email but the payment is still carried out using a conventional method or making online payment with credit cards.

Webpage design: Visitors often find tourist websites via search engines, it is important to grab their attention before they search for alternative websites and the use of photography is a good first step toward this objective. Fantom (1999) suggested a personal, relevant and appealing design of a site is the way to create a positive user experience. According to Bender (1997) attractiveness in art and friendliness in function are essential in webpage design. Although most information the viewers seek comes from the text, it is known that beautiful and striking layouts and images are helpful to capture attention and generate interest. Features providing information ranging from simple photographs to interactive video presentations will make the website more attractive, interesting and realistic to visitors. Use of voice and animation helps to make the information more informative and tangible. Website search features and email connections improve functional value and interactivity by adding personalization to the information gathering process.

OBJECTIVES OF THE STUDY

- To analyze the contribution of top 15 countries in Indian FTAs.
- To ascertain the trends in global tourism in international market.
- To interpret the share if India tourism in World as well as Asia Pacific tourism.
- To study the revenue generation from FTAs in India.

RESEARCH METHODOLOGY

Present study is totally based on secondary data. Data has been collected through various reports, tourism statistics, websites, journals etc. some sources are as like: whc.unesco.org, www.gbrmpa.gov.au, http://project.heritour.com/http://www.culture-routes.lu www.aoifeonline.com /uplds/cultural-tourism.pdf

TOOLS OF DATA ANALYSIS

In the present study data has been utilized through various methods as like: CAGR, annual Growth, Mean value, Graphs, percentage methods etc. The tool used for analyzing and interpretation of data involves:

FOREIGN TOURIST ARRIVALS IN INDIA

Based on the information contained in the Disembarkation cards, data regarding the number of Foreign Tourist Arrivals (FTAs) and related aspects have been compiled and presented in this paper. The FTAs in India continued to grow from 1.28 million in 1981, to 1.68 million in 1991, 2.54 million in 2001 that has reached 5.78 million in 2010. During the year 2010, India registered a positive growth of 11.8 % over 2009. The growth rate of 11.8% in 2010 for India is better than UNWTO's projected growth rate of 5% to 6% for the world in 2010. The compound annual growth rate (CAGR) in FTAs in India during 2001 to 2010 was 9.6 %. Table 2.1.1 gives the number of FTAs in India for the years 1981 to 2010 and the growth rate over previous year.

The growth in FTAs in India during the eighties & nineties did not follow any consistent pattern. While 3 years, viz. 1986, 1992 and 1995, saw double-digit positive growth, there was negative growth in the years 1984, 1990, 1991, 1993, 1998, 2001, 2002 and 2009. In the subsequent write up in this publication, distribution of FTAs according to various characteristics such as age, sex, nationality, purpose of visit, etc. are given. It may be clarified that distribution of FTAs in 2010 has been worked out for figure of 5.78 million, which is higher than the total FTAs as per the unit level data furnished by Bureau of Immigration (BOI).

TOP 15 SOURCE COUNTRIES FOR FTAs IN INDIA

Graph shows the percentage share and rank of top 15 source countries for India during 2010, the corresponding figures for 2009. The top 15 tourist generating countries for India during 2010 and 2009 were same except that Republic of Korea which is a new entrant in the list at 15th position and it has replaced Italy. There have been changes in the rankings of some countries in 2010 as compared to 2009. While Germany, Malaysia and Russian Fed. have improved their rankings in 2010, decline in the ranks was observed for France, Australia, China(Main) and Singapore. FTAs in India from United States of America were the highest (16.12%) during 2010, followed by United Kingdom (13.15%), Bangladesh (7.48%), Sri Lanka (4.61%), Canada (4.20%), Germany (3.94%), France (3.90%), Malaysia (3.10%), Australia (2.94%), Japan (2.91%), Russian Fed. (2.11%), China (Main) (2.07%), Singapore (1.86%), Nepal (1.81%) and Republic of Korea (1.65%). USA continued to occupy number one rank in tourist generating markets for India in 2010. The share of FTAs from top 15 countries during the year 2010 was 71.86% as compared to 73.22% in 2009.

The FTAs from the top 15 source countries for the years 1981 to 2010 in total FTAs in India are given in graph 1. The share of these 15 countries in total FTAs in India shows a generally increasing trend from 1981. This share, which was 49.6% in 1981, increased to 71.86% in 2010.

GRAPH: 1-FTAs IN INDIA DURING 1996 TO 2010 FORM TOP 15 COUNTRIES
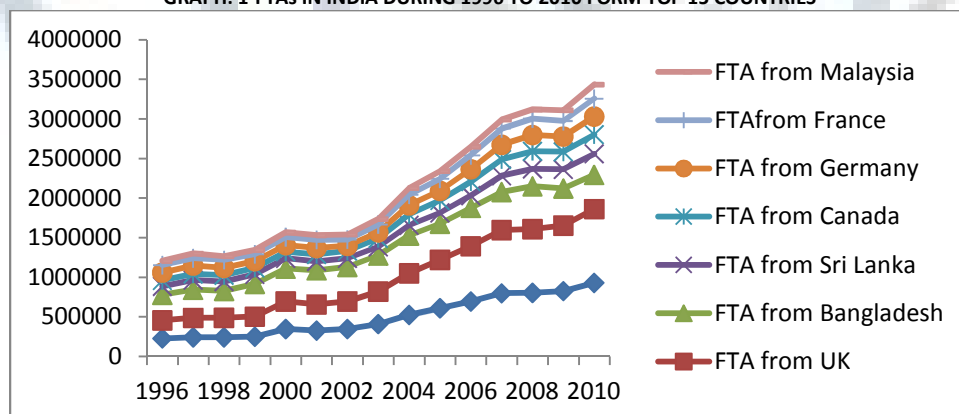
GRAPH: 2-FTAs IN INDIA DURING 1996 TO 2010 FORM TOP 15 COUNTRIES
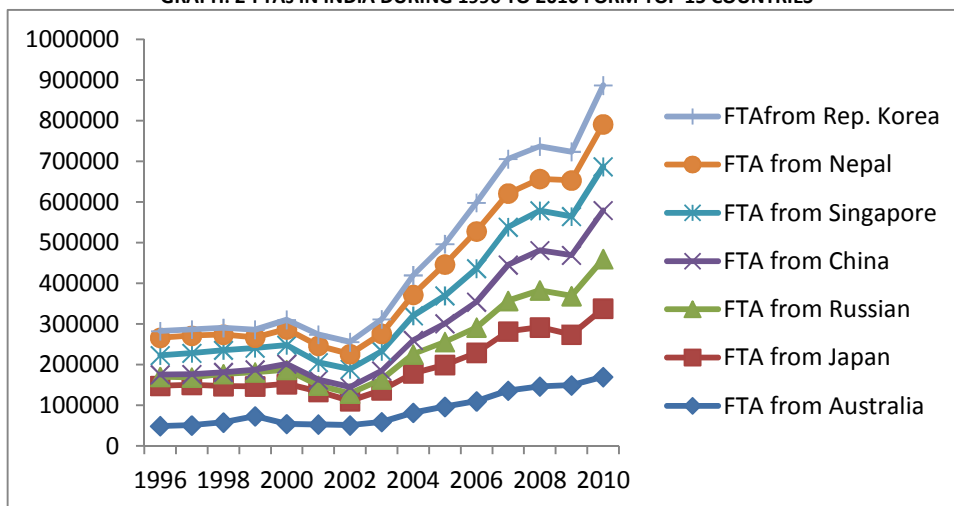
UNITED STATES OF AMERICA

United States of America maintained its position as the largest market for India during 2010. The arrivals grew 11.35 times from 1981 to 2010 at a CAGR of 8.7 %. The share of USA in the total FTAs in India also grew though marginally to about 16.12% during 2010 as compared to 16.01 % during 2009. The following graph shows the yearly trend in the tourist arrivals from USA during 1996-2010.

UNITED KINGDOM

The United Kingdom has been the second largest among tourist generating markets for India in the year 2010 as in the past. The arrivals grew 6.51 times from 1981 to 2010 at a CAGR of 6.7%. The share of United Kingdom in the total tourist traffic to India was 13.15 % during 2010 as compared to 14.89% during 2009.

BANGLADESH

Bangladesh continued to occupy the third position in terms of tourist arrivals in India with 7.48% share during 2010. The arrivals from Bangladesh grew 2.24 times from 1981 to 2010, with a CAGR of 2.8 %. The following graph shows the yearly trends in the tourist arrivals from Bangladesh during 1996-2010.

SRI LANKA

Sri Lanka has been placed at fourth position among the top 15 tourist generating countries for India with 4.61% of the total tourist arrivals during 2010. Arrivals from Sri Lanka grew 3.51 times from 1981 to 2010 with a CAGR of 4.4%. The following graph shows the yearly trends in the tourist arrivals from Sri Lanka during 1996-2010.

CANADA

Canada occupied fifth position in 2010 among the top tourist generating countries for India. The arrivals from this country have risen 9.56 times from 1981 to 2010 at a CAGR of 8.1%. The share of Canada in the total foreign tourist traffic in India was 4.20% as compared to 4.34% in 2009. The following graph on tourist arrivals from Canada during 1996-2010, shows that the growth in recent years has been much higher as compared to the period 1996-2002 except the year 2009 but it was higher in 2010.

GERMANY

During the year 2010, Germany improved its position to sixth from seventh in 2009 among the top tourist generating countries for India and contributed 3.94 % of the total FTAs in India. The arrivals grew 4.11 times from 1981 to 2010 at a CAGR of 5.0%. The following graph shows that while the tourist arrivals from Germany had declined during 1997-2002, continuous increase was observed during 2005 to 2008 followed by decline in 2009. But the tourist arrivals in India from Germany increased by 18.8% in 2010.

FRANCE

France slipped to the seventh position in 2010 among top tourist generating country for India, and contributed 3.90% of the total arrivals in India during 2010. The arrivals grew 3.93 times from 1981 to 2010 at a CAGR of 4.8%. The following graph shows that there has been an increasing trend in tourist arrivals from France from 2002, except for the year 2009. The year 2010 witnessed 14.6% growth over 2009.

MALAYSIA

During 2010, Malaysia occupied the eighth position among tourist generating countries for India with a share of 3.10% share. During 2009 it had occupied 9th position among tourist generating countries for India. The tourist traffic from Malaysia increased 6.77 times from 1981 to 2010, with a CAGR of 6.8%. It may be seen that Malaysia is one of the few countries which showed an increase of more than 30% in FTAs in India during 2010.

AUSTRALIA

During 2010, Australia slipped to ninth rank from its 8th rank in 2009 among top 15 tourist generating markets for India, with 2.9% of the total share of arrivals. The tourist traffic from Australia has increased 8.10 times from 1981 to 2010, showing a CAGR of 7.5 %. The following graph shows that the tourist arrivals from Australia had increased from1996 to 1999, followed by a declining trend upto 2002, and increasing trend again thereafter.

JAPAN

Japan is one of the most important tourist generating markets for India in the East Asia, and it contributed 2.91% to the total FTAs in India during 2010. During 2010, Japan occupied tenth position among tourist generating countries of the world. The arrivals from Japan grew 5.79 times from 1981 to 2010 at a CAGR of 6.2 %. The following graph shows the tourist arrivals from Japan during 1996-2010.

RUSSIAN FEDERATION

Russia occupied eleventh position in terms of tourist arrivals in India with 2.11% share during 2010. It has got a place among the top 15 source markets for the first time in 2008. The traffic from Russia has increased 3.76 times from 1991to 2010 showing a CAGR of 7.2% since 1991. The following graph exhibits the tourist arrivals from Russia during 1996-2010. From 2001 onwards, an increasing trend has been observed in FTAs from Russia.

CHINA (MAIN)

During the year 2010, China (Main) occupied twelfth position among the tourist generating markets in India, with 2.07% share in total arrivals. During 2009 it had occupied eleventh position among tourist generating countries for India. The arrivals from China (Main) have grown 87.18 times from 1981 to 2010 at a CAGR of 16.7%. The graph shows the trends in the tourist arrivals from China (Main) from 1996 to 2010. It can be seen that till 2000 there was no pattern in arrivals from China (Main), however henceforth it was showing an increasing trend.

SINGAPORE

Singapore slipped to the thirteenth position in terms of tourist arrivals in India during 2010 with a share of 1.86%. The arrivals from Singapore grew 5.99 times from 1981 to 2010 at a CAGR of 6.4%. The graph shows tourist arrival trend from Singapore from 1996 to 2010. It can be seen that FTAs from Singapore had increased from 2002 onwards, except in 2009.

NEPAL

Nepal occupied the fourteenth position in terms of FTAs tourist in India with 1.81 % share in total arrivals during 2010. The arrivals from Nepal grew 8.81 times from 1981 to 2010 at a CAGR of 7.8%. The following graph shows the tourist arrivals from Nepal during 1996 to 2010. It can be seen that there is no consistent trend in arrivals from Nepal during 1996 to 2010.

REPUBLIC OF KOREA

In 2010, Republic of Korea, the new entrant to the top 15 tourist generating markets occupied the fifteenth position with 1.65% share in total arrivals during 2010. The arrivals from Republic of Korea grew 24.10 times from 1991 to 2010 at a CAGR of 18.2%. The following graph shows the tourist arrivals trend from Republic of Korea during 1996 to 2010.

GRAPH: 3-SHARE OF TOP 10 COUNTRIES OF THE WORLD AND INDIA IN INTERNATIONAL TOURISM RECEIPTS IN 2011
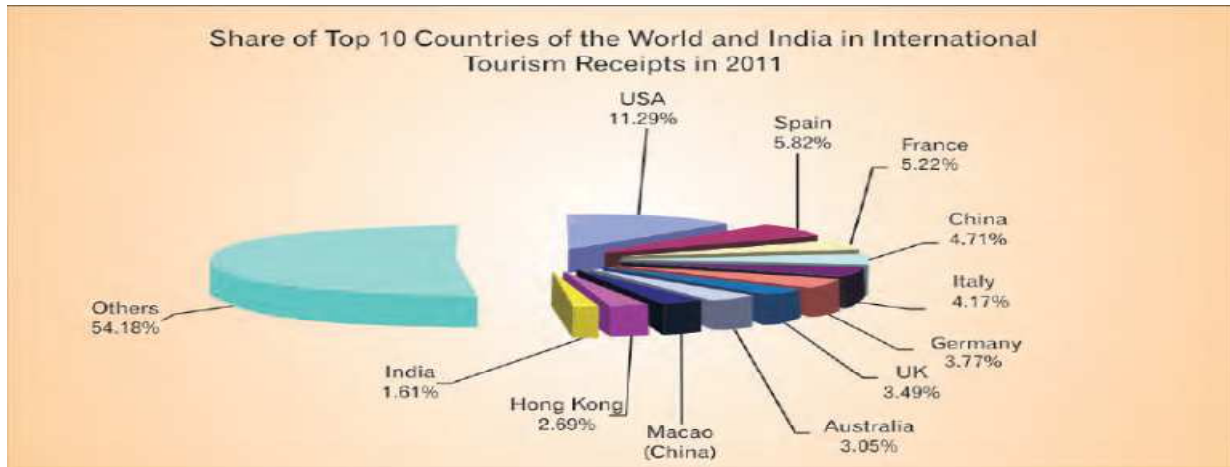
Source: UNWTO Tourism Highlights 2012 Edition.

Graph no 3 shows that share of top 10 countries in global tourism receipts are found 44.21percentage in 2010. While share of India and others is calculated 1.61% & 54.18 % in the same time period respectively. Share of India is very small.

Graph no 4 shows the share of top 10 countries in global tourism arrivals in India are found 44.48 percentages in 2010. While share of India and others is calculated 0.64% & 54.88 % in the same time period respectively. Share of India is very small.

GRAPH: 4-TOP 10 SOURCE COUNTRIES FOR FOREIGN TOURIST ARRIVAL

Graph also shows the share of top 10 countries & others in tourism arrivals in India are found 60.98 & 39.02 percentages in 2010 respectively.

WORLD TOURISM TRAFFIC

International tourism recovered strongly in 2010 from the blow it suffered due to the global financial crisis and economic recession. International tourist arrivals worldwide registered a positive growth of 6.6% during the year 2010 as compared to negative growth of 3.8% during 2009 over 2008. The international tourist arrivals during 2010, 2009 and 2008 were 940 million, 882 million and 917 million respectively. France maintained the top position in terms of arrivals in 2010, followed by USA, China, Spain, Italy, UK, Turkey, Germany, Malaysia and Mexico. These top 10 countries accounted for 44.42% share of international tourist arrivals in 2010. As regards the regions, the highest tourist arrivals were in Europe, which attracted 476.6 million tourists in 2010, with a positive growth of 3.3% over 2009, followed by Asia & the Pacific with 203.8 million tourists with 12.7% growth over 2009, Americas with 149.8 million tourists with growth of 6.4% over 2009, Middle East with 60.3 million tourists with growth of 14.1% over 2009 and Africa with 49.4 million tourists with growth of 7.3% over 2009. In fact, in all these regions, positive growth was registered during the year 2010 over 2009. Table 3.1.1 gives the summary of international tourist arrivals in different regions of the world from 2008 to 2010.

International tourist arrivals in the world and India's share as well as rank, during the years 1997-2010, are given in study India's rank in international tourist arrivals was 47th in 1998 and declined to 54th in 2002, however, since then, it has gradually improved to 40th in 2010. India's share in international tourist arrivals, increased from 0.40% in 1997 to 0.61% in 2010. During last 3 years there has been slight improvement in percentage share of India in world.

FOREIGN EXCHANGE EARNINGS FROM TOURISM IN INDIA

For the FEE's, tourism is the most important sector in the country. As per the monthly estimates prepared by Ministry of Tourism, FEE from tourism in India in 2010 were ` 64889 crore as compared to ` 54960 in 2009 registering a growth of 18.1 % in 2010 over 2009. In US $ term, FEE from tourism in 2010 were US $ 14.19 billion as compared to US$ 11.39 billion in 2009 with a growth rate of 24.6%. The FEE from tourism in India, in INR terms and US$ terms, during 1991-2010 are given in graph 5.

Study found that average amount of FEE in India from FTAs in terms of Rupees and US Dollar is calculated 23009 crore Rs and 5358 US$ from 1991 to 2010. During this period growth rate found 16.37% in term of Rs and 11.95% in term of dollar.

GRAPH: 5- FOREIGN EXCHANGE EARNINGS FROM TOURISM IN INDIA DURING 1991-2010
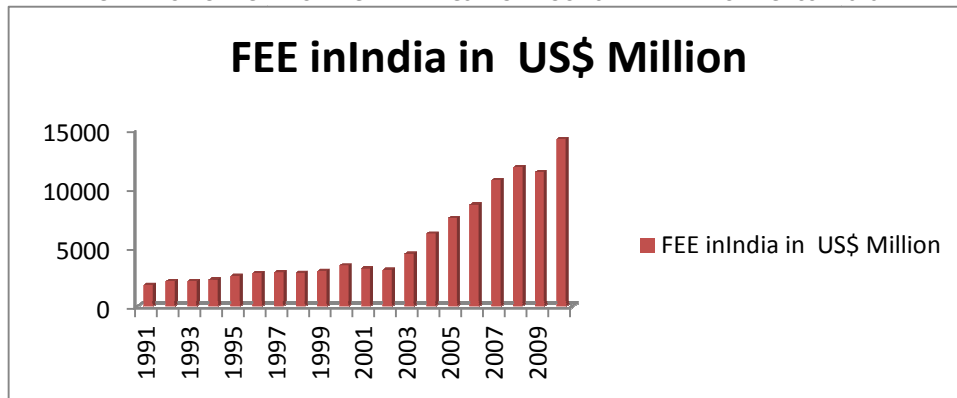
Study found that average total amount of FEE in India from FTAs is calculated 5358 US$ in India and top 15 contribution is 3541US$ from 1991 to 2010. During this period growth rate of FEE from top 15 countries is calculated 42.45% and contribution of rest of the countries is calculated 57.55% during the above said time period.

GRAPH: 6- FEE IN INDIA FROM FTAS AND % AGE SHARE OF TOP 15 COUNTRIES AND OTHERS
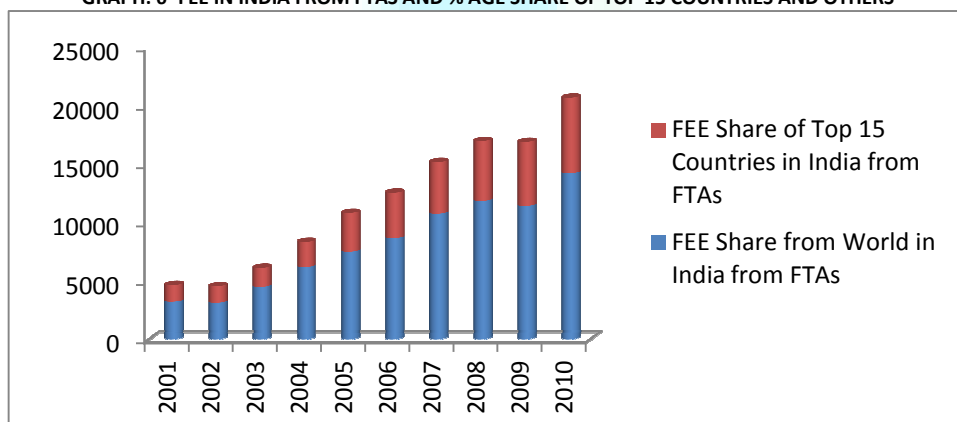
GRAPH: 7- PERCENTAGE SHARE OF TOP 15 COUNTRIES AND OTHERS IN FEE
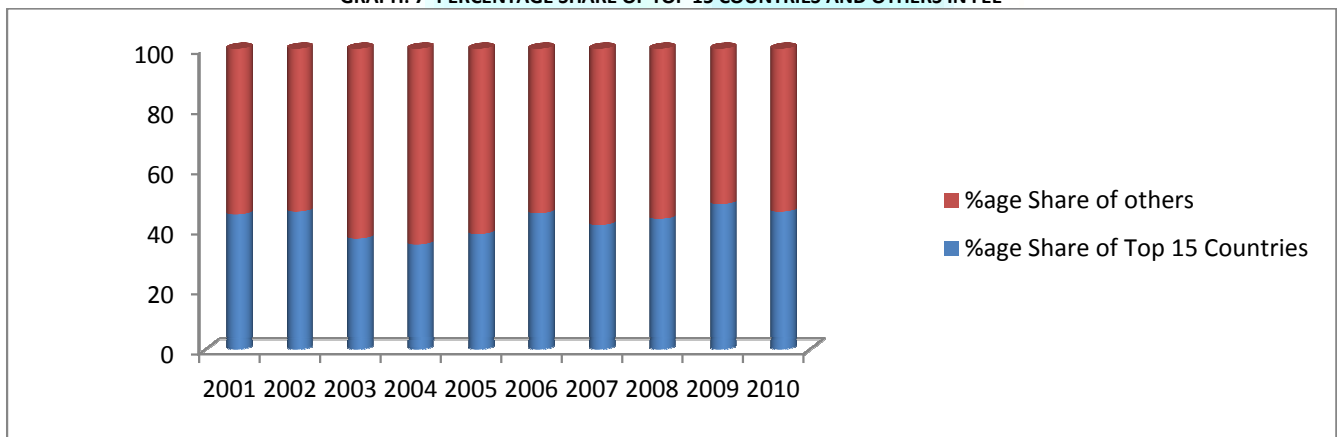
GRAPH:8- SHARE OF INDIA IN FEE IN WORLD & ASIA PACIFIC FROM 1997 - 2011

GRAPH:9- SHARE OF INDIA IN FTAS IN WORLD & ASIA PACIFIC FROM 1997 - 2011
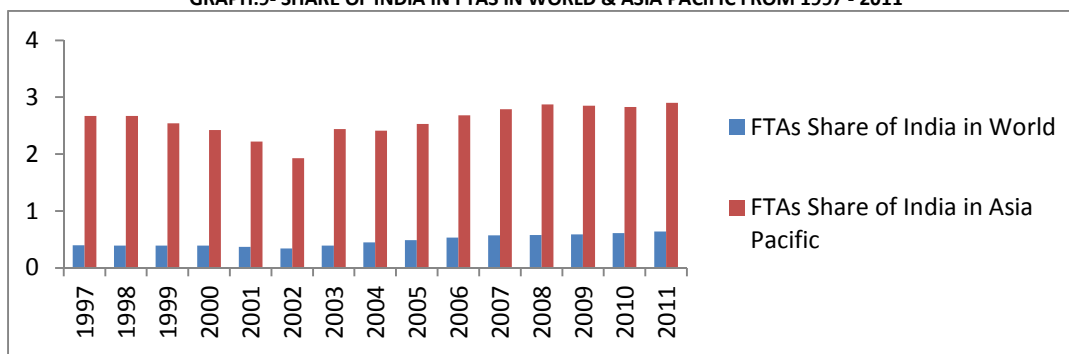
Sources
(I) UNWTO Tourism Market Trends 2007 Edition.
(II) UNWTO Barometer June 2006-10 & Jan 2007-11.
(III) UNWTO Tourism Highlights 2011 & 12 Editions.

The above table clearly shows the growth rate of Foreign Exchange Earning (FEE), throughout World, Asia & Pacific and India(Million) in US $ Billion and percentage share of India and Asia & Pacific with their share. Total FEE throughout World has increased from 442.8 Billion US dollar in 1997 to 1030 Billion US dollars in 2011. It has increased 2.33 times in the study period. In case of Asia & Pacific FEE has increased from 82.6 Billion US dollar in 1997 to 289.4 Billion US dollar in 2011. It has increased 2.50 times in the study period. And average percentage share of India in Asia & Pacific is 4.75% during the study period. FEE in India has increased from 2889 million US dollar in 1997 to 16564 million US dollars in 2011. It has increased 5.73 times in the study period. And average percentage share of India in throughout World is 1.0% during the study period. Growth rate of FEE is above from world (2.33%) and Asia & Pacific (4.75%). It shows the high growth rate in India during the study period. It also effected to Indian economy also.775.14 in world

Average FTAs in throughout world is 775.14 million, 144.44 million in Asia & Pacific and 3.80 million in India. Average FTAs percentage share of India in World is 0.475% and Asia & Pacific is 2.583% during the study period. Growth rate of FTAs in world is 1.658% and in Asia & Pacific it is 2.438% during the same time period. While in case of India growth is found 2.654% in the above said time period. It shows the high growth rate in India during the study period. It also effected to Indian economy also.

MODE OF TRAVEL OF FTAs IN INDIA

In the past 'air' has been found to be major preferred of transport. In 2010, out of the 5.78 million foreign tourist arrivals in India, majority (91.8%) arrived by air, followed by land (7.5%) and sea (0.7%). The corresponding figures for 2009 have been 89.8%, 9.2% and 1.0% respectively. Arrivals through land routes comprised tourists mainly from Bangladesh and Pakistan.

Graph shows the FTAs in India via air, land and sea routes during 1996-2010. It is clear that air travel has been the most preferred mode of travel for the FTAs over the years, accounting for more than 80% share in each year during this period. The share of arrivals through land check-post has been above 10% since 2001. Arrivals through sea routes remain less than 1% from 1996 to 2008. However, it was 1.0 % in 2009.

GRAPH:10- FOREIGN TOURIST ARRIVALS IN INDIA ACCORDING TO MODE OF TRAVEL, 1996-2010
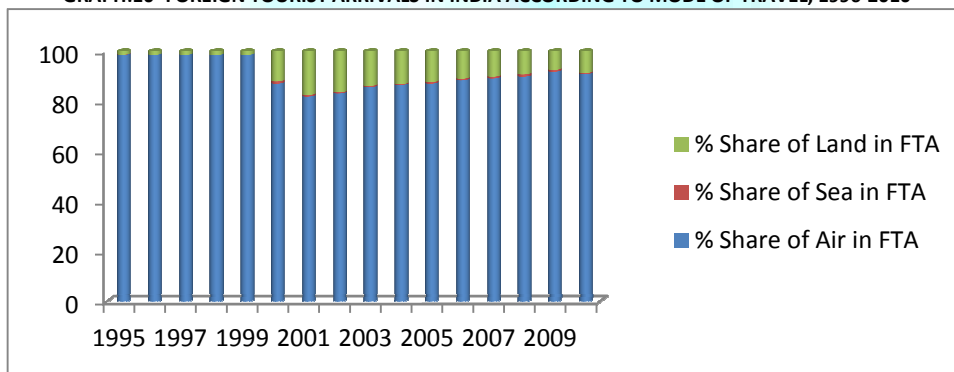
Source: Bureau of Immigration, India

Graph shows the FTAs in India via air, land and sea routes during 1996-2010. It is clear that air travel has been the most preferred mode of travel for the FTAs over the years, accounting for 90.85% share in during study period. The share of arrivals through land check-post has been 8.71% in above said period. Arrivals through sea routes remain less than 1% during study period. However, it was 1.0 % in 2008.

PORT OF ENTRY OF FTAs IN INDIA

During 2010, Delhi airport had registered maximum number of FTAs in India at 34.4% followed by Mumbai airport (20.5%), Chennai airport (10.7%), Bangalore airport (6.5%) and Kolkata airport (3.7%). The corresponding figures for Delhi, Mumbai, Chennai, Bangalore and Kolkata airports in 2009 were 32.2%, 21.5 %, 10.7%, 6.3% and 3.6% respectively. The 4 metro airports, i.e. Delhi, Mumbai, Chennai and Kolkata, accounted for 69.3% of total FTAs in India in 2010, as compared to 68.0 % in 2009.

Graph11 gives the percentage of FTAs in India in 4 major airports during 1996- 2010. It is evident from this Graph that during 1996 to 2010, Delhi airport remained number one airport in terms of FTAs followed by Mumbai airport.

Study found that on average percentage FTA arrivals through various airports from1996 to 2010 comes 26.67, 3.41, 11.43, 34.03, 1.25 and 23.21percent tourist came through Mumbai, Kolkata, Chennai, Delhi, Bangalore and Others Airport respectively.

GRAPH:11-ARRIVALS OF FTAs IN INDIA THROUGH MAJOR PORTS FROM 1996-2010 (in %age)
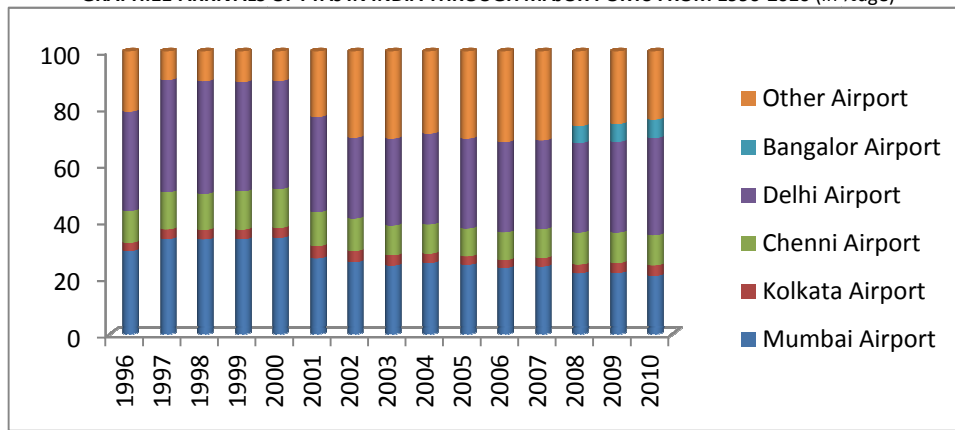
Source: Bureau of Immigration, India

GENDER DISTRIBUTION OF FTAs IN INDIA

During the year 2010, the sex wise distribution of FTAs comprises of 59.3% males and 40.7% females. The male-female break-up of FTAs in 2009 was 59.6% and 40.4% respectively.

GRAPH:12- FTAs IN INDIA ACCORDING TO GENDER, 1996-2010
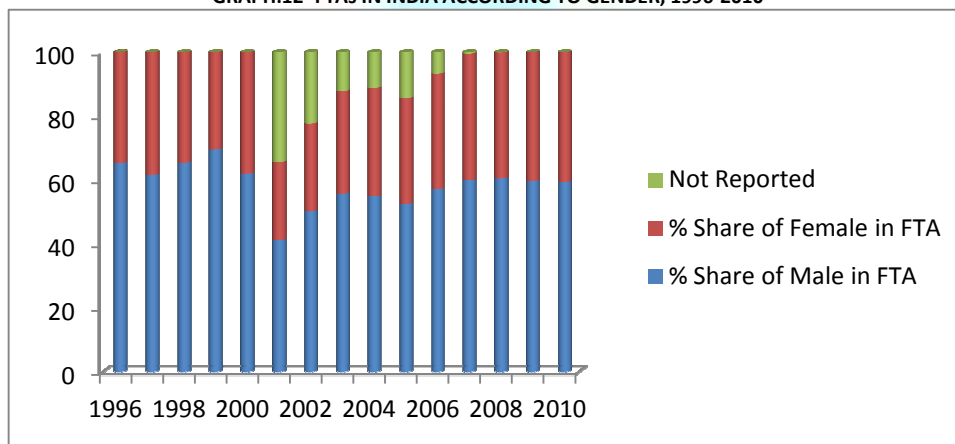
Source: Bureau of Immigration, India

Study shows that on an average contribution of male, female and not reported is counted 58.29, 34.92 and 6.79 percentages respectively. It shows the majority of male. Study shows the proportion of females for most of the countries is in the range of 30% to 45%, for some countries like Egypt, Sudan, Iraq, Israel, Oman, Saudi Arabia, Turkey, Yemen Arab Republic, Afghanistan, Bangladesh, China (Main), Japan, etc, it was substantially low (less than 30%) in 2010. On the other hand, females outnumbered the males in FTAs in India from Kazakhstan (61.3%), Russian Fed. (57.0%), Mauritius (56.1%), Argentina (50.7%) and UAE (50.6%) during 2010.

AGE DISTRIBUTION OF FTAs IN INDIA

Graph 13 gives the percentage distribution of FTAs in India according to age groups during 1996-2010. It may be seen from this table that the proportion of FTAs in different age groups has not changed much in the last 7 years. However, the proportion of FTAs aged 55 or above has increased from 11.5% in 1996 to about 23.3% in 2010. It shows the contribution of FTAs in India according to age group is 8.03, 10.15, 19.89, 22.8, 19.41, 11.53, 5.91 & 2.22 percent of age group 0-14, 15-24, 25-34, 35-44, 45-54, 55-64, above 65 and not reported respectively.

As the proportion of FTAs not reporting their ages has varied over the years, therefore, comparison of age distribution of FTAs needs to be done with caution In 2010, maximum FTAs in India (21.1%) were from 35-44 years age group, followed by the age groups of 45-54 years (19.9%) and 25-34 years (17.4%). Minimum were in the age-group of 15-24 years (8.3%).

GRAPH:13- FTAs IN INDIA ACCORDING TO AGE-GROUP, 1996 TO 2010
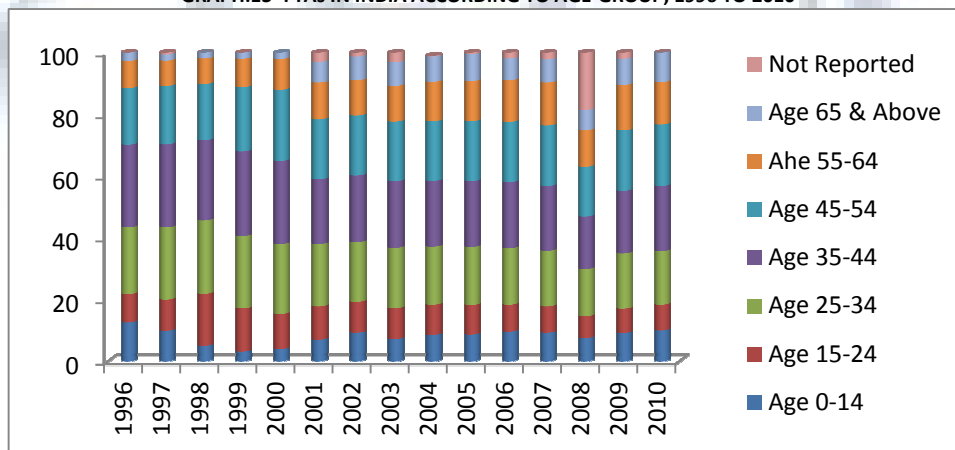
Source: Bureau of Immigration, India

The study shows the mean value of FTAs in India. According to age-wise mean value of FTA in India during the study period calculated as like 8.03, 10.15, 19.89, 22.8, 19.41, 11.53,5.91& 2.22 percent for the age group 0-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65 & above and not reported respectively. Country-wise distribution of FTAs in India according to age-groups during 2010 has been shown in the study also. It may be seen that the proportion of FTAs in the age group 0-14 years was the highest for USA (22.5%), UAE (18.5%), Pakistan (16.9%) and Canada & Ireland (14.7%). It is also observed from this table that FTAs in India for the age group 25-34 years has been maximum from Central & South America, Eastern Europe and West Asia whereas countries for Western Europe it was the age-group 45-54 years

PURPOSE-WISE DISTRIBUTION OF FTA IN INDIA

TABLE:1-PURPOSE OF VISIT OF FTAS IN INDIA IN 2010 (%age)

Region	Business & Professional	Leisure, Holiday & Recreation	Visiting Friends & Relatives	Medical Treatment	Others
North America	18.1	13.8	47.5	0.3	20.3
Central & South America	26.9	30.9	20.9	0.3	21.0
Western Europe	22.4	29.0	28.6	0.2	19.9
Eastern Europe	11.1	59.5	6.5	0.5	22.5
Africa	18.6	21.6	29.1	5.4	25.3
West Asia	15.4	22.6	22.3	7.5	32.2
South Asia	8.9	19.9	18.2	8.9	44.1
South East Asia	18.7	33.7	24.8	0.7	22.1
East Asia	53.0	17.5	11.1	0.1	18.4
Australasia	19.7	23.7	40.1	0.3	16.3
Others	3.0	14.2	4.9	0.1	77.8
Stateless	21.5	16.2	20.8	0.0	41.5
Grand Total	18.6	24.0	27.5	2.7	27.2

Source: Bureau of Immigration, India 2012

Study shows that FTA visit in India for the purpose of Business & Professional, Leisure, Holiday & Recreation, Visiting Friends & Relatives, Medical Treatment and other purpose 18.6, 24.0, 27.5, 2.7, & 27.2 visit in India in 2010 respectively. About 27.5% of FTAs in India during 2010 were for the purpose of 'visiting friends & relatives', followed by the purpose of 'leisure, holidays and recreation' (24.0%) and 'business and professional' (18.6%). The highest number of visitors in the business and professional category were from China (60.0%) followed by Japan (56.9%), Egypt (47.9%), Republic of Korea (43.1%), etc. Regarding the regional distribution, for business & professionals, maximum (53.0%) visitors were from East Asia followed by 26.9 % from Central & South America. For Visiting friends & relatives purposes, maximum FTAs came from North America (47.5%) followed by Australasia (40.1%). For medical purposes, maximum FTAs came from South Asia (8.9%) followed by West Asia (7.5%), Africa (5.4%), etc.

CURRENT GLOBAL TOURISM TRENDS

Global market trends indicate that long-haul travel, neighbouring country tourism, rural and ethnic tourism, wellness and health holidays, cultural tourism, spiritualism, ecotourism, sports and adventure holidays, and coastal tourism and cruises are a few emerging areas of tourist interest. From a geographic viewpoint, there has been a remarkable rise in Asian tourists, particularly from China and East Asian countries. Further, the average age of the international tourist has also been reducing representing a growing segment of young tourists who would typically travel to take a break from increasingly stressful professional lives.

Given the above factors, robust growth in cultural tourism is likely to continue in the coming years. The World Tourism Organisation (WTO) forecasts over one billion arrivals in 2010 versus approximately 693 million today (See Exhibit below). Worldwide long-distance travel is likely to grow faster (5.4% each year) than travel within regions (3.8%). Continuing world prosperity, growing recognition of cultural tourism's contribution to employment and economic growth, availability of better infrastructure, focused marketing and promotion efforts, liberalization of air transport, growing intraregional cooperation, and a growing number of Public-Private-Partnerships (PPPs) are seen as the key drivers for tourism in the next decade.

FIG.- 14 : WTO FORECAST FOR TOURIST ARRIVALS IN BILLIONS, 1950-2020
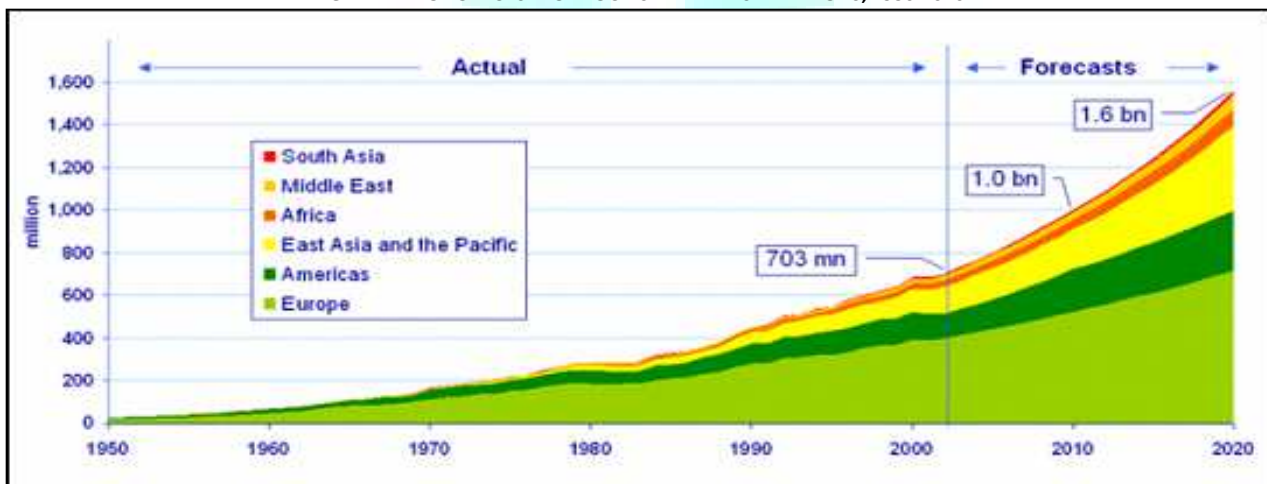
Further, world tourist arrivals in Asia are likely to grow faster than arrivals in Europe and the Asian market share of world tourism would steadily increase until 2020 (See Exhibit below). The shifts in key trends thus represent greater opportunities for developing economies (since tourism brings with it key benefits of boosting foreign exchange while creating jobs). It also creates avenues to develop niche areas such as coastal tourism, medical tourism and rural tourism to enhance the tourist value of destinations.

TABLE -2: INTERNATIONAL TOURIST ARRIVAL FORECASTS BY REGION IN MILLION

Region	Base Year	Forecasts (Million)		Average Annual Growth Rate (%)	Market Share (%)	
Year	1995	2010	2020	1995-2020	1995	2020
World	565.4	1,006.4	1,561.1	4.1	100	100
Europe	338.4	527.3	717.0	3.0	59.8	45.9
East Asia/Pacific	81.4	195.2	397.2	6.5	14.4	25.4
South Asia	4.2	10.6	18.8	6.2	0.7	1.2

Source: World Tourism Organization

GRAPH:15-PERCENTAGE SHARE OF INTERNATIONAL TOURIST ARRIVAL FORECASTS IN INDIA
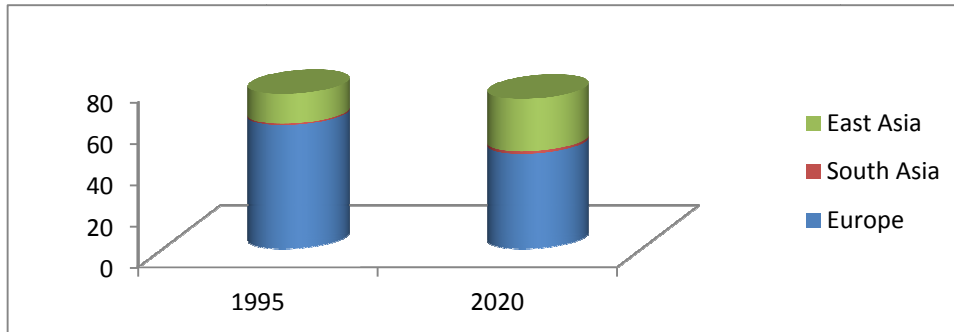
As observed, tourism trends around the world are likely to remain robust and the growth of the T&T industry worldwide will significantly impact tourism flows towards the subcontinent.

Asia Pacific to Lead Long-term Tourism Growth

FIGURE -16: GAINS OR PROFITS FROM CULTURAL TOURISM FROM 1980 – 2030
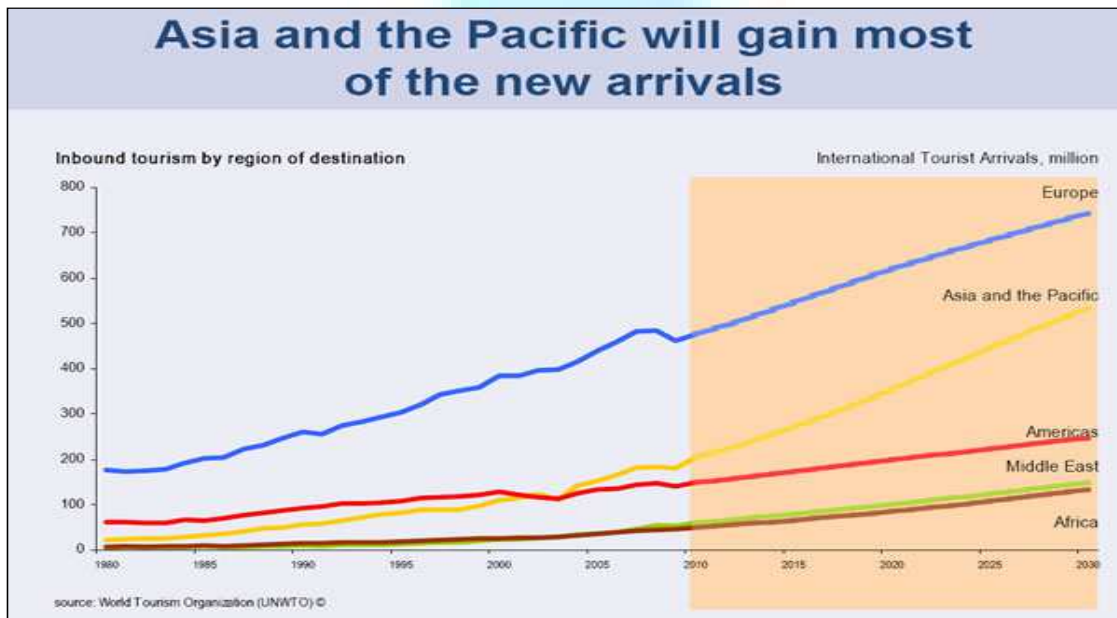
Data source: World Tourism Organization (UNWTO), Published: 13/10/11

International arrivals in emerging economy destinations are expected to continue growing at double the pace (+4.4% year) of advanced ones (+2.2% a year). In absolute terms, the emerging economies of Asia, Latin America, Central and Eastern Europe, Eastern Mediterranean Europe, the Middle East and Africa will gain an average 30 million arrivals a year, compared to 14 million in the traditional destinations of the advanced economies of North America, Europe and Asia and the Pacific. By 2015, emerging economies will receive more international tourist arrivals than advanced economies, and by 2030 their share is expected to reach 58%.

There will be increases in the global market shares of Asia and the Pacific (to 30% in 2030, up from 22% in 2010), the Middle East (to 8% from 6%) and Africa (to 7% from 5%), and further declines in the shares of Europe (to 41% from 51%) and the Americas (to 14% from 16%), mostly due to the slower growth of North America.

By 2030, North East Asia will be the most visited sub region in the world, representing 16% of total arrivals and taking over from Southern and Mediterranean Europe, with a 15% share in 2030.

RECOMMENDATIONS

1. Indian government should promote cultural and medical tourism. Future of tourism industry is very bright if India is capable to cash this opportunity. Growth rate of Indian tourism industry is highest during the study period in comparison to World and Asia growth rate. It should also establish and conduct programs and activities to preserve and maintain examples of traditional arts, music, dance, language and cultures.
2. Infrastructure is very poor in India regarding to engage the trained manpower and availability of room in hotel industry.
3. Costing of travelers is very high in India jun comparison to other country. Govt. should reduce the cost and developed the more and more destination for tourism. Because India is very rich in cultural tourism and a lot of destination are unknown by the tourist. Govt. should develop the medical facility because medical tourism is a very hoot industry in india.
4. Establish and conduct programs and activities to promote sustainable development in rural communities in ways that would not affect their local cultures and traditions.
5. Seek and solicit funds from Government, aid donors and other financial institutions to undertake all its programs and activities.

6. Manage solicited funds in a transparent and accountable manner to further the objectives of the association.
7. Undertake other activities as approved and determined by the board and consistent with the objectives and mission statement of the association.

CONCLUSIONS

The share of these 15 countries in total FTAs in India shows a generally increasing trend from 1981. This share, which was 49.6% in 1981, increased to 71.86% in 2010. United States of America maintained its position as the largest market for India during 2010. The arrivals grew 11.35 times from 1981 to 2010 at a CAGR of 8.7 %. The United Kingdom has been the second largest among tourist generating markets for India in the year 2010 as in the past. The arrivals grew 6.51 times from 1981 to 2010 at a CAGR of 6.7%.

India's share in international tourist arrivals, increased from 0.40% in 1997 to 0.61% in 2010. During last 3 years there has been slight improvement in percentage share of India in world. Study found that average amount of FEE in India from FTAs in terms of Rupees and US Dollar is calculated 23009 crore Rs and 5358 US$ from 1991 to 2010. During this period growth rate found 16.37% in term of Rs and 11.95% in term of dollar. During the study period growth rate of FEE from top 15 countries is calculated 42.45% and contribution of rest of the countries is calculated 57.55% during the above said time period.

It is clear from the study that air travel has been the most preferred mode of travel for the FTAs over the years, accounting for more than 80% share in each year during this period. Study shows that on an average contribution of male, female and not reported is counted 58.29, 34.92 and 6.79 percentages respectively.

Study makes a forecast regarding to tourism industry growth for 1995-2020. Worldwide this growth rate is calculated 4.1%. it is not satisfactory. Worldwide long-distance travel is likely to grow faster (5.4% each year) than travel within regions (3.8%). Continuing world prosperity, growing recognition of cultural tourism's contribution to employment and economic growth, availability of better infrastructure, focused marketing and promotion efforts, liberalization of air transport, growing intraregional cooperation, and a growing number of Public-Private-Partnerships (PPPs) are seen as the key drivers for tourism in the next decade.

According to this perception one of the most important international researches on this area the ATLAS research "has indicated that the experiences enjoyed most by tourists tend to be those small-scale, less visited places that offer a taste of 'local' or 'authentic' culture. Tourists increasingly say that they want to experience local culture, to live like locals and to find out about the real identity of the places they visit.

LIMITATION

Tourism industry is a very wide area. It is not possible to cover whole concept. Due to time constraint it is not possible to make study of the all sector as like: cultural tourism, medical tourism, costal tourism etc. it is also not possible to make the comparison of all country. So that researcher takes top 15 countries.

SCOPE FOR FURTHER RESEARCH

Researcher left the area for study of medical, cultural, religious etc. studies. There may be comparative study of various sector and countries.

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COLOR IMAGE SEGMENTATION USING IMPROVED HISTOGRAM BASED CLUSTERING AND QUADTREE DECOMPOSITION TECHNIQUE

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ABSTRACT

Image segmentation is very important in image analysis and pattern recognition. It is the process of dividing an image into different regions such that each region is homogeneous. There also exists a variety of images: natural scenes, paintings, etc. Despite the large variations of these images, humans have no problem to interpret them. It is a critical and essential component of image analysis system, is one of the most difficult tasks in image processing, which determines the quality of the final result. This research addresses color image segmentation using improved histogram based clustering with quad tree decomposition and explore the possibilities of improving it in terms of speed.

KEYWORDS

Color Images, segmentation, Histogram, Clustering, Quadtree.

INTRODUCTION

To humans, an image is not just a random collection of pixels; it is a meaningful arrangement of regions and objects. The human beings can easily distinguish perceptually different colors, regions and textures. But it is difficult for the machine to reproduce due to the presence of variety of textural patterns and illumination conditions. Human can segment an image almost in fraction of seconds and are having the capability of segmenting an image in different ways according to their imagination. But for a computer generally it will require lot of time to segment an image. In the [1] the authors propose Lorenz Information Measure (LIM) based technique for colour image segmentation. In this research, by adopting this technique, an improved colour image segmentation algorithm is developed for fast color image segmentation. Quad Tree Based Image Decomposition Techniques and Advanced Neural Network Based Clustering techniques are used to device the new algorithm and which leads better improvement in terms of speed. To check the results, one representative segmentations done by human users is taken from the Berkeley dataset. Also another set of results by Angela Chau and Jeff Walters from their paper 'Perceptual Color Image Segmentation' were compared with the proposed results.

CATEGORIES OF SEGMENTATION METHODS

Image segmentation methods can be categorized as follows:

➢ Histogram thresholding : Assumes that images are composed of regions with different gray (or color) ranges, and separates it into a number of peaks, each corresponding to one region.
➢ Edge based approaches: Use edge detection operators such as Sobel, Laplacian for example. Resulting regions may not be connected, hence edges need not to be joined.
➢ Region-based approaches: Based on similarity of regional image data. Some of the more widely used approaches in this category are: Clustering, Region growing, Splitting and Merging.
➢ Hybrid: Considers both edges and regions.

The Clustering, Region growing, Splitting and Merging and some hybrid models gives better results in terms of quality. But they give very poor performance in terms of speed. So the proposed method addresses the aspects of speed.

REVIEW OF LITERATURE

Clustering is an unsupervised way of data grouping using a given measures of similarity. Clustering algorithms attempt to organize unlabeled feature vectors into clusters or "natural groups" such as samples within a cluster are more similar to each other than to samples belonging to different clusters. Since there is no information given about the underlying data structure or the number of clusters, there is no single solution to clustering, neither is there a single similarity measure to differentiate all clusters, for this reason there is no theory, which describes clustering uniquely.

Pattern classification can be divided into two areas depending on the external knowledge about the input data. If we know the labels of our input data, the pattern recognition problem is considered supervised. Otherwise the problem is called unsupervised. As pattern recognition studied, statistical pattern recognition is one of the chosen method. There are several ways of handling the problem of pattern recognition if the labels are given a priori. Since we know the labels, the problem reduces to finding features of the data set with the known labels, and to build a classifier using these features. The Bayes' rule shows how to calculate the posteriori probability from a priori probability. Assume that we know that a priori probabilities $P(C_i)$ and the conditional densities $P(x \mid C_i)$. When we measure x, we can calculate the posteriori probability $P(C_i \mid x)$ as shown

$$P(C_i \mid x) = \frac{p(x \mid c_i) P(c_i)}{p(x)}$$

where

$$p(x) = \sum_{i=1}^{N} p(x \mid c_i) P(c_i)$$

The clustering problem is not well defined unless the resulting clusters are required to have certain properties. The fundamental problem in clustering is how to choose these properties. Once we have a suitable definition of a cluster, it is possible to evaluate the validity of the resulting clustering using standard statistical validation procedures.

There are two basic approaches to clustering, which are called parametric and nonparametric approaches. If the purpose of unsupervised learning is data description, then we can assume a predefined distribution function for the data set, and calculate the sufficient statistics, which will describe the data set in a compact way. For example, if we assume that the data set comes from a normal distribution $N (M, \Sigma)$, which is defined as

$$N \mid_x (M, \Sigma) = \frac{1}{(2\pi)^{n/2} |\Sigma|^{1/2}} \exp\left(-\frac{1}{2} (X-M)^T \Sigma^{-1} (X-M)\right)$$

The sufficient statistics are the sample mean $M = E\{X\}$ and the sample covariance matrix $\Sigma = E\{XX^T\}$, which will describe the distribution perfectly. Unfortunately, if the data set is not distributed according to our choice, then the statistics can be very misleading.

Another approach to clustering is to group the data set into groups of points, which has strong internal similarities. To measure the similarities we use a criterion function and seek the grouping that finds the extreme point of the criterion function.

REGION-GROWING METHODS

In the region-growing technique, a region is started with a single pixel. Adjacent pixels are recursively examined and added to the region if they are sufficiently similar to the region. If a pixel is too dissimilar to the current region, it is used to start a new region. One variant of this technique, proposed by Haralick and Shapiro (1985), is based on pixel intensities. The mean and scatter of the region and the intensity of the candidate pixel is used to compute a test statistic. If the test statistic is sufficiently small, the pixel is added to the region, and the region's mean and scatter are recomputed. Otherwise, the pixel is rejected, and is used to form a new region.

RESEARCH METHODOLGY

QUADTREE DECOMPOSITION

Quadtree decomposition is commonly used in variety of image analysis and compression applications. It is an operation that subdivides an image into blocks that contain "similar" pixels. Usually the blocks are square, although sometimes they may be rectangular. The pixels in a block are said to be "similar" if the range of pixel values in the block are not greater than some threshold.   A large threshold value results in fewer, larger blocks, and the "Block means" image doesn't look very much like the original. A small threshold value results in more, smaller blocks.

For example, suppose the input image is 128-by-128. Quadtree decomposition starts with a single 128-by-128 block. If the pixels in the block are not similar, Quadtree decomposition subdivides the block into four 64-by-64 blocks. Quadtree decomposition then subdivides the nonsimilar 64-by-64 block into 4 32-by-32 blocks, and so on.

THE PROPOSED ALGORITHM

1. Open the Image which is to be segmented.
2. Do preprocessing
3. Decompose the image into different size of blocks using Quad Tree decomposition technique
4. Prepare Histogram Vector of each and every blocks of original color image using the QT decomposed gray image as a reference image.
5. Make Clusters out of the all the Histogram vectors using the newly trained Neural Network.
6. After that we will have the cluster labels for each pixels in the image.
7. Decide the gray levels of each segment by averaging the pixels corresponding to the class labels in each group.

Display the Segmented image.

IMPLEMENTATION

The Proposed image segmentation algorithm is proposed to be implemented and evaluated using Matlab 6.5 under Windows XP operating system. MATLAB is a high-level technical computing language and interactive environment for algorithm development, data visualization, data analysis, and numerical computation. As MATLAB, can solve technical computing problems faster than traditional programming languages, such as C, C++, and Fortran, it is taken as the most suitable tool for implementing and evaluating the proposed segmentation algorithm.

RESULTS & DISCUSSION

In this research, by adopting Quad Tree decomposition, an improved color image segmentation algorithm is developed for fast color image segmentation. Quad Tree Based Image Decomposition Techniques and Advanced Neural Network Based Clustering techniques are used to device the new algorithm and which leads better improvement in terms of speed. To check the results, one representative segmentations done by human users is taken from the Berkeley dataset. Also another set of results by Angela Chau and Jeff Walters from their paper 'Perceptual Color Image Segmentation' were compared which has produced promising results for the proposed technique.

FIG.1: PROPOSED FAST SEGMENTATION ALGORITHM
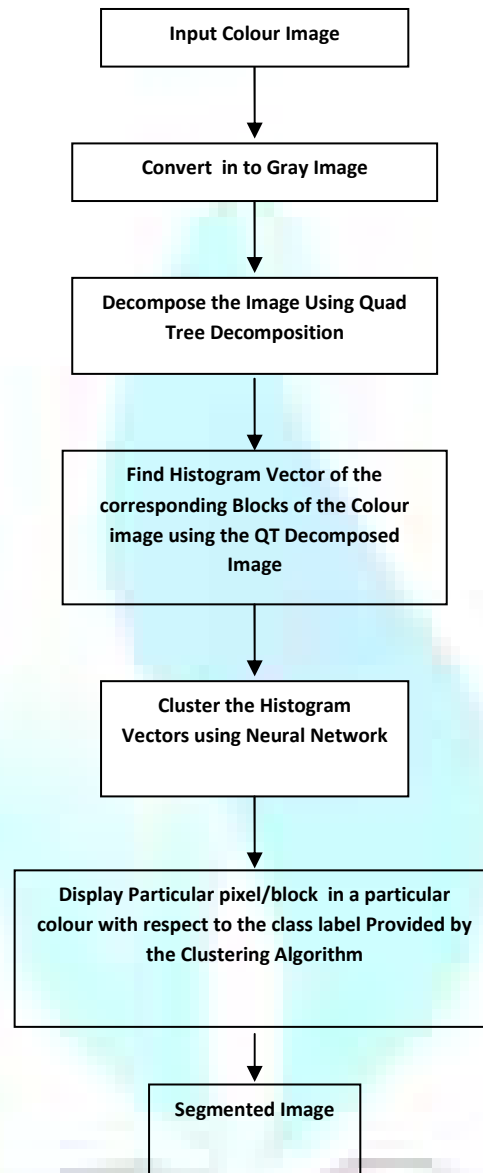
CONCLUSIONS & FUTURE WORK

Image segmentation is very important in image analysis and pattern recognition. It is the process of dividing an image into different regions such that each region is homogeneous. This research addressed color image segmentation and explored the possibilities of improving it in terms of speed. The test images were taken from the Berkeley Segmentation dataset. The proposed technique produced promising results than other methods.

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EVALUATING SMALL AND MEDIUM SCALE INDUSTRIAL DEVELOPMENT THROUGH INDUSTRIAL ESTATES OF DIFFERENT DISTRICTS AND DIVISIONS OF BANGLADESH

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ABSTRACT

In this paper the researchers attempt to evaluate the performance of industrial estates developed by Bangladesh Small and Cottage Industries Corporation (BSCIC) in divisional and districts level, as the climate, environment, effort of every region are different. In this Primary and secondary data-based study, the authors have simple statistical techniques in order to analyze the facts and this analysis at last came to the conclusion giving some timely recommendations. The important findings of the research are density of population is proportional to industrial efforts and the distance from commercially important places is inversely proportional to that. The government initiatives should follow the viability of industry in respect of operational smoothness and marketing prospects. In the targeted area, government efforts should be directed mostly to build up entrepreneurial base through motivation and training.

KEYWORDS
Industrial Estates, BSCIC, Entrepreneurship, Density of Population.

INTRODUCTION

Industrial estates are for industrialization in regional and local areas of a country. Every country tried to do faster industrialization through the concept of industrial estates. Success depends on the decision making at regional and local level regarding mainly the location and other factors of effective industrialization. There are detailed regulation regarding the permission of industrial estates, acquiring the land for estates and management and investment in industrial estates.

Many countries are succeeded in industrialization by industrial estates as a location guide in inducing the manufacturers in regional and local levels. The key to their success is growing local entrepreneurs' interests and decentralization of decision making in local or regional areas. It is evident in India, Japan, Italy, and Taiwan, UK and USA and other developed countries. But the concept of localization of industries for expediting industrial development creates an uneven regional distribution of industries. So the establishing industrial estates in every region of a country are an important tool for balanced industrial development all over the country. Through the process of decentralizing the authority to establish and manage industrial estates can enable the local authority to adopt proper strategy for labor intensive cottage industries.

The economic activities of Bangladesh concentrated to two of the main cities, namely Dhaka, the capital cities, Chittagong-the commercial capital city of Bangladesh. The other cities like Narayangonj as an industrial city is also notable. The economic activity of other areas of Bangladesh is not so enlighten. It is reflected in table below by the division wise distribution of industrial estate and number of units functioning.

The imbalance in industrial development of different divisions is due to the significant geographical and cultural differences of those divisions. The difference in development may be the consequences of differences among six divisions (namely, Dhaka, Chittagong, Rajshahi, Khulna, Barishal and Sylhet) regarding climate and soil, resource base, urbanization, importance in three economic sectors (agriculture, industry, service), relief and drainage etc. 'Food basket' Rajshahi is different from 'mangrove swamp' Khulna, Mineral rich Sylhet from mineral poor Khulna, Barishal and Sylhet from other divisions in urbanization, flood plain Dhaka from hilly Chittagong, and Dhaka and Chittagong from other divisions in emphasizing industry for development. To accomplish the objective of research, it is important to analyze the industrial development in the estates of different districts of different divisions.

OBJECTIVES
The specific objectives of the study are:
a. To discuss the industrial development by industrial estates in different divisions of Bangladesh.
b. To discuss the industrial development by industrial estates in different districts under different divisions of Bangladesh
c. To pinpoint the drawbacks of different divisions and districts in industrial development by industrial estates program
d. To suggest the most effective steps to be taken to accelerate the industrial development regionally and nationally.

METHODOLOGY
To carry out the research, the authors used systematic research methodology in data collection, analysis and drawing conclusions.

For collecting data, the researchers mainly used the secondary data specifically the product directory and the MIS published by the BSCIC. In addition to get the further information the researchers need primary data from estate officers and the entrepreneurs of the estates and the experts in the field. The researchers send questioner to all the estates officers and got 60% response from them.

For analysis the researchers used the simple statistical techniques in calculating the percentages and ratios.

By the thorough study of the facts found from using necessary techniques, the researchers tried to come on the conclusion rationally.

Findings and Analyses: The analysis of industrial development through industrial estates distributed by the divisions of Bangladesh is important to fulfill the objectives of the study. So, it is essential to study the industrial estates development in respect of proportion of area, population per estates. It is further important to study the number of units and the ratio of units per division. The following table depicts all elements:

TABLE 1: POPULATION, AREA, INDUSTRIAL ESTATES AND UNITS DISTRIBUTES BY DIVISIONS

Division	No. of estates	Proportion of estates	Total area (sq km)	Proportion of area	Population	Population	Number of unit in the estates	Percentage
Dhaka	24	0.32	30944	21.09	39044716	32.83	2678	49.46
Barishal	4	0.05	33771	9.01	24290384	5.72	944	17.43
Chittagong	17	0.23	34495	22.88	302001873	19.73	934	17.25
Khulna	7	0.09	22285	15.09	14705229	10.94	370	6.83
Rajshahi	17	0.23	13644	23.39	8173718	23.89	219	4.04
Sylhet	5	0.07	12596	8.54	7934343	6.89	270	4.99
Total	74		147735		124355263		5415	100.00

Source: MIS 2011, SYB 2010

From the above table we can be inferred that population is proportionate to the number of estates in the divisions. BSCIC established 24 industrial estates (32% of total estates) in Dhaka division where population is 33% of Bangladesh, 17 industrial estates (23% of total) in Rajshahi division of 24% of total population. 20% of population resided Chittagong, the port city, the region of industrial activities in Bangladesh, is home of 17 industrial estates (23% of all). For 11% of total population Khulna divisions have 7 industrial estates (9% of total) and for 5.72% of total population, Barishal division has 4 estates whereas for 6.80% of total population there are 5 industrial estates in Sylhet division.

Comparing the number of estates to the area of different divisions, it is found that the number of industrial estates is more than the proportional area in Dhaka division. Dhaka is situated at the center of Bangladesh and all economic activities are operated through the involvement of Dhaka, the capital city. The scenery is found opposite in Khulna division, where for 15.09% of total area of Bangladesh there are only 7 estates (9%). For 9.01 percent of total area 4 industrial estates are established in Barishal division and for 8.54% area 5 industrial estates are in Sylhet division. The scenery of Rajshahi and Chittagong division is comparatively better. For 23.39% of total area 17 industrial estates (23%) established in Rajshahi and for 22.88% area, there are 17 estates(23%) in Chittagong division.

Industrial Development of a specific area depends on the consumption of customers of that area. The density of population is one of the factors of consumption and also the factor of entrepreneurial development as the people has to think creatively for their livelihood and other requirements. It is now important to get the insights of comparative study of the activities of industrial estates in different division by considering the percentage of estates area, total industrial units, active and sick industrial units.

Activities of industrial estates among the divisions of Bangladesh in respect of estates area, active and sick units compared to the population and area of those divisions:

TABLE 2: PERCENTAGE OF AREA, POPULATION. ESTATE-AREA, INDUSTRIAL UNITS, ACTIVE UNITS AND SICK/CLOSED UNITS OF DHAKA DIVISION

Divisions	Percentage					
	Area	Population	Estate Area	Total industrial units	Active Units	Sick/Closed
Dhaka	21.09	32.83	36.48	48.44	48.00	30.42
Barishal	9.01	5.72	9.45	5.07	3.38	15.59
Chittagong	22.88	19.73	17.37	17.21	17.53	21.67
Khulna	15.09	10.94	8.69	6.94	7.01	10.27
Rajshahi	23.39	23.89	22.99	17.16	18.92	13.60
Sylhet	8.54	6.89	5.01	5.19	5.15	8.37

Source: Compilation from MIS 2007, 2008, 2009, 2010, 2011, 2012

Analyzing the table above it is apparent that industrial activities in industrial estates are comparatively higher in Dhaka division because of various advantageous factors in that area. Around 21.09 percent areas and with 32.83 percent populations Dhaka division is the most attractive region for industrialization. There is 36.48 percent estate area, 48.44 percent of total industrial units in the estates, 48.00 percent active units and higher industrial activities of that division gave birth to 30.42 percent of sick/closed units. Lowest activities are found in Khulna division, where 15.09 percent of total area provides 8.69 percent of total estate area and only 7.01 percent active units. It is not the lowest resourceful division regarding raw materials because there is the mangrove forest which provides more resources. But comparative lower population and distance from populated area is considered as the cause of lowest industrial activities in that division. Though Chittagong divisions avails more facilities for industrialization but industrial activities is not so satisfactory in industrial estates. 23.39 percent of total area and 23.89 percent of total population surrounded Rajshahi is a bit higher position than Chittagong where 18.92 percent active industrial activities in industrial estates with 13.60 percent sick/closed in industrial estates of 22.99 percent area. The remittance rich Sylhet region is falling behind in industrial activities in industrial estates. The area of Sylhet division is 8.54 percent and of population 6.89 percent but the active industrial units is of only 5.15% in industrial estates in 5.01% of estate area.

DHAKA

As a capital city, Dhaka is the center of country's legal, educational and economical activities. These activities create many employment opportunities that attract many people to the city. The people and their families need many products for their livelihood that transferred to demand of products and services. Producing these products and services create more employment opportunities. Thus Dhaka and nearby districts became the center of industrial activities. The marketing of almost all products are directed from Dhaka. So entrepreneurs attracted to Dhaka and nearby areas as their best location of industrial units. Dhaka has the easy access from the north of the country by rail and road and from the south by the rivers. Dhaka is situated at the center of the country. Around 400.000 rickshaws are regularly carrying people from one place to another. Besides there are a huge number of auto rickshaws, CNG driven 3 wheeler taxis, buses (both luxury and normal) in the city. Dhaka in connected to the other cities of the country by buses, trucks and rail. Elevated expressway is going to be constructed to reduce the traffic jam. An international airport (15 km away from center of Dhaka) connected the outside world and also the other parts of the country by 11 airports in 11 cities of great importance.

Dhaka is the largest industrial regions of the country. Entrepreneurs are producing traditional products to modern electronic products in the various places of Dhaka division. Garments industry attracts most of the domestic and foreign entrepreneurs because of the cheap labor rate of the country. In 2009 the Gross Municipal Product of Dhaka was $25 billion that projected to increase to $215 billion in 2025 by the present growth are of 6.2%. (Wikipedia)

The population of Dhaka rises from 500,000 from its inception as capital city to nearly 12 million. It is 24 times greater than its starting. According to the Far Eastern Economic Review the population would be reached to 25 million by 2025. (Wikipedia)

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TABLE 3: POPULATION, AREA, INDUSTRIAL ESTATES, ESTATES AREA AND ACTIVE UNITS IN DISTRICTS OF DHAKA DIVISION

Districts	AArea (km²)	Population 2011 Census (Preliminary /Final)	Distance from Dhaka	Industrial estates	Industrial Area in estates	Active Units
Dhaka	1459.56	12,043,977	0	5	333.94	537
Faridpur	2072.72	1,867,000	101	1	15.6	42
Gazipur	1741.53	3,333,000	37	1	10.5	58
Gopalganj	1489.92	1,149,000	127	1	26.3	81
Jamalpur	2031.98	2,265,000	179	1	44.94	153
Kishoreganj	2731.21	2,853,000	117	1	20.6	59-
Madaripur	1144.96	1,149,000	90	1	16.33	90
Manikganj	1383.06	1,379,000	63	1	10.4	28
Munshiganj	954.96	1,420,000	27	1	13.53	65
Mymensingh	4363.48	5,042,000	122	2	20.43	90
Narayanganj	687.76	2,897,000	17	3	103.52	1240
Narsingdi	1140.76	2,202,000	51	1	15.39	51
Netrokona	2810.40	2,207,000	158	1	15	37
Rajbari	1118.80	1,040,000	118	1	15.28	48
Shariatpur	1181.53	1,146,000	101	1	13.67	59
Sherpur	1363.75	1,407,468	188	1	15.00	41
	27676.38	43,400,445	1496	23	690.43	1749

Source: SYB 2010, MIS 2007, 2008, 2009, 2010, 2011. 2012

From the above table, it is found that the highest number of industrial estates (5) and active units (537) are located in the Dhaka districts that is equal to one third of the area of Mymenshing district (where industrial estates are two) and the total industrial estates area is the highest with 333 sq km because of the nearness to raw materials, market, facilities and workers hub. Dhaka is followed by Narayangonj with 103.52 sq km area and 3 industrial estates. This district with only 2% of total area of the division and 6% of population is the place of 3 industrial estates with 2 special industrial estates of Jamdhani and Hushiery. In both industry Naraynagonj is pioneering in the whole country. For a vast area of Mymenshing the total industrial estate area is limited to only 20.43 sq km. The industrial estate of Dhaka districts are located in the highly growth industrial area with smallest distance from zero point. In far distant district (188 km from Dhaka) Sherpur of an area of 1363.75 sq km that is same as Dhaka district there are only 15 sq km of industrial area with 41 active industrial units. Far distant district, Jamalpur with 7% of area and 5% of population is the place of 6% of industrial estate area and 65 of active units. The least industrial estate activities is found in Manikgonj that is only 63 km away from Dhaka with 4% of area, 1% of industrial estate and 1% of active industrial units.

CHITTAGONG

The divisional city Chittagong is the second largest city of the country. It is situated on the river of Kornafully, 19 miles from the sea. 80% of the foreign trade is conducted by the main port of the country, Chittagong. So, Chittagong is the main industrial city of the country. The export processing zone, industrial estates and industrial area are the home of many large, medium and small industries. The population density is 15276 per km. 40% of heavy industries like drydock, dockyard, oil refinery, steel mills, cement factories, automobile, pharmaceuticals, textile, jute and fertilizer of the country is located in Chittagong. Two publicly and one privately owned EPZs are the home of export oriented industries of the country. In manufacturing Chittagong contributing 25% of GDP, in 2010 it was 25.5 million dollar and with a growth rate of 6.3% it is projected to be $39 million in 2020 (Wikipedia). The mineral rich Sangu Field is contributing more to the economy. The divisional city is connected with other part of the world by water, road and air. Many long distance luxury and economy buses are connecting the other districts of the country. Trucks, rail, boats, ships are transporting goods to other part of the country and outside the country as export. The Shah Amanath International airport is connecting the people of outside and inside the country. The town buses, cars, taxis, auto rickshaws and manual rickshaws are carrying people and goods inside the town. The town is enriched by luxurious hotels, shopping malls, schools, colleges and universities. The following table shows the industrial activities in the industrial estates of the Division.

TABLE 4: POPULATION, AREA, INDUSTRIAL ESTATES, ESTATES AREA AND ACTIVE UNITS IN DISTRICTS OF CHITTAGONG DIVISION

District	Area	Population	Estates	EstatesArea	Unit	Area	On production	Construction	Closed
B. Baria	1,927.11	2,808,000	1	21.98	72	21.98	58	9	5
Bandarban	4,479.03	383,000	0	0		0	0	0	
Chandpur	1,704.06	2,393,000	1	10	35	10	25	7	2
Chittagong	**5,282.98**	**7,509,000**	**5**	**95.01**	**301**	**95.01**	**275**	**3**	**20**
Comilla	**3,085.17**	**5,304,000**	**2**	**65.38**	**211**	**65.38**	**179**	**21**	**8**
Cox's Bazar	2,491.86	2,275,000	1	21.69	39	21.69	15	8	12
Feni	928.34	1,420,000	2	42.79	94	42.79	67	22	5
Khagrachhari	2,699.55	608,000	1	10	14	10			
Lakshmipur	1,455.96	1,711,000	1	16.07	55	16.07	15	13	1
Noakhali	**600.99**	**3,072,000**	**2**	**40**	**142**	**40**	**76**	**27**	**4**
Rangamati	6,116.13	596,000	1	12.5	12	12.5			
Total	33,771.18	28,079,000	17	335.42	975	335.42	710	110	57

Source: SYB 2010, MIS 2007-2012 and Survey

The superlative degree of high is applicable to population, estate, estate area, industrial units, active units and closed units to Chittagong districts. With 27% of total divisional population, Chittagong district has 30% of total industrial units in 5 industrial estates. But the highest area is covered by hilly Rangamati with 2nd lowest population has only one industrial estate with no running production unit. The same situation is in Banderbhan also with no industrial estates and in Khagrachari, there is only one industrial estates with no allocation. The backwardness is due to lack of proper transport facilities and entrepreneurial initiative for industrial activities in those hilly areas populated by indigent tribal people of agriculture profession. Comilla district with the 2nd largest population of the division, has two industrial estates that have also second largest number of industrial units in running and eight sick or closed units. Noakhali the smallest district with highest density of population has two industrial estates with 76 running industrial units and 4 closed units. Cox's Bazer, the tourist district is industrially backward, indicated by only 15 running industrial units and 12 closed/sick units. The similar situation is prevailing in Lakshimpur district.

RAJSHAHI

With an area of 23.39 percent of Bangladesh and the population of 23.89 percent, Rajshahi is the 'student city' of the country. The visional city is situated on the bank of Padma River. All silk of the country is produced in Rajshahi. The other cottage industries are weaving, metal working, wood working and pottery and the large and medium industry of oil processing plant, match factories and sawmills etc.. Along with major educational institutions, the Varendra museum and silk institution is located there. The following table illustrates the industrial activities in industrial estates of that division as follows:

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TABLE 5: POPULATION, AREA, INDUSTRIAL ESTATES, ESTATES AREA AND ACTIVE UNITS IN DISTRICTS OF RAJSHAHI DIVISION

District	Population	Area	Density	Estates	Area	Units in Production	Sick/closed
Bogra	3371000	2920	1154	2	33.17	90	3
Dinajpur	2970000	3438	864	1	35.14	51	3
Gaibandha	2349000	2179	1078	1	15.00	20	8
Joypurhat	909000	965	942	1	15.00	18	0
Kurigram	2050000	2296	893	1	20.00	28	2
Lalmonirhat	1249000	1241	1006	1	15.60	16	
Natore	1696000	1896	894	1	15.58	42	
Nawabganj	1636000	1703	960	1	11.10	18	2
Noagaon	2576000	3436	750	1	15.14	46	
Pabna	2497000	2372	1053	1	103.30	161	6
Panchagarh	981000	1405	698	1	15.00	2	
Rajshahi	2573000	2407	1069	1	95.71	189	7
Rangpur	2866000	2368	1210	1	20.68	25	1
Nilphamari	1820000	1580	1152	1	10.93	45	2
Sirajganj	3072000	2498	1230	1	10.00	16	2
Thakurgaon	1380000	1810	762	1	15.00	38	0
Total	33995000	34514	984.9626	17	446.35	805	36

Source: SYB 2010, MIS 2007-2012 and survey

The highest number of industrial units (189) is found as active in Rajshahi industrial estates that has the second largest industrial area of 95.71 acres where population density is 1069. The district with highest population density (1230) has 16 industrial units running. The lowest activity was found in Panchaghar district that has the second smallest population size. The running unit's percentage is found 100% in Natore, Noagaon districts. The numbers of units are found as significant in both districts (47 and 62 respectively). More than 95% of units are found as active in Bogra, Pabna, Rajshahi, Rangpur, and Nilphamari districts. The portion of sick units to total units are found as zero in Joypurhat, Lalmonirhat, Natore, Noagaon, Panchagor and Thakurgaon districts. The highest portions of sick units are found in Gaibanda(16%) and Sirajgonj (11%). The number of units in industrial estates of Sirajgonj districts is very small (only 18). The activities in industrial estates are very significant in Rajshahi, Pabna. And Bogra district and lowest in Panchagarh district.

KHULNA

The total area of Khulna division is 22285.45 sq km and population 15.5 millions. Located on the Rupsha River it is the city with second sea port of the country. Mongla the gateway to sunder bans is 19 km away from the city. It is the second busiest seaport. The availability of raw materials' like jute, oilseed, cotton, and timber for making boards, matches and newsprints makes the division industrially attractive. The telephone cable, news print industry and the largest dock yard are located in Khulna. The activities of industrial estates of that division can be summarized as follows:

TABLE 6: POPULATION, AREA, INDUSTRIAL ESTATES, ESTATES AREA AND ACTIVE UNITS IN DISTRICTS OF KHULNA DIVISION

District	Established	Area	Population	Industrial estate	Area	Industrial units	Active units	Sick	Inactive units
Bagerhat	1995	3,959.11	1,461,000	1	19.3	44	44		00
Chuadanga		1,177.40	1,123,000						
Jessore	1962	2,570.42	2,742,000	1	50.06	124	122	2	00
Jhenaidah	1995	1,949.62	1,756,000	1	15.07	50	45		5
Khulna	1961	4,394.46	2,294,000	1	44.1	96	74	21	1
Kushtia	1963	1,621.15	1,933,000	1	18.49	12	12		00
Magura		1,048.61	913,000						
Meherpur	2003	716.08	652,000	1	10	37	09		28
Narail		990.23	715,000						
Satkhira	1993	3,858.33	1,973,000	1	15.75	30	22	4	

Source: SYB 2010, MIS 2007-2012

The number of industrial units is found proportionate to population in Jessore and Khulna districts. The highest number of active units (122 and 74 units) is found in both districts those are featured by highly populated and comparatively larger area. This division has single industrial estate in 7 districts and no estates in Chuadanga, Magura and Narail districts. Though the area and population of Chuadanga, Magura and Narail districts is in the list of smallest category but the smallest area and population centred Meherpur district has one industrial estates and naturally out of 37 units 28 is found inactive. The sick units is highest in Khulna district (21) and other districts are free from sick units except Satkhira (4) and Jessore (2) district.

The highest proportion of area in industrial estates to total area of the division is found 2%in Jessore In other districts it is 1% or less than 1%. The industrial activities is found the highest in Bagerhat, Kustia districts. Here 100% units are found as active though the numbers of units are small. The proportionate highest number of units to total units of the division is found in Jessore, Khulna and Jenaidhaha districts. The zero percent un-attempted units are in all districts of industrial estates except Meherpur, Jhenaidhaha and Khulna districts, The sick units are also highest in Meherpur district (76%).Overall activities of industrial estates of Meherpur district is not satisfactory at all though it has the smallest area and population (3% and 4%). But there are no industrial estates in Chadanga (5% of area and 7% of population), Magura (5% of area and 6% of population) and Narail (4% of area and 5% of population).

SYLHET

Sylhet is located on the north-east corner of Bangladesh. It is basically a hill based area, surrounded by Khasia-Jointa hill on the north. Sylhet possesses different minerals and natural resources like forestry, fisheries, horticulture etc. out of 70 industrial estates and 13 more implementation, five of them are in Sylhet. Sylhet is one of the 6 divisional city, having are of 3490 sq. km and a population of 2,547,320 (population census 2012). It has agricultural produce of taka 9477 million having a specialty in orange, pineapple, shatkora and jackfruits etc. Its mineral resources comprising gas, fuel, stone, sand etc. are contributing significantly in national economy. About 6000 M.T. fishes are available per year from different rivers, ponds, hoar etc. forest of 59,384.62 km in Sylhet provides sufficient forestry products like wood, grass and bamboo etc. all those in Sylhet provides sufficient raw materials for food, chemical, construction, petro-chemical and other industries. The financial resources in Sylhet can play a significant role in building a industrial city. The people from here working in other countries provide 80% foreign remittance (Aziz, 1994)

The deposit in various bank of Sylhet in 2006-07 was BDT 117,732.7 million where the advance was only 23365 million. People living in home and abroad creates a great market of products produced in Sylhet. So there are every possibilities of building industrial base in Sylhet as also the Road, river and rail communication are conductive for that purpose. The industrial estates' activities in this division is summarized in the following table:

TABLE 7: POPULATION, AREA, INDUSTRIAL ESTATES, ESTATES AREA AND ACTIVE UNITS IN DISTRICTS OF SYLHET DIVISION

District	Area	Population	Density	Industrial Estates	Estate Area	On production	Sick or closed
Hobigonj	2,636.58	2,059,000	780.94	1	15.00	35	2
Maulvi Bazar	2,799.39	1,902,000	679.43	1	14.59	29	7
Sunamganj	3,669.58	2,443,000	665.74	1	25.52	7	0
Sylhet	3,490.40	3,404,000	975.25	2	25.76	130	13
Total	12,595.95	9,807,000	778.58	5	81	201	22

Source: SYB 2010, MIS 2007-2012

The densely populated district Sylhet with two estates of 25.76 sq km in size has the highest number of units in action and naturally the highest numbers of sick/closed units though in proportion it may be small. The largest district is size, Sunamgonj with a good number of population has a minimum activities in industrial estate, though there is industrially developed area Chattak with many of Small and medium industries by the bank of river Surma. Hobigonj has maderate level of activities in estate area but in Moulabibazer it is not satisfactory.

The summary of the analysis is as under:

i.   Industrial activities is proportionate to the population density of any area.
ii.   The economic importance of area is important for industrial activity.
iii.   More industrial efforts bring more sick units and more active units also.
iv.   Distance from the most important commercial center is the important factor of industrialization.
v.   For networking, communication facilities and other benefits industrial efforts tend to be concentrated in specific area like Narayangonj.
vi.   In case of Manikgonj the tends of SMEs of Industrial estates is negligible but it is attracted by the heavy industry.
vii.   The Commercial Capital, Chittagong is the place of heavy industry. But development of small industry in industrial estates is not proportionate with the heavy industry.
viii.   Only incentive and facilities cannot attract the industrialist. It is proved in Meherpur, Khagrachari, Rangamati

RECOMMENDATION AND CONCLUSION

i.   More industrial estates should be established near the commercial important places like Dhaka, Chittagong with all required facilities.
ii.   Industrialists can migrate to the area where industrial efforts are viable, so the authority should consider the density of population as an important factor in selecting the industrial estate location.
iii.   Industrial sickness is a common phenomenon, so industrial activities cannot be hampered in fear of sickness. More attention should be given by permitting and supporting authorities in industrial efforts where there are ambitious entrepreneurs.
iv.   As entrepreneurs prefer the industrial area more in their site selection, so more efforts are needed to establish more estates in those areas.
v.   Where there are heavy industries, small industrial can be equally established more in those areas. The authorities should encourage the entrepreneurs of small capital to give their attention in this respect. The authority should also give efforts in research activities in finding out new avenues of investment.
vi.   In industrial backward areas the industrial states authority should give more efforts in entrepreneurship training and development. The people of Banderbha, Rangamati and Khagarchari are more laborious in agriculture. If their efforts can be diverted to industrial concern, the return will be more attractive.

Only incentives cannot attract the industrialist to operate their venture in expected location. The viability of the industrial concern is the most important thing to consider. The operational smoothness and marketing prospects along with the governments' initiatives and supports are the most important consideration in industrial development. Entrepreneurial intention and efforts are to be considered with due respects in bringing the optimum results.

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A STUDY ON CONSEQUENCES OF CRM IN PRIVATE BANKS

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ABSTRACT

The cost of attracting new customers to the bank is too high than the cost of retaining the existing customers. The banking industry consists of poor loyalty because of the entrance of new commercial banks and also offering new services. With this existing trend of the banking industry, the bankers are struggling to retain their existing customers. The only way to solve this problem is to offer better service quality and services to their customers. The better services and service quality is only a relative concept since it depends on their customer needs and finds the ways to deliver right service to right customer at right price and time. For this, there is a higher need for the Customer Relationship Management (CRM). Unless, there is no established CRM at commercial banks, the delivery of better services and service quality is not possible. Though there is a stiff competition in the banking industry, still many private banks are like a traditional public sector banks. Hence they are losing their customers. Some banks are using the customer relationship management as its strategic tool for retaining the existing customers as well as acquiring the new customers. Particularly, the new private sector banks are implementing the CRM practices at a better manner and also reap higher advantages from it.

KEYWORDS

Commercial banks, Customer Relationship Management, Service Quality.

INTRODUCTION

Indian business firms have been facing challenges for the last two decades after liberalization and globalization. The Indian Banking Industry which was operating in a bureaucratic style prior to 1991 had to undergo large scale transformation with the opening up of the economy. The cost of attracting a new customer is estimated to be five times the cost of keeping a current customer happy (Kotler, 1997)[1]. Organizations can increase their profitability by between 20% and 125% if they boost their customer retention rate by 5 percent (Peck, Payne, Christopher & Clark, 2004)[2]. Small increases in the customer retention rate can generate considerable improvement in profitability through reduced cost of attracting new customers and/or increased sales to old customers (Lenskold, 2003; Lombardi, 2005)[3]. For that some banks are using CRM as its strategic tool. CRM is a sound business strategy to identify the bank's most profitable customers and prospects, and devotes time and attention to expanding account relationships with those customers through individualized marketing, re-pricing, discretionary decision making, and customized service-all delivered through the various sales channels that the bank uses. Still many banks in the private sector banks are highly traditional like the public sector banks, Hence they are losing their customers. Therefore, the present study aims to study the consequences of CRM in private banks

NEED FOR THE STUDY

All services in the banking industry can be managed theoretically by IT applications on the internet. The private and public sector banks in India are going for higher technology adoption especially after globalization. But due to lack of resources, absence of vision and planning, resistance from trade unions, their rate of adoption of new technology is very slow. The banks are struggling to maintain a good customer relationship due to their inability to cross sell, long queues, poor service attitude, lack of information and poor service quality. The customers in the service sector are becoming more educated and they expect the services and service quality at par with the foreign banks. They are expecting not only core and value added services from banks but also personalized services. Unless, there is no established CRM at banks, the delivery of better services and service quality is not possible. Still many private banks are like traditional public sector banks. Hence, there is a need to analyze the consequences of CRM in private banks.

OBJECTIVES OF THE STUDY

The present study aims to explore the consequences of customer relationship management in private banks.

RESEARCH METHODOLOGY

To collect the necessary data, the present study used the pre-tested questionnaires. In total, there are 31 old private sector and 25 new private sector banks are at Madurai district. All the 56 banks are included for the present study. From each branch 10 customers are purposively selected to represent their views on the various outcomes of the CRM at their banks. These questionnaires were pre-tested among 50 customers. The customers were identified with the help of the branch managers. The response rates on the questionnaire among the customers are 56.07 per cent to the total of 560 customers. Hence the sample size comes to 314 customers.

CONCEPT OF CRM

Customer Relationship Management is the one articulated by Parvatiyar and Sheth (2001), cited in Lindgreen and Antico, 2005; Ngai, 2005); 'Customer Relationship Management is a comprehensive strategy and process of acquiring, relating and partnering with selective customers to create superior value for the company and the customer. Kennedy et al., (2006) limits the CRM into IT facet only. They defined that the CRM is the information technology face of the business processes that aims to establish enduring and mutually beneficial relationships with customers in order to drive customer retention, value and profitability up. Rosenberg (2004) mentioned that CRM is the strategic use of information, processes technology and people to manage the customers' relationship with company across the whole customer life cycle. Broady-Preton et al., (2006) defined the CRM as a prospective of how value is created for customers.

CONCEPTUAL BACKGROUND OF THE STUDY

SERVICE QUALITY IN BANKS

Service quality is conceptualized as providing services to meet customers' requirements, needs and their expectation of services (Lam and Zhang, 1999), which underlines the GAPS model for measuring service on quality (Parasuraman et al., 1985). Service quality is believed having direct influence on loyalty in terms of recommendations (Parasuraman et al., 1991). Sivadas and Baker Prewit, 2000), and also, favourable attitude towards the firm over potential alternatives (Sivadas and Baker-Premitt, 2000), and also, word-of-mouth, punches intention, and price sensitivity, (Bloemer, et al., 1999. The service quality of banks have been measured with the help of the variables identified by the previous studies (Schmenner, 2004; Jamal and Nasser 2002; Vanniarajan and Gurunathan, 2007; Zillur Rehman, 2005; Vanniarajan and Meenakshinathan, 2007).

CUSTOMER INTERACTION MANAGEMENT

Interaction plays a lead role in building customer relationships. Customer Interaction Management constitutes the customer relationship technologies with addition of technology-based interactive solution. The interactive channels that are currently available enable very effective customer interactive communications which leads to customer interaction management, which is an important dimension of customer relationship management. (Greenberg, 2003; Foss, 2000).

In view of technology growth, the interaction management is facilitated by communication in terms of media, message, speed, accuracy, distance, content, reach, repetition and so on.

The customer interaction management is an intensive interaction between the bankers and the customers which leads to relationship building. A set of special skills in addition to commonly required managerial skills in general and marketing skills in particular, is required for effective customer interaction management in banks. The specialized skills are skill to communicate, listen, tolerate, convince advice, educate, speedy service, and innovative, accountable, keep up promises, develop expertise, retain humanity respect–sentiments, high tech service and motivate others (Injazz and Karen, 2003). In addition to the above skills, it is also essential that the personnel involved in customer interaction management should have sound knowledge as regards the bank in term of its structure, style, strategy, policy, procedure, programme, the marketing mix in terms of products and services, promotion, pricing, place, competitors and the customers. This understanding coupled with the skills would help more significantly in the process of achieving the ultimate objective of CRM.

CUSTOMER RETENTION MANAGEMENT

The banks, in order to achieve success in its attempt of retaining customers should be a learning organization. A learning organization can easily adapt itself to meet the growing requirements of the customers and thereby retain customers for a long period. Banks should learn from the point of view of customers' preferences, competitors' strategies, technological advances, social, cultural changes, life style, spending and consumption patterns and the like. (Bose, 2002)

The banks should assume the characteristics of a market leader. Usually customers fall in line with market leaders more easily, in view of the advantages they would gain form those market leaders. Banks should be more innovative. Innovation, in terms of each component of marketing mix, relationship-building methods, incentive and rewards would be more helpful to retain customers. The banks should evolve effective customer care programmes, which provides personalized care to all customers and would lead towards effective customer retention. (Sascha, 2003; Reynolds, 2002).

CUSTOMER SERVICE STRATEGIES

Customer service strategies are the most important dimension on which the success of customer relation management hinges. In the wake of intense competition amongst banks on the one hand and between banks and non-financial institution on the other, satisfaction of customer service strategies has assumed a larger dimension. The most important objectives of satisfaction of customer service strategies in banking sector are to retain existing customers and to add new customers. The range of service strategies of the banks include. Single window services (Sheth and Parvatjar (1995); Anywhere banking(Romamo and Fjermested, 2002); Any time banking; Charge free banking; phone banking; Electronic fund transfers; Doorstep services, Internet banking and so on (Anand, 2008).

CUSTOMER SATISFACTION

Consumer satisfaction has been recognized in marketing through and practice as a central concept as well as an important goal of all business activities (Yi 1990; Anderson et al., 1994). Oliver (1980) defined that "customers satisfaction is a summary of psychological states when the emotions surrounding disconfirmed expectations are coupled with the consumers' prior feelings about consumption experience". Parasuraman et al., (1994) suggested that the customer satisfaction is influenced by service quality, product quality and cost. Overall satisfaction refers to the customers rating on a particular event based on all dimensions and experiences (Johnsons and Fornell, 1991). The customer satisfaction on the service offered by the provider has been measured by few or more variables, depends upon the industry (Kristensen et al., 2000; and Oh, H, 1999).

CUSTOMER LOYALTY

Customer loyalty refers to strong favorables attitude towards a particular brand and also leads to repeat purchase of the same brand (Day. 1969). Customer loyalty is a relationship between relative attitude towards on entity and repeat patronage behavior (Dick and Basu, 1994). The stochastic approach assures customer loyalty as behaviour (Ehrenberg, 1988). The deterministic approach assumes customer loyalty as an attitude (Fournier and Yao, 1997) . The operational measures in deterministic approach are preference, buying intention, supply prionilization and recommendation (Kim et al., 2004; Gerpott et al., 2001).

RESULTS AND DISCUSSION

SERVICE QUALITY OF COMMERCIAL BANKS

The primary aim of the CRM in the commercial banks is providing better service quality to their customers. Hence it is included in the present study. The service quality of the commercial banks has been measured with the help of the related variables. The number of variables included to measure the service quality of commercial banks depends upon the nature of the study and also the capability of the researcher. Even though, the service quality variables are too many, the present study confines to 23 variables. The customers are asked to rate the 23 variables at five point scale according to their order of perception from highly satisfied to highly dissatisfied. The assigned scores on these scales are from 5 to 1 respectively. The mean scores of each service quality variables among the customers in the NPSBs and the OPSBs have been computed separately in order to exhibit the customers' perception on service quality variables. The 't' test has been used to find out the significant differences among the two groups of customers regarding their perception on service quality variables. The results are given in Table 1.

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TABLE 1: CUSTOMERS' PERCEPTION ON SERVICE QUALITY VARIABLES

Sl. No.	Service Quality variables	Mean score among customers in		't' statistics
		NPSBs	OPSBs	
1.	Prompt service	3.9096	3.2156	2.7157*
2.	Simplified formalities	3.6617	3.7024	-0.2345
3.	Timely service	3.9319	3.1085	2.9021*
4.	Competency of employees	3.9882	3.2144	2.7336*
5.	Knowledge of employees	3.8684	3.0663	2.8018*
6.	Know your customers among employees	3.9909	3.1041	2.9969*
7.	Assured services	3.7764	3.0144	2.3144*
8.	ATM facilities	3.8518	3.6221	0.5065
9.	Attending the customers calls	3.9029	3.0441	3.0114*
10.	Lesser paper work	3.9111	3.1408	2.7369*
11.	Understanding customer needs	4.0217	3.2762	2.6501*
12.	Supply correct information	3.9646	3.3081	2.1772*
13.	Patience among employees	3.9919	3.1140	2.8909*
14.	Redressal of complaints	4.0618	3.2089	2.6505*
15.	Reliable employees	3.8554	3.0491	2.9172*
16.	Employees willingness to help	3.9908	3.2145	2.7661*
17.	Response to customer request	3.8144	3.0227	2.8064*
18.	Personalized service	3.9097	3.1144	2.9125*
19.	Being sincere in solving problems	3.9344	3.2046	2.8506*
20.	Trust worthy employees	3.8085	3.0911	2.7332*
21.	Continuously courteous	3.9146	3.1732	2.8608*
22.	Privacy	3.8646	3.0214	2.9793*
23.	Feeling of safety	3.9545	3.1449	2.8088*

* Significant at five per cent level.

The highly perceived service quality variables among the customers in the NPSBs is understanding customer needs and redressal of complaints since their respective mean scores are 4.0217 and 4.0618. Among the customers in the OPSBs, these two service quality variables are simplified formalities and the ATM facilities since their mean scores are 3.7024 and 3.6221 respectively. Regarding the customers' perception on the service quality variables, significant differences among the two groups of customers have been noticed in all the service quality variables except simplified formalities and the ATM facilities since their respective 't' statistics are not significant at five per cent level.

CUSTOMER INTERACTION AT COMMERCIAL BANKS

One the important expected consequences of the CRM at the commercial banks are enrichment of customer interaction by the bank employees. Hence it is included as second outcome variables of the CRM established in the commercial banks. The customer interactions at the commercial banks have been measured with the help 16 variables drawn from review of the previous studies. The customers are asked to rate these 16 variables at five point scale from very high to very low. The assigned scores on these scales are from 5 to 1 respectively. The mean scores of the variables in customer interaction at the NPSBs and the OPSBs have been computed separately. Regarding the view on customer interaction variables, significant differences among the two groups of employees have been examined with the help of 't' test. The results are shown in Table 2.

TABLE 2: VARIABLES IN CUSTOMER INTERACTION AT COMMERCIAL BANK

Sl. No.	Variable	Mean score among outcomes in		t-statistics
		NPSBs	OPSBs	
1.	Recognition of individuals	3.6562	2.7188	2.9196*
2.	Acquisition of interpersonal traits	3.7076	2.8022	3.2865*
3.	Motivation by employees	3.5081	2.5149	3.4086*
4.	Development of awareness	3.4461	2.6041	3.6441*
5.	Flexibility	3.8084	3.0141	2.7339
6.	Fulfillment of personal needs	3.8661	3.1443	2.8104*
7.	Provision of positive experience	3.3444	3.6556	-0.6169
8.	Educate the customers	3.8083	3.7096	0.3091
9.	Keep up the promise	3.7173	3.6888	0.4162
10.	Respect the sentiments and values	3.5089	3.6676	-0.3344
11.	Hi-Tech service	3.8183	3.5089	0.6891
12.	Work under different situation	3.7132	3.8024	-0.2451
13.	Patience of the employees	3.6674	2.6073	3.6644*
14.	Speedy service	3.7083	2.8144	2.9365*
15.	User friendly	3.7674	2.9023	2.7308*
16.	Willingness to interact	3.6671	2.8066	2.8144*

Overall Reliability coefficient: 0.7144

* Significant at five per cent level.

The highly perceived customer interaction variables among the customers in the NPSBs are fulfillment of personal needs and Hi-Tech service since their respective mean scores are 3.8661and 3.8183. Among the customers in the OPSBs, these two are work under different situations and educate the customers since their respective mean scores are 3.8024 and 3.7096 respectively. Regarding the customer's view on the customer interaction variables, significant differences among the customers in the NPSBs and the OPSBs have been identified in the case of recognition of individuals, acquisition of interpersonal traits, motivation by employees, development of awareness, flexibility, fulfillment of personal needs, patience of the employees, speedy service, user friendly and willingness, to interact since their respective 't' statistics are significant at five per cent level. The scores of the 16 variables have been included for the reliability analysis. The overall reliability coefficient (0.7144) indicates that the included 16 variables explain the customer interaction to the extent of 71.44 per cent.

CUSTOMER RETENTION AT COMMERCIAL BANKS

One of the important objectives of the CRM is to retain the existing customers. Since the cost of retaining the existing customers is lesser than the cost of attracting one new customer, all banks are trying to retain their customers by providing more services and better service quality. The customer retention at the commercial banks has been measured with the help of fifteen variables in the present study. The customers are asked to rate these variables at five point scale

according to the order of existence at their banks. The mean scores of each variable in customer retention among the customers in the NPSBs and the OPSBs have been computed separately. The results are given in Table 3.

TABLE 3: VARIABLES IN CUSTOMER RETENTION AT COMMERCIAL BANKS

Sl.No.	Variables in customer retention	Mean score among consumers in		t-statistics
		NPSBs	OPSBs	
1	Innovative services	3.7374	3.0265	2.7365*
2	Customer care programmes	3.9196	3.1144	2.9088*
3	Complaint management system	3.9078	3.8776	3.4146*
4	Customer-centric approach	3.8823	3.6044	0.7109
5	Employee involvement	3.7799	2.6699	3.6533*
6	Segmentation strategies	3.9033	3.6881	0.7138
7	Value added services	3.7391	3.6144	0.3469
8	Customer empowerment	3.8224	3.7033	0.1477
9	Transparency	3.4541	3.6542	-0.4569
10	Nominal service charges	3.2145	3.8563	-2.8664*
11	Feedback system	3.6642	3.5033	0.7611
12	Customers meet	3.3881	3.3642	0.1022
13	Advanced Technology	3.8899	3.1443	2.6881*
14	Modern banking services	3.9081	3.1081	2.7913*
15	Learning organization	3.8084	3.0664	2.8144*

* Significant at five per cent level.

The highly perceived variables among the customers in the NPSBs are customer care programmes and modern banking service since their respective mean scores are 3.9196 and 3.9081. In the OPSBs, these variables are nominal service charges and customer empowerment since their respective mean scores are 3.8563 and 3.7033. Regarding the perception on customer retention variables, significant differences among the two groups of customers have been noticed in the case of innovative services, customer care programmes, complaint management systems, employee involvement, nominal service charges, advanced technology, modern banking services and learning organizations since their respective 't' statistics are significant at five per cent level.

CUSTOMER SERVICE STRATEGIES (CSS) AT COMMERCIAL BANKS

The commercial banks have applied so many service strategies to maintain a good relationship with their customers. They applied so many customer strategies to maintain the CRM at their banks to retain their customers and also generate the customers' loyalty. Even though, the customer service strategies are too many, the present study confines to only 13 variables namely cross-selling to products, up-selling of products, single window services, 24 hours service, anywhere banking, change free banking, global banking, telephone banking, internet banking, door step services, preferential pricing, insurance advice and bank assurance. The customers are asked to rate the above said 13 variables at five point scale according to the order of implementation at their banks. The assigned scores on these scales are from 5 to 1 respectively. The mean scores of each variable in the CSS among the customers in the NPSBs and the OPSBs have been computed separately. Regarding the implementation of the variables in the CSS, significant differences among the two groups of customers have been examined with the help of 't' test. The results are given in Table 4.

TABLE 4: CUSTOMER SERVICE STRATEGIES (CSS) AT COMMERCIAL BANKS

Sl.No.	Variables in CSS	Mean score among customers in		t-statistics
		NPSBs	OPSBs	
1	Cross-selling of products	3.8643	3.6233	0.7886
2	Up-selling of products	3.8134	3.4144	1.6557
3	Single window services	3.6673	3.2667	1.3085
4	24 hours service	3.5942	3.3038	0.4582
5	Anywhere banking	3.8908	3.1446	2.8018*
6	Charge free banking	3.9144	3.2033	2.5676*
7	Global banking	3.9903	3.1041	2.8184*
8	Telephone banking	3.8145	3.1208	2.7961*
9	Internet banking	3.9096	2.9697	3.3044*
10	Door step services	3.9908	3.0211	3.2162*
11	Preferential pricing	4.0143	3.3306	2.6617*
12	Insurance advice	3.9697	3.4708	1.3092*
13	Bank assurance	3.8908	3.4456	1.1445

The highly perceived variables in the CSS among the customers in the NPSBs are preferential pricing and door step services since their respective mean scores are 4.0143 and 3.9908. Among the customers in the OPSBs, these two variables are cross-selling of products and insurance advice since their mean scores are 3.6233 and 3.4708 respectively. Regarding the perception on the implementation of variables in the CSS significant differences among the customers in the NPSBs and the OPSBs have been noticed in the case of anywhere banking, charge free banking, Global banking, telephone banking, internet banking, door step services and preferential pricing since their respective 't' statistics are significant at five per cent level.

CUSTOMER SATISFACTION ON COMMERCIAL BANKS

The aim of the establishment of the CRM at the banks is to generate customer satisfaction since the customer satisfaction is pre requisite for the customer loyalty. The customers' satisfaction towards the commercial banks has been measured by several variables in several studies. In the present study, the customer satisfaction is measured with the help of 5 variables. The customers are asked to rate the 4 variables at five point scale from highly agree to highly disagree. The assigned scores on these scales are from 5 to1 respectively. The mean scores of the variables among the customers in the NPSBs and the OPSBs have been computed separately. The 't' test has been applied to examine the significant difference among the two groups of customers regarding their views on the variables in customer satisfaction (CS).

TABLE 5: VARIABLES IN CUSTOMER SATISFACTION (CS) AT COMMERCIAL BANKS

Sl.No.	Variables in CS	Mean score among customers in		t-statistics
		NPSBs	OPSBs	
1	Current service provider meet all your pre-purchase expectations	3.6037	3.2142	1.3454
2	Overall service is good	3.7318	3.0415	2.5717*
3	Satisfied with the current service provider	3.7033	3.0133	2.6076*
4	Satisfied with the overall service package	3.8242	2.9346	2.9794*
5	Worthiness of the spending on the services	3.6623	3.0432	2.4313*

*Significant at five per cent level.

Table 5 explains the mean score of the variables in customer satisfaction,in the NPSBs and the OPSBs and also its respective 't' statistics. The highly viewed variables among the customers in the NPSBs is satisfaction on the overall service package since its mean score is 3.8242 whereas among the customers in the OPSBs, it is meeting of all expectation of customer since its mean score is 3.2142. Regarding the customers' perception on these variables, significant differences among the two groups of customers have been identified in the perception on overall service, satisfaction current service provider, satisfied with overall service package and worthiness of spending on the services since their respective 't' statistics are significant at five percent level.

CUSTOMERS LOYALTY ON COMMERCIAL BANKS

Customer loyalty is an outcome of the extreme level of customer satisfaction. The customers are becoming loyal to the bank when they are repeatedly satisfied with the services offered by the commercial banks. The establishment of customer loyalty is the most important objective of the CRM at the commercial banks. In the present study, the customer loyalty is measured with the help of six statements. The customers are asked to rate these six statements at five point scale from highly agree to highly disagree. The mean scores of each statement among the customers in the NPSBs and the OPSBs have been computed separately. The 't' test has been applied to examine the significant differences among the two group the of customers regarding their attitude towards the statements.

TABLE 6: STATEMENTS RELATED TO IN CUSTOMER LOYALTY OF COMMERCIAL BANKS

Sl. No.	Statements related to customer loyalty	Mean score among customers in		t-statistics
		NPSBs	OPSBs	
1.	I will go on using this same service provider	3.2411	2.7562	1.8144
2.	I recommend this service provider to others	3.3344	2.4086	2.7172*
3.	I encourage friends and relatives who plan to avail the service	3.0961	2.2144	2.9086*
4.	My service provider is a leading firm in this sector	3.1141	2.1798	3.1676*
5.	My service provider has a positive image	3.0139	2.2449	2.7949*
6.	I wish to have one more account from the service provider	2.8969	2.0565	2.8464*

Table 6 explains the mean score of the statements related to customer loyalty among the customers in the NPSBs and the OPSBs. The highly viewed statements in customer loyalty among the customers in the NPSBs is recommending this service provider to others since its mean score is 3.3344 whereas in the OPSBs, it is using this same service provider since their mean score is 2.7562. Regarding the customers' view on the statements related to customer loyalty, significant differences among the two groups of customers have been noticed in five statements out of six statements.

CONCLUDING REMARKS

The present study concludes that the important consequences of the CRM practices at the commercial banks are service quality, customer interaction, customer retention, customer service strategies, customer satisfaction and customer loyalty. The degrees of the impact of the CRM implementation on various consequences are higher in the new private sector banks than in the old private sector banks. Hence, it is concluded that the new private sector banks are implementing the CRM practices at a better manner and also reap higher advantages from it.

DIRECTIONS FOR FURTHER RESEARCH

The present efforts are directed to study the consequences of Customer relationship management in private banks .This is an empirical study which would be a useful contribution. However ,for arriving at any generalization it is highly desirable to undertake more such empirical studies. The further research must direct itself for conducting such investigations. This will make the applications more meaningful to make CRM more effective.

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REDRESSAL AND SETTLEMENT OF EMPLOYEES GRIEVANCES - A STUDY OF SELECTED INDUSTRIAL UNITS

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ABSTRACT

Organization does not exist in vacuum, but made of people and function through people. An organization is what its people are. The true significance of the grievance emerges only when we recognize the expression of dissatisfaction as a symptom of friction, of malfunctioning somewhere in this living structure of shop relationships. In their working lives, employees occasionally have causes to be uncomfortable, disappointed or aggrieved either about certain managerial decisions, practices or service conditions. When human beings work together there is likelihood of friction and misunderstanding. Some of these areas of friction could lead to unhappiness or dissatisfaction among workers. The grievance procedure is one of the most important means available for employees to express their dissatisfaction. It is also a means available to management to keep a check on relevant diagnostic data on the state of the organization's health. The present study is an attempt to identify and suggest such an effective, flexible and simple procedure of settlement of grievance that can ensure the speedy redressal of the grievances and must be capable of ensuring a sense of satisfaction to the employee concerned. In this context, an empirical study has been made of three organizations to identify their grievance handling machinery.

KEYWORDS
people, dissatisfaction, friction, organization's health, grievance procedure.

1. INTRODUCTION
Late **J.R.D Tata** said in one of the seminar that the difference between Tata's organizations and any other organization is not of technology, capital, market but its employees who are competent, loyal and committed. Organizations are made or broken not by competition, technology, market and finance but by its people. *Happy, satisfied, contented employees are the greatest and most invaluable assets in any organization.* Such employees will be more productive, more committed, loyal and with high morale. The performance of an employee depends on skill and will. An unhappy, dissatisfied and discontented employee lacks will to work. Such employee practice all the dysfunctional behaviour like low productivity, wastage, low morale, stressful and tense behaviour, conflicting interpersonal behaviour, low quality, increase in the cost, high absenteeism and turnover, increase in accidents and reduced level of commitment, sincerity and punctuality. Such a scenario is not only damaging to the employees but also to the organization because such *dissatisfied and unhappy employee is the greatest liability to the organization.* Such an employee looks around and finds everybody unkind to him. He is aggrieved and wants to *ventilate his feelings and reactions.* **Prompt and effective disposal of workers grievances is the key to industrial peace and harmonious inter-personal relations.** An unsettled grievance is the embryo of more serious trouble to come because accumulation of minor grievances may lead to *major explosions*. In such cases, **the concerned manager will have to play the role of a counselor or 'a friend, philosopher and guide' for the employee carrying some psychological problem or grievance.** As Voltaire is reputed to have observed,

<div align="center">

'Man will differ as autumn leaves will rustle.'

</div>

In employment relationships both employer and employee have mutual expectations. In course of working together in the organization, an employee may feel or believe that he/she is being neglected by the supervisor, colleagues or his/her terms and condition of employment has been deliberately violated. As a result, an employee remains unhappy and dissatisfied in the place of work although it is truism that when human beings work together there is every likelihood of friction and misunderstanding, which cause dissatisfaction. If the dissatisfaction of the employees goes unattended, the increased irritation of the employees may lead to unfavourable attitudes towards supervisor, colleagues and the organization and ultimately gives rise to poor industrial relations. **This state of affairs of an employee is called grievance and the person who has dissatisfaction is called grievant.**

In India, the government has been making a plea for grievance machinery at the plant level ever since 1956 - 1958 when the standing committee of the **Indian Labour Conference (ILC)** submitted a draft on the various aspects of a grievance procedure. The National Commission on Labour set up by the Government as a tripartite body in 1969 also spelt out the nature of grievance and a model grievance procedure. However, this remains a recommendation and is not a statute yet. In effect, government machinery can only recommend but it is up to the respective managements of each enterprise to formally adopt or reject the grievance procedure. It must be noted that there are many instances in India today, where the corporate management and union, through the collective bargaining process, have adopted a grievance procedure.

2. REVIEW OF EXISTING LITERATURE
Several reviews of grievance procedure research were published in the mid to late 1980s (Gordon & Miller, 1984; Labig & Greer, 1988; and Lewin & Peterson, 1988). First, the authors noted the relative scarcity of grievance procedure research. Given the importance of grievance procedures for facilitating justice in the workplace, Gordon and Miller (1984, p. 118) note that this neglect is "disturbing."

Allen and Keaveny (1985) noted the inconsistent results and low explanatory power of studies focusing on demographic and job related variables to differentiate between grievants and nongrievants. They focused on several attitudinal variables in their study of grievants and nongrievants from the **1977 Quality of Employment Survey**. They found several statistically significant differences in attitudinal measures between grievants and nongrievants. Grievants were less satisfied with their jobs, had poorer attitudes toward their line supervisors, had greater feelings of pay inequity, had stronger beliefs that workers should participate in decision-making, were less satisfied with their unions, and more active in their unions. The lower satisfaction with the union among grievants may be due to dissatisfaction with the processing of their grievances. As Allen and Keaveny note, a limitation of this study is that the attitudinal measures were obtained after the grievants had initiated their grievances.

Knight (1986) found that there is substantial variation among union and management officials' self assessments of their use of feedback about prior grievance settlements and arbitration decisions in grievance processing. More frequent use of feedback from prior grievance settlements was related to higher rates of grievance resolution.

Lewin and Peterson (1988) discuss the results of a survey about grievance activity conducted by one of the organisations included in their study. Based on data reported by Lewin and Peterson, 16 percent of employees said they had no issues that warranted filing a grievance over the past year and another 12 percent said they only had questions of clarification about policies but apparently no grievable issue. Thus, 28 percent of employees would effectively be eliminated as potential grievants because they had experienced no grievable events.

Dastmalchian (1989) and Dastmalchian and Ng (1990) found that the perception of a more favorable industrial relations climate by managers was related to higher grievance settlement rates and settlement at lower levels of the grievance procedure.

Bemmels, Reshef and Stratton-Devine (1991). They included a measure of the shop steward's assessment of the supervisor's knowledge of the collective agreement, and this had a negative relationship with grievance rates. This result is consistent with a common complaint from shop stewards in interviews conducted as part of these studies that supervisors often violate the collective agreement because they do not know what the agreement says on certain issues.

Eaton, Gordon and Keefe (1992). They examined the relationship between subjective evaluations of grievance procedures and measures of commitment which is important since commitment has been found to be related to numerous measures of grievance procedure behaviors and outcomes. Employer commitment has been found to be negatively related to absenteeism and turnover.

Gordon and Fryxell (1993) note that several studies of grievance processing suggest that grievance settlement decisions may be based on criteria other than the merits of the grievance. Many of these could be interpreted as inappropriate criteria for deciding the outcome of a grievance. Although the results are mixed, studies have found that the gender of the grievant and/or the gender of the decision maker are related to grievance outcomes.

Lewin and Boroff's (1994). In their study they analyzed the employees who perceived that they experienced unfair treatment and filed a grievance and employees who perceived unfair treatment but did not file a grievance. They found that employees with higher loyalty to the employer were less likely to have filed a grievance.

Some empirical studies were also already being conducted by some Indian researchers to for exploring the grievance – handling practices in some organizations. The main objective of the survey was to know the grievance – handling practices followed by the organizations and the overall framework of industrial relations to which these practices are resorted to.

South India Textile Research Association (1963). The Association conducted a study of 12 textile mills situated in Coimbatore, jointly sponsored by the south India Textile Research Association and the National Productivity Council has revealed that no systematic and formal grievance procedure existed in any of the sample mills. No systematic procedure is followed and there was no clarity about the types of grievances which each level would settle.

S. Chandra (1968). S. Chandra conducted a survey in various industries identifying various causes of employees grievances like promotion amenities, leave, nature of job, transfer and condition of work etc. It was a limited study relating to causes of grievances.

Prof. Lallan Prasad (1973). He studied the grievance procedure in three plants namely, Rourkela, Bhilai and Durgapur. Industrial relations in these plants have been in a poor state from the very beginning. When the plant was under construction, non-payment of wages and maltreatment of labourers were common features, which led to a large number of strikes, lockouts and go-slows.

Dr. Debi S. Saini (1994). For exploring the grievance practices, a survey was conducted in respect of some large-scale industries in and around Ahmedabad. The main objective of the survey was to know the grievance-handling practices followed by these organizations and the overall framework of industrial relations in which these practices are resorted to.

Dr. M.S. Choudhary (1996). The grievance procedures and machinery of some organizations have been studied as a part of his research on Collective Bargaining. The study was mainly concerned with the procedure of Grievance Settlement. He also recommended that to have better and harmonious industrial relations, there must be effective machinery for the settlement of employees grievances.

National Commission on Labour, 1969. The National Commission on Labour, 1969 also recommended the Model Grievance Procedure suggested by the Code of Discipline, 1958. The Commission suggested that the grievance procedure should be made applicable to those establishments, which employ more than 100 workers.

3. OBJECTIVES OF THE STUDY

The objective of the present study is to assess a wide spectrum of working of the machinery for handling grievances in selected industries in India. More specifically but, the present study aims at:

1. To study and analyze the various issues of employees grievances in selected industries.
2. To study and analyze the various sources used to discover employees grievances in selected industries
3. To study the different approaches to employees grievances.
4. To analyze and assess the effectiveness of the grievance handling machinery in the sample organizations.
5. To evaluate the impact of employee grievances on (i) Productivity (ii) Absenteeism (iii) Discipline (iv) Industrial peace/harmony.
6. To determine the effectiveness of the objectives of the Grievance Settlement Machinery.

4. SCOPE AND RESEARCH METHODOLOGY OF THE STUDY

The present study covers five organizations / industries selected from three centers of Delhi, Haryana and Uttar Pradesh State. A list of these sample units is given in alphabetical order in table 1.1.

TABLE 1.1: LIST OF SAMPLE COMPANIES*

S. No.	Name of the Company (In alphabetical order)	State of Location (Head office/ Plant)	Place of Location (Head office/ Plant)	Category of Products
1.	Godrej Eatables Pvt. Ltd.	Haryana	Bahadurgarh	Biscuits
2.	State Petroleum Corporation Ltd.	Delhi	New Delhi	Oil
3.	Indian State Power Corporation	Uttar Pradesh	Noida	Power
4.	Max Bharat Cooperative Ltd.	Uttar Pradesh	Noida	Fertilizer
5.	Sona Trading Corporation	Delhi	New Delhi	Minerals & Metals

* These are pseudonyms and the real names of the companies are not being used.

While 05 listed organizations / industries at the first glance may seem to be inadequate sample, in reality as a piece of qualitative research where the emphasis is on obtaining insights rather than elaboration which makes it very exhaustive. Secondly, the criterion of selecting sample units to make the study wide in scope and representative of Indian industries history, units have been selected on the basis of their different locations, products, ownership, human relations scene, enlightened personnel policies, well laid down grievance procedures etc. as is evident from the important features of these units.

The number of respondents from each company is shown in table 1.2. The questionnaires got filled up mostly individually, but sometimes in groups and also by post. The manager respondents are further classified according to the position held in the organization as shown in table 1.3. 15 percent of the managers' respondents belong to high level category which includes Managing Director, General Managers, Chief Human Relations Managers. 35 percent belong to the middle level, which includes managers, and 50 percent are Dy. Managers and Asstt. Managers.

In case of employees / workers, efforts have been made to select respondents from different departments, age group, length of science on basis of convenience sample.

TABLE 1.2: CATEGORY WISE RESPONDENTS OF SAMPLE COMPANIES

S.No.	Name of the Company (In alphabetical order)	Manager	Employees/Workers
1.	Godrej Eatables Pvt. Ltd	20	40
2.	State Petroleum Corporation Ltd.	20	40
3.	Indian State Power Corporation	20	40
4.	Max Bharat Cooperative Ltd	20	40
5.	Sona Trading Corporation	20	40
Total		**100**	**200**

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TABLE 1.3: MANAGER RESPONDENTS ACCORDING TO THE LEVEL OF POSITION HELD BY THEM

High Level		Middle Level		Front Line Level		Total	
No.	%	No.	%	No.	%	No.	%
15	15	35	35	50	50	100	100

5. ANALYSIS OF THE STUDY

The grievance procedure and settlement machinery of the 05 sample companies have been studied in detail through structured questionnaires, discussions, personal interviews, office documents and files. It was found that there are wide differences in the grievance procedure, which varies from company to company. Some companies have written grievance procedures patroned after the Indian Labour Conference *'Model Grievance Procedure'* and tailored to specific plant conditions.

SUBJECT MATTER/ISSUES COVERED UNDER EMPLOYEES GRIEVANCES

There is wide gap from organization to organization regarding issues and causes of grievances. Organizations are different regarding their working conditions, management style, interpersonal relations, human resource policies and grievance redressal machinery. Some of the issues likes wage payments, leave, transfer, promotion, working, conditions, work assignment have been mentioned by managers and employees of majority of companies. Table 1.4 shows subject matter/issues covered under Employees Grievances in different organizations.

TABLE 1.4: ISSUES COVERED UNDER EMPLOYEE GRIEVANCES IN DIFFERENT ORGANISATIONS

S.No.	Subject Matter
1.	Payment of Wages
2.	Employment Condition
3.	Recovery of Dues
4.	Working Conditions
5.	Grant of Leave
6.	Promotion
7.	Medical Facility
8.	Transfer
9.	Seniority
10.	Work Assignments
11.	Welfare Amenities
12.	Irregularities
13.	Increments
14.	Allotment of Quarter
15.	Medical Facilities
16.	Overtime
17.	Entitlements such as reimbursement of travelling expenses, meal allowances etc.
18.	Officiating Appointments
19.	Safety Appliances
20.	Loss of Tools
21.	Issuance of Monsoon Equipment
22.	Pay Fixation
23.	Interpretation of Rules

SOURCES USED TO DISCOVER GRIEVANCES

Different Companies use various methods to discover grievances of their employees/workers as shown in Table 1.5.

TABLE 1.5: SOURCES USED TO DISCOVER GRIEVANCES

S. No.	Sources	No. of Companies
(a)	Direct Observation	–
(b)	Grievance Procedure	05
(c)	Gripe Box	–
(d)	Exit Interview	–
(e)	Open Door Policy	03
(f)	Any other	–

Source: Questionnaire/Interview

The above table shows that all the 05 companies use grievance procedure but 03 companies (Godrej Eatables Pvt. Ltd., State Petroleum Corporation Ltd., Max Bharat Cooperative Ltd.) use a combination of grievance procedure and open-door policy and 02 companies (Indian State Power Corporation and Sona Trading Corporation) uses only the grievance procedure to discover grievances of their employees/workers. Other methods like direct observation, gripe box and exit interview which are also very effective sources of identifying grievances, are not used in case of these companies. However, these methods are used to discover grievances of managerial personnel.

EFFECTIVENESS OF VARIOUS APPROACHES OF GRIEVANCE SETTLEMENT MACHINERY

The perceptions of various respondents (100 managers and 200 employees/workers) regarding the effectiveness of different approaches (legalistic view approach, human relations approach, open-door policy and step-ladder approach) is shown in Table 1.6.

TABLE 1.6: PERCEPTION OF RESPONDENTS REGARDING THE EFFECTIVENESS OF VARIOUS APPROACHES OF GRIEVANCE SETTLEMENT MACHINERY

S. No.	Approaches/Respondents	Managers		Employees/Workers	
		No.	%	No.	%
1.	Legalistic View	60	60	11	5.50
2.	Human Relations	-	-	58	29
3.	Open Door Policy	-	-	108	54
4.	Step ladder	40	40	23	11.5
	Total	**100**	**100**	**200**	**100**

Source: Questionnaire/Interview

The perceptions of managers and employees are totally different regarding approaches to Grievance Settlement Machinery. 60% of managers prefer legalistic view approach as they are of the opinion that grievances are those which are defined by the contract and process of dealing with those grievances is clear to all concerned. 40% of the managers prefer step-ladder approach for resolving employees grievances because they don't like that employees supercede and side-step them. The reason being that, in case of step-ladder approach, the designation of authorities to whom grievances should be presented, the time limit for the

disposal of grievances at each step, the manner in which grievances have to be presented-verbally or in writing, or on ordinary paper or on prescribed form etc. are clearly laid down. Majority of employees prefer open-door policy and human relations approach (54% and 29%) for resolving their grievances because they consider themselves to be partners in the organizations and want to be a part of decision making process. 11.5% the employees are in favour of step-ladder approach and only 5.5% employees prefer legalistic view approach.

EFFECTIVENESS OF GRIEVANCE MACHINERY
The perception of various respondents regarding the effectiveness of Grievance Machinery in their organization is shown Table 1.7.

TABLE 1.7: PERCEPTION OF RESPONDENTS REGARDING THE EFFECTIVENESS OF GRIEVANCE MACHINERY IN THEIR ORGANISATION

S.No.	Respondents/ Grievance Machinery	Managers No.	%	Employees/Workers No.	%
1.	Very Effective	10	10	-	-
2.	Effective	40	40	25	12.5
3.	Moderately Effective	30	30	50	25
4,	Ineffective	12	12	100	50
5.	Can't say	8	8	25	12.5
	Total	100	100	200	100

Source: Questionnaire/Interview

The above table reveals that only 10% of managers consider their grievance settlement machinery very effective, where as 40% of them consider it effective, 30% opine that it is moderately effective, 12% of the managers opine the grievance settlement machinery as totally ineffective in redressing the grievances and 8% of the managers did not answer the question regarding the effectiveness of grievance machinery in their organization. In case of employees/workers, 12.5% feel that the procedure of redressing grievance is effective, 25% opine that it is moderately effective, 50% feel that the machinery is ineffective in resolving grievances and 12.5% did not answer the question.

The table reveals that the majority of managers respondents feel that the grievance machinery is effective or moderately effective, whereas majority of employees/ workers feel that grievance machinery is moderately effective or ineffective in redressing their grievances in an organization.

EFFECT OF GRIEVANCES IN AN ORGANISATION
Table 1.8 shows the opinions of respondents regarding effects of Grievances in their organizations. In rare unanimity, 100% managers and employees opine that grievances adversely effects the superior-subordinate relations. The table shows that 100% managers are of the same opinion that unattended and unresolved grievances adversely effect and increases the cases of turnover, indiscipline, unrest, accidents, degree of supervision and control and reduces employee morale. The table also reveals the differences of employees regarding the effects of grievances. 75% of employees opine that grievances increases the rate of absenteeism and turnover, 12.5% of employees opine that it increases indiscipline cases 27.5% of employees are of opinion that it increases the incidence of accidents and the rest opine that unresolved grievances leads to reduced level of employee morale.

TABLE 1.8: ATTITUDINAL DISPOSITION OF RESPONDENTS REGARDING THE EFFECT OF GRIEVANCES IN AN ORGANISATION

S.No.	Effects / Respondents	Managers No.	%	Employees/Workers No.	%
1.	Strains Superior-Subordinate Relations	100	100	200	100
2.	Increased rate of Absenteeism and Turnover	100	100	150	75
3.	Increase in Indiscipline Cases	100	100	25	12.5
4.	Increase in the degree of Supervision and Control	100	100	-	-
5.	Increase in Incidence of Accidents	100	100	55	27.5
6.	Reduced Level of Commitment and Sincerity	100	100	-	-
7.	Reduced Level of Employee Morale	100	100	25	12.5
8.	Increase in Unrest	100	100	-	-
9.	Can't Say	-	-	-	-
	Total	100	100	200	100

Source: Questionnaire/Interview

The table also shows that all the respondents are of the opinion that there should be a voluntary forum and mechanism to resolve their grievances through mutual discussions by adjusting their compromises. Effective grievance redressal machinery has the remarkable ability in creating new and varied procedures for resolving problems as they arise to vex industrial relations.

OBJECTIVES OF GRIEVANCE HANDLING MACHINERY
To know the main objectives of grievance settlement machinery, four alternatives were enlisted to solicit opinions, which are shown in the Table 1.9

TABLE 1.9: PERCEPTIONS OF RESPONDENTS ABOUT THE OBJECTIVES OF GRIEVANCE SETTLEMENT MACHINERY

S.No.	Objectives/Respondents	Managers No.	%	Employees/ Workers No.	%
1.	To strengthen line Authority	100	100	125	62.5
2.	Improve Mutual Understanding between the Complainant and the Supervisor	100	100	25	12.5
3.	To Establish Natural Justice	100	100	-	-
4.	To Prevent Dissatisfaction	100	100	30	15
5.	Can't say	-	-	20	10
	Total	100	100	200	100

Source: Questionnaire/Interview

The managers are of the opinion that grievance procedure cannot have only one objective. The grievance procedure should restore the employees confidence and satisfaction in the machinery which should also assist the line mangers to be effective in resolving and preventing the grievances. So, all the 100 managers opine that all the four objectives are important and relevant to an effective grievance machinery. But, 62.5% of the employees/workers are of the opinion that the grievance procedure has been used to strengthen the authority of line managers, 12.5% are of the opinion that the management tries to improve the relations between the concerned parties, 15% opine that the employees/workers satisfaction should also be kept in mind while redressing a grievance, and 10% did not answer the question.

6. CONCLUSION

'Key to success is its positive relationship with its employees.'

Workplace harmony is a desire of managers and employees alike. Most people look forward to coming to work and value work relationships that are built on common interests, trust and individual recognition. Grievances can't be completely eliminated because human personality is very complex and if one grievance is resolved, other will arise. Grievance is an universal phenomenon. Grievances are inevitable, unavoidable and endemic in social, political, economic, religious

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and industrial society because of man's unique capability to perceive differences in any given situation. Dissatisfaction leading to grievance can come from almost anywhere. Complaints about discrimination and favoritism in work assignments, work standards or physical working conditions are frequent sources of grievances. It is important to remember, though, that anything about which an employee is dissatisfied can lead to a serious grievance.

While grievances can't be eliminated but can be minimized and resolved through a well laid down 'grievance settlement machinery'. A grievance procedure is essential because it brings uniformity in the handling of grievances. Another important aspect of the grievance machinery is the reassurance given to an individual employee by the mere fact that there is a mechanism available to him which will consider his grievance in dispassionate and detached manner and that his point of view will be heard and given due consideration. He gets it 'off his chest' does lot of good to his morale.

7. RECOMMENDATIONS

1. The level at which settlement takes place is an index of the climate or the spirit that prevails in the organization. The lower the level of settlement, the quicker the redressal of a grievance. Once parties other than those directly concerned get interested in any event, the situation becomes worse and its solution is hard to find because of vested interest.
2. The legal framework is very weak, as it does not provide any specific and well laid down grievance procedure. The various labour laws should be amended and a specific and well laid down grievance procedure must be provided. Such procedure must be legally enforced on all organizations.
3. Grievance Procedure should be widely publicized through house magazines, notice board, workshops and personal contacts. The Grievance Procedure should be in a language understood by employees.
4. Human mind is such that it cannot be 'switch on and off'. Not only on-the-job grievances but also off-the-job grievances affects the morale of employees in the organization. Organizations should have 24 hrs relations with the employee instead of only on the job relations. HRM Manager should be good face reader and should closely monitor/observe the behavior of employees.
5. Managers responsible for settlement of grievances at different stages should adhere to the time schedule provided in grievance settlement machinery in the organizations. Arguments like the 'busy schedule' and 'hands have been tied by management' should not be the answer to maintain the time schedule.

8. LIMITATIONS OF THE STUDY

The limitations relates to the inadequacy of statistical data on the impact of employees grievances on discipline, absenteeism, productivity, employer-employee relations, quality of products. Hardly any company maintains such data to study the impact in statistical terms when an employee has a grievance and when it is resolved. The Private sector as usual is very shy in providing relevant documents and information. Some of the selected organizations are very huge, multi planned with thousands of employees. Individual researcher has her own limitations in terms of time and finance to contact adequate number of respondents. In some organizations, data is collected from the Head Office without visiting far-off plants. But to supplement the available data, intensive use of the interview, questionnaire, discussion and observation has been made.

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STRESS AMONG FACULTY IN ENGINEERING AND ARTS COLLEGES IN NAMAKKAL DISTRICT -EMPIRICAL STUDY

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ABSTRACT

The mushroom growth of higher educational sectors, change the organizational climate at the institution, entry of foreign universities especially at higher education level, the faculty members are expected to play many roles along with the role of a teacher. The educational institutions are screened with so many certifications like NAAC, NBA, AICTE, ISO, etc. These committees' enhances the quality of teaching and expects the standard to be maintained in educational sector. The present study has made an attempt to analyze the role stress among the faculty in educational institutions. The result shows that there are significant organizational role stress factors influencing the stress among faculty. The significantly influencing role stress factors are self-role distance, role conflict, role overload and lack of group cohesiveness.

KEYWORDS
Organizational Role Stress, Stress ,Faculty.

INTRODUCTION

Work is an important aspect of man's life and behaviour. Most active part of people's lives goes in work and work related activities. But in this modern world, stress and anxiety have become pervading features of one's work life. Majority of people all over the world seems to be experiencing high psychological stress in various spheres of their life. It also plays major role in teaching profession also.

Teaching was mere preparing lessons, lecturing in the classes and evaluating the students in past. But, now the teaching includes so many aspects apart from the core activities, especially in higher studies. The 'autonomy' given to the colleges provide freedom with responsibilities on the teachers to play multifaceted role, There is a greater demand for the teachers to equip themselves with required talent of publishing, presenting papers in national and international conferences. Heavy workloads, Constant fear of job insecurity, the departure of co-worker, and the conflicting demands of work and family have turned many downsized operations into modern day sweatshops. Stress and its manifestation include low morale, high turnover, burnout, excessive absenteeism, violence, substance abuse, and hypertension. Teachers were reported to be an occupational group with psychiatric morbidity levels that 'should give some cause for concern'. Unless the job stress among the teachers is reduced, it affects the production of quality student and also the establishment of academic excellence. Therefore, an in-depth investigation on role stress among the college teachers is undertaken in the study.

REVIEW OF LITERATURE

Karuna et al. (2003) found that the age, salary and work experience influenced the various types of role stress among the clerical cadre employees of nationalized banks. It was also evident that both more and less experienced women suffered by more stress than their counterparts. More experienced men faces more stress on Role Stagnation and Resource Inadequacy whereas women felt more stress on Inter role distance, Role erosion and role isolation.

Vander and Hepus (1993) revealed that there was no significant difference among male and female managers regarding the stress. Both work and life support were negatively correlated with work stress, only work support was negatively correlated with work stress, strongly related to reducing work stress and was positively related to each measure of strain.

Usha Sree, et al. (1995) reported significant effect of gender role difference alone on job stress and masculine and androgynous subjects were undergoing more stress than others.

Ashish Roy (1997) identified that the junior scientists are facing more role stress in role stagnation and role erosion whereas the senior scientists are facing in role overload. The significant relationship is identified in Inter role distance among the boss and colleagues, in role expectation conflict among boss and wife; in role erosion among boss and subordinates, in role isolation among parents and subordinates, in personal inadequacy among boss and parents; and in self role distance among boss and subordinates.

Deosthalee (2000)concluded that the type of organization in which female executives work has no impact on the stress experienced by them in an organization has a significant effect on the stress experienced by female executives, as higher the position lesser the stress experienced by female executives.

Nirmala (2002) found that there is significantly negative relationship between job performance and occupational stress of cashier-cum-clerks. Four dimensions of occupational stress namely role overload, role conflict, powerlessness and intrinsic impoverishment are significantly but negatively related to job performance of cashier-cum-clerks.

Udai Pareek's (1983) contribution to the organizational role research lies in identifying as many as ten different types of Organizational Role Stress (ORS). They are:

1.	Inter role distance Stress	–	Conflict between Organizational and Non-organizational roles.
2.	Role Stagnation Stress	–	Feeling of being struck up in the same role.
3.	Role expectation stress	–	Conflicting demands originating from colleagues.
4.	Role erosion stress	–	Role has become less important or some body else gets the credit.
5.	Role overload stress	–	Too much work or doing things of considerable importance.
6.	Role Isolation stress	–	Absence of strong linkages of one's role with other roles.
7.	Personal inadequacy stress	–	Absence of adequate skills, competence and training format the demands of one's role.
8.	Self role distance stress	–	Gap between one's concept of self and demands of role.
9.	Role Ambiguity stress	–	Lack of clarity about the demands of the role.
10.	Resource Inadequacy stress	–	Human or material resources allocated are inadequate to meet the demands of the role.

OBJECTIVES OF THE RESEARCH
- To identify profile of the College teachers.
- To examine the role stress among faculty.
- To find out the association between gender and role stress.
- To find out the association between profile of male and female teachers and role stress.

RESEARCH METHODOLOGY

AREA OF THE RESEARCH
This research has been conducted among the engineering and arts college teachers in Namakkal District. The research sample size is 200. The researcher has adapted descriptive research design. Udai Pareek's (1983) Organizational Role Stress (ORS) questionnaire was used to analyze the role stress among teachers.

RESEARCH DESIGN
The design used in this paper study is descriptive type.

RESEARCH INSTRUMENT
A structured Questionnaire was used the study. Udai Pareek's (1983) Organizational Role Stress questionnaire was used to collect the primary data for the study. The factors of the study were drawn out from the related studies. In total, 57 variables have been estimated to measure the job stress among teachers. These 57 variables are drawn from the above said review and modified with the help of experts. The above said 57 variables are asked to rate by the faculties of the colleges at five point scale namely highly agree, agree, moderate, disagree and highly disagree.

Since both the positive and negative statements (variables) have been mixed up, the score assigned on the positive statements as 5, 4, 3, 2 and 1 for highly agree, agree, moderate, disagree and highly disagree respectively. Regarding the case of negative statements, the marks are assigned on reverse basis. The score of the 57 variables in the job stress are taken for the factor analysis in order to narrate these variables in job stress into meaningful factors in job stress.

POPULATION PROFILE AND SAMPLING
The study was confined to Namakkal district of Tamil Nadu. This district was selected keeping in mind that it is well endowed as education belt with many engineering and arts colleges. For the purpose of identifying organizational stressors in the college environment, five engineering colleges and five arts colleges were selected. 100 respondents from engineering and 100 from arts colleges were selected but received 116 responses from arts and 84 from engineering were collected and analyzed for the study. The sample adopted was Non-Probability convenience sampling

LIMITATIONS OF THE STUDY
1. The present study is confined to Namakal alone.
2. The sample size of the present study is Convenience method of sampling.
3. The scope of the study is limited to arts and Engineering colleges in Namakal only.

TOOLS FOR ANALYSIS
Factor analysis , T-Test and Percentage analysis are used for the study.

RESULTS AND DISCUSSIONS
The researcher has made analysis on the profile of the respondents with reference age, gender, qualifications, experience & income of the college teachers.

TABLE 1: PROFILE OF THE COLLEGE TEACHERS

Characteristics	Frequency	Percentage%
Sex		
Male	102	51
Female	98	49
Total	**200**	**100**
Age		
Under 30 years	82	41
30-40 years	52	26
41-50 years	37	18
51-58 years	29	15
Total	**200**	**100**
Education		
Post-graduation only	103	52
Post-graduation with M. Phil.,	43	21
Post-graduation with Ph.D.,	25	13
Post-graduation with M. Phil., & Ph. D	29	14
Total	**200**	**100**
Marital Status		
Single	72	36
Married	115	57
Separate	10	05
Spouse not alive	03	02
Total	**200**	**100**
Experience in Teaching		
1-5 years	69	34
6-10 years	43	21
11-15 years	45	23
16-20 years	26	13
21-25 years	17	09
Total	**200**	**100**
Current Position		
Asst. Professor	127	64
Associate Professor	44	22
Professor & HOD	29	14
Total	**200**	**100**
Type of Institution		
Engineering	84	42
Arts	116	58
Total	**200**	**100**
Current Salary		
5000-10,000	22	11
10,001-15,000	24	12
15,001-20,000	32	16
20,001-25,000	55	27
Above 25,000	67	34
Total	**200**	**100**

The important gender among the college faculty is male but the female faculties are also playing a little bit lesser role in the present study. The important age group among the faculty is less than 30 years and 30 to 40 years. The most dominant level of education among the faculty is post-graduation. The most important marital status among the faculty is married'. The important designations among them are Asst. professor and associate professor. A maximum number of faculties in the present study are belonging to the department of arts . It is followed by engineering departments. The important teaching experience among the faculty is 1 to 5 years and 11 to 15 years. The important monthly salary among the faculty are Rs.15,001 to 20,000 & Rs.20,00 1 to 25,000.

TABLE 2: DIMENSION OF ROLE STRESS AMONG TEACHERS- FACTOR ANALYSIS

Sl. No	Dimensions of job stress	Number of statements	Reliability Co-efficient	Eigen Value	Percentage of Variation
1.	Self role distance	8	0.6367	5.2131	15.31
2.	Role stagnation	7	0.7024	4.8024	13.24
3.	Role ambiguity	6	0.6881	3.4142	11.08
4.	Role conflict	6	0.6393	3.2108	10.39
5.	Role overload	6	0.7217	3.0617	9.24
6.	Role Erosion	5	0.8033	2.4042	8.09
7.	Lack of group cohesiveness and supervisory support	5	0.7141	2.1933	7.43
8.	Personal/Resource Inadequacy	5	0.7021	2.0767	6.91
9.	Constraint of change	5	0.6694	1.9391	0.52
10.	Inadequacy of role Authority	4	0.7234	1.2347	5.43

*Significant at 5 per cent level.

The factor analysis narrate the fifty seven job stress variables into ten factors, self role distance, role stagnation, role ambiguity, role conflict, role overload, role erosion, lack of group cohesiveness and supervisory support, personal/resource inadequacy, constraint of change and inadequacy of role authority. The above said ten factors explain the 57 variables to the extent of 93.64 per cent. The most important job stress factor is self role distance which consists of eight job stress variables with the reliability co-efficient of 0.6367. The Eigen value and the per cent of variation of this factor are 5.2131 and 15.31 per cent. The next two important job stress factors are role stagnation and role ambiguity since its Eigen values are 4.8024 and 3.4142 respectively. The role stagnation consists of seven job stress variables whereas the role ambiguity consists of six job stress variables.

The fourth and fifth job stress factors are role conflict and role overload. These two factors consists of six each job stress variables with the reliability co-efficient of 0.6393 and 0.7217 respectively. The sixth and seventh job stress factors are role erosion and lack of group cohesiveness and supervisory support with the Eigen values of 2.4042 and 2.1933 respectively. The other extracted factors namely personal/resource inadequacy, constraint of change and inadequacy of role authority explain the job stress variables to the extent of 6.91, 6.52 and 5.43 per cent respectively.

TABLE 3: SIGNIFICANT DIFFERENCE AMONG MALE AND FEMALE REGARDING JOB STRESS

Sl.No.	Dimensions of Stress	Mean Score		T-statistics
		Male	Female	
1.	Self Role Distance	3.9646	3.2714	5.0431*
2.	Role Stagnation	3.8917	2.6671	2.5281*
3.	Role Ambiguity	2.7081	3.0334	0.5919
4.	Role Conflict	3.0492	2.9644	2.3032
5.	Role overload	2.8914	4.0262	3.8192*
6.	Role Erosion	3.7086	2.5101	2..2671*
7.	Lack of group cohesiveness and supervisory support	3.9081	2.8616	2.3021*
8.	Personal/Resource inadequacy	2.9693	3.0341	0.4416
9.	Constraint of change	4.0841	2.9902	2.7281*
10.	Inadequacy of role authority	4.1141	3.0696	2.4619*

*Significant at 5 per cent level.

From the T- test ,Among the male faculty, the highly job stressed factors are inadequacy of role authority, constraint of change and self-role distance since the respective mean scores are 4.1141, 4.0841 and 3.9646 whereas the less stressed factors are role ambiguity and role overload since the respective mean scores are 2.7081 and 2.8914. Among the female faculty, the highly job stressed factors is role overload since the respective mean score is 4.0262 whereas the less stressed factors are role erosion and role stagnation since its mean scores are 2.5101 and 2.66 of respectively. Regarding the job stress, the significant difference among the male and female faculty are identified in few job stress factors namely self role distance, role stagnation, role overload, role erosion, lack of group cohesiveness, constraint of change and inadequacy of role authority since the respective 't' statistics are significant at 5 per cent level.

TABLE 4: ASSOCIATION OF PROFILE OF RESPONDENTS AND THEIR ROLE STRESS

Sl.No.	Profile	Male	Female
1.	Age	3.3814*	2.0417
2.	Educational Qualification	2.9624*	3.1141*
3.	Marital Status	2.3081	3.2617*
4.	Designation	1.8609	2.2106
5.	Department	2.5792*	2.8661*
6.	Nature of placement	3.0614*	2.9617*
7.	Category of placement	3.1182*	3.3086*
8.	Teaching experience	2.0869	1.8082
9.	Lecture hours	3.3081*	3.4662*
10.	Number of subjects handled	3.6904*	2.9787*
11.	Family size	2.0811	2.8082*
12.	Number of earning members per family	2.8084*	2.9069*
13.	Spouse education	2.0411	2.8187*
14.	Personal income	2.6063*	3.0363*
15.	Family income	2.4146*	2.6068*
16.	Distance travelled to the institutions	2.9096*	2.8681*

*Significant at 5 per cent level.

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The significantly associating profile variables with the role stress was analysed using T-Test and it is inferred that among the male faculty are age, level of education, department, nature of placement, category of placement, lecture hours, number of subjects handled, number of earning members per family, personal income, family income and distance travelled to the institution since the respective 'F' statistics are significant at five per cent level. Among the female faculty, all profile variables except age, designation and teaching experience are significantly associating with their role stress. The analysis infers that majority of the profile variables of faculty are highly associating with their role stress irrespective of their sex.

RECOMMENDATION

1. Management should enhance faculty performance by providing job security, adequate pay, participate in decision making, and help them to reach self actualization need of the faculty and good organizational climate.
2. The faculty should be recognized as resourceful human beings with emotions and sentiments rather than treating them as economic entities. Allow greater involvement and participation of the faculty in decision making process.
3. The intrinsic strain can be reduced by the established job specification among the faculty. The work load related to various committee activities should be included in the regular work load. Other wise, the over work load itself creates a lot of problems at the college level.
4. Stress management programmes should be encouraged and the organization should dispense information about the fundamentals of stress and its managing tactics like dietetics, exercises and meditation.

CONCLUSION

The positive stress adds anticipation and excitement to life, and the teachers thrive under a certain amount of stress. Deadlines, competitions, confrontations, and even frustrations and sorrows add depth and enrichment to our lives. Our goal is not to eliminate stress but to learn how to manage it and how to use it to help us. Insufficient stress acts as a depression and may leave us feeling bored or dejected; on the other hand, excessive stress may leave us feeling "tied up in knots." So this research study reveals the amount of job stress and the remedial measures of managing stress. It motivates each individual to contribute towards the achievement of excellence in educational sector.

SCOPE FOR FURTHER RESEARCH

This research has been conducted with teachers in engineering and Arts College in Namakkal alone. This can be extended with school teachers. This study has not attempted to develop any model. Future research can carried out in developing role stress model for teachers.

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AN EMBEDDED CORPORATE SOCIAL RESPONSIBILITY MATRIX: A WAY AHEAD FOR SUSTAINABLE AND EQUITABLE BENEFIT FOR THE FIRM AND THE SOCIETY

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ABSTRACT

Corporate Social Responsibility (CSR) is a crucial element of business efforts to foster sustainable and equitable benefit for the firm and the society. In recent times the concept of CSR turned out to be an essential exercise for companies to survive and sustain the business in a ruthless market environment. In a environment where change in market craze and shift in consumer preferences are possible as well as becomes more unpredictable and complex, adopting CSR matrix could be a powerful tool for the business problems relating to survival and sustainability faced by the every business enterprises irrespective of its size globally. The present study, therefore, is an attempt to explore an Embedded CSR matrix as embraces the link between tripe bottom line (3BL) and the important aspects of business process – purchase, sales, manufacturing etc with the aim to achieve sustainable and equitable benefit for firm and the society as well, further it aimed to suggests the firm to take a leading efforts in undertaking CSR matrix as a tool towards attaining a sustainable development for firm and the society globally.

KEYWORDS
Corporate Social Responsibility, Triple Bottom Line (3BL), Embedded CSR Matrix and Sustainable Development.

INTRODUCTION
Corporate Social Responsibility (CSR) is a crucial element of business efforts to foster sustainable and equitable benefit for the firm and the society. In recent times the concept of CSR turned out to be an essential exercise for companies to survive and sustain the business in a ruthless market environment. In a environment where change in market craze and shift in consumer preferences are possible as well as becomes more unpredictable and complex, adopting CSR matrix could be a powerful tool for the business problems relating to survival and sustainability faced by the every business enterprises irrespective of its size globally.

WHAT IS CORPORATE SOCIAL RESPONSIBILITY?
Corporate social responsibility is concerned with treating the stakeholders of the firm ethically or in a socially responsible manner. Stakeholders exist both within a firm and outside. Consequently, behaving socially responsibly will increase the human development of stakeholders both within and outside the corporation (Hopkins, 1998) CSR-Asia defined Corporate Social Responsibility as a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis. Corporate Social Responsibility is achieving commercial success in ways that honor ethical values and respect people, communities and the natural environment (Business for Social Responsibility, 2003) Corporate Social Responsibility is the Continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as the local community and society at large (world business council for sustainable development, 2000) A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis (Commission of the European Communities, 2001) similarly, 'a corporation's ultimate success or heath can and should be measured not just by the traditional financial bottom line but also by its social/ethical and environmental performance' (Zhang Hui and MA Deying). That is the concept of Triple Bottom Line (3BL) has involved when the corporations are trying to do their social responsibility.

OBJECTIVES OF THE STUDY
The study has the following objectives
- To Compare the Embedded CSR with the Philanthropic CSR
- To Compare the Concept of Triple Bottom Line (TBL) with the Sustainability
- To identify and examine the Embedded CSR Matrix for the sustainable benefit of firm and the society in the ruthless business environment

METHODOLOGY
This conceptual research paper based on the secondary data, this paper draws results, conclusions and suggestions from the various working papers and reviews relating to CSR and the Sustainability. The embedded CSR Matrix has been drawn based on the two dimensions of business process activities and TBL activities, the matrix where element of business activities and TBL activities juncture each other. To add further the quality of dimension and the concept embedded CSR Matrix, the required data are further taken from news paper reports, reports and manuals, ecologic handbooks, research publications and websites.

THE RELEVANCE OF EMBEDDED CSR WITH PHILANTHROPIC AND STRATEGIC CSR
In recent decades the concept of Corporate Social Responsibility (CSR) turned out to be a vital strategy for companies to survive in a ruthless market environment. It can be much more than a cost, a constraint, or a charitable deed – it can be a source of opportunity, innovation, and competitive advantage (Porter and Kramer, 2006) Companies can reap significant benefits from differentiating themselves from competitors through their CSR activities (Burke and Logsdon, 1996; Porter and Kramer 2006; Husted and Allen 2007). In order to understand the real advantages of CSR to the business organizations, it has been categorized into Embedded CSR, Strategic CSR and Philanthropic CSR,

CATEGORIZATION OF CSR

The concept of Philanthropy is perceived as an immature version of CSR programmes, which include activities like women empowerment programmes, environmental conservation, protection and pollution control programmes, social and economic development programmes – child education, HIV/AIDS awareness, sex education, poverty alleviation etc., to the society. In their philanthropic activities, business organizations follow numerous structures for meeting their CSR obligations. As their in-house implementing unit, they either registers own foundation or create separate CSR units which act as an implementing agency for delivery of such services. They also partner with relevant non-governmental organizations (NGOs) working in the area and fund them to carry out the work (Neharika Vohra and Rahul Sheel, 2012). In strategic CSR, unlike philanthropic, the business organizations have been interested to adopt and maintain CSR programmes towards identification of business opportunities in the society, CSR is today often approached from a strategic management perspective (Van de Ven and Jeurissen, 2005), and these kind of strategic CSR could be useful to convince managers in firms and sectors that see little tangible benefit in CSR. For a consumer electronics firm such as IBM the environmental and social impacts of its products provide ample opportunity for a strategic approach to CSR (Lutz Preuss, 2011) therefore, companies that have aligned their philanthropic and broader CSR efforts with their core business activities. For example; oil companies focus on improving air and water quality or soft drink companies invest in replenishing water for the community from which they draw water. The practices of HSBC and Coca Cola are very much related to their own domains of business, for a bank, it makes sense to invest in the financial literacy of the people and for coca cola it makes sense to invest in the holistic healthy lifestyle of people. The fact that they are in areas that are related to their business does not diminish the contribution they make (Neharika Vohra and Rahul Sheel, 2012). The Embedded CSR otherwise called as Embedded CSR is a DNA of an organization, in a condition where market's shift and customer's preferences becomes more unpredictable and complex, adopting embedded CSR could be a powerful tool for survival and sustainability. Irrespective of the changing market situations, fluctuating profits, financial crises and leadership whims, this category of CSR can survive in the organization, because it is totally embedded in the corporate culture, strategy and governance system (Jothi M, 2010), many companies all over the world are now starting to see the benefit of practicing embedded CSR in their bottom lines.

European countries are now seriously engaged in this concept on different levels and even in interpretation of how the concept works. The concept is quite ambiguous for some did not see its difference from philanthropic CSR. The latter is immature version and the most popular as it is easy to comprehend and implement, whereas an embedded CSR is not understandable easily because it is embedded with the core business activities. Despite the wide spectrum of approaches to CSR, there is a large consent among practitioners on its main features.

- The embedded/Embedded CSR is a behavior of business over and above legal requirements, voluntarily adopted because businesses deem it to be in their long-term interest.
- It is intrinsically linked to the concept of sustainable development: businesses need to integrate the economic, social and environmental impact in their operations.
- It is not an optional "add-on" to business core activities – but about the way in which business is managed.

Following the above line, embedded CSR could not be equated to either Philanthropy CSR or strategic CSR. *It is a complete business strategy* that aims to ensure the long-term viability of the business, by assuming an active role in the development of the community, the economy, and the environment through good business practices.

TRIPLE BOTTOM LINE, CORPORATE SOCIAL RESPONSIBILITY AND CORPORATE SUSTAINABILITY

Triple Bottom Line may be used to refer to a framework for measuring and reporting corporate performance against economic, social and environmental parameters. (Kanika Chatterjee, 2008)

The success of business is normally measured on the 'Bottom Line', or financial profit or loss. The success of sustainable systems is therefore measured on the Triple Bottom Line, including social and environmental profit and loss alongside financial. Sustainability requires that the system does not make a loss in any of the three areas. However, in reality this means that the system must aim to make a profit, in order that inevitable occasional losses balance out and do not result in the degradation and collapse of the system. Initially it may be possible to design products or systems that only fall into one or two categories. However, in the long run designers should be aiming to address all three areas and create entirely sustainable systems, recognizing that all three issues are heavily interlinked – Financial, Environmental and Social factors.

LINK BETWEEN TBL, CSR AND CS
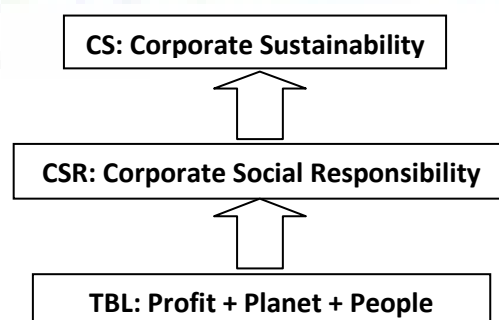
The corporate social responsibility is about addressing and managing economic, environmental and social responsibilities for the attainment of a desired sustainability performance, which translates into three sustainability pillars:

1. Economic sustainability focusing on economic profitability, competitiveness, employment generation, and market creation
2. Environmental sustainability focusing on the efficient use of natural resources and efficient environmental management and protection; and
3. Social sustainability focusing on social well-being of everyone inside and outside the enterprise. (Kanika Chatterjee, 2008)

According to the World Bank (2003), recent definitions of sustainability have focused explicitly on three pillars – Economic Development, Environmental Integrity and Social equity – albeit,

According to the centre for Innovation in Corporate Responsibility (CICR) (www.cicr.net), the concept of the integrated TBL of corporate sustainability represents, till date, the most comprehensive approach to understanding corporate responsibility. Therefore, the concept of Triple Bottom Line, Corporate Social Responsibility and Corporate Sustainability are interrelated and which claims the responsibilities of business organizations in respect of Economic/Financial, Environmental and Social factors respectively, the companies have to fulfill its responsibilities on these areas in order to achieve sustainable development (Corporate Sustainability – CS) through the stepping stones of Triple Bottom Line (TBL) and Corporate Social Responsibility (CSR).

CORPORATE SOCIAL RESPONSIBILITY AND CORPORATE SUSTAINABILITY
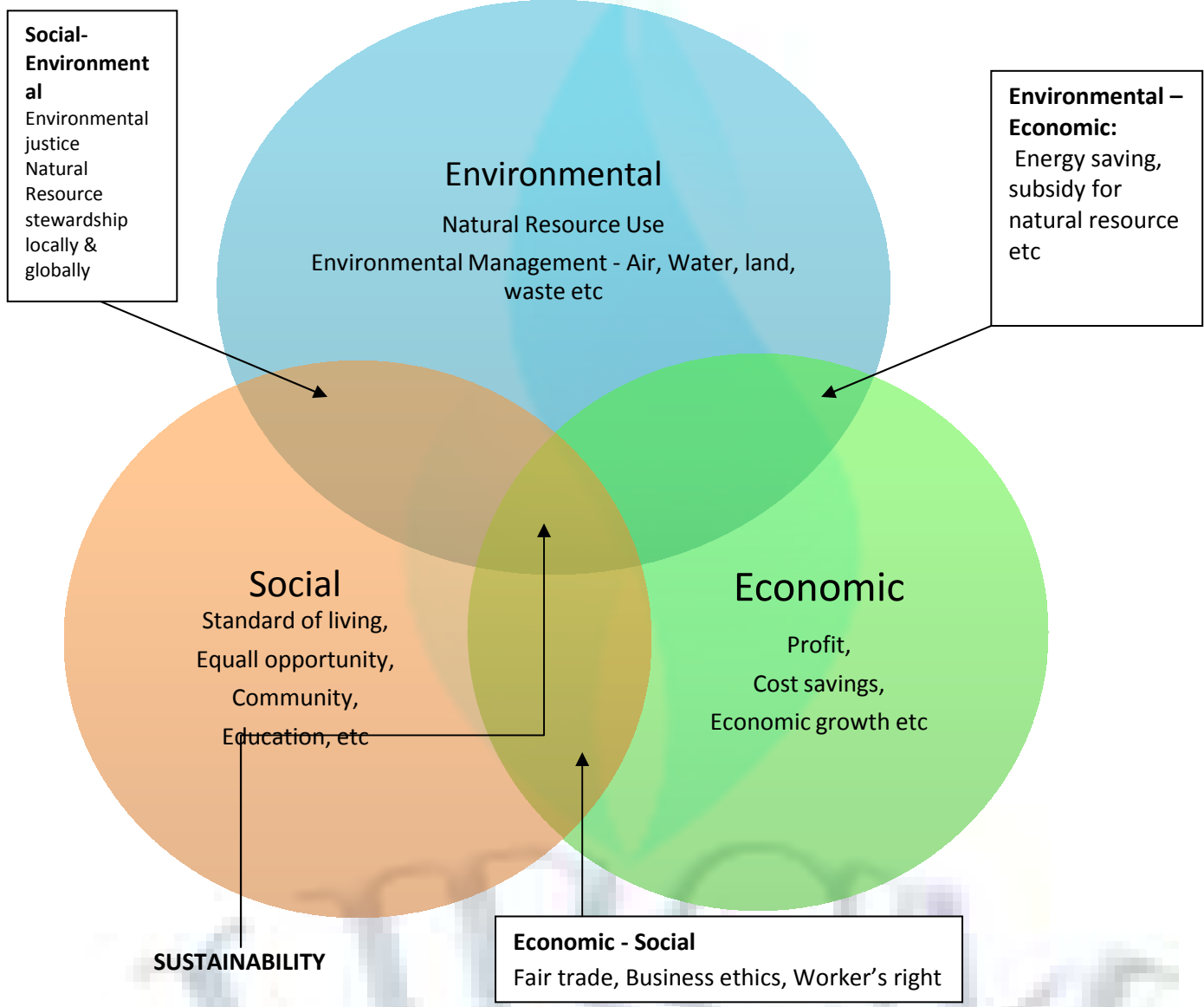
Source: Author

FINANCIAL/ECONOMIC SUSTAINABILITY

Financial sustainability is essentially related to the traditional concept of profit maximization for the long-run period. The majority of businesses will not pursue sustainability unless they see it as offering them financial benefits, which is an important element of quality of life. However, contrary to traditional belief, the goal of financial profit does not have to be in conflict with the goals of social and environmental profit. Carefully designing products within their business, social and environmental systems can result in solutions that have long term financial viability and consistently generate financial profit and wealth. All of this can be achieved without damage to society or the environment and can potentially even generate profit in these areas. A financially sustainable system should have the following implications

- Generates long term revenue by constantly meeting customer needs.
- Does not rely on finite resources.
- Maximises profitability by minimising consumption of resources.
- Does not threaten the financial wellbeing of its customers.
- Does not have any significant liabilities.

ENVIRONMENTAL SUSTAINABILITY

Sustainability is essential to stop the continual degradation of the natural environment. Throughout history humans have tried to conquer or master nature, with the result that humans have destroyed much of the earth's vast resources. Rapid industrialization increases the volume of pollutants discharged into the environment. The tremendous increase in transport aggravates the intensity of air pollution. The current mainstream energy sources – oil, coal, gas, etc, - are harmful to human health and environment. The growth of tourism also harmed the environment. (Prakash Nelliyat, 2012) However, to achieve sustainability it is essential to accept that humans are dependent on the natural environment for their own survival and wellbeing. Without a healthy natural environment, it is impossible to have a healthy society or economy. The poor state of the natural environment as a result of mankind's mistreatment has resulted in a number of serious consequences that are posing immediate threats to society and the economy, and as a result Environmental Sustainability is seen by many as being the primary concern at present. Issues such as global warming, resource depletion and waste disposal are strongly affected by product design, and urgently need addressing (www.espdesign.org). The World Bank has said environmental sustainability is the next greatest challenge, after population, in India's path to development. According to its report `Strengthening Institutions for Sustainable Growth: Country Environmental Analysis for India', there is a need to expand the regulatory mechanism to match the needs of the economy and successful global practice; and at the same time increase capacity and accountability of the environmental regulator to keep pace with growing mandates and demands, further the report says that owing to high population density, India's rapidly growing economy would put unprecedented pressure on its environment and natural resources such as land, water, air, soil and forests. These pressures are projected to become the highest in the world by 2020 (Aarti Dhar, 2007)

SOCIAL SUSTAINABILITY

Social Sustainability is the core element of Sustainability. It is about creating and maintaining quality of life for people. Financial and Environmental factors are important, but they are both means to the end, rather than ends in themselves. Therefore, the social sustainability is a inseparable part of both financial and environmental sustainability, by working towards financial and environmental sustainability, which are ensuring forces towards social sustainability. However, the social element of sustainability does have a number of its own distinct criteria. Directly social sustainability involves protecting the mental and physical health of all stakeholders, encouraging community, treating all stakeholders fairly, and providing essential services, these elements are essential because a healthy society cannot be developed and maintained if the population are in poor health. If they are treated unfairly then it will only be a matter of time before they protest, and community fosters the sense of personal and collective responsibility necessary for a society to operate effectively without degenerating into chaos. It is also critical that essential services are effectively delivered to everyone who needs them. In summary, a socially sustainable system must: (www.espdesign.org)

- Protect the mental wellbeing of all stakeholders
- Protect the physical health of all stakeholders
- Encourage community
- Treat all stakeholders fairly
- Provide all stakeholders with essential services

The diagram below illustrates the key differences between a sustainable business system and a traditional business system. Sustainable products should be designed to function as an integral part of a sustainable business system.

EMBEDDED CSR MATRIX: BUSINESS PROCESS VS. RESPONSIBILITY (TBL)

BP / 3BL →	Financial/Economic Responsibility →	Environmental Responsibility →	Social/community Responsibility →	Sustainable Profit ↓
Factors of Production – FoP/Inputs ↓	**FoP / CFR = FP** • Appropriate Compensation Policy for the work force • Cost of Capital • Innovated Machine & Material	**FoP / CER = EP** • Green purchasing - machine • Green procurement - materials • Green workforce - men • Borrowings from green lenders – money (HSBC)	**FoP/CCR = SP** • Ethical workforce • Socially committed workforce • Borrowings from SRIIs – Socially Responsible Investment Institutions • Procurement from socially committed organizations	**FP+EP+SP = SP on FoP** (Sustainable profit from Inputs/Factors of Production) ↓
Production Process – PP ↓	**PP/CFR = FP** • Managing of Abnormal Loss/Waste • Production technique • Maintenance of machine, material and workplace • Depreciate the assets properly	**PP/CER = EP** • Green Production process • Application of green machine, material and techniques • Employing green conscious workforce • Promotion of green workforce	**PP/CCR = SP** • Provision for safe and high quality goods & services • Safe workplaces • Promotion of socially committed workforce – career plan, non-discrimination, equal opportunity, human rights, no forced work etc. • Promotion and support for voluntary employee efforts to participate as members of the community	**FP+EP+SP = SP on PP** (Sustainable Profit from Production Process) ↓
Sales Process – (SP) ↓	**SP/CFR = FP** • Pricing Policy & Methods • Profit Policy • Inventory Management • Cost of Sales • S & D Overheads etc	**SP/CER = EP** • Green Advertisement • Green Packing • Green Profit Policy • Other Green Marketing and sales activities	**SP/CCR = SP** • Provision of safe &quality Distribution activities, • safe packing and handling activities • socially committed promotions – advertisement, personal selling etc • Competitive price • Adherence of legal standards – MRTP Act, CP Act, EC Act etc. • Concentration on consumer awareness	**FP+EP+SP = SP on SP** Sustainable Profit from Sales Process) ↓
Sustainable Profit for sustainable development →	**Financial Profit from Business process** →	**Environmental Profit from Business process** →	**Community Profit from Business process** →	**Sustainability of Business**

Source: Author

FoP / CFR	= FP	**:** Factors of Production Vs Corporate Financial Responsibility = Financial Profit
PP/CFR	= FP	**:** Production Process Vs Corporate Financial Responsibility = Financial Profit
SP/CFR	= FP	: Sales process Vs Corporate Financial Responsibility = Financial Profit
FoP / CER	= EP	: Factors of Production Vs Corporate Environmental Responsibility = Environmental Profit
PP/CER	= EP	: Production Process Vs Corporate Environmental Responsibility = Environmental Profit
SP/CER	= EP	: Sales Process Vs Corporate Environmental Responsibility = Environmental Profit
FoP/CCR	= SP	: Factors of Production Vs Corporate Community Responsibility = Community Profit
PP/CCR	= SP	: Production Process Vs Corporate Community Responsibility = Community Profit
SP/CCR	= SP	: Sales Process Vs Corporate Community Responsibility = Community P

IMPLICATIONS ON EMBEDDED CSR MATRIX

The concept of 'embedded CSR Matrix' is perceived as a technique to satisfy the stakeholders who are the determining factors for success or failure of the corporate sustainability, generally the stakeholders group include the Shareholders, employees, business partners or suppliers, consumers and customers, government, community and NGOs. This required the responsibility towards company's stakeholders – shareholders customers, employees, suppliers and other business partners, governments, local communities and the public at large (spiller, 2000) Thus, an enterprise that is committed to corporate sustainability becomes a stakeholder-Embedded corporate entity (wheeler and Silanpaa, 1997), which takes a strategic approach to satisfy the needs of its direct and indirect stakeholders – primary and secondary, social and nonsocial-without compromising its ability to meet the needs of future stakeholders, further creation value for as many organizational stakeholders as is practicable (Bain and Band, 1996), is the central concern of corporate sustainability. The management of stakeholder is not possible by the nature, or god, or even by the competitive forces, it is possible by the sustainable CSR practices of the business enterprises, the embedded CSR Matrix is a concept developed with the aim to satisfy the stakeholders and which embraces the core of CSR policy – Corporate Financial Responsibility, Corporate Environmental Responsibility and Corporate Community Responsibility, with the basic business practices – Factors of Production, Production Process and Sales Process. This embedded CSR matrix does not mean the corporate philanthropic activities to the society, since it is made possible by the business enterprises when it has been success financially in the market, that too not by all the enterprises only the large corporate like Tata Power Company Ltd, Apollo Hospitals Ltd, Wipro Ltd, Ranbaxy Laboratories Ltd, Bharat Electronics Ltd, Hindustan Unilever Ltd, Indian Aluminium Company – INDAL – a Birla Group of Company, Bharat Petroleum Corporation Ltd – BPCL, Housing Development Finance Corporation – HDFC, L & T Ltd, Steel Authority of India Ltd – SAIL, HSBC etc., but the concept of embedded CSR is to be exercised at every movement as well as every place of a business enterprise irrespective of its turnover and financial performance in the market, in fact as a embedded system of a business unit, it is possible and required to implement at all the stages of a business viz, purchase of inputs (4Ms – Men. Machine, Material and Money), production stage in the case of manufacturing company, and sales stage. Therefore, the concept 'Embedded CSR Matrix' is based on these stages of a business enterprises and it reveals the juncture between the TBL and Business Process, further it reveals individually that the Embedded matrix index between the business process and financial, Environmental and Community responsibility respectively.

BUSINESS PROCESS Vs FINANCIAL RESPONSIBILITY

The concept of Financial inclusion/responsibility is perceived as a core in the triple Bottom Line (TPL), because of that social inclusion is depends on financial inclusion and financial inclusion is depends on the global environmental inclusion. The three bottom lines represent society, the economy and the environment. Society depends on economy, and economy depends on the global ecosystem, whose health represents the ultimate bottom line (Elkington, 1997) therefore, the financial responsibility matrix – business process Vs financial Responsibility – is considered as a bottom of the whole matrix system. In the financial responsibility matrix, it is reveals first that how the company financially or economically Embedded while acquiring its factors of production (here it is assumed as 4Ms – Men, Machine, Material and Money) which include following

- The company has to concentrate on the long-run financial benefits while recruiting the employees; such benefits are possible by recruiting the right personnel with right compensations for the right jobs
- It has to concentrate on the cost of capital in the long-run period rather than short run, mobilizing capital or borrowing long term funds from Social Responsible Investment Institutions (SRII) are viable option to achieve this objective satisfactorily
- It has to acquire the machineries with many options like less depreciable, easily replaceable, user friendly etc. which ensure good financial viability for the long run
- It has to acquire the materials based on the concept of 'Goods Well brought is Half Sold", which ensures the financial benefits in the form less wastage, loyalty creations, efficiency in productivity etc.,

The second financial responsibility matrix with the production process reveals that how the company has to concentrate on financial Embeddedness while in its production process, which include the following

- The company has to meet out the Embedded technique in order to manage the abnormal loss/wastage, generally which is a viable option to generate financial benefit in the work place.
- It has to meet out the improper maintenance of machineries and workplace in order to avail the financial benefits from the production sites.
- It has to follow the appropriate depreciation policy which is neither the over depreciation nor the under depreciation in order to ensure the viable

In the third stage of financial responsibility matrix with the production process reveals that how the company has to discharge its Embedded strategies towards sales process, which include the following

- The company has the financial viability options in areas like Pricing Policy & Methods, Profit Policy, Inventory Management and S & D Overheads so that it has to manage these areas with keen attention.
- It is perceived that pricing policy is a good weapon in order to attract the buyer and attack the competitor, so that it is to be developed after the keen consideration of all the relevant aspects – industry, competition, government regulations, long-run market share, etc
- It has to concentrate more about overheads to be charged with the cost of production, more indirect charges that result in unnecessary financial burden in the form of price to the buyer, which leads to competitive forces liberally.
- Inventory management is needed to avoid superfluous investment on it and it is to be controlled by applying appropriate technique, which should be innovated periodically as per the industry requirements.

BUSINESS PROCESS Vs ENVIRONMENTAL RESPONSIBILITY

Environmental responsibility is a second pillar after the financial or economic responsibility in the TBL concept, in fact the success rate of financial benefits of the business organizations in the long-run is depend upon that how it is successful in its environmental responsibility. Therefore, Business organizations responsibility towards environmentalism is inevitable, which include Environmental responsibility towards the factors of production, Production process and Sales process respectively; these Embedded responsibilities are called as Environmental responsibility matrix. *The first environmental responsibility matrix* with the factors of production reveals that how the company has to concentrate on environmental Embeddedness in its factors of production (*Green-Inputs*), which include the following

- The company has to consider the environmental implications when it is purchasing the fixed assets like machineries, vehicles, land etc., - *green assets*
- It has to procure the raw materials with environmental implications, which should ensure the eco-friendly to the user or buyer, further it should emphasis on the concept of 'Raw materials well brought is equal to Half Produced' – *green materials.*
- It has to recruit the workforce with the environmental concern – *green manpower.*

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- It has to mobilize or borrow the funds from institutions, which has environmental concern over its activities, for instance, HSBC has been concentrating on social responsible investment as well as green banking system and SBI has introduced 'Green Channel Counter', in which transaction for deposits as well as withdrawal is to be processed through debit card electronically.

In the second stage of Environmental responsibility matrix with the production process reveals that how the company has to discharge its environmental Embedded strategies, which include the following

- The company has to concentrate and follow the green production process with the help of eco-friendly machineries, materials, and techniques
- It has to exercise the environmental tactics among the workforce
- It has to consider the environmental factors in addition to basic requirements, when promoting the workforce to the higher position
- It has to follow the laws and regulations such as the Environment (protection) Act, 1986 and related enactments such as the Water (Prevention and Control of Pollution) Cess Act, 1977; The Air (Prevention and Control of Pollution) Act 1981; and The Forest (Conservation) Act, 1980

The third stage of Environmental responsibility matrix with the Sales process reveals that how the company has to discharge its environmental Embedded strategies in the sales activities, which include Green Advertising, Green Packing, Green Profit Policy – the part of profit as provision should be made for environmental activities, Trade fair and exhibition with green, Green branding and Other green marketing and sales activities

BUSINESS PROCESS Vs SOCIAL RESPONSIBILITY

In the TBL, when financial and environmental responsibilities are followed strictly that leads to the successful social Embeddedness or responsibilities of a business organization. The company, however, has to discharge its social Embedded strategies with factors of production, production process and sales activities respectively in the following

- In the first stage of social responsibility matrix with the factors of production reveals that how it is ethically and socially committed with the factors of production, which involves the ethical workforce, socially committed workforce, borrowing from SRIIs (Socially Responsible Investment Institutions) and procurement of raw materials from socially committed organizations.
- The second stage of socially responsible matrix with the production activities involves the provision for safe and high quality of goods & services, provision for safe workplace, promotion of socially committed workforce, which include career plan, non-discrimination, equal opportunity, human rights, no forced work etc., and promotion and support for voluntary employee efforts to participate as members of the community.
- The third stage of socially responsibly matrix with the sales activities involves the provision for safe & quality distribution activities, safe packing and handling activities, socially committed personal selling, ethically advertising the product, competitive price and adherence of legal standards for the sales – Monopolistic Restrictive Trade Practice Act, (MRTP), Consumer Protection Act, Environmental Protection Act etc.

SUSTAINABLE BENEFITS FOR FIRM AND THE SOCIETY

The benefits of improved corporate image and relationships due to that the practices of 'Embedded CSR Matrix' by the business enterprises can impact costs and revenues, which cannot be quantified in terms of money, however, the sustainable benefits to the company and the society are listed below

BENEFITS TO THE COMPANY

- Improved financial performance due to enhanced image of the product or company
- Lower operating costs
- Better borrowing access and terms
- Equity becomes more attractive to investors
- Enhanced brand image and reputation
- Increased sales and customer loyalty
- Greater productivity and quality
- There may be higher staff retention equity and low turnover, thereby reducing recruiting cost.
- Reduced regulatory oversight;
- Workforce diversity, which may lead to cost saving in the field of health and safety
- Increased trust from community and regulator will build confidence at all hierarchies
- Product safety and decreased liability
- Enhanced image with all the stakeholders

BENEFITS TO THE SOCIETY

- Charitable contributions;
- Employee volunteer programmes;
- Corporate involvement in philanthropic activities - community education, employment, charity development etc.,
- Product safety and quality.
- Greater material recyclability;
- Better product durability and functionality;
- Greater use of renewable resources;
- Integration of environmental management tools into business plans, including life-cycle assessment and costing, environmental management standards, Green packing and eco-labeling.

CONCLUSIONS

The CSR has a number of advantages at firm, industry and society levels, such as Competitive advantage, Cost and risk reduction, Reputation and legitimacy and synergistic value creation (Lutz Preuss, 2011). These benefits are directly influenced by the business organizations responsibilities in respect of financial, environmental, and social factors, which are also called as 3 Ps of CSR - profit, planet, and people. As examined already well that the Companies' financial sustainability is dependent on environmental sustainability but which has not been managed effectively. According to "Energy Statistics 2012" published by the National Statistical Organization, Ministry of Statistics and Programme Implementation, in 1970-71, India's electricity consumption was 43,724 GWh. In 2010-11, it stands at 607,760 GWh. A joint study by the Chinese Academy for Environmental Planning (CAEP) and The Energy and Resources Institute (TERI), India, highlighted another important statistic. The annual cost of economic losses and environmental damage in china in 2010 exceeded 1.2 trillion Yuan ($180 billion). In India, the estimated economic cost of environmental damage ranges from 3.5 percent to 7.5 percent of the country's economic output. While considering the damage to the environment, it is important to note that both countries are home to 37 per cent of the global population, and account for 20 per cent of the world's energy consumption. According to Rajendra K Pachauri, Director General of TERI, air pollution, water contamination and solid wastes, as well as deforestation account for much of the environment damage in India. Laws such as the Environment (protection) Act, 1986 and related enactments such as the Water (Prevention and Control of Pollution) Cess Act, 1977; The Air (Prevention and Control of Pollution) Act 1981; and The Forest (Conservation) Act, 1980 have had little or no effect. *(Hemant M Joshi and Nikhil Kenjale,(2012).* According to the Associated Chamber of Commerce and Industry of India, less than 5 per cent of the country's electronic waste (e-wate) gets recycled as there is no infrastructure, legislation or framework in place. Urban India generates 42 million tones of solid waste annually – that is, 115,000 tonnes a day. Metros and big cities collected 70-90 per cent of municipal solid waste, while smaller cities and towns collect less than 50 per cent. Compare this with the 100 per cent waste collection in most cities in China, Mauritius, and Western Europe, (Hemant M Joshi and

Anu Peisker). IBM has published 21 "Annual environmental reports" since 1990. The "2011 IBM and the Environment Report" states that the estimated environmental savings and cost-avoidance worldwide stood at $139.1 million, it also says that the company achieved ISO 14001 Standard on Environmental Management Systems, and ISO 50001 Standard on Energy Management Systems. A recent study of select large corporate in India showed that 54 per cent do not report their environmental policies on the Internet or in their annual reports (Hemant M Joshi and Nikhil Kenjale, 2012). Unlike IBM majority of business organizations in India are not realized their role that there is no sustainability unless the concept of TBL effectively included in the governance system, here the measures like Embedded CSR Matrix are required to understand corporate sustainability otherwise known as green economy by every entities in India. It is important to remember that society has always looked at the 'corporation' as a social organ for wealth creation. Peter F. Drucker had in the 1950s eloquently said that "even the most private of business enterprise is an organ of society and serves a social function...the very nature of the modern business enterprise imposes responsibilities on the manager... it can no longer be based on the assumptions that the self-interest of the owner of property will lead to public good, or that the self-interest and public good can be kept apart and be considered to have nothing to do with the other." (*Sudhir Singh, 2012)* therefore, The concept of sustainable development and the urgent need to implement environment-friendly policies are more relevant today than ever before (2nd UN Conference for Sustainable Development or the Rio +20 as it is popularly known as), the Embedded CSR Matrix aim at changing the way business think, perceive and behave with respect to financial, environmental and social responsibility in order to achieve the sustainable benefit for firm and the society.

LIMITATIONS

This paper has not been claimed any empirical evidence with respect to Embedded CSR matrix and further it restrict or include the business activities into the purchase of factors of production, production process and sales process. Therefore, it ensures the further research in the same area based on detailed business activities with empirical evidence.

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AN APPROACH TOWARDS RELATIONAL WEB MINING WITH CORRESPONDENCE OF LINK BREAKDOWN STRUCTURE

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ABSTRACT

The need to consolidate the information contained in heterogeneous data sources has been widely documented in recent years. In order to accomplish this goal, an organization must resolve several types of heterogeneity problems, especially the entity heterogeneity problem that arises when the same real-world entity type is represented using different identifiers in different data sources. Statistical record linkage techniques could be used for resolving this problem. However, the use of such techniques for online record linkage could pose a tremendous communication bottleneck in a distributed environment where entity heterogeneity problems are often encountered. In order to resolve this issue, we develop a matching tree, similar to a decision tree, and use it to propose techniques that reduce the communication overhead significantly, while providing matching decisions that are guaranteed to be the same as those obtained using the conventional linkage technique. These techniques have been implemented, and experiments with real-world and synthetic databases show significant reduction in communication overhead. This work introduces a link analysis procedure for discovering relationships in relational web pages, generalizing both simple and multiple correspondence analysis. It is based on a random walk model through the live web pages having as many states as elements in the website.

KEYWORDS
Heterogenous data, Web Mining, Link Analysis.

1. INTRODUCTION
1.1 OVERVIEW OF WEB MINING
Web mining can be defined as the discovery and analysis of useful information from the World Wide Web. Web mining can be defined as the integration of the information gathered by traditional data mining methods and techniques with information related to the web. In a simplified way we could say that its data mining adapted to the particularities of the web.

With the explosive growth of information sources available on the World Wide Web, it has become increasingly necessary for users to utilize automated tools in order to find, extract, filter, and evaluate the desired information and resources. In addition, with the transformation of the Web into the primary tool for electronic commerce, it is imperative for organizations and companies, who have invested millions in Internet and Intranet technologies, to track and analyze user access patterns. These factors give rise to the necessity of creating server-side and client-side intelligent systems that can effectively mine for knowledge both across the Internet and in particular Web localities.

There are several important issues, unique to the Web paradigm, that come into play if sophisticated types of analyses are to be done on server side data collections. These include the necessity of integrating various data sources such as server access logs, referrer logs, user registration or profile information; resolving difficulties in the identification of users due to missing unique key attributes in collected data; and the importance of identifying user sessions or transactions from usage data, site topologies, and models of user behavior. We devote the main part of this paper to the discussion of issues and problems that characterize Web usage mining. Furthermore, we survey some of the emerging tools and techniques, and identify several future research directions.

1.2 WEB MINING TECHNIQUES
Web Mining when looked upon in data mining terms, can be said to have three operations namely Clustering, Associations and Sequential Analysis. Web Mining techniques provide a set of techniques that can be used to solve the problems of a user. By providing direct solutions to the problems, WM techniques can be used as a part of the bigger application that addresses many issues. WM techniques are not only the tools to handle the issues but the implementation methods in other related techniques from various research areas like Information Retrieval (IR), Database (DB) and Natural Language Processing (NLP) can also be developed.

FIG. 1: TASKS OF WEB MINING
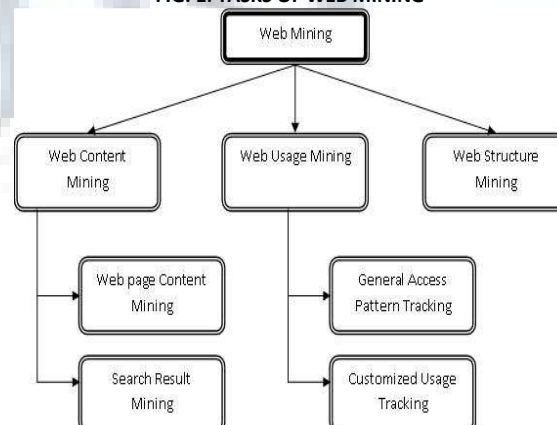
Data Mining Techniques can be classified into three areas as indicated below based on which part of the web is to be mined. They are classified as follows,
- Web Content Mining

- Web Structure Mining
- Web Usage Mining

1.2.1 WEB USAGE MINING

Web usage Mining is a part of web mining which in turn it is a subset of data mining. Web usage mining involves mining the usage characteristics of the users of web applications. The extracted information can then be used in several ways such as enhancement of the existing application, investigating the fraudulent elements in the web.

As the part of the business intelligence in an organization rather than the technical element, it is used for deciding various strategies in the business through efficient use of web applications. The major problem in web mining in general and web usage mining in particular is the nature of the data they dealt with. In recent days the web data has become huge in nature and a lot of transactions and web usages are taking place by day to day aspects of life.

FIG. 2: WEB USAGE MINING ARCHITECTURE
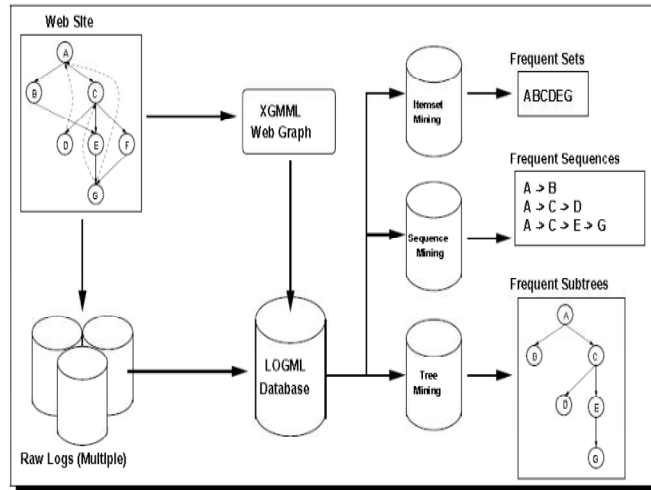
Web usage mining process

The main processes in web usage mining are:

Preprocessing: Commonly used as a preliminary data mining practice, it transforms the data to a simpler format that will be more effectively processed for the purpose of the user. The different types of preprocessing in web usage mining are listed below:

1) Content Preprocessing
2) Usage Preprocessing
3) Structured Preprocessing

Pattern Discovery: WUM can be used to uncover patterns in server log list but it is often carried out only on samples of data. The mining process will be of ineffective if the sample data are not the good representation of the large data set. Listed below are the methods of pattern discovery:

1) Association rules
2) Statistical methods
3) Classification
4) Clustering methods
5) Sequential patterns
6) Dependency modeling

Analysis of the pattern: The obtained usage patterns are analyzed to filter uninterested information and extract the useful information. The OLAP (Online Analytical Processing) and SQL (Structured Query Language) can be used.

Areas of Web Usage Mining

1) System Improvement
2) Personalization
3) Site modification
4) Business Intelligence
5) Usage Characterization

CONCEPTUAL MAP OF WEB MINING

FIG. 3: CONCEPTUAL MAP OF WEB MINING
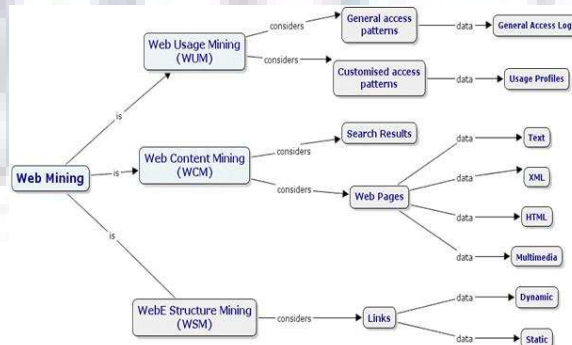
1.3 LINK ANALYSIS IN WEB INFORMATION RETRIEVAL

The goal of information retrieval is to find all documents relevant for a user query in a collection of documents. Decades of research in information retrieval were successful in developing and refining techniques that are solely word-based. With the advent of the web new sources of information became available, one of them being the hyperlinks between documents and records of user behavior. To be precise, hypertexts (i.e., collections of documents connected by hyperlinks) have existed and have been studied for a long time. What was new was the large number of hyperlinks created by independent individuals.

Hyperlinks provide a valuable source of information for web information retrieval as we will show in this article. This area of information retrieval is commonly called link analysis. A hyperlink is a reference of a web page B that is contained in a web page A. When the hyperlink is clicked on in a web browser, the browser

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displays page B. This functionality alone is not helpful for web information retrieval. However, the way hyperlinks are typically used by authors of web pages can give them valuable information content. Typically, authors create links because they think they will be useful for the readers of the pages. Thus, links are usually either navigational aids that, for example, bring the reader back to the homepage of the site, or links that point to pages whose content augments the content of the current page.

1.4 WEB PAGE TREE STRUCTURE

The site's blueprint is called a sitemap. The more information the page have, the more difficult architecting the site might be. There is not really a right way or a wrong way about architecting the site. A tree structure for a site could be the following:

TABLE 1

Level 0	Level 1	Level 2
Home Page	Our Company	Company Facts
		Methodology and Techniques
	Services	Construction
		Consulting
		Innovative Solutions
	Experience	Private Sector
		Public Sector
		Customer testimonials
		Case Studies
	Real Estate	Buildings
		Land
	Contact Us	

An important thing the user must also do regarding the structure of the site, which is also related to its usability as the user will see in the next section, is to think of what information will be presented on the home page. Usually, since the home page is the "gateway to the site", the user should place information the user think is important and internal pages (links to them) which the user wants to promote.

SINGLE PAGE

This is the where the entire site content is presented on the home page.

FIG. 4: SINGLE PAGE

This is applicable only if the site does not have a lot of information to present. An advantage of this model is that it is very simple, requires minimum and the visitor gets the entire information on the spot without having to further navigate in the site. It is especially applicable for a marketing site for a specific product or service.

INDEX LIKE MODEL

In this model, all pages of the website hang below the home page (the tree structure goes one level deep) and all navigation happens through the home page.

FIG. 5: INDEX MODEL
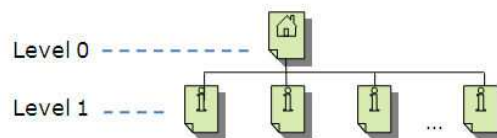
This model is good for a site which has decent amount of information to present and its thematic categories are independent with each other as well as self explanatory so that they don't need to be broken down further.

STRICT HIERARCHY

This model corresponds to an ideal situation where the user can partition the information following a "proper" hierarchical structure. In this structure the user can have as many levels as they want and each page can be accessed only through its parent.

FIG. 6: STRICT HIERARCHY
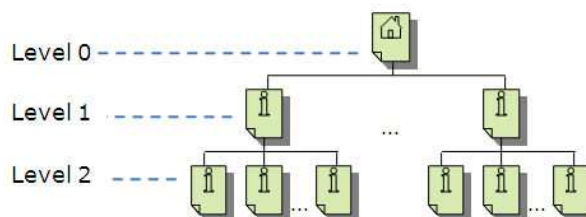
This model can be used for a site where information can be broken down into independent thematic areas, something that in real life is very difficult to find.

MULTI-DIMENSIONAL HIERARCHY

This model is similar to the one of the strict hierarchy, can be as deep as needed, any page can be accessed by any page, thus making it to partition the information easier and more flexible.

FIG. 7: MULTI-DIMENSIONAL HIERARCHY
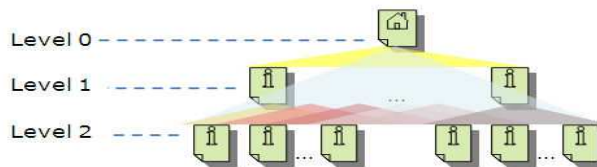
This is the most commonly used model and the model is recommended for a mid- to large- (in terms of information) sized site.

1.5 THE RELATIONAL DATABASE MODEL

A database can be understood as a collection of related files. How those files are related depends on the model used. Early models included the

- Hierarchical Model - where files are related in a parent/child manner, with each child file having at most one parent file
- Network model – where files are related as owners and members, similar to the network model except that each member file can have more than one owner.

The relational database model was a huge step forward, as it allowed files to be related by means of a common field. In order to relate any two files, they simply need to have a common field, which makes the model extremely flexible.

A database based on the relational model developed by E.F. Codd. A relational database allows the definition of data structures, storage and retrieval operations and integrity constraints. In such a database the data and relations between them are organised in tables. A table is a collection of records and each record in a table contains the same fields.

2. METHODOLOGY

2.1 A GENERATIVE MODEL

We develop a Bayesian learning framework to tackle the wrapper adaptation and new attribute discovery problem based on a generative model for the generation of the text fragments related to attributes which depicts the graphical representation of the model. Shaded and unshaded nodes represent observable and unobservable variables, respectively. With respect to the proposed framework using a running example, in each domain, there is an attribute generation variable denoted by α which controls the label Y of each text fragment. Consider the book domain and the Web site, as shown in Figure.

FIG. 8: A GENERATIVE MODELS
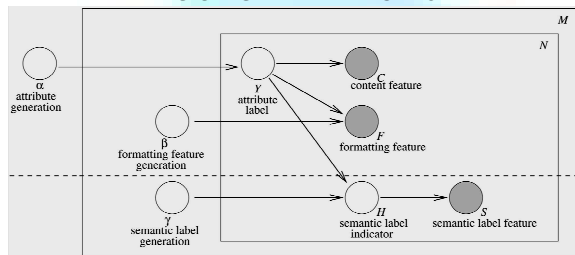
This site consists of several Web pages and each of them contains a number of records. The attributes contained in each record are title, author, price, publishing date, etc. For the Web sites, such as the ones shown in above figure, collected from the book catalog domain, records are normally composed of a similar set of book-related attributes. As a result, basically does not change drastically for different Web sites given a domain. Suppose a Web site contains M pages and the mth page contains N_m text fragments. The label of each text fragment is generated according to P (Y| α). Based on the label generated, the content feature C is then generated from the distribution P (C|Y). In essence, C is a feature vector which characterizes the content of the text fragment. For example, an element of C refers to the number of occurrence of a particular token in the text fragment. C is dependent on Y; as a consequence, they are, in turn, dependent on α. Therefore, C remains largely unchanged for different Web sites. For instance, in the book catalog domain, the book titles collected from different Web sites show similar characteristics and orthographic information. Within a particular Web site, there is a formatting feature generation variable denoted by α. The formatting feature F of attributes represents the formatting information such as the font color or location of a text fragment. Similar to C, F is a feature vector characterizing the layout format of the text fragment. Attributes of records from different Web sites are normally presented in different formats or style. Within a Web site, an attribute of a record can be associated with a semantic label. A semantic label basically is a text fragment showing the semantic meaning of a text fragment. For example, in the Web page shown in, the semantic label for the attribute publication date is "Pub. Date:." The semantic labels commonly show certain regularity.

2.2 LATENT LINKAGE INFORMATION ALGORITHM

Yanchun Zhang, Guandang Xu proposed an algorithm named Latent Linkage Information (LLI) for ranking web pages that are closely related to a given page. This algorithm is primarily derived from scientific literature co-citation index algorithm. We give a brief description of this algorithm as follows.

The first step of this algorithm is to construct a web page space (page source) for the given page u from link topology on the web. The page source is constructed as a directed graph with edges indicating hyperlinks and nodes representing the following pages:

1. Page u,
2. Up to B parent pages of u, and up to BF child pages of each parent page that are different from u,
3. Up to F child pages of u, and up to FB parent pages of each child page that are different from u.

FIG. 9: PAGE SOURCE STRUCTURE FOR THE GIVEN PAGE u
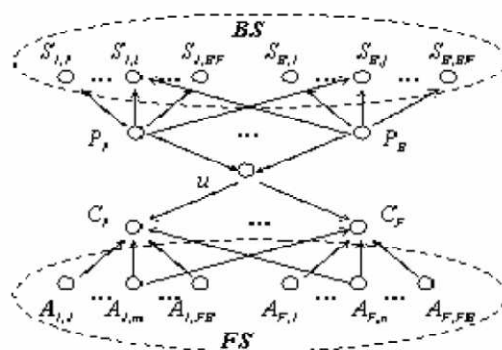
2.3 WEB URL IDENTIFICATION

Web addresses are recorded in a Uniform Resource Locator (URL), a logical address of a web page that can always used to dynamically retrieve the current physical copy over the internet. The key advantage of the Uniform Resource Locator's (URL) is its universality, since the address is the same no matter where in the world it is used. This is why Tim Berners-Lee proposed in *RFC 1630,* Universal Resource Identifiers in WWW, that it be called a Universal Resource Identifier (URI) to suggest his vision of a network where anything could be linked to anything. However, he experienced philosophical resistance to this idea of universality from the IETF team working on the web standards, and so the address became named the now familiar Uniform Resource Locator.

2.4 HTML PARSING AND LINK EXTRACTION

The HTML Parsing module is a class for accessing HTML as tokens. An HTML Parsing object gives you one token at a time, much as a file handle gives you one line at a time from a file. The HTML can be tokenized from a file or string. The tokenizer decodes entities in attributes, but not entities in text. A program that extracts information by working with a stream of tokens doesn't have to worry about the peculiarity of entity encoding, whitespace, quotes, and trying to work out where a tag ends.

Regular expressions are powerful, but they're a painfully low-level way of dealing with HTML. The system processes the spaces and new lines, single and double quotes, HTML comments, and a lot more. The next step up from a regular expression is an HTML tokenizer. In this module, we'll use HTML Parser to extract information from HTML files. Using these techniques, you can extract information from any HTML file, and never again have to worry about character-level trivia of HTML markup. And automatic passage extraction methods from the body may be worthwhile. Implications of the findings for aids to summarization, and specifically the text. Regular expressions are a tool that is insufficiently sophisticated to understand the constructs employed by HTML. HTML is not a regular language and hence cannot be parsed by regular expressions. Regex queries are not equipped to break down HTML into its meaningful parts. so many times but it is not getting to me. Even enhanced irregular regular expressions as used by Perl are not up to the task of parsing HTML. You will never make me crack. HTML is a language of sufficient complexity that it cannot be parsed by regular expressions. It's considered good form to demand that regular expressions be considered verboten, totally off limits for processing HTML, but I think that's just as wrongheaded as demanding every trivial HTML processing task be handled by a full-blown parsing engine.

2.5 DOMAIN AND SUB DOMAIN CLASSIFICATION

The List of domains and sub domains of corresponding web server are identified with respect to the URL address entered. The Numbers of web servers connected to the main server are listed, also the business level integrated web servers of major web site is identified in the proposed module

2.6 MISSING LINK EXTRACTION

Extract Link is a powerful, highly accurate, fast threaded link extractor utility to search and extract link (http, ftp, email, news, images) from any type of file (Html). If the contents are not present in results in link, base, domain separately and supports link compare, URL extraction depth, false link/base removal, domain check list, filters, helps in identifying the missing links.

2.7 LINKAGE ANALYSIS CORRESPONDENCE

Efficient record linkage techniques based on the matching tree. The overall linkage process is summarizes. The first two stages in this process are performed offline, using the training data. Once the matching tree has been built, the online linkage is done as the final step. We can now characterize the different techniques that can be employed in the last step. Recall that, given a local enquiry record, the ultimate goal of any linkage technique is to identify and fetch all the records from the remote site that has a matching probability or more. Link analysis is a multivariate statistical technique. It is conceptually similar to principal component analysis, but applies to categorical rather than continuous data. In a similar manner to principal component analysis, it provides a means of displaying or summarizing a set of data in two-dimensional graphical form.

All data should be nonnegative and on the same scale for LAC to be applicable, and the method treats rows and columns equivalently. It is traditionally applied to contingency tables — LAC decomposes the chi-square statistic associated with this table into orthogonal factors. Because LAC is a descriptive technique, it can be applied to tables whether or not the chi-square statistic is appropriate. Several variants of LAC are available, including detrended correspondence analysis and canonical correspondence analysis. The extension of correspondence analysis to many categorical variables is called multiple correspondence analysis. An adaptation of correspondence analysis to the problem of discrimination based upon qualitative variables is called discriminant correspondence analysis or barycentric discriminant analysis.

2.8 SIMILARITY BASED WEB PAGE CLUSTERING

The World Wide Web creates many new challenges to information retrieval. The sheer mass and almost anarchic structure of the Web makes effective search difficult. Some good search engine alleviate the problem to some extent by ranking the search results based on the relevancy of the Web pages to user's query. They aim to place the most prominent pages at high ranks. Most of current search engines work by first retrieving a set of Web pages based on traditional text-based search engine and then applying link-based page ranking algorithms to rank this set of Web pages. Current page ranking algorithms have several problems. One of the most important problems is computation complexity since the convergence of those eigenvector-based ranking algorithms requires iteration which is computationally expensive. Full Similarity-based Ranking (FSBR) using densely connected clustering, a novel approach for Web page ranking, is proposed by Prof. Xinhua Zhuang. Under his advising, I did thorough literature overview, proposed a novel Subgraph Chaining Expansion algorithm, built test bed, implemented FSBR algorithm, and conducted simulation and extensive experiments. FSBR is a generic full similarity-based ranking scheme. It allows similarity measures built on link structure and other ranking contributable features. It finds similarity-based densely connected clusters and uses them in page ranking. The experimental results also show that FSBR provides much higher accuracy than the HITS page ranking algorithm.

Link-based clustering in the context of bibliometrics, hypertext and the WWW has focused largely on the problem of decomposing an explicitly represented collection of nodes into a "cohesive" subset. But it has been mainly applied to a moderately sized set of objects such as a focused collection of scientific journals, or the set of pages on a single website.

2.9 PLSA MODEL

Probabilistic Latent Semantic Analysis (PLSA) is derived from a variant of *latent semantic index* (LSI), which is commonly used in text mining and information retrieval. The PLSA model is based on a statistic model called aspect model, which can be utilized to identify the hidden semantic relationships among general co occurrence activities. Similarly, we can conceptually view the user sessions over web pages space as co occurrence activities in the context of web usage mining to discover the latent usage pattern Probabilistic latent semantic analysis (PLSA) is a statistical technique for the analysis of co-occurrence data. In contrast to standard latent semantic analysis, which stems from linear algebra and shrinks the size of occurrence tables (number of words occurring in some documents), PLSA is based on probability and statistics to derive a latent semantic model. Instead of the traditional key-word based data classification, PLSA tries to classify data to its "latent semantic". It's about learning "what was intended" rather than just "what actually has been said or written". After performing the PLSA classification, words which often come together in a same document will be seen as highly connected to each other, and the documents which contain these words therefore will be classified into the same "topic". The whole PLSA process can be divided into two parts, which are corpus classification and the query fold-in. Both parts use the expectation maximization (EM) theory. After running tens of iterations, we can get the final result. PLSA can be used in many areas, such as information retrieval or machine learning, to improve the original results.

3. CONCLUSION

We devised simple, yet powerful, and modular algorithms, to identify primary content blocks from Web pages. Our system outperformed the LH method significantly, in b-precision as well as runtime, without the use of any complex learning technique. The Feature Extractor, provided a feature, can identify the primary content block with respect to that feature. The Content Extractor detects redundant blocks based on the occurrence of the same block across multiple Web pages. The method , thereby, reduce the storage requirements, make indices smaller, and result in faster and more effective searches. Though the savings in file size and the precision and recall values from "Shingling method " is as good as from Content Extractor, Content Extractor outperforms the "Shingling Method " by a high margin in runtime. We intend to deploy our system as a part of a system that crawls Web pages, and extracts primary content blocks from it.

In the next step, we will look at the primary content and identify heuristic algorithms to identify the semantics of the content to generate markup. The storage requirement for indices, the efficiency of the markup methods, and the relevancy measures of documents with respect to keywords in queries should also improve (as we have shown briefly by caching size benefit) since now only the relevant parts of the documents are considered.

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A STUDY ON FACTORS AFFECTING THE RISK PERCEPTION OF MUTUAL FUND INVESTORS

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ABSTRACT

Desire for exceptionally high returns with minimal risk has been the foremost priority of a human being whenever he faces dilemma among investment avenues. Among the several financial avenues prevailing in India, mutual funds have been admitted as the preferred choice because being flexible security it suits the self-designed boundaries of investors. Intensified competition and involvement of private players in the race of mutual funds have forced professional managers to bring innovation in mutual funds. Thus, mutual funds industry has moved from offering a handful of schemes like equity, debt or balanced funds to liquid, money market, sector specific funds, index funds and gilt edged funds. Mutual funds comprise of the strongest band of Indian financial market but have not attracted much attention, despite their efforts to continuously design new schemes. Thus, the prime concern of this research is to identify how truly mutual fund investors appreciate this investment including identification of factors that fosters gap in investors' expectations from security returns and actual portfolio management by mutual funds.

KEYWORDS

mutual funds, risk perception, investment decision.

INTRODUCTION

Mutual funds are recognized as a mechanism of pooling together the investment of unsophisticated investors and turn it in the hands of professionally managed fund managers for consistent return along-with the capital appreciation. This is the reason that over the time Indian investors have started shifting towards mutual funds instead of traditional financial avenues. The active involvement of mutual funds in economic development can be witnessed from dominant presence of mutual funds in the world- wide capital and money market. During the last two decades mutual funds have entered into a world of exciting innovative products. These products are now tailor made to suit the specific needs of the investors.

Although mutual funds are coming up with many new diversified faces and as a result Indian mutual fund industry has been growing exceptionally well on the back of country's booming economy but still mutual funds need to create more lucrative solutions to suit investors' expectations. Risk and return are the two prime concerns for selecting any mutual fund, yet investors also consider sale charges, fund manager's reputation, fund history, management fees, clarity in disclosure, and recommendation from media before finalizing their investment decision. Investors mainly rely on advertised strategies of fund managers, while investing their fund and are tempted by the overpromising tendency of agents to attract more investors. So an organized and robust system is required that can restrict AMCs to deviate from their committed and advertised promises. Thus, for making mutual funds more successful, AMCs should endeavor to access the risk an individual investor is willing to take and make certain that the collection of assets fulfill their expectations.

Presence of rationality in human behavior always allows for acceptance of a minimum risk whereby Random Walk Hypothesis (RWH) suggests that markets have random movements which can not be predicted. Thus, crucial decision for mutual fund AMCs is to use the available information and translate that information using their skills so that investors' trust can be maintained. Indian capital market has shown a spurt in growth with financial innovations becoming a regular feature leading to change in investors' preferences for new fangled financial innovations. Mutual funds industry has already entered into the world of exciting innovations where AMCs are coming up with new financial products, aligning them with customer expectations. Although mutual funds are responding very rapidly in understanding the mystery of consumer's mind, yet they are following this race in their endeavor to differentiate their product and to respond to market volatility. Thus, the study has been conducted on selected mutual fund investors to examine the factors that affect their risk perception and ultimately finalize their decision regarding investment in mutual funds.

RELATED WORK

Risk attitude of individual investor have got growing attention from behavioral finance because investors differ in their investment decision with reference to their social base and opportunities available in the financial markets. Investors generally have a wide range of choice while making investment decision (Kida, Moreno, and Smith [2010]), and they adopt different parameters to finalize their investment decision that may involve risk but although more options may provide extensive choice to investors but simultaneously increases the complexity of investment decision that may lead to "decision paralysis" (Iyenger and Lepper [2000]). Kahneman and Tversky [1979] proposed *Prospect Theory,* in which they explained investors' behavior on how they make choices in the decisions that involve risky alternatives. They concluded that people underweight outcomes that are merely probable in comparison with outcomes that are obtained with uncertainty and discard the component which is shared by all the alternatives under study. Although investment decisions involve a complex situation in which investors undergo a detail study on parameters that may suit their demographic behavior, as a general rule investors avoid extremities and follow a simple rule of thumb to adopt median opportunity in order to avoid risk (Simonson and Tversky [1992], Benartzi and Thaler [2002]). Investors' decision to select mutual funds as an investment decision because of their tendency to offer calculated risk along with professionally managed funds is supported by these studies. Existing literature provides that investors consider historical data as important determinants in investment decisions involving risky choices (Kane, Santini, and Aber [1990], Patel, Zeckhauser, and Hendrick [1992], De Bondt [1993]). Sjoberg [2000], however, provided that attitude, risk sensitivity, and specific fear are explanatory variables of constructive risk perception. Although investment decisions may involve a long range of parameters, the final level of risk assumed by any individual varies significantly with demographic features such as gender (Slovic [1996], Grable and Lytton [1998], Byrnes,Miller, and Schafer [1999], Olsen and Cox [2001]), age (Morin and Suarez [1983], Bodie, Merton, and Samuelson [1992], Palsson [1996], Heaton and Lucas [2000], Christiansen, Joensen, and Rangvid [2008]), income (Blume [1978], Cicchetti and Dubin [1994], Bernheim, Skinner and Weinberg [2001]), and marital status (Roszkowski, Snelbecker, and Leimberg [1993], Lazzarone [1996]). Studies by Haliassos and Bertaunt [1995], Schooley and Worden [1999], and Al-Azmi [2008] have also highlighted that educated investors are less risk averse than uneducated investors. The present study endeavors to examine the factors that affect the risk perception of individual investors. It was hypothesized that individual investors' social character may influence their risky choices.

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PROCEDURE

A well- structured questionnaire was designed that seek to obtain information regarding investors' perception and risk ambiguity (N=400) within Punjab. Designed questionnaire was duly validated and further, its reliability was also measured for consistency. Reliability of questionnaire was found to be significant for perception gap (α= 0.834), mutual funds working (α= 0.8153) and risk ambiguity (α= 0.801). The study primarily used exploratory research design for obtaining information on investors' risk perception and ambiguity regarding working of mutual fund AMCs. Demographic information of investors was collected and they were debriefed about the core objective of the study. Finally collected data was analyzed through SPSS 17.0 using appropriate statistical measures.

RESULT AND DISCUSSION

A well-structured questionnaire based survey was administered to experienced investors(N=400) of Punjab. As the endeavor was to comprise a sample of random investors, they were picked arbitrarily from the source list provided by the brokers. The participants of study comprise of investors from different age group who have already experienced the working of mutual funds by investing their savings with mutual funds. These included: aggressive investors ($\leq$ 30 years, n_1=170), active investors (> 30$\leq$ 50 years, n_2=165) and reflexive investors (>50 years, n_3=65). Out of the complete data set collected majority of investors were male (77%) and females comprised of 23% of the total respondents. In addition to this it was revealed that majority of investors investing in mutual fund are married investors (n=279) and profession wise majority of respondents were found to be salaried individuals (n= 263). All the respondents were provided with questionnaire that included 44 statements which were used to interpret the risk behavior of investors using SPSS 17.0 version. The respondents were required to answer their experiences with reference to disclosure practices and working philosophy of mutual funds on 5 point likert scale where range was constructed from strongly agree to strongly disagree. The complete detail of sample break down is presented in Table 1.

TABLE I: SAMPLE DETAILS

Particulars	N	%
Age		
Aggressive investors ($\leq$ 30 years)	170	43
Active investors (> 30$\leq$ 50 years)	165	41
Reflexive investors (>50 years)	65	16
Marital status		
Married	279	70
Unmarried	121	30
Income		
Basic investors (< 1.5 lakhs)	69	18
Low tax payers (1.5-3 lakhs)	133	33
High tax payer(3-5 lakhs)	161	40
Wealthy investor (> 5lakhs)	37	9
Profession		
Businessmen	75	19
Salaried	263	66
Professional	62	15

The present research has been initiated with an objective to identify the factors responsible for creating gap in investors' risk perception. For this reason it was mandatory to find out the investment objectives with which investors invest in Mutual funds. Investment objective of any investor depends upon his future obligations, thus, demographic features of any individual are mainly responsible for determining the investment objective of investors. Analysis of data provides that 34.3% of respondents (n=137) explained tax saving as their investment objective, whereas 11.8% investors (n=47) provided that they invest to earn retirement benefits. Further, 15% investors (n=60) revealed contingency and fear of future uncertainty is what lures him towards investment, 22% investors (n=88) explained capital appreciation and 17% investors (n=68) described that they save for education and marriage of their children. These investment objectives can also be interpreted as among the total investors 66% investors were salaried class and their core preference to invest in mutual funds is because of the tax benefits offered by fund schemes.

TABLE II: INVESTMENT OBJECTIVES

Group	Tax saving	Retire	Contingency	Capital Appreciation	Children education/ Marriage		Test Results
	N (%)	N %	N %	N %	N %	Total	
Age							
Aggressive investors(< 30 Years)	66 (16.5)	12 (3)	22 (5.5)	56 (14)	14 (3.5)	170 (42.5)	Chi^2=77.106* (df:8)
Moderate investors (30-<50 years)	53 (13.3)	13 (3.3)	25 (6.3)	26 (6.5)	48 (12)	165 (41.3)	Linear association=0.062 p=0.001
Conservative investors(> 50 Years)	18 (4.5)	22 (5.5)	13 (3.3)	6 (1.5)	6 (1.5)	65 (16.2)	
Total	137 (34.3)	47 (11.8)	60 (15)	88 (22)	68 (17)	400 (100)	

Table II provides the category wise summary of investment objectives of investors. An analysis of this table reveals that majority of aggressive investors have tax reduction or capital appreciation as main investment objective. Although, majority of moderate investors (n=53) opined tax saving as their investment objective, significant number of investors (n=48) from this category also described children education and marriage as their investment objective. In contrast, the main investment objective of conservative investors (n=22) is to get retirement benefits in the future. Next choice of even conservative investors is tax reduction which is similar to aggressive and moderate investors. Thus, the detail of investment objectives compiled in this table provides a clear insight on differences in investment objectives which they set in accordance of their age group. Chi^2 =77.106, (p=0.001) is significant which indicates a strong association between age and investment objective.

Perception of mutual fund investors has been judged for quality of services provided by mutual fund AMCs. Responses of investors were obtained on 5 point likert scale about their experience with mutual fund service providers both before investment and after investment. Average Perceived Score (APS) of investors and Average Experienced score (AES) are calculated to find out perception gap. Table III depicts the perceptual gap which investors actually experience once they invest in mutual funds. Actual experience of investors which they realized through difference in mutual fund services through their post-sale behavior has been measured using five parameters viz. transparency, responsiveness, communication, commitment and assurance. Negative results of perception gap on all these parameters highlight the level of dissatisfaction among investors which signify that investors believe mutual funds have different orientation towards customer services once the investment deal is finalized.

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TABLE III: ANALYSIS OF PERCEPTUAL GAP

Variable	Average Perceived score(APS)	Standard deviation	Average Experienced score(AES)	Standard deviation	Perceptual Gap
Transparency	4.03	0.97	3.34	1.08	-0.69
Responsiveness	4.20	0.88	3.15	1.02	-1.05
Communication	4.3	0.834	2.99	1.02	-1.31
Commitment	4.24	0.85	2.65	1.07	-1.59
Assurance	4.24	0.83	2.42	1.04	-1.82

Analysis of these score clearly show that for all the parameters of service quality of mutual funds AES< APS which highlights that investors are lured by highly promising results with extreme service quality offered by mutual fund AMCs, while their actual experience does not provide satisfactory results. These results explain that although with regard to transparency significant gap is not reflected with AES= 3.34, but significant gap which investors encounter are in term of assurance (AES=2.42), and commitment (AES= 2.65).

To understand the interrelationship among a large number of variables and to explain these variables in terms of their common underlying dimensions factor analysis has been applied. Factor analysis technique of data reduction has been applied with principal component analysis (Varimax rotation) and Kaiser Normalization. Factor analysis has resulted in six factors as presented in Table IV.

Factor analysis on investors' perception identifies six factors viz.

1. Risk management and confidence
2. Disclosure practices
3. Capability and Investor's expectations
4. Performance
5. Risk Insight
6. Market Volatility

These six factors account for total variance of 59.64%. Risk management and Confidence factor that includes willingness to assume risk (0.553), AMCs ability to estimate risk (0.791), AMCs ability to control risk (0.740), credibility of mutual fund advertisements (0.573), investors' confidence in AR (0.821) and TR (0.833) from mutual funds emerges as an important factor and explains 20.876% variance. The results provide that investors have trust in the working of AMCs for risk estimation (M= 3.18) and risk control (M=3.14). Investors' also reveal their moderate degree of confidence in AR (M= 3.21) and TR (M=3.30).

Disclosure practice has emerged as the second most important factor which accounts for total variance of 14.895%. The major elements of this factor are disclosure of fundamental risk in mutual funds (0.644), disclosure of entry/exit load (0.768), disclosure of portfolio content (0.739), disclosure of guaranteed returns (0.526), disclosure about maturity/liquidity (0.504), and disclosure about % portfolio allocation (0.702). Mean score ranging from 3.11 to 3.92 for all the disclosure practices reveals that investors do not agree that mutual funds disclose complete information to them.

TABLE IV: FACTOR ANALYSIS

Factor Name	Eigen Value	%of variance	Item Name	Item Loading	Mean	S.D
Risk management and Confidence	5.219	20.876	Level of risk	0.553	2.95	1.07
			Risk estimation by AMC	0.791	3.18	1.13
			Risk control by AMC	0.740	3.14	1.18
			Credibility of MF Claims	.573	2.83	0.92
			Confident about AR	.821	3.21	1.01
			Confident about TR	.833	3.30	1.04
Disclosure practices	3.724	14.895	Disclosure or risk	0.644	3.70	1.09
			Disclosure of load	0.768	3.11	1.21
			Disclosure of portfolio content	0.739	3.29	1.25
			Disclosure about guaranteed return	0.526	3.77	1.09
			Disclosure about maturity/liquidity	0.504	3.92	1.18
			Disclosure of % fund allocated	0.702	3.14	1.31
Capability & investor's expectations	1.882	7.527	ignore investor's objective	0.603	2.16	0.95
			Agents are not informed	0.773	2.10	0.94
			AMCs inability to protect investor's interest	0.755	2.19	0.96
			MF do not possess strong network	0.659	2.24	1.04
Performance	1.568	6.273	Actual return v/s expected return	0.785	1.87	0.88
			poor response to volatility	0.607	2.05	0.97
			High hidden cost	0.505	1.92	0.93
Risk Insight	1.423	5.691	Willingness to take risk	0.640	2.13	0.84
			Worried about risk	0.661	2.90	1.05
			Probability of lose in MF	0.758	2.90	0.968
			Overall risk in MF	0.563	3.40	0.99
Market volatility	1.099	4.395	Uptrend in stock market and expected gain	0.714	4.02	0.90
			Downtrend in stock market	0.642	3.81	1.09

Capability of mutual funds and investors' expectation has been recognized as third important factor that account for 7.527% variance. The major factors comprising this factor include mutual funds ignore investors' objective (0.603), agents are not informed (0.553), AMCs inability to protect investors' interest (0.755), mutual funds do not possess strong network (0.659). The mean scores of these variables ranging between 2.10 to 2.24 highlight that investors' agree with incompetence possessed by mutual funds.

Next factor that emerges from factor analysis is performance of mutual funds that account for 6.273% variance. The major elements of this factor are mutual funds do not deliver expected returns (0.659), mutual funds are poor to respond to market volatility (0.785), high hidden cost (0.505). Actual returns from mutual funds do not match with expected returns provides M=1.87 which reveals that investors agree that mutual funds do not perform professionally in order to deliver expected returns. Similarly, M=2.05 for mutual funds poor response to volatility expose the fact that investors believe in professional incompetence on the part of mutual funds. Last component of this factor has M=1.92, which provides that investors believe mutual funds have high hidden costs.

Risk Insight has emerged as another component of factor analysis that account for 5.691% variance. Major elements of this factor include willingness to take risk (0.640), worried about risk (0.661), probability of lose in mutual fund (0.758), overall risk in mutual fund (0.563). Mean scores of investors' responses on how

much worried they are about risk in mutual funds (M=2.90) and probability of lose in mutual fund (M=2.90) reveal moderate degree of apprehensions but M= 3.40 for overall risk in mutual funds provide that investors rate mutual funds as somewhat risky investment.

Last factor has been identified as market volatility which account for 4.395% of variance. This factor comprises of two components, i.e., gain in mutual funds due to uptrend in stock market (0.714) and loss in mutual funds due to downtrend in mutual funds (0.642). Mean score of these results reveal that investors are more optimistic about high returns from mutual funds due to uptrend in stock market (M= 4.02) whereas they also anticipate high risk from mutual funds due to downtrend in stock market (M=3.81).

CONCLUSION

In present study an attempt has been made to understand the risk perception of mutual funds' investors. The survey not only aimed at understanding investors' risk perception but also identified the factors that contribute to investors' expectations. The findings of the study have revealed that investors consider mutual funds as risky investment. Moreover, the factors that influence this decision as identified in the present study are: investors' age, knowledge, income, worries, probability to lose. It has also been revealed that investors admit mutual funds' performance is subject to trend in the stock market and fund managers do not possess specialized skills to protect them from loss during downtrend. Although investors have a different degree of risk tolerance for their investment but the factors that contribute to their risk perception include investors' confidence in the working style of mutual funds, performance of mutual funds AMCs in terms of their disclosure practices and risk insight.

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PERCEPTIONS OF EFFECTIVE TEACHING PRACTICES AND INSTRUCTORS' CHARACTERISTICS IN TEACHING AT UNIVERSITIES

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ABSTRACT

The most accepted criterion for measuring effective teaching is the amount of student learning that occurs. Effective teaching is an art and no easy endeavour. However, despite the efforts of many researchers over more than a century, a direct link between perceptions of effective teaching practices and instructors' characteristics at universities less discovered. Hence, this study explored perceptions of effective teaching practices and instructors' characteristics. A mixed-method approach using a descriptive survey design was used. The four experienced universities were selected and samples for the study were selected by systematic and random sampling technique. Data gathered from two groups (students & instructors) through interviews and Liker scale questionnaires by a sample of 69 students and 64 instructors were analyse. The study found that effective instructors were regarded as respectful, makes classes interesting, cares about students' success, friendly shows a love for their subject, encourages questions and discussion, fair in their marking, well prepared and organized, and makes difficult subjects easy to learn. The study also found that ineffective instructors did not plan for their lectures, came late for lectures, were not knowledgeable, were not contributing to students' presentations, were intimidating students, were not involving students, were boasting about their qualifications and family and were biased in their marking. It emerged that ineffective instructors' marking did not highlight strengths and weaknesses of students. Recommendations were made to improve on the effectiveness of university instructors.

KEYWORDS
Effective teaching, instructors' characteristics, Perceptions, universities.

1. INTRODUCTION

The government of Ethiopia has placed great emphasis on quality education, effective instructors and recognizes it as an essential component for development needs of the society. The recent policy to quality improvement focuses on the complex interaction that takes place in the teaching-learning process at the university level to improve quality of education (MoE, 2005). Effective teaching is lecturing that creates an environment in which deep learning outcomes for students are made possible, where high quality student learning is promoted and where superficial approaches to learning are discouraged Ramsden (in Biggs,2003). Taking a constructivist view of education, Biggs sees the secret of high quality teaching as ensuring that there is "alignment between what instructors want, how they teach and how they assess" in a system where all components address the same agenda. Biggs (2003) posits that the purpose of university teaching is to promote the development of high order learning processes, which he suggests appear to come naturally to high-achieving undergraduates but not necessarily to all students. Perceptions of effective teaching practices and instructors' characteristics and instructor classroom practice and interaction at classroom level seem to have vital importance in learning improvement. Therefore, the main objective of the present study was to analyse what both students and instructors viewed as important characteristics of effective and ineffective teaching as well as instructors' characteristics, with the intent of comparing their responses to cross cultural descriptors provided in empirical studies. The researcher was also interesting to investigate mediating factors that have influence on the responses of the participants.

2. REVIEW OF LITERATURE

2.1 THE PERSONALITY VIEW OF EFFECTIVE TEACHING

The characteristics of good instructors based in terms of the personality view encompass personal human qualities such as: intelligence, self-confidence, fairness, respect, caring, sensitivity, flexibility, enjoyment of students, open-mindedness, friendliness, providing individual attention, kindness, enthusiasm, having a good sense of humour, making learning interesting, being serious, being hospitable towards students, teaching style, trust, credibility, and even instructor attractiveness and height (Beishuizen, Hof, vanPutten, Bouwmeester& Asscher, 2001). The trait theory assumes that there are identifiable qualities that set the effective teachers apart from others and that these special qualities enable the effective teacher to exert influence over students. Walsh and Maffei (in Smith, Mendendorp, Ranck, Morrison & Kopfman, 1994: 23) shed light when they postulate "*The student- teacher relationship is important not only for its own sake, but also because it is closely linked to learning*". Some of the most insightful definitions in support of the relational view of effective teaching are expressed as follows: to Walls, Nardi, von Minden and Hoffman (2002:40), the "*… emotional climate constitutes a strong if not predominant construct associated with effective teaching*"; to Borich (2000), "*… a personal connection between teacher and student may, in fact, be the single most important avenue to student growth and to students' satisfaction with their education*"; while for Wubbels, Levy and Brekelmans(1997:82) "*… exceptional teaching can also be described in terms of instructor-student relationships*". Clearly, personal relationships between effective instructors and their students are viewed as important to these researchers.

Building good relationships is one of several components of teaching effectiveness and it falls under the umbrella of 'relationship management'. It is about working effectively with others, including the handling of frustrations and disagreements. It is having the capacity to guide, motivate, influence, and persuade followers to share a common vision. It is about holding the learners' best interest in mind by developing their abilities through positive and constructive feedback. Through teamwork and collaboration, it is about being an agent of change who initiates, manages, and leads learners towards something new, something mind-expanding.

However, the personality view of good teaching, which is grounded in the qualities of the teacher, is not easily or directly classified, measurable or observable and, as discussed above, has limitations. Special characteristics such as values, experiences and insights remain until today to be isolated. Moreover, even if they do become identified at some point in the future, it will continue to present a challenge to establish direct links between such identifiable teacher qualities and teaching performance. Nonetheless, many researchers including those mentioned above, would not be entirely satisfied with a definition of instructor /teaching effectiveness that focused solely on the personality perspective.

2.2 THE ABILITY VIEW OF EFFECTIVE TEACHING

Process-product research was born and upheld its name since its goal was to link teaching processes to students' performance on standardized tests (Shulman, 2004). Despite being unfashionable in certain areas of educational research, the view of process-product research that attempts to identify teacher behaviours that contribute to student achievement is still held favourably by many educators today. They believe that teaching effectiveness can be defined in terms of a plethora of skills and behaviours, knowledge (content, pedagogical, social, tacit knowledge), and experience of good instructors (Beishuizen *et al.*, 2001; Hay McBer, 2000; Wubbels *et al.*, 1997). Amongst the numerous skills-oriented definitions available, one provided by Anderson (2004:25) is that "*… an effective teacher is one who quite consistently achieves goals – be they self-selected or imposed – that are related either directly or indirectly to student learning*". A

similar definition focussing on goals and objectives offered by Fuhrmann and Grasha in Centra (1993:43), based on the process-product perspective and which also helps us to understand the ability perspective is this:

… effective teaching is demonstrated when the instructor can write objectives relevant to the course content, specify classroom procedures … and student behaviors needed to teach and learn such objectives, and show that students have achieved the objectives after exposure to the instruction.

Hay McBer (2000) report found no correlation amongst biometric data (teacher's age, years of teaching experience, additional responsibilities, qualifications, career history, etc.) and teaching effectiveness. This finding is also consistent with the notion that student progress outcomes are affected more by the teacher's skills and professional characteristics than by factors such as age, qualifications or experience. Hence, the impact of teaching effectiveness is, arguably, contingent upon elements of the situation. The major dispute with process-product research is that while product variables can be measured fairly accurately through standardized tests of achievement, process variables remain elusive. For that reason, many teacher behaviours and methods of instruction that appear to be effective in one context or milieu may be ineffective in another (Centra, 1993). Effective teachers utilize different qualities under differing situations. Another definition offered by Fuhrmann & Grasha in Centra (1993:44) helps us to understand the cognitive theory approach:

Effective teaching is demonstrated when instructors use classroom procedures that are compatible with a student's cognitive characteristics, can organize and present information to promote problem solving and original thinking on issues, and can show that students are able to become more productive thinkers and problem solvers.

From the above discussion on the evolution towards a definition of teaching effectiveness and from the numerous and readily available definitions of the effective teacher, it seems that not one definition is meant to be mutually exclusive nor is it suggested here that there are only personality traits and ability characteristics to be considered. As Cruickshank and Haefele (2001) posit, in an ideal world, a good teacher would demonstrate all aspects of teacher "goodness", but in reality, there are many different types of effective teachers who satisfy the needs of different students and other stakeholders. Cruickshank and Haefele (2001:29) use the argument that "… perceptions of good teachers differ by age, gender, socioeconomic background, educational level, geographic area, and political persuasion". While keeping in mind the mediating factors or variables that may play a major role in defining effective teaching, knowledge accumulated through research covering more than half a century serves us well in adopting an incremental view of teaching effectiveness that encompasses a large number of indicators found in both the personality and the ability perspectives of the good teacher.

3. IMPORTANCE OF THE STUDY

The results obtained and implications drawn could be of benefit to instructors everywhere who are receiving students from all corners of the country, to have better understand student needs from another culture in the classroom environment. In addition, researcher sees this work as a contribution to help guide to those who are involved in the development of future research on similar settings. In view of the above, this study will help university instructors, students, academic department heads, deans, the Ministry of Education, the Regional Education Bureau and other concerned bodies to design preventive, intervention and rehabilitative measures regarding problems related to the direct influence of the implementation of effective teaching practices and instructors' characteristics in engineering education.

4. STATEMENT OF THE PROBLEM

The researcher was interested to conduct this research at universities rather than the lower education levels, because now a days the university students are evaluating their instructors, but high schools' and elementary schools' teachers are evaluated by only department heads and administrators. Furthermore, the research was conducted on engineering instructors and students, because this field is given emphasis by the government. The researcher came across students' complaints about their instructors being ineffective. Heads of departments and schools deans have received anonymous letters from students complaining about ineffective instructors (MoE, 2005). Students could possibly attribute some cases of low throughput rate to these complaints of instructor ineffectiveness. It was the findings of the scholars past personal experience of teaching in university that inspired him to look into the problem closely. In addition, being the differences among the instructors and students' views regarding effectiveness and characteristics of instructors and experiences have inspired researcher to think of conducting this study. The researcher decided to explore perception of effective teaching practices and instructors' characteristics because instructor's perceptions and belief lead to change.

5. OBJECTIVES OF THE STUDY

This study was respond issues with regard to engineering education at the selected universities, Ethiopia in general and particularly attempts to achieve the following objectives:

- explore the relationship between effective teaching and the instructor's personality and ability;
- assess students' and instructors' perceptions of effective teaching practices;
- examine predominant instructors' characteristics perceived by the study participants to describe effective teaching,
- identify whether instructor's characteristics had any effects on effective teaching ;
- provide useful information to instructors on teaching approaches and instructor characteristics that affect effective teaching.

6. BASIC RESEARCH QUESTIONS

Therefore, this study is designed to find out answers to the following questions:
1. What are the predominant characteristics used by the study participants to describe effective teaching?
2. To what extent are students' perceptions of effective teaching similar to those of instructors?
3. To what extent are students' perceptions of ineffective teaching similar to those of instructors?
4. Are the descriptors used to describe effective teaching amongst the two sample groups focused more on the ability or on the personality view?

7. METHODOLOGY

A mixed-method approach using a survey design for obtaining descriptive statistics supported by a qualitative investigation was employed because of the complexity of the research issues. Further, the researcher primarily selected descriptive survey method because it is found to be the most appropriate technique for collecting vast information and opinions from quit a large number of respondents (Creswell, 2009).

7.1 SAMPLING TECHNIQUES

The sample universities (Adama, Addis Ababa, Haramaya and Hawasa) were conveniently selected, for the researcher had contact persons for easy data collection. The sample for this study was selected using systematic and random sampling technique.

7.2 SOURCES OF DATA

The primary sources included in this study were engineering students and instructors, deans and vice deans, and department heads selected from the four experienced sample universities. The secondary sources for the present study were printed materials. One-tenth of the senior year engineering students from each sample university were selected by using systematic and random sampling technique.

7.3 DATA COLLECTION INSTRUMENTS

In order to collect the required information the researcher was used questionnaires, interviews and observation checklist. The instrument was adapted and modified from Tootoonchi, Lyons and Hagen (2002). The proposed theoretical framework was used to guide the researcher to analyze and categorize the perceptions of students and instructors of effective teaching and instructors characteristics.

7.4 METHODS OF DATA ANALYSIS

The data collected through different instruments (questionnaires, observation and interview) were organized, presented in tables and then analyzed statically using statistical methods such as percentages, means, standard deviation and Ch-square and were interpreted.

8. RESULTS AND DISCUSSION

The research questions identified in the introduction was the focal point for this part of the study.

8.1 THE PREDOMINANT CHARACTERISTICS USED BY THE STUDY PARTICIPANTS TO DESCRIBE EFFECTIVE TEACHING

From Table 1 below, the following six personality characteristics were very important (VI) to describe effective teaching respectful of their students; make classes interesting; fair in grading and evaluating student work; care about students succeeding in their course; show that they really like the subject they teach, and are friendly to students. In addition, worthy of mention is that all remaining personality characteristics were considered by the study respondents to be important (I) descriptors of effective teaching. Thus, each one of the 11 personality characteristics specifically designed for the questionnaire was rated as either very important or important. This indicates that all personality characteristics reflected in the questionnaire were essential (average mean of 3.37, Table 1) to the entire sample population to describe effective teaching.

TABLE 1: DESCRIPTIVE STATISTICS OF THE PERSONALITY TRAITS MEASURE OF EFFECTIVE TEACHING BY ENTIRE SAMPLE (A=0.05)

Personality characteristics	Min	Max	Mean	Rate	S D	Rank
. … are respectful of their students.	1	4	3.73	VI	0.538	1
. … make classes interesting.	1	4	3.70	VI	0.522	2
. … are fair in grading and evaluating student work	1	4	3.67	VI	0.612	3
. … care about students succeeding in their course.	1	4	3.56	VI	0.632	4
. … show that they really like the subject they teach.	1	4	3.53	VI	0.713	5
. … are friendly to students.	1	4	3.50	VI	0.735	6
. … welcome students' opinions/ suggestions.	1	4	3.38	I	0.682	7
. … are available to help students outside of class.	2	4	3.33	I	0.693	8
. … use humour in the classroom.	1	4	3.33	I	0.781	10
. … make an effort to get to know their students.	1	4	3.11	I	0.794	10
. … have a unique teaching style.	1	4	3.11	I	0.049	11
Average of means			**3.37**			

According to this study, the most important characteristic of the effective instructor personality trait to emerge is "are respectful to their students" (mean 3.73, Table 1). This finding closely matches the high (2nd place) ranking of Feldman's trait "is concerned with, is friendly to and *respects* students" and matches the results from studies conducted to other researchers (Saafin, 2005 & Raymond, 2001). As it has seen in the literature review, other researchers also report that instructors must demonstrate respect for their students from the moment of first encounter for effective teaching to transpire (Colker, 2008; Day, 2004 & Hay McBer, 2000). Respect for students emerged as highest trait to be mentioned in the qualitative, open-ended portion of the questionnaire instrument.

Upon closer examination of open-ended questions, "Make classes interesting and fun" was the most frequently mentioned trait, providing further support as to the importance of this finding. "An effective instructor should regularly succeed in inculcating a love of knowledge" does one instructor while answering the open-ended question write the words. It appears that respect for students is more of a concern for instructor respondents. In addition to delivering content knowledge; respect for self, others, and institutional policies and procedures is the second highest overall rated effective personality teaching as revealed by this study's respondents is (mean, 3.70, Table 1). This trait ranked high in both components of this study (questionnaire results, and open-ended questions). Being "fair in grading and evaluating student work" was the third most prominent effective teaching characteristic as reported by respondents (Table 1). The importance of this trait objectivity to effective teaching has been discussed methodically in the literature reviewed (Beishuizen *et al.,* 2001; Day, 2004; Miller, Dzindolet, Weinstein, Xie & Stones*.,* 2001; Raymond, 2001; Saafin, 2005). The fourth highest rated personality characteristic of effective teaching to emerge from this study was "caring about students succeeding in their course" and it was ranked fourth highest according to the open-ended question on the survey instrument. Students ranked this trait as their second most important indicator of teaching effectively. Making a link between this study's results and the literature, Borich (2000) describes effective instructors are those who "… provide a warm and encouraging classroom climate by letting students know help is available". Following on from the previous findings, students rated this trait as their premier characteristic, while the more experienced, more independent students ranked this item 6th of the eleven personality characteristics measured in the questionnaire (Berk, 2005 & Cheng, Mok & Tsui, 2001).

Of the eleven personality traits included in the survey instrument, six were rated as *very important* and five were rated as *important* descriptors of the effective instructor. Though it can be seen that there are some minor differences in opinion between how students and instructors rated the personality traits included in the questionnaire, it is evident that there is substantial agreement between students and instructors views as to which traits are deemed important to effective teaching. This study findings reveal that instructors who are fair in grading and evaluating student work, demonstrate genuine respect for their students, make classes interesting and exciting places to be, are fair in all students' dealings, care about students' success, genuinely enjoy teaching their subject matter and are always friendly and approachable are more likely to be effective in transferring knowledge to their students, and in return more likely to be rated higher in instructor evaluations. According to the student and instructor respondents, three ability attributes emerged as dominant (very important) by the study participants to describe effective teaching: are respectful of their students; make classes interesting, and are fair in grading and evaluating student work (Cheng *et al.,* 2001).

TABLE 2: DESCRIPTIVE STATISTICS OF THE ABILITY CHARACTERISTICS MEASURE OF EFFECTIVE TEACHING BY ENTIRE SAMPLE (A=0.05)

Ability characteristics	Min	Max	Mean	Rate	S D	Rank
. … encourage students' questions and discussion.	1	4	3.7	VI	0.62	1
… are always well prepared and organized.	2	4	3.6	VI	0.62	2
… make difficult subjects easy to learn.	1	4	3.5	VI	0.69	3
… have expert, up-to-date knowledge of their subject.	1	4	3.4	I	0.73	4
… require students to think critically.	1	4	3.4	I	0.69	5
… expect students to become independent learners.	1	4	3.3	I	0.73	6
… give frequent feedback about student progress.	1	4	3.2	I	0.71	7
… encourage students to learn in pairs/groups.	1	4	3.0	I	0.89	8
… maintain strict control over the class.	1	4	2.8	I	0.78	9
… use the latest computer technology in their teaching.	1	4	2.5	I	0.98	10
… give many quizzes and tests.	1	4	2.3	SI	0.81	11
… have many years of teaching experience.	1	4	2.2	SI	0.96	12
… assign a lot of homework.	1	4	2.0	SI	0.74	13
… lecture (talk) for the entire class period.	1	4	1.7	SI	0.87	14
Average of means			**2.89**			

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Table 2 above, indicates that three ability attributes were considered to be very important descriptors of effective instructors to the entire sample and that the highest ranked ability trait used to define effective teaching emerged as "encourage students' questions and discussion". Overall, this ranked the first highest of all ability characteristics with a mean of 3.7. This characteristic (is open to students' ideas, opinions, and discussion) also rated high in the literature summary, tying for second place overall (Beishuizen *et al.,* 2001; Saafin, 2005; Walls *et al.*, 2002; Witcher, 2001). The second (mean =3.6) of three predominant ability attributes viewed as very important by the study respondents is the descriptor of instructors who "are always well prepared and organized" (Table 2). It is also rated very high in the literature review by researchers (Saafin, 2005; Walls et al., 2002). Results from the open-ended question also indicate the importance of instructors being prepared to stand and deliver well-organized materials and lessons to their students. The last predominant effective teaching ability attribute to emerge from this study was the aptitude of instructors to make difficult subjects easy to learn (Table2). This characteristic, like all others discussed while answering this first research question, appears to be common as well. The literature review meta-table ranks this as 4th most important ("explains using simple terms") and was important to preceding researchers ((Barnes & Lock, 2010; Walls et al., 2002).

8.2 STUDENTS' PERCEPTIONS OF EFFECTIVE TEACHING SIMILAR TO THOSE OF INSTRUCTORS'

Even though numerous matches appeared amongst the respondents in regards to effective teaching, some minor mismatches did surface. In other words, what the participating students appeared to value in their instructors differed in some instances from what the participating instructors seemed to regard as very important to effective teaching.

TABLE 3: MAJOR MATCHES BETWEEN INSTRUCTORS AND STUDENTS IN DESCRIPTORS USED TO DESCRIBE EFFECTIVE TEACHING

Personality characteristics of excellent teaching	Student rating	Instructor rating
Make classes interesting	**VI**	**VI**
Are respectful of their students	**VI**	**VI**
Are friendly to students	VI	I
Care about students succeeding in their course	**VI**	**VI**
Show that they really like the subject they teach	I	VI
Are fair in grading and evaluating student work	I	VI
Are available to help students outside of class	I	I
Welcome students' opinions/suggestions	I	I
Make an effort to get to know their students	I	I
Have a unique teaching style	I	SI
Use humour in the classroom	I	I

Both study groups consider making classes interesting (Table 3), being respectful of students and caring about students' success to be very important (VI) or predominant characteristics of effective teaching. Furthermore, both student and instructor respondents share the perception that effective teaching is exhibited by instructors who remain available to students outside of class, who are open to students' input, make an effort to learn their students' names and who employ appropriate humour in the classroom. Three other personality items– being friendly to students, demonstrating that they like their subject and being fair when dealing with students – were also considered as either important or very important to both groups. This once again suggests a high degree of similarity in their opinions of what constitutes effective teaching (Leinhardt in Cheng *et al.,* 2001; Oredbeyen, 2010).

Both respondents (students & instructors) consider effective instructors to be always well prepared for their classes and have the ability to make difficult topics easy to learn (Table 4). Despite this finding, however, it can be reasonably concluded that student and instructors perceptions of what constitutes effective teaching are largely very similar. Other sub-group differences, which have emerged, will be discussed below.

TABLE 4: MAJOR MATCHES BETWEEN INSTRUCTORS AND STUDENTS IN DESCRIPTORS USED TO DESCRIBE ABILITY CHARACTERISTICS OF EFFECTIVE TEACHING

Ability characteristics of excellent teaching	Student rating	Instructor rating
Are always well prepared and organized	**VI**	**VI**
Make difficult subjects easy to learn	**VI**	**VI**
Have many years of teaching experience	I	SI
Encourage students' questions and discussion	I	VI
Have expert, up-to-date knowledge of their subject	**I**	**I**
Require students to think critically	I	VI
Give frequent feedback about student progress	**I**	**I**
Expect students to become independent learners	**I**	**I**
Maintain strict control over the class	**I**	**I**
Encourage students to learn in pairs/groups I	**I**	**I**
Use the latest computer technology in their teaching	I	SI
Give many quizzes and tests	I	SI
Lecture (talk) for the entire class period	SI	NI
Assign a lot of homework	**SI**	**SI**

Answers to the open-ended question on the questionnaire instrument help us to understand the importance of these characteristics to students: *S1: In my opinion, the effective instructor who is strict controls the class, has a unique teaching style, and gives many quizzes or tests. S2: Give many tests and frequent feedback to students*. Instructors, on the other hand, rated the ability characteristics of requiring students to become critical thinkers, encouraging questions and discussion as well as expecting students to become independent learners as more important than did their young charges who are likely inexperienced with these concepts of higher education. Answers to the open-ended question on the questionnaire instrument help us to understand instructors' perspectives of these attributes:

In1: An effective instructor should regularly succeed in inculcating a love of knowledge.

In2: One who understands the student needs & learning preferences & can facilitate high-order thinking in the learning process.

Relative to how instructors assess encouraging students' questions and discussion, as well as to the importance of assisting students to become independent learners, one instructor had this to say:

In1: An effective/ excellent instructor is one who is always open-minded–actually welcomes students' questions, opinions, and suggestions. One who uses what students say and contribute to bringing the learning process to life!

In2: … listen to them, have time for students outside of class, be creative and fun in class, be a friend and a instructor.

In3: The ability to motivate students to learn.

Thus, findings from this study appear to correspond to what Beishuizen *et al.* (2001:185) found in their study conducted in the Netherlands. Similar to students in this study, primary students in Holland "… described effective instructors primarily as competent instructors, focusing on transfer of knowledge and skills …" whereas secondary students and instructors at the same institute in Beishuizen *et al.* "… emphasised relational aspects of effective instructor …" reflecting what has just been discussed with the instructors' comments. Furthermore, "Young students displayed an ability view while mature students and instructors showed a personality view on instructors" (Beishuizen *et al.*, 2001:196).

Finally, a comparison of the significant differences between the students and instructors views indicate that instructors rated six ability characteristics to be more important indicators of effective teaching than did their students. Instructors would more likely describe the effective instructor as one who requires students to think critically, encourages students to work in small groups or in pairs, gets to know their students, and encourages students' discussion and questions. To help us identify with the environment at the time the study was conducted, the following quotes taken from the open-ended qualitative questions are presented:

In1: Someone who can get the students to question ideas/concepts –create a genuine interest in learning. Someone that "pushes" the students to do their best.
In2: Student-centered learning manoeuvres that guide students to independent knowledge and skills acquisition.
In3: … engage the students in critical thinking and new ways of looking at the world & their learning who then reflects on the process & seek ways to improve.
In4: Interact with students on a professional and personal level.

Students, on the other hand, would place more emphasis on ability descriptors of effective instructors such as being current with the latest technology and up-to-date with their subject knowledge. As it has seen in the literature review, opportunities to work in groups were also reported as a learning preference by students according to Saafin (2005), and Raymond (2001).

8.3 STUDENTS' PERCEPTIONS OF INEFFECTIVE TEACHING SIMILAR TO THOSE OF INSTRUCTORS'

To answer this question, descriptive data that was collected through interviews and respondents' answers to an open-ended question of the questionnaire was compared. Information extracted from interviews and open-ended question, it can be observed that students and instructors' perceptions of ineffective teaching coincide with regard to a number of attributes. Both groups describe the ineffective instructor as someone who does not respect his/her students, does not care, is boring, can not explain the subject matter well, is unprepared for class and is unfair in grading . Table 5 below, which compares the characteristics of effective teaching extracted from research question alongside the results of the ineffective instructor revealed from the interviews and open-ended question, suggest that at least to the population sampled in the selected universities, Ethiopia, there is agreement that study participants do view the two extremes as polar images of each other.

TABLE 5: A COMPARISON OF EFFECTIVE AND INEFFECTIVE TEACHING CHARACTERISTICS

Effective instructors (Results of research question 2)	Ineffective instructors (Results of research question 3)
Are respectful of their students	*Are disrespectful of students*
Care about students succeeding in their course	*Don't care if students understand*
Make classes interesting	*Are boring*
Make difficult subjects easy to learn	Cannot explain well
Are always well prepared and organized	Are unprepared for class
Are fair in grading and evaluating student work	*Are unfair in grading*

Note: personality measures are highlighted in *italicized* **bold** font.

The first descriptor of the ineffective instructor to emerge from Table 5 above is disrespectful of students. This finding is particularly interesting for three reasons. First, it represents a very close match in that it appeared with nearly the same frequency in both students' and instructor's data from the open-ended question. Second, supportive evidence is provided for researcher earlier argument in favour of the mixed-methodology approach to the questionnaire instrument wherein it was claimed that unforeseen and beneficial results could often be revealed by the use of qualitative methods. Third, it was indeed an unexpected result since the researcher had not anticipated that lack of respect would be an issue raised by students in answering the open-ended question, especially in the level where this study was conducted. An uncaring instructor would most likely meet with resistance and minimal academic performance from his or her students.

However, even though researcher's observations stem mainly from teaching experience in an Ethiopia context, it appears that this characteristic is not unique to the universities.

One student said: The bad instructor is not concerned about the students. Researcher: What do you mean?

Student: I mean he/she cannot tell when someone is distracted in class because he/she does not care of this guy. For me I don't usually work hard for an instructor that has no care to me … or doesn't ask me if I have a personal problem or not. An engineering instructor said: Oh! To tell you the truth, I have a well developed Emotional Quotient(EQ), so for me an ineffective instructor would be someone who didn't show his/her emotional side … who was uncaring, frigid, unfeeling, lacked compassion … actually, it's just the opposite of what I've just answered in effective instructors. Researcher: Are you saying that the characteristics of the effective instructors are merely the opposite of the ineffective one? Instructor: Essentially, yes!

Previous research on teaching effectiveness has established caring as an important factor in distinguishing between good and ineffective teaching. "Is concerned with, and is friendly to …" have been reported by other authors as an essential personality component (Saafin, 2005; Walls *et al.*, 2002). This is consistent with Brookfield's in Saafin (2005) argument discussed in the literature review, that effective teaching requires the instructor to relate new concepts to something that is familiar to students. Thus, it can be concluded that unless an instructor can explain his/her topic in a meaningful manner, effective learning will be unlikely to transpire in the classroom or lecture hall. Respondents in this study described ineffective instructor as being unprepared and disorganized. For example, Saafin (2005) would all agree that effective instructors must be prepared and organized. If instructors fail to capitalize on this opportunity, students will rapidly lose interest and respect, causing the instructor to resort to wielding power in an autocratic manner in order to maintain classroom order. Last in this discussion of features describing the ineffective instructor is being unfair with grades (Barnes & Lock, 2010).

To sum up, according to the study's respondents, ineffective instructors are *disrespectful of students, do not care, are boring, can not explain topics well, are unprepared for class and are unfair with their grading*. The missing ability characteristic *encourages students' questions and discussion*, however, could arguably be considered the opposite of the second highest ineffective instructor characteristic to emerge as one who doesn't care if students understand. Lowyck in Beishuizen *et al.*, (2001) "… noticed that in every job with a strong social component qualities like friendliness are very opportune". Aloofness, it could be argued, would be a difficult approach taken to establishing friendly relationships with one's students in the communal environment of the classroom. The findings also provide validation of the study's methodology, purposely designed to attempt to measure effective teaching traits using an alternative method. However, comparable to the Walls *et al.'s* (2002) studies, the findings of this study also indicate that students and instructors hold similar perceptions of what characterizes an ineffective instructor.

8.4 THE DESCRIPTORS USED TO DESCRIBE EFFECTIVE TEACHING AMONGST THE TWO POPULATION GROUPS (STUDENTS &INSTRUCTORS) FOCUSED MORE ON THE ABILITY OR ON THE PERSONALITY VIEW

Of the 25 questionnaire items utilized to evaluate respondents' opinions of effective teaching characteristics, 11 were purposely designed to reflect personality traits while 14 were included to measure ability characteristics. The average of means of the personality measure was calculated as 3.4 whereas the average of means of the ability category was less than 2.9. In addition, by examining column one in Table 6 below which represents findings from two different sources, two of the top six ranked traits are the top ranked personality characteristics.

TABLE 6: A COMPARISON OF THE SIX HIGHEST RANKED CHARACTERISTICS OF EFFECTIVE TEACHING ACROSS RESPONDENTS (STUDENTS & INSTRUCTORS) SOURCES

Questionnaire	Transcribed interviews	Open-ended question	Literature review
1. Are respectful of their students.	1. Makes lessons understandable	*1. Makes class interesting/fun*	*1. Is enthusiastic for subject/towards teaching*
2. Make classes interesting.	*2. Is friendly to students*	*2. Is friendly to students*	*1. Is available to help students*
3. Are fair in grading and evaluating student work.	2.Respects students	3. Really knows subject knowledge	*2. Is concerned with, is friendly to, and respects students*
4. Encourage students' questions and discussion.	*3. Encourages students*	*4. Cares about students' learning*	*2. Is open to students' opinions, ideas and discussion*
5. Are always well prepared and organized.	*4. Makes classes interesting/fun*	5. Makes lessons understandable	*3. Stimulates interest in course/subject*
6. Care about students succeeding in their course.	5. Makes students think	6. Is well prepared for class	3. Encourages students to think critically
			4. Is prepared, organized
			4. Is knowledgeable of subject
	6. Answers all students question		4. Explains using simple terms
			5. Is sensitive to and concerned with class level and progress
			5. Is fair and impartial in marking/evaluating students
	6. Really knows subject knowledge		6. Provides frequent, prompt, useful feedback
			6. Is dedicated, committed

Note: personality measures are highlighted in italicized bold font.

It can be observed that from the transcribed interviews of study respondents, 54% of the traits mentioned by instructor and student respondents were attributed to personality measures while the remaining 46% were categorized as ability, indicating that when verbally discussing effective teaching traits, respondents in this study slightly favoured personality traits. Of the two comparative measures, personality traits were indicated to be more dominant than ability characteristics when both instructor and student respondents described the characteristics of the effective instructor in the open-ended question. Out of the 46 attributes, which were synthesized, 71% were classified as personality characteristics while ability characteristics occupied the remaining 29% of the total characteristics extracted from the questionnaire. As can be seen from column three in Table 6 above, personality measures occupy the top two of the first six characteristics reported in the open-ended question found in the questionnaire. Consistent with the results of the questionnaire and with the transcribed interviews, personality measures are once again indicated to be the more frequently mentioned of the two by the study respondents.

9. FINDINGS

In this part of the study, an attempt is made to explain the findings of the study with reference to the basic questions formulated:

It was found that common personality characteristics of effective teaching appear to be demonstrating respect to students, delivering interesting classes, caring about students' welfare, exhibiting a love for the subject being taught, and being friendly to students. Educators who encourage two-way communication with students, are organized and well prepared, and present topics in ways that students can relate to and easily understand demonstrate common ability attributes of effective teaching.

Only two personality traits appear to have raised significant differences of opinion between the study's two (students& instructors) population groups. Instructor respondents rated the use of humour in the classroom to be an essential ingredient to effective teaching in contrast, engineering students, with less developed Engineering skills needed to interpret humour, understandably placed a low value on this quality.

Both student and instructor respondents regarded the affective quality to treat learners with respect and caring as very important. The respondents' perceptions also correspond with regard to making classes interesting, caring about their students' success, demonstrating a love for teaching and being friendly. In addition to the five personality characteristics listed above, three ability attributes were also stressed as being very important to all participants: encouraging students' questions, being well prepared and organized, and having a knack for making difficult subjects understandable.

Conversely, instructors rated as more important than students the ability to think critically, being fair in grading, encouraging students' questions and discussion, and expecting students to become independent learners. This is a potentially important finding and it is tempting to conclude that instructors' judgements of effectiveness are founded on strong pedagogical principles and the acquisition of a more global view of education learned in their teacher training and professional development programs.

It was found that, ineffective instructors are disrespectful of students, do not care, are boring, can not explain topics well, are unprepared for class and are unfair with their grading. What has resulted from examining the characteristics of ineffective instructors has produced mirror images of most of the traits that were considered predominant effective teaching measure by the same sample population.

10. RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made.

First, induction programs for new instructors entering university, particularly engineering departments in the universities of Ethiopia should include a discussion of the impact of established, objective and unalterable evaluation and grading procedures on students who might be unfamiliar with this approach. Vital communications such as this could avoid potential conflict with students receiving their mid-or final semester grades, and thus improve classroom relationships.

Second, this study could provide university policy makers with an applicable list of effective teaching characteristics to help them design appropriate, sensitive and reliable instruments to evaluate and encourage teaching effectiveness of their instructors. Since both student and instructor perspectives have been ranked in order of importance, a valid evaluation form of teaching effectiveness used by students and administrators to evaluate their instructors could be developed. If both administrators use the same form and students to evaluate instructors, the students' feedbacks are more seriously consider, thereby administrators could become more enlightened as to the constantly evolving demands of the classroom environment, and thus validity of the evaluation instrument could be ensured. Second, attributes of what constitutes effective teaching in the eyes of the students specific to the universities where this study was conducted could become a valuable part of recruitment and in-service offerings. Providing such information and training to new and/or adjunct instructors as well as to veteran instructors with consistently low student ratings could contribute to student satisfaction and improved learning, better instructors' performance, institute reputation for the provision of service excellence, and improved student retention.

Third, this study may impart valuable information to universities and curriculum program development specialists by providing them with the results of university students' and instructors' perspectives in universities environment to guide them in creating more effective and culturally sensitive education programs. Equally important, if the attributes of what is required to be effective instructors are made available to students considering the teaching profession prior to their commitment to the program, frustration, loss of self-esteem and waste of time and money could be reduced. Similarly, attrition rates from university programs could be reduced if job performance criteria were made transparent to potential instructors prior to their commitment to the program.

Fourth, results of this study could be used in proper preparation for instructors entering the classroom environment as an instructor for the first time could include not only what constitutes effective teaching and as well as instruction and training on how to aspire to those characteristics, but also create an awareness that student perceptions are similar to instructor perceptions and are considered in research to be valid. Finally, the results of this study could also be used to develop workshops to disseminate information on what constitutes effective teaching throughout the Ethiopian universities and made available to all who opted to attend.

11. CONCLUSIONS

The findings of this study support the results of previous studies on effective teaching, which demonstrate that many traits or practices are common, regardless of culture, age, and/or academic discipline. They also support the literature findings.

Results from research question one which attempted to capture predominant characteristics of effective instructors have revealed that all of the predominant personality and ability measures used by this study's respondents to describe effective teaching coincide with principal characteristics revealed in the literature review.

Common personality characteristics of effective teaching therefore appear to be: *demonstrating respect to students, delivering interesting classes, caring about students' welfare, exhibiting a love for the subject being taught, and being friendly to students*. Educators who encourage two-way communication with students, are organized and well prepared, and present topics in ways that students can relate to and easily understand demonstrate common ability attributes of effective teaching. Instructors who are aware of students' expectations and are willing to amend their behaviours based on student feedback are armed with important knowledge to dismantle walls of miscommunication. Improved communication and understanding between students and instructors will enhance classroom environments, lead to higher instructors' ratings, and knowledge transfer, improve retention of students and ultimately, boost institute reputation and image.

Research questions two and three examined the degree to which student perceptions of effective and ineffective instructors are similar to instructors' perceptions. The two questions, to be discussed jointly, were included in this study to attempt to determine if differences in opinion exist at the universities under study between instructor and student respondents in their opinions of what constitutes effective and ineffective teaching. Question 3 was purposely designed to assess respondents' opinions to determine if study respondents held mirror images of the effective instructor as well as to determine effective attributes from an alternate approach. Only two personality traits appear to have raised significant differences of opinion between the study's two population groups. Instructor respondents rated the use of humour in the classroom to be an essential ingredient to effective teaching in contrast, engineering students, with less developed Engineering skills needed to interpret humour, understandably placed a low value on this quality. Inexperienced students who are expecting to be entertained in the classroom are perhaps expressing having a unique teaching style or those do learn more effectively from instructors who vary their instructional delivery. This leads us to the suggestion that instructors who employ a variety of methods of communication in the classroom may concurrently improve knowledge transfer and secure higher student ratings on their assessments.

The instructors' expectation of students to interact in two-way dialogue at their university was encouraging to see, lecturing is not viewed as a favourable method of effective teaching according to both the literature results and the study's respondents. The lower rating of this trait by students is probably once again an example of students' inexperience with this manner of communication, and with their expectation or misconception that university classes are of the lecture format. Student and instructor respondents agreed on a number of characteristics they believe distinguish the effective from the ineffective university instructor. Both students and instructors regarded the effective quality to treat learners with respect and caring as very important. The respondents' perceptions also correspond with regard to making classes interesting, caring about their students' success, demonstrating a love for teaching and being friendly. Thus, according to these study respondents, both skills and affective factors are necessary virtues to paint a portrait of the effective university instructor. As we have seen above, all of these personality and ability factors used to describe effective teaching were highly compatible with the literature reviewed for this study.

Conversely, instructors rated "the ability to think critically" ,"being fair in grading", "encouraging students' questions and discussion", and "expecting students to become independent learners" as more important compared to the students' rating,. From this, potentially important finding and it can be concluded that instructors' judgments of effectiveness are founded on strong pedagogical principles and the acquisition of a more global view of education learned in their professional development programs. Further, according to this study's respondents, ineffective instructors are *disrespectful of students, do not care, are boring, can not explain topics well, are unprepared for class and are unfair with their grading*. What has resulted from examining the characteristics of ineffective instructors has produced mirror images of most of the traits that were considered predominant effective teaching measure by the same sample population.

Finally, the findings of this study conducted in the selective universities, are consistent with past researches conducted at various locations around the globe. Findings support a widespread view that certain personality and ability traits are critical to effective teaching. Both personality and ability characteristics are used by respondents in describing effective and ineffective teaching, with personality traits appearing to be the more important of the two. Most instructor respondents appear to be aware of their students' expectations of requisite ingredients for teaching effectiveness.

12. LIMITATION OF THE STUDY

Ethiopia has 31 universities. However, this study has been limited to four experienced sample universities. Moreover, despite the fact that the data collection process was undertaken for a month the response rate was not up to the expectation. This may be attributed to language difficulties of the questionnaire were distributed with an English version. The English version questionnaire would have been presented in Amharic/native language using back translation technique. Despite these challenges, the researchers have tried to critically analyze the available data to answer the questions raised in the study.

13. SCOPE FOR FURTHER RESEARCH

Although this study has achieved its purpose of investigating perceptions of effective teaching practices and instructors' characteristics in selected universities, there are a number of related aspects that warrant additional research. For instance, it is necessary to verify the perceptions of effective teaching practices and instructors' characteristics, with all universities who are in similar situations in the country.

- In the context of this study, it would also be important to find out about factors that bring about the effective teaching practices and instructors' characteristics.
- An investigation should be conducted to ascertain the qualifications of instructors and their relevance to the courses they are teaching, especially in universities that are not performing up to set standards.
- Future research should explore the ways in which the instructors' personality and style may have repercussions for the learners' final performance as well as in their potential academic failure.

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A STUDY ON EMPLOYEE ABSENTEEISM IN INFO SCIENCE LTD.

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ABSTRACT

Employee absenteeism is the important aspect from the part of the organization to be considered as the total production capacity depends upon the employees. Info Sciences has been able to manage the employee absenteeism at low level. The factors contributing to absenteeism like sickness, accidents, occupational diseases, poor production planning (flow of work), bad working conditions and inadequate welfare conditions, lack of trained laborers, insecurity in employment, collective bargaining process, rigid control system, lack of supervisory support, lack of interest, lack of cohesive and cordial culture should be identified and required remedial measures should be taken to control the above factors. Employees should be encouraged to give as much notice as possible for anticipated absences. Absent employees should be requested to keep contact with their employer. The employer should be informed of any changes in the employee's health status. Employees should be called if they are not keeping contact with the employer. The purpose is to show concern and desire for the employee to regain a healthy status and return to work. Though there are limitations the personal department is taking special care to frame certain policies and procedures that would reduce absenteeism.

KEYWORDS
employee absenteeism, HRM.

INTRODUCTION
DEFINITION OF ABSENTEEISM
Employee's presence at work place during the schedule time is highly essential for the smooth running of the production process in particular and the organization in general. Despite the significant of their presence, employee's sometime fail to report at the work place during the schedule time, which is known as "Absenteeism".

"Absenteeism" is the practice (or) habit of being an 'absence' and absentee is one who habitually stays away"

-According to Webster's dictionary.

"Absenteeism" as the failure of a worker to report works when he is scheduled to work".

-According to labour Bureau Simla.

"Absenteeism is the total shifts last because of absence as a percentage of the total number of man shifts scheduled to work".

- According to labour Bureau.

According to PIGOARAS and MAYERS un expected absence disturbs the efficiency of the group as the jobs are under connected if one single man remains absent without pries notice the whom operation process is distributed. This absenteeism results in production losses because due to absenteeism workers cost increase and this efficiency of operations is affected.

According to encyclopedia of social sciences absenteeism is the time lost in industrial establishments by the avoidable or unavoidable absence of employees.

According to another definition, absenteeism is the average % of the workers absent from work per day for any reason" .still another definition of absenteeism is that it is" the temporary cessation of work, for not less than one whole working day.

The rate or index of absenteeism may be expressed in the following formula.

$$Absenteeism = \frac{man\ shifts\ last\ in\ hours}{Total\ man\ shifts\ scheduled\ to\ work\ in\ hrs}$$

TYPES OF ABSENTEEISM
Absenteeism is of 4 types.
1.   **AUTHORIZED ABSENTEEISM**
If an employee absents himself form work by takings permission from his superior & applying for leave such absenteeism is called authorized absenteeism.
2.   **UNAUTHORIZED ABSENTEEISM**
If an employee absents himself from work without informing or taking permission & without applying for leave, such absenteeism is called unauthorized absenteeism.
3.   **WILLFUL ABSENTEEISM**
If an employee absents himself from duty willfully such absenteeism is called willful absenteeism
4.   **ABSENTEEISM CAUSED BY CIRCUMSTANCES BEYOND ONE'S CONTROL**
If an employee absents himself from duty awing to the circumstances beyond his control like involvement in accidents or sudden sickness such absenteeism is called Absenteeism caused by circumstances beyond one's control.

CAUSES OF ABSENTEEISM
The Following are the general causes for absenteeism.
1.   **MALADJUSTMENT WITH THE WORKING**
If the working conditions of the company are poor the workers cannot adjust   themselves with   the company's work could. Then they prefer to stay away from the company.
2.   **SOCIAL AND RELIGIOUS CEREMONIES**
Social & religious functions divert the workers attention from the work.
3.   **UNSATISFACTORY HOUSING**
Conditions at the work place.
4.   **INDUSTRIAL HOUSING**
The industrial fatigue compels workers to remain outside the work place.
5.   **UNHEALTHY WORKING CONDITIONS**
The poor & intolerable working conditions in the factory irritates the workers excess heat, noise, either too much or too low lighting, poor ventilation, dust, smoke etc, cause poor health of workers.
These factors cause the workers to be absent.

6. POOR WELFARE FACILITIES

Though a number of legislation concerning welfare facilities is enacted, many organizations fail to provide welfare facilities. This is either due to the poor financial position of the companies (or) due to the exploitative attitude of the employee. The poor welfare facilities includes poor sanitation, washing, bathing, first and appliances, ambulance, restrooms, drinking water, canteens, shelter, crèches etc., the dissatisfied workers with these facilities prefer to be away from the work place.

7. ALCOHOLISM

Workers mostly prefer to spend money on the consumption of liquor and enjoyment after getting the wages. Therefore the rate of the absenteeism is more during the first week of the every month.

8. INDEBTNESS

The low land wages and unplanned expenditure of the workers force then to barrow heavily. The research studies indicate that workers borrow more than 10 times of their net pay. Consequently workers fail to repay the money. Then try to escape from the place in order to avoid the money lenders. This leads to absenteeism.

9. MALADJUSTMENT WITH JOB DEMANDS

The fast changing technology demands higher level skills from the workers fail to meet these demands due to their lower level education and absence of training.

10. UNSOUND PERSONNEL POLICIES

The improper & unrealistic personnel policies result in employee dissatisfaction. The dissatisfied employee in turn prefers to be away from the work.

11. INADEQUATE LEAVE FACILITIES

The inadequate leave facilities provided by the employee. Forced him to depend on E.S.I leave which along the workers to be away from the work for 56 days on a year on half pay.

12. LOW LEVEL OF WAGES

Wages in some organization are very poor or they quit and equate to meet the basic needs of the employees. Employees go for other employment during their busy seasons and earn more money further. Some employees take up part time jobs. Thus the employee resorts to moonlighting & absent themselves from work.

ABSENTEEISM IN INDIAN INDUSTRIES

Absenteeism in Indian industries is not a new phenomenon. It is the manifestation of a decision by employees not to present themselves at their place of work, at a time when it is planned by the management that they should be in attendance. Many research reports reveal that there has been a phenomenal increase in absenteeism in some industrial sectors. The absenteeism becomes a problem to organizational management particularly when employees absent from their work environment without giving sufficient notice and by justifying their stand by furnishing fake reasons.

The reasons for absenteeism are many. The factors contributing to absenteeism from work includes individual and environmental factors. These consists of sickness, accidents, occupational diseases, poor production planning (flow of work), bad working conditions and inadequate welfare conditions, lack of trained laborers, insecurity in employment, collective bargaining process, rigid control system, lack of supervisory support, lack of interest, lack of cohesive and cordial culture and so on. The individual reasons may vary from organization to organization depending upon the organizational climate, employee's attitude and influence of external organizational factors (market forces, social activities that influence the industrial culture prevailing in geographical zone etc.).

MEASURES TO MINIMIZE ABSENTEEISM

Absenteeism affects the organization from the multiple angles. It affects severely the production process and the business proves the effect of unauthorized absenteeism is more than the other types of absenteeism; however it would be completely avoid absenteeism. The measures are useful in controlling or minimizing absenteeism.

- Selecting the employee by testing them thoroughly regarding their aspirations, value system responsibility and sensitiveness.
- Adopting humanistic approach in dealing with the personal problems of employees.
- Following proactive approach in identifying and redressing employee grievances.
- Providing hygienic working conditions.
- Providing welfare measures and fringe benefits balancing the need for the employee and the ability of the organization.
- Providing high wages and allowances based on the organizational financial positions.
- Improving the communication network particularly the upward communication.
- Providing leave facility based on the needs of the employee and organizational requirements.
- Providing safety and health measures.
- Providing cardinal human relations and industrial relations.
- Educating the workers.
- Counseling the workers about their career income and expenditure habits and culture.
- Far-flow of information, exchanging of ideas, problems etc., between subordinate and superior.
- Grating leave and financial assistance liberally in case of sickness of employee and his family members.
- Offering attendance bonus and inducement.
- Providing extensive training encouragement special allowances in cash of technological advancements.

REVIEW OF LITERATURE ON EMPLOYEE ABSENTEESM

In order to have a critical study about present masters dissertation it is considered appropriate to review the existing literature to understand the various issues covering the same. the study-"employee absenteeism in info sciences"-falls under the broad subject Human Resource Management as it is primarily deals with employee attitude but it is not a financial and economic indicator.

The studies incorporated in this review are the studies conducted in India and abroad. This review include doctoral studies published articles in national and international journals, proceedings in seminars, conferences and book published.

Maloney & McFillen, (1986) studied Most of the employers feel that employee turnover and employee satisfaction are closely related. The more satisfied an employee is, the less turnover and absenteeism occurs

Rentsch and Steel (2003) have summarized the psychological literature on unit-level absence in a model, where absence culture is expected to be the primary predictor of absence behaviour. Individual characteristics, job-related characteristics and contextual characteristics at the unit-level are assumed to have an influence on absence culture and only an indirect influence on absence behaviour, although empirical work to date has assumed a direct relationship between these characteristics and absence behaviour.

Studies by NIOSH(2004) have concluded Boeing, and the Reliability Group, an organizational performance consulting firm, have all identified the impact of employee satisfaction on the level of safety in a workplace. Data collected by the Reliability Group indicated that the number one predictor of a safe versus an unsafe workplace is employee cheerfulness and satisfaction. And a key factor in determining employee satisfaction? Supervisors!

Traditional studies of absenteeism within economics (Barmby and Treble, 1991; Barmby et al., 1994) suggest that observed frequencies of absenteeism represent intersections between supply and demand curves. The employees may, within limits, demand a certain frequency of absenteeism. The employer influences the frequency of absenteeism by, for example, making it more costly for the employee to be absent, or by making schedules more flexible.

The most cited absenteeism model that is used in a multitude of studies on employee absenteeism was the Steers and Rhodes' (1978) model. They used a multi-variable approach that encompasses psychological as well as personal characteristics of employee. Based on the ideas of Steer and Rhodes (1978), demographic

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variables such as personal and family- related characteristics are slated as well as psychological variables such as job satisfaction, motivation to be absent, and the ability to attend work.

Currier also identified Haskell County, Kansas as the probable birthplace of the wine flu, which illustrated that the swine influenza presented clinically similar to the human strains and coincidentally presented at the same time as the human epidemic (Currier, 2005).

This article studies the impact of absenteeism on product quality. Our focus is on the problem caused by absenteeism, rather than on the causes of absenteeism. The empirical evidence presented in this study, which was obtained from an analysis of several assembly line production processes, is intended to validate the model of production that the article proposes.

Porter & Steers (1973) defined Absenteeism has been described as a behavior that has "potentially critical consequences both for the person and the organization".

Steers and Rhodes (1978), for example, suggested that, based on estimates of costs incurred in direct salaries, fringe benefits, temporary replacement, and administrative costs, absenteeism in United States' organizations may cost from $8.5 billion to over $20 billion per year.

Naturally, given the demonstrated seriousness of absenteeism, substan-tial research effort has been dedicated to identifying its associated varia-bles. For instance, recent studies have examined absenteeism in a variety of contexts: employee age and tenure (Nicholson & Goodge, 1976; Nichol-son, Brown, & Chadwick-Jones, 1977; Garrison & Muchinsky, 1977), or-ganization size (Ingham, 1970), job satisfaction (Ilgen & Hollenback, 1977; Nicholson, Wall, & Lischeron, 1977), turnover (absenteeism as a predictor variable) (Waters & Roach, 1979), personality variables (Ber-nardin, 1977; Garrison & Muchinsky, 1977).

The most cited absenteeism model that is used in a multitude of studies on teacher absenteeism was the Steers and Rhodes' (1978) model. They used a multi-variable approach that encompasses psychological as well as personal characteristics of teachers. Based on the ideas of Steer and Rhodes (1978), demographic variables such as personal and family- related characteristics are slated as well as psychological variables such as job satisfaction, motivation to be absent, and the ability to attend work.

Employees can make or break an organization. "Good employees can produce extraordinary results while marginal employees can drag and keep a business down." Still, many employers underrate the significance of employees (Deal, 2005).

According to Ian Davidson (2004), employees are the most valuable assets a corporation has. Employees are the catalyst of any organization. Shelly L. Freeman, the president for a Lathrop & Cage subsidiary specializing in human resource consulting stated,

Freeman,(2005) studied that The success of any company is directly linked to the satisfaction of the employees who embody that company; that retaining talented people is critical to the success of any organization; and that no matter how temporarily challenged the economy may be, ultimately, a company's most talented performers always have other employment options.

In the construction industry, where the quality of products is dependent on the skill of laborers and on-site supervisors, employees play a significant role in the success and outcome of the product and the company. A key employee in the construction industry is the on-site supervisor. On-site supervisors have the overall responsibility for completing projects in accordance with the plans and specifications. They are responsible for coordinating and managing people, materials, equipment, budgets, schedules, contracts, and the safety of employees and the general public.

According to Marc Drizin(2005), an employee loyalty specialist concluded that, "Employees are assets with feet. They're the only resource companies have that make a conscious decision to return the next day".

A 2003 J.D. Power and Associates survey concluded that there is another customer builders need to focus on satisfying besides the obvious customers. Builders need to focus on "the rank-and-file managers and employees who work for them".

Profit and growth are stimulated directly (and primarily) by customer loyalty. Customer loyalty is a direct consequence of customer satisfaction. Customer satisfaction is heavily influenced by customer perceptions of the value of services they receive. Value is created by satisfied, loyal and productive employees. Employees who feel a sense of teamwork and common purpose, a strong commitment to communication, and managerial empowerment are most able, and willing, to deliver the results that customers expect (Kash, 2003).

when workers were asked the reasons for their absenteeism and turnover, the four main reasons cited were:
a) excessive rework
b) poor craft supervision
c) poor overall management
d) relationship with the boss

The older and more experienced employees exhibited a lower rate in turnover but a higher rate in absenteeism, indicating that "jobs that do not challenge or provide satisfaction for a highly skilled, experienced craftsman will produce absenteeism, and that younger, less experienced workers seem to change jobs rather than cope with an unpleasant situation" ("The Business Roundtable", 1982).

According to Ed Schmitt, "Today's workers have different expectations from the companies they work for and are much less hesitant to leave one job for another if they don't feel those expectations are being met. Job security is less important to today's worker" (Schmitt, 2002).

Most managers look at training and development as a cost. What they don't see or why they don't weigh training and development heavily enough is unclear. According to Mark Drizin(2003). An employee loyalty specialist, training not only equips employees to perform their jobs in a satisfactory manner, but it also "is critical in terms of employees feeling good about working for their organization".

In Denmark it is estimated that the number of workdays lost due to employee absenteeism is nearly equivalent to the unemployed work force. On average it is estimated that absenteeism runs as high as 4–5 per cent of the total work force (Arbejdsgiverforening, 2002).

According to (Rentsch and Steel, 2003) unit-level research of absenteeism is extremely rare (see Markham and McKee, 1995; Xie and Johns, 2000). The overall result from these studies is that in units where high absence is viewed as acceptable, high absence frequency tended to prevail.

In Danske Bank absenteeism is self-reported, which means that the data material may suffer from some of the weaknesses mentioned by Johns (1994a, 1994b). The exact size of the bias is impossible to evaluate. Based on internal evaluations in Danske Bank it is, however, assumed that the bias is rather small.

(Ivancevich, 1985) concluded that past absenteeism has been found to predict subsequent absenteeism even in the presence of substantial job design changes. Stability of absenteeism over time and across changing environments may in part be due to its enduring, personality based determinants .

2.1 NEED FOR THE STUDY

Absenteeism has wide implications to both the company and employees. The company suffers with the problem of scheduling its production activities and meeting the target. The turnover of employee is also likely to increase, which increase the cost of making alternative arrangements.

The employees will also suffer because of absenteeism. Their commitment towards the organization and to their jobs decreases. Their moral will go down. Their contribution to the organizational goods decreases. This will create a distance between the employees and the management.

2.2 SCOPE OF THE STUDY

Study of absenteeism among industrial worker is not only from view point of but it is important from the view point of moral of employees. Even though the effect of good moral of employees, may not be calculated in terms of costs, but it should be say that it is important than cost.

There is clear relationship between employee's attitude and absenteeism because job satisfaction and rate of absenteeism are related to each other. So employee attitude and employees moral are the important points. Labor is the human factor and therefore not only economic but should consideration shall also be taken into account in the discussion of problem connected in the absenteeism has been continuous to be one of the major labour problem in the Indian industries.

2.3 OBJECTIVES OF THE STUDY

➢ To study the impact of loss of man days on production.
➢ To know whether the employees are following leave policy guidelines for availing leave facilities.
➢ To analyse the basic reasons for absenteeism at work.

- To find out the causes affecting employee absenteeism in Info Sciences.
- To suggest measures for reducing employee absenteeism in Info Sciences.

2.4 RESEARCH INSTRUMENT

A questionnaire is set with a formal list of questions to be answered in the survey. A structured non-disguised questionnaire was used as the research instrument.

2.5 SOURCES OF DATA

PRIMARY DATA

Any research study for the collection of primary data the methods like Questionnaire, interview and Observation methods has been used very frequently. Among these methods the questionnaire technique being used as the most versatile of all and capable of interacting opinion and interventions was used for the purpose of data collection. The employees are the primary data.

SECONDARY DATA

The secondary information will be collected in this category is as follows:

By collecting information (through informal interaction) from the employees.

By observing and studying the previous research studies.

QUESTIONNAIRE

This is the most popular method of data collection in case of big enquiries. It is adopted by private individuals, research workers, private and public organizations and even by the Government. In this method, a questionnaire is issued to the persons concerned with a request to answer the questions and return the questionnaire. A questionnaire consists of number of questions printed in a definite order.

2.6 RESEARCH DESIGN

Research design is the conceptual structured with in which research is conducted. "A research design is the arrangement of condition for collecting and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure". With this as a base descriptive research deign, which include survey and fact-finding.

SAMPLING TECHNIQUE

There are many sample methods to collect data. The sampling method used is simple random sampling.

2.7 POPULATION AND SAMPLE SIZE

There are 563 employees are working in the Info Sciences. The strength of the Info Sciences employees at Hyderabad is 563 out of which a sample of 120 is selected for the study.

2.8 STATISTICAL TOOLS

PERCENTAGE ANALYSIS

This is the statistical tool, which may be used in any kind of analysis. This is sample in nature and provides clear picture about a huge population by breaking it in percentage (per 100). The mode of recruitment, number of employees taking at particular tests and grouping of employees on the basis of rating of interviewer.

$$\text{Percentage Method} = \frac{\text{Number of respondents}}{\text{Total respondents}} \times 100$$

CHI-SQUARE TEST

A test that uses the chi-square statistic to test the fit between a theoretical frequency distribution and a frequency distribution of observed data for which each observation may fall into one of several classes.

Statistical method to test whether two (or more) variables are: (1) independent or (2) homogeneous. The chi-square test for independence examines whether knowing the value of one variable helps to estimate the value of another variable. The chi-square test for homogeneity examines whether two populations have the same proportion of observations with a common characteristic. Though the formula is the same for both tests, the underlying logic and sampling procedures vary.

$$\text{Chi-Square test} = \sum \frac{(O-E)^2}{E}$$

O = observed frequencies

E = Estimated frequencies

2.9 LIMITATIONS OF THE STUDY

Following are some of the limitations of the study.

1. Because of the short span of time, the data is collected quickly.
2. To collect the information supervisors are not showing any interest, as they feel that work may disturb.
3. Many of the employees didn't disclose the information out of fear of management.

DATA ANALYSIS AND INTERPRETATION

1. THE DETAILS REGARDING GENERAL PROFILE OF THE EMPLOYEE

TABLE NO 1: THE DETAILS REGARDING GENERAL PROFILE OF THE EMPLOYEE

Factor	Classification	No of respondent	Percentage
Sex	male	102	85%
	female	18	15%
Age	21-30 years	72	60%
	31-40 years	30	25%
	Above 40 years	18	15%
Educational qualifications	Under graduate	24	20%
	Post graduate	54	45%
	Other	42	35%
Family size	Below 2	24	20%
	2 to3	36	30%
	3 to 4	30	25%
	Above 4	30	25%

FIGURE 1: THE DETAILS REGARDING GENERAL PROFILE OF THE EMPLOYEE
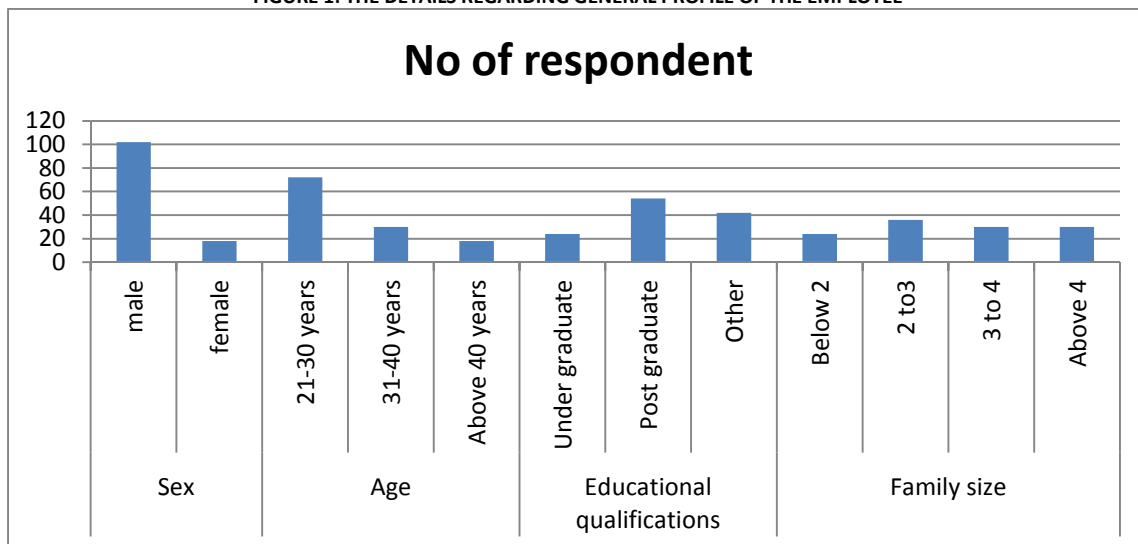
Inference: Regarding personal profile of employees, the above table shows that 85% respondents are male, 60% of the respondent are having the age of above 21-30 years, and 45% of them are pot graduates and the last one regarding family size mostly 30% of them are 2 to 3 members.

2. RATING ON WORKING CONDITIONS

TABLE NO 2: RATING ON WORKING CONDITIONS

Attributes	Respondents	Percentage (%)
Excellent	16	13
Good	70	59
Average	24	20
Below average	10	8
Poor	-	-
Total	120	100

FIGURE: 2 RATING ON WORKING CONDITIONS
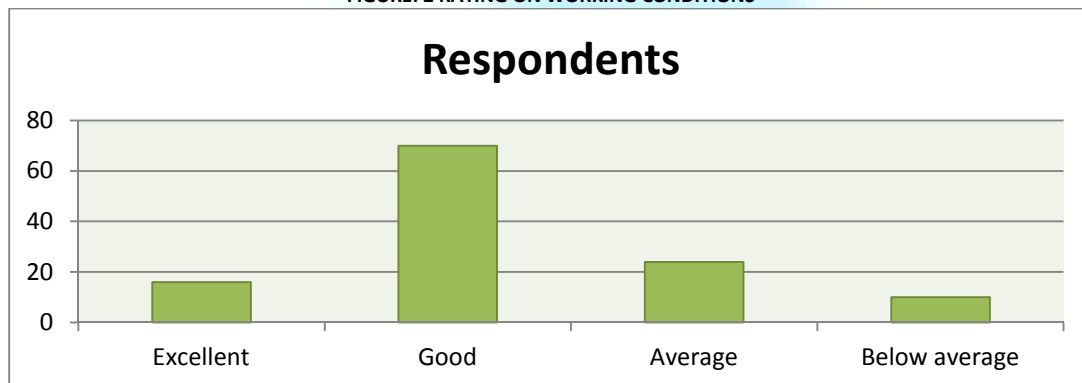
Inference: From the above Figure: 2 depicted out of 120 respondents 70 respondents(i.e.,59%) rate working conditions as good,24 respondents (i.e.,20%)rate as average,16 respondents (i.e.,13%) rate as excellent and remaining 10 respondents (i.e.,8%) rate as below average.

3. FEELING OF OVER STRESS

TABLE NO: 6 FEELING OF OVER STRESS

Attributes	Respondents	Percentage (%)
Strongly agree	32	27
Agree	36	30
Neither agree nor disagree	22	18
Disagree	30	25
Strongly disagree	-	-
Total	120	100

FIGURE 3: FEELING OF OVER STRESS
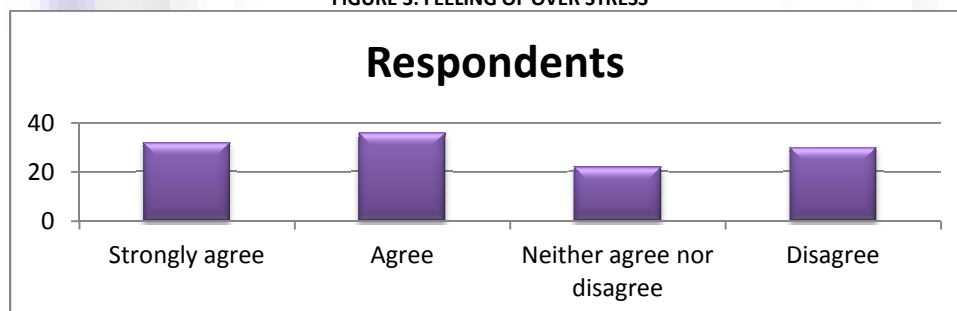
Inference: From the above Figure: 6 depicted out of 120 respondents 36 respondents (i.e.,30%) are agree that they feel over stress,32 respondents(i.e.,27%) are strongly agree,30 respondents (i.e.,25%) are disagree and remaining 22 respondents (i.e.,18%) are neither agree nor disagree that they feel over stress in the organization.

4. BOREDOM IN ROUTINE WORK

TABLE NO:-4 BOREDOM IN ROUTINE WORK

Attributes	Respondents	Percentage (%)
Strongly agree	22	18
Agree	38	32
Neither agree nor disagree	12	10
Disagree	28	23
Strongly disagree	20	17
Total	120	100

FIGURE 4: BOREDOM IN ROUTINE WORK
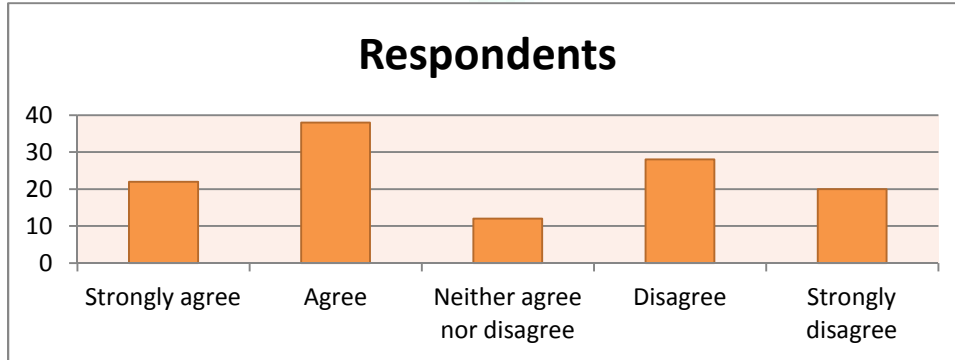
Inference: From the above Figure: 7 depicted out of 120 respondents 38 respondents (i.e., 32%) are agree that they feel boredom in routine work, 28 respondents (i.e., 23%) are disagree, 22 respondents (i.e., 18%) are strongly agree, 20 respondents (i.e., 17%) are strongly disagree and remaining 12 respondents (i.e., 10%) are neither agree nor disagree that they feel boredom on the routine work.

5. SUPERVISOR CO-OPERATION

TABLE NO 5: SUPERVISOR CO-OPERATION

Attributes	Respondents	Percentage (%)
Strongly agree	60	50
Agree	48	40
Neither agree nor disagree	-	-
Disagree	12	10
Strongly disagree	-	-
Total	120	100

FIGURE 5: SUPERVISOR CO-OPERATION
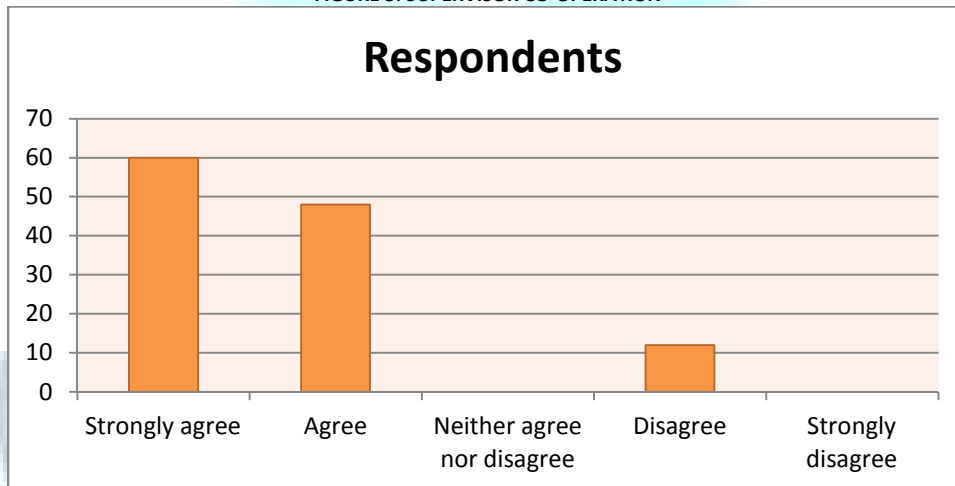
Inference: From the above Figure: 8 depicted out of 120 respondents 60 respondents (i.e., 50%) are strongly agree that the supervisor is very cooperative with them, 48 respondents (i.e.,40%) are agree and remaining 12 respondents (i.e.,10%) are disagree that the supervisor are very cooperative with them.

6. BALANCE OF PERSONAL LIFE AS WELL AS WORK/PROFESSIONAL LIFE

TABLE NO. 6: BALANCE OF PERSONAL LIFE AS WELL AS WORK/PROFESSIONAL LIFE

Attributes	Respondents	Percentage (%)
Strongly agree	34	28
Agree	36	30
Neither agree nor disagree	26	22
Disagree	14	12
Strongly disagree	10	8
Total	120	100

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FIGURE 6: BALANCE OF PERSONAL LIFE AS WELL AS WORK/PROFESSIONAL LIFE
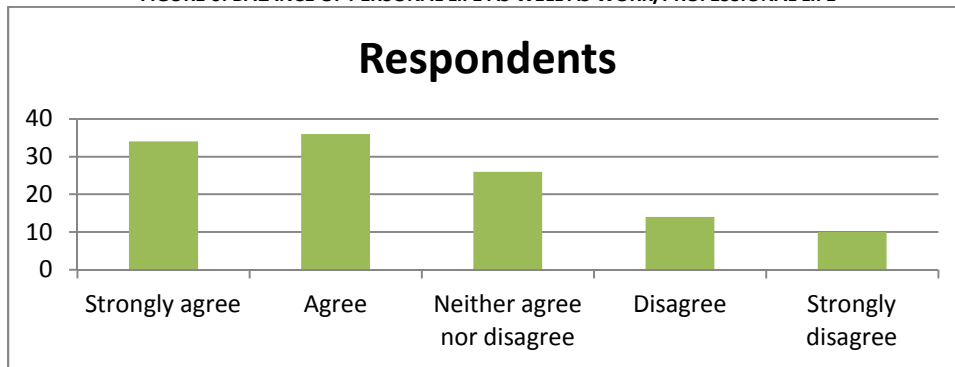
Respondents

Inference: From the above Figure: 10 depicted out of 120 respondents 36 respondents (i.e.,30%) are agree that they are able to balance personal life as well as work/professional life, 34 respondents (i.e.,28%) are strongly agree,26 respondents (i.e.,22%) are neither agree nor disagree, 14 respondents (i.e.,12%) are disagree and remaining 10 respondents (i.e.,8%) are strongly disagree that they are able to balance personal life as well as work/professional life.

7. SATISFACTION OF ABSENTEEISM POLICY

TABLE NO. 7: SATISFACTION OF ABSENTEEISM POLICY

Attributes	Respondents	Percentage (%)
Yes	40	33
No	80	67
Total	120	100

FIGURE 7: SATISFACTION OF ABSENTEEISM POLICY

Inference: From the above Figure: 11 depicted out of 120 respondents 80 respondents (i.e., 67%) are not satisfied with the absenteeism policy and remaining 40 respondents (i.e., 33%) are satisfied with absenteeism policy within the organization.

8. MAIN REASONS FOR ABSENTEEISM

TABLE NO. 8: MAIN REASONS FOR ABSENTEEISM

Attributes	Respondents	Percentage (%)
Health problem	-	-
Personal problem	120	100
Work dissatisfaction	-	-
Working environment	-	-
Any other specify	-	-
Total	120	100

FIGURE 8: MAIN REASONS FOR ABSENTEEISM
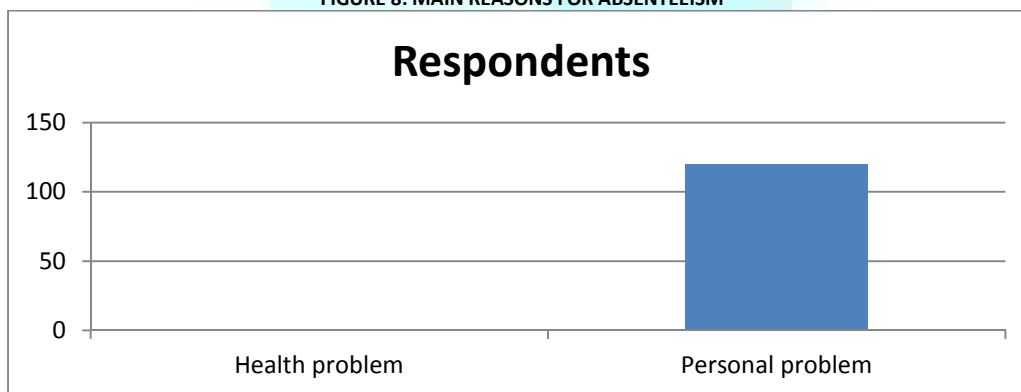
Respondents

Inference: From the above Figure: 12 depicted out of 120 respondents total 120 respondents (i.e., 100%) are agree that the personal problem is the main reason for their absenteeism.

9. BENEFITS LOSING DUE TO ABSENTEEISM

TABLE NO. 9: BENEFITS LOSING DUE TO ABSENTEEISM

Attributes	Respondents	Percentage (%)
Strongly agree	38	3 2
Agree	46	38
Neither agree nor disagree	12	10
Disagree	14	12
Strongly disagree	10	8
Total	120	100

FIGURE 9: BENEFITS LOSING DUE TO ABSENTEEISM
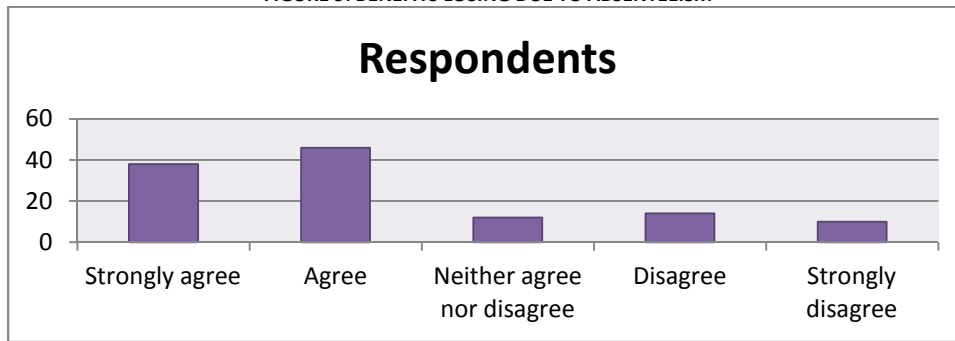
Respondents

Inference: From the above Figure: 14 depicted out of 120 respondents 46 respondents (i.e., 38%) are agree that they are losing benefits due to absenteeism, 38 respondents (i.e., 32%) are strongly agree, 14 respondents (i.e., 12%) are disagree, 12 respondents (i.e., 10%) are neither agree nor disagree and remaining 10 respondents (i.e., 8%) are strongly disagree that they are losing benefits due to absenteeism.

10. AWARE OF DISCIPLINARY ACTION

TABLE NO. 10: AWARE OF DISCIPLINARY ACTION

Attributes	Respondents	Percentage (%)
Yes	120	100
No	-	-
Total	120	100

FIGURE 10: AWARE OF DISCIPLINARY ACTION

Yes

Inference: From the above Figure: 15 depicted out of 120 respondents total 120 respondents (i.e., 100%) are agree that they are aware that management takes disciplinary action against absenteeism.

11. THE DETAILS REGARDING WELFARE & SAFETY MEASURES

TABLE NO: 11 THE DETAILS REGARDING WELFARE & SAFETY MEASURES

Factors	Classification	No of respondent	Percentage
The habit of taking liquor	Yes	18	15%
	No	102	85%
Smoke	Yes	24	20%
	No	96	80%
Training required to your job	Yes	72	60%
	No	48	40%
Satisfied with safety &health measures	Yes	48	40%
	No	72	60%
Have job satisfaction	Yes	88	73%
	No	32	27%
Have health problem	Yes	18	15%
	No	102	85%

FIGURE 11: THE DETAILS REGARDING WELFARE & SAFETY MEASURES

No of respondent

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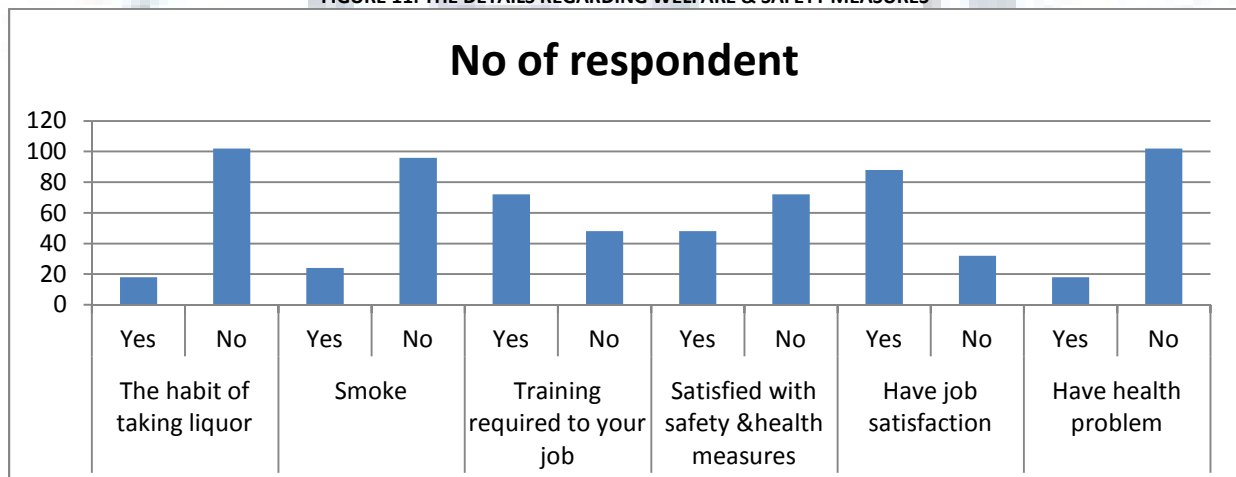
Inference: Among 120 respondents 85%of employees are not taking liquor and 80% employees are not taking smoke and 60% employees are opted training required to their jobs and 60%employees are not satisfied with safety and health measures and 73% employees are satisfied with their jobs and 85% employees are not facing any health problems.

12. SATISFIED WITH LEAVE FACILITIES

TABLE NO. 12: SATISFIED WITH LEAVE FACILITIES

Attributes	No of respondent	Percentage
Strongly agree	32	27
Agree	36	30
Neither agree nor disagree	22	18
Disagree	30	25
Strongly disagree	-	-
Total	120	100

FIGURE 12: SATISFIED WITH LEAVE FACILITIES
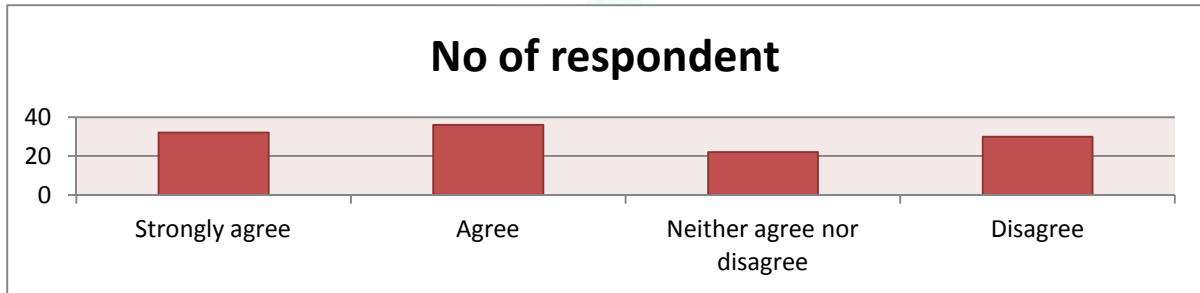
No of respondent

Inference: From the above table out of 120 respondents 36respondents are agree with their leave facilities and 32 respondents strongly agree with their leave facilities and 30 respondents are disagree with their leave facilities and 22 respondent are Neither agree nor disagree.

13. SATISFIED WITH THE MODE OF TRANSPORT /CONVEYANCE

TABLE NO. 13: SATISFIED WITH THE MODE OF TRANSPORT /CONVEYANCE

Attributes	No of respondents	percentage
Highly satisfied	12	10%
Satisfied	60	50%
Neutral	24	20%
Dissatisfied	24	20%
Highly dissatisfied	-	-
Total	120	100%

FIGURE. 13: SATISFIED WITH THE MODE OF TRANSPORT /CONVEYANCE
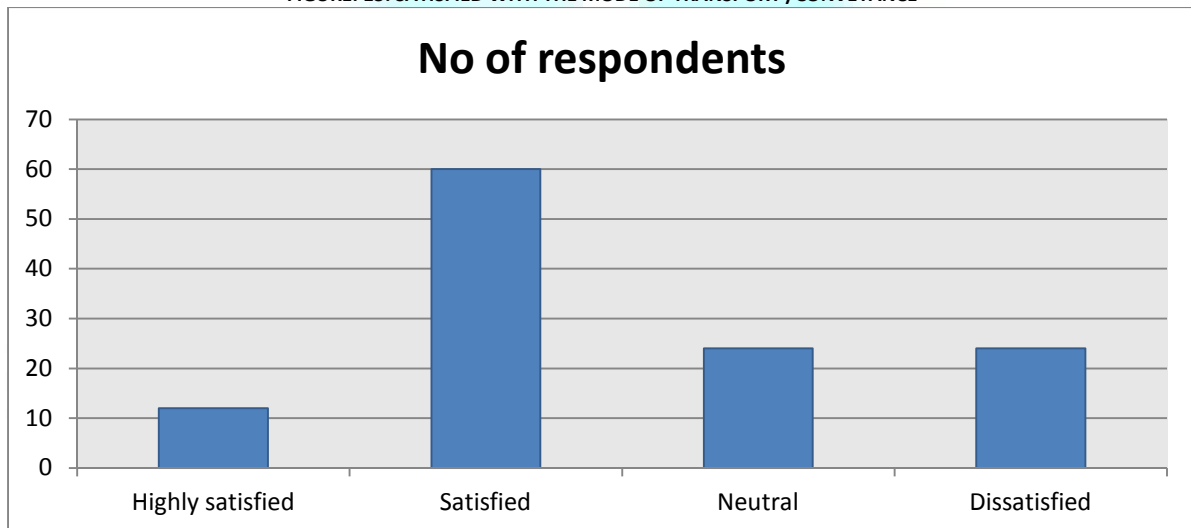
No of respondents

Inference: From the above table out of 120 represents 60 represents are satisfied with the transportation facility and 12 represents are highly satisfied with the transportation facility and24 respondents are neutral with the transportation facility and24 respondents are dissatisfied with the transportation facility.

14. YOUR ABSENCE CREATE VOID IN THE WORK FRONT

TABLE NO. 14: YOUR ABSENCE CREATE VOID IN THE WORK FRONT

Attributes	No of Respondents	Percentage
Yes	84	70%
No	36	30%
Total	120	100%

FIGURE. 14: YOUR ABSENCE CREATE VOID IN THE WORK FRONT

No of Respondents

■ Yes
■ No
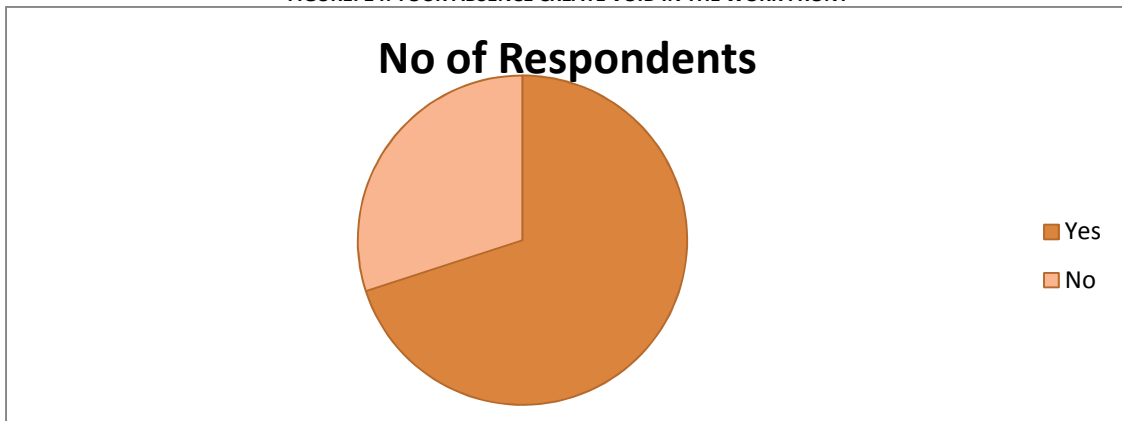
Inference: From the above table out of 120 respondents 84 respondents create void in work front and 36 respondents are not create void in work front.

15. NEED ANY IMPROVEMENTS IN THE WORKING CONDITIONS

TABLE NO. 15: NEED ANY IMPROVEMENTS IN THE WORKING CONDITIONS

Attributes	No of Respondents	Percentage
Yes	24	20%
No	96	80%
Total	120	100%

FIGURE 15: NEED ANY IMPROVEMENTS IN THE WORKING CONDITIONS
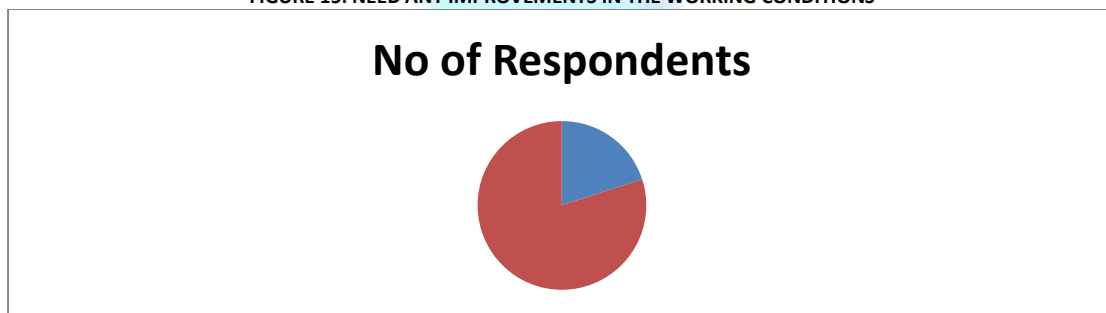
No of Respondents

Inference: From the above table out of 120 respondent 96 respondents is opted need not required any improvements in the working conditions and 24 respondents is opted required any improvements in the working conditions.

16. RETAIN IN COMPANY

TABLE NO. 16: RETAIN IN COMPANY

Attributes	Respondents	Percentage (%)
Welfare schemes	58	48
Job itself	-	-
Job security	36	30
Reputation of the company	-	-
Other	26	22
Total	120	100

FIGURE: 16 RETAIN IN COMPANY
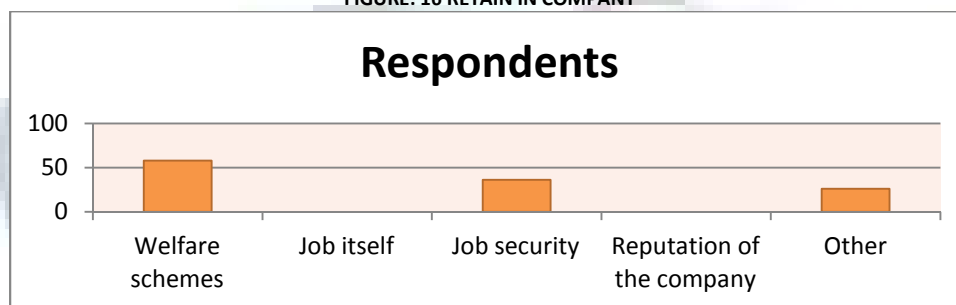
Respondents

Inference: From the above Figure:27 depicted out of 120 respondents 58 respondents (i.e.,48%) are agree that the welfare schemes is reason for them to retain in the company,36 respondents(i.e.,30%) are job security and remaining 26 respondents (i.e.,22%) are said other reasons for them to retain in the company.

17. OPINION ON THE PAID ENOUGH SALARIES

TABLE NO. 17: OPINION ON THE PAID ENOUGH SALARIES

Attributes	Respondents	Percentage (%)
Strongly agree	16	13
Agree	38	32
Neither agree nor disagree	24	20
Disagree	20	17
Strongly disagree	22	18
Total	120	100

FIGURE 17: OPINION ON THE PAID ENOUGH SALARIES
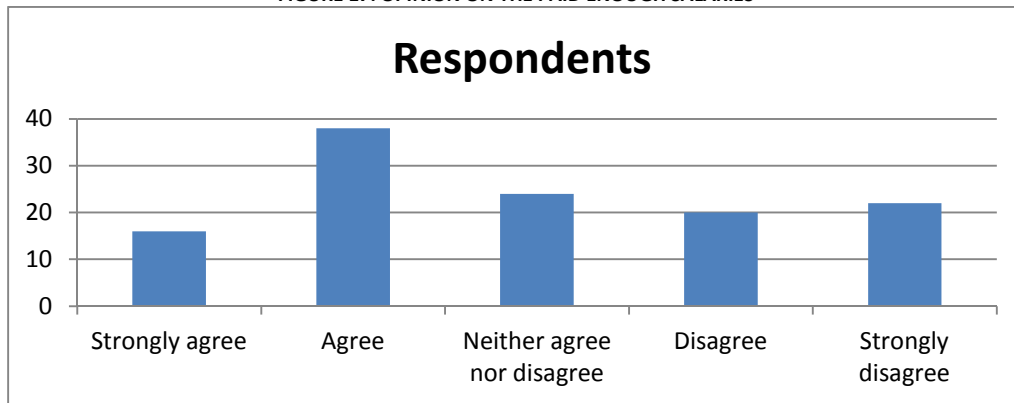
Respondents

Inference: From the above Figure: 28 depicted out of 120 respondents 38 respondents (i.e., 32%) are agree that they are paid enough salaries for the work they do, 24 respondents (i.e., 20%) are neither agree nor disagree, 22 respondents (i.e., 18%) are strongly disagree, 20 respondents (i.e., 17%) are disagree and remaining 16 respondents (i.e., 13%) are strongly agree that they are paid enough salaries for the work they do.

18. AFFECT ON ECONOMIC CONDITIONS

TABLE NO. 18: AFFECT ON ECONOMIC CONDITIONS

Attributes	Respondents	Percentage (%)
Yes	62	52
No	58	48
Total	120	100

FIGURE 18: AFFECT ON ECONOMIC CONDITIONS
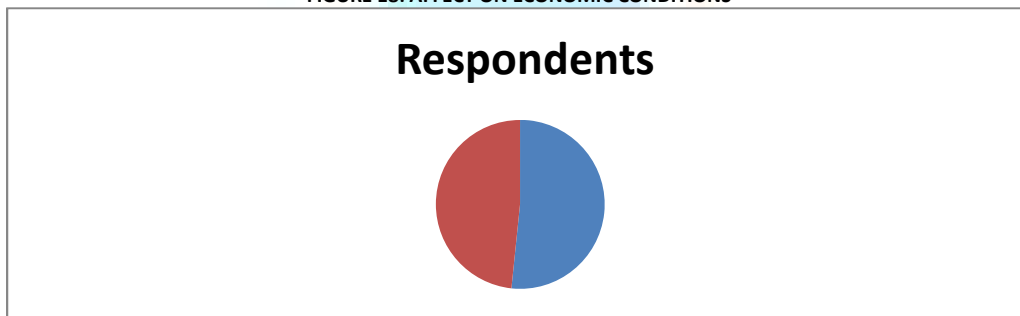
Respondents

Inference: From the above Figure: 30 depicted out of 120 respondents 62 respondents (i.e., 52%) are agree that the absenteeism affects economic conditions and remaining 58 respondents (i.e.,48%) are agree that the absenteeism does not affects economic conditions.

19. IMMEDIATE FEEDBACK ON WORK DONE

TABLE NO. 19: IMMEDIATE FEEDBACK ON WORK DONE

Attributes	Respondents	Percentage (%)
Strongly agree	16	13
Agree	14	12
Neither agree nor disagree	32	27
Disagree	34	28
Strongly disagree	24	20
Total	120	100

FIGURE 19: IMMEDIATE FEEDBACK ON WORK DONE
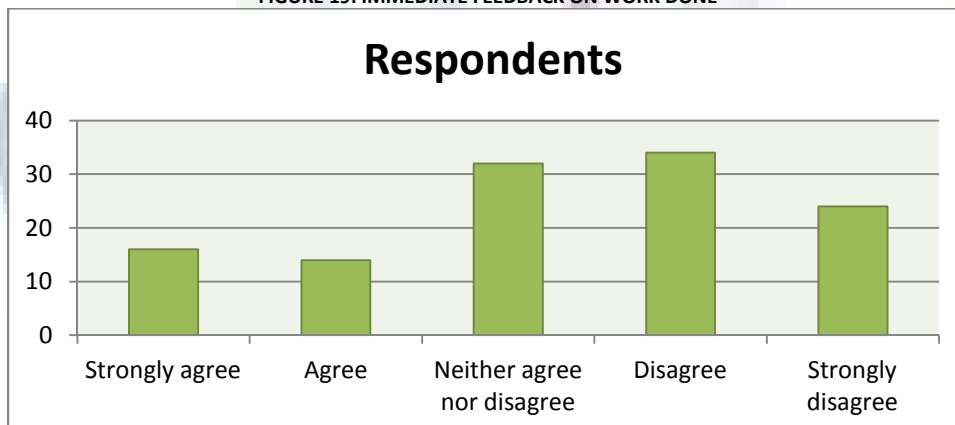
Respondents

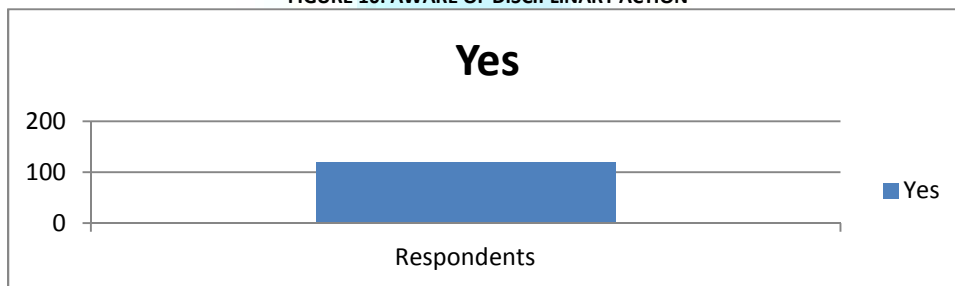**Inference:** From the above Figure: 31 depicted out of 120 respondents 34 respondents (i.e.,28%) are disagree that they are getting immediate feedback for the work done,32 respondents (i.e.,27%) are neither agree nor disagree,24 respondents(i.e.,20%) are strongly disagree,16 respondents (i.e.,13%) are strongly agree and remaining 14 respondents(i.e.,12%) are agree that they are getting immediate feedback for the work done from superiors.

CHI–SQUARE TEST ON BALANCE OF PERSONAL LIFE AS WELL AS WORK/PROFESSIONAL LIFE

H_0: Employees in the organization agree that they are not able to balance personal & work/professional life in Info Sciences.

H_1: Employees in the organization agree that they are able to balance personal & work/professional life in Info Sciences.

Chi – Square test on balance of personal life as well as work/professional life

Departments * Opinions Cross tabulation

Departments	Opinions					Total
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	
E Customs	11	14	7	1	3	36
Vigi log	5	1	9	3	2	20
Vigi log+	13	17	1	3	2	36
FTN	5	4	6	4	1	20
E Start	0	0	3	3	2	8
Total	34	36	26	14	10	120

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	39.670[a]	16	0.001

Inference:

Chi-square calculated value =38.670

P value =0.001

P value < 0.05

Hence we accept H1

That is employees in the organization agree that they are able to balance personal & work/professional in Info Sciences.

CHI –SQUARE TEST ON PAID SALARIES

H_0: Employees in the organization agree that they are not paid enough salaries for the work done in Info Sciences

H_1: Employees in the organization agree that they are paid enough salaries for the work done in Info Sciences

CHI – SQUARE TEST ON PAID SALARIES

Departments * Opinions Cross tabulation

Departments	Opinions					Total
	Strongly agree	Agree	Neither agree Nor disagree	Disagree	Strongly disagree	
E Customs	8	15	12	0	1	36
Vigi log	4	4	1	5	6	20
Vigi log+	2	14	2	6	12	36
FTN	2	3	5	7	3	20
E Start	0	2	4	2	0	8
Total	16	38	24	20	22	120

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	46.621[a]	16	.000

Inference:

Chi-square calculated value = 46.621

P value = 0.000

P value < 0.05

Hence we accept H1

That is employees in the organization agree that they are paid enough salaries for the work done.

FINDINGS

1. Majority of the respondents i.e. 92% are satisfied and 8% are dissatisfied with the working conditions of the organisation.
2. 63% are agreed and 20% are disagreed that their work is par with their skills.
3. Majority of the respondents i.e. 90% are agreed and 10% are neither agree nor disagreed that their shift times are reasonably made.
4. 33% are agreed and 27% are disagreed that they are absent because of lack of challenging work.
5. 57% are agreed and 25 % are disagreed that they are feeling over stress in the organization.
6. Most of the respondents i.e. 50% are agreed and 40 % are disagreed that they feel boredom in their routine work.
7. Majority of the respondents i.e. 90% are strongly agreed and 10% are disagreed that they have good relationship with the higher authorities and colleagues.
8. Most of the respondents i.e. 58% are agreed and 20% are disagreed that they can balance both personal and professional life.
9. 67% of the respondents are disagreed and 33% are agreed with the present absenteeism policy in the organization.
10. 59% are agreed and 27% are disagreed with the welfare facilities provided by the company.
11. 43% of the respondents are agreed and 44% are disagreed with the satisfaction of safety measures under taken by the company.
12. Some of the respondents i.e. 45% are agreed and 35% are disagreed with the satisfaction of enough salaries paid.
13. 77% are not having and 23% are having other source of income.
14. 75% are agreed and 25% are disagreed with leaves provided.
15. 100% of the respondents are agreed that the personal problem is the reason for their absenteeism.
16. 51% are agreed and 49% are disagreed that they are encouraged to suggest new ideas.
17. Most of the respondents i.e. 52% are agreed and 48% are disagreed that absenteeism affects economic conditions.
18. 55% are disagreed and 41% are agreed that they are recognized in the organization.
19. 40% are agreed and 35% are disagreed and with the proper counseling provided for absenteeism.
20. 48% are disagreed and 24% are agreed that they are getting feedback on the work they done from their superiors.
21. Most of the respondents i.e. 70% are agreed and 30% are disagreed that they are losing benefits due to absenteeism.
22. 100% of the respondents strongly agree that they are aware that the management takes disciplinary action against absenteeism.

SUGGESTIONS

1. Company has to explain the employees regarding their importance in the company and the monetary loss caused to them if they get absented.

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2. Absenteeism can be controlled by providing enough salaries to the employees for the work done.
3. The management should encourage the employees to suggest new ideas.
4. Superior should recognize the employees & provide immediate feedback to the employees for the work they do.
5. The organization should give proper counseling on the absenteeism to overcome boredom & stress on the routine work.
6. Management should improve the safety measures in order to reduce the employee absenteeism in the organization.
7. As a part of training and development programmes for its employees, management has to make arrangements for training.
8. Management has to publish the daily man days lost versus production and display at a conspicuous place that is the production hall or canteen etc.

ACKNOWLEDGMENTS

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CALENDAR ANOMALY IN CNX-AUTO, BANK AND FMCG INDEX FOR THE PERIOD OF JANUARY 2004 TO MARCH 2013

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ABSTRACT

Calendar anomalies in CRISIL NSE INDICES i.e. CNX Auto index consist of 15 auto companies, CNX Bank index consist of 12 banks, CNX FMCG index consist of 15 companies including food and food processing, personal care, sugar, diversified, cigarettes, tea and coffee, brew/distilleries. This study tests the presence of the 'quarter of the year effect', 'month of the year effect' on stock market indices volatility by using the CNX Auto index, CNX Bank index, CNX FMCG index during the period of 1st January 2004 to 31st March 2013. Data was analysed using descriptive statistics and inferential statistics. Thus findings revealed that quarter of the year effect, month of the year effect is present in all 3 indices volatility i.e. risk and returns. The maximum returns of Auto index, Bank index and FMCG index are observed in 2nd Quarter and minimum returns are observed in 4th Quarter. All indices are showing maximum volatility in 1st quarter. Auto index and Bank index showing maximum returns in the month of September. Whereas FMCG index shows maximum returns in November month. Auto index shows minimum returns in the month of May, Bank index shows minimum returns in the month of October, FMCG index shows minimum returns in the month of January. All 3 indices are showing the maximum volatility in the month of May.

KEYWORDS

CNX Auto Index, CNX Bank Index, CNX FMCG Index, Month of the year Effect, Quarter of the year Effect, Volatility.

INTRODUCTION

Calendar effects are trends seen in indices returns and risk, where the returns tend to rise or fall in a particular quarter, month as compared to the mean and volatility tend to rise or fall in a particular quarter, month as compared to the standard deviation. They are called anomalies because they cannot be explained by traditional asset pricing models and they violate the 'weak-form' of market efficiency (i.e. asset prices fully reflect all past information). Examples of such patterns include the *Quarter of the year Effect, Month-of-the-year effect, Day-of-the-week effect, Intra-month effect, Turn-of-the-month effect, Holiday effect, Halloween effect, and Daylight savings effect*. This paper focuses on the Quarter of the year Effect, Month of the year Effect of 3indices. As the name suggests, the said effect are seasonal phenomenon where exchange traded equities tend to produce abnormal returns during particular quarter, month. The objectives of this study is to test for the Quarter-of-the-year effect, month-of-the-year effect in 3 indices of CNX NIFTY using quarterly, monthly returns of the CNX NIFTY indices for the period January 2004 - March 2013.

REVIEW OF LITERATURE

Author and Year	Key Findings
Week-end Effect: New Evidence from the Indian Stock Market S Amanulla, M Thiripalraju(2001) Vikalpa,Vol. 26, Issue: 2, pp33-50	☞ This paper tests whether the carry-forward transactions in different periods have any impact on week-end effect in the Indian stock market during the period January 1990-December 1999. ☞ It is possible to have periodic rebalancing of beta sorted portfolios for each sub-sample period; then the test of week-end effect may be pursued based on rebalanced beta-portfolios in each sub-period. Leaving further details to future research, this study, however, restricts its focus only on constructing beta portfolios based on the time period 1994-1999.
The Day of the Week Effect on Stock Market Volatility: Evidence from Emerging Markets Yeliz Yalcin Eray M. Yucel (2003) Czech Journal of Economics and Finance (Finance a uver) pp258-277	☞ This paper presents statistically significant evidence that the day of the week effects exist for 20 emerging stock markets in our sample for either market return or market volatility. ☞ The day of the week effects are present in market returns for 11 countries and in market volatility for 15 countries. They are present in both return and variance specifications for 6 countries in our sample. For 20 countries the day of the week effects exist for at least one of the return or variance specifications.
Day-of-the-week and other market anomalies in the Indian stock market Mahendra Raj, Damini Kumari (2006) International Journal of Emerging Markets Vol. 1, Issue 3, pp.235 – 246	☞ The seasonal effects in the Indian market have been examined by two major indices, viz the Bombay Stock Exchange Index and the NSE Index. ☞ "The negative Monday effect and the positive January effects are not found in India. Instead the Monday returns are positive while Tuesday returns are negative". ☞ "This study indicates that the Indian stock market does not exhibit the usual seasonal anomalies such as Monday and January effects. The absence of Monday effect could be due to the settlement period in Indian market. That the tax year ends in March and December has no special significance may explain the non-existence of January"
The day of the week effect on stock market volatility Hakan Berument, Halil Kiymaz *(2001)* JOURNAL OF ECONOMICS AND FINANCE Vol.25, Issue, pp.181-193	☞ This study tests the presence of the day of the week effect on stock market volatility by using the S&P 500 market index during the period of January 1973 and October 1997. ☞ The findings show that the day of the week effect is present in both volatility and return equations. While the highest and lowest returns are observed on Wednesday and Monday, the highest and the lowest volatility are observed on Friday and Wednesday, respectively.
Seasonality and Market Crashes in Indian Stock Markets, Mihir Dash, Anirban Dutta, Mohit Sabharwal Asian Journal of Finance & Accounting Vol. 3, pp174-184	☞ "The results of the study provide evidence for a month-of-the-year effect in Indian stock markets. In particular, there is clear indication of positive November, August and December effects and a negative March effect". ☞ "The end-of-the-year effect (i.e. positive November and December effects) could be a Diwali effect, with a huge surge in the purchase of household goods, electronic equipments, and gold in India, usually in November".
Seasonal Anomalies between S&P CNX Nifty Shariah Index and S&P CNX Nifty Index in India M. Dharani, P. Natarajan *(2011)* Journal of Social and Development Sciences Vol. 1, Issue: 3, pp.101-108	☞ This study reveals that there is a significant difference between average return of the Nifty Shariah and Nifty indices in the month of July and September. ☞ It is derived from the study that the Muslim Investors are evincing more interest to sell the shares in the market from July to September. The reason being, expenses in connection with Ramalan Festival during that period. Therefore, the study confirms that Ramalan effect has been prevailing in the Indian Stock Market. Thus, this study reveals that the seasonal variation exits very much in Shariah Index
Stock market efficiency in India: Evidence from NSE, Amalendu Bhunia (2012) Universal Journal of Marketing and Business Research (UJMBR) Vol. 1, Issue 2, pp.072-078	☞ Market Capitalization and turnover have increased dramatically with the liberalization initiatives taken by Government of India for the past two decades. ☞ "By empirical evidence on Indian stock market, there is positive relationship between the expected return and beta of the security. According to this study Indian market is not strongly efficient".
Monday Effect and Stock Return Seasonality: Further Empirical Evidence Dr. Rengasamy Elango, Nabila Al Macki *(2008)* The Business Review, Cambridge, Vol. 10, No. 2, pp. 282-288,	☞ This study investigates whether the anomalous 'weekend effect' found in many developed and developing markets around the world is also present in the rapidly emerging Indian equity market. ☞ "Results indicate lower returns on Mondays and Fridays. Wednesdays have yielded the maximum returns across indices." ☞ "Suggestions to investors, buying the scrip's on Mondays (buy low) and selling them on Wednesdays (sell high)."

STATEMENT OF PROBLEM

The efficient-market hypothesis was developed by Professor Eugene Fama. There are three major versions of the hypothesis: "weak", "semi-strong", and "strong". According to weak-form Efficient Market Hypotheses (EMH), the security prices reflect all past publicly available information in the market. EMH ensures that the stock returns across all Days of the Weeks and Months are equal. Hence the market participant, the rational financial decision maker, cannot earn any extra-normal profits. It is to be noted that the returns constitute only one part of the decision making process. Another part of decision making is the calculation of risk or volatility of returns. It is important that there are variations in volatility of stock returns by the month of the year, quarter of the year. Besides, a high (low) return is associated with a correspondingly high (low) volatility for a given day. If the investors can identify a certain pattern in volatility, then it would be easier to make investment decisions based on both returns and risk. This study examines whether the calendar anomaly exists in CNX Auto index, CNX Bank index and CNX FMCG index.

OBJECTIVES OF THE STUDY

☞ To Measure the relationship between risk and return of CNX Auto index, CNX Bank index, CNX FMCG index for the period of 1st January 2004 to 31st March 2013.

☞ To study and identify the reasons of Quarter of the year Effect, Month of the year Effect.

HYPOTHESES

H₁ - There is no significant difference in the returns among the different quarters of the year for CNX Auto index.

H₂ - There is no significant difference in the returns among the different months of the year for CNX Auto index.

H₃ - There is no significant difference in the returns among the different quarters of the year for CNX Bank index.

H₄ - There is no significant difference in the returns among the different months of the year for CNX Bank index.

H₅ - There is no significant difference in the returns among the different quarters of the year for CNX FMCG index.

H₆ - There is no significant difference in the returns among the different months of the year for CNX FMCG index.

DATA COLLECTION

CNX NIFTY has 11 sectoral indices out of which for this study data was collected for 3 indices i.e. CNX Auto index, CNX Bank index, CNX FMCG index daily closing prices from 1st January 2004 to 31st March 2013 and total 6915 trading days. For quarter of the year effect, First day and Last day Closing prices of respective quarters during the year were taken. For month of the year effect first day and last day closing prices of respective month during the year has been taken.

STATISTICAL TOOLS

Statistical tool used for this study include descriptive statistics and inferential statistics. Standard deviation tool was used to measure risk and mean as a tool was used to measure return. In inferential statistics Karl Pearson's coefficient of correlation is used.

HYPOTHESIS

H₁ - There is no significant difference in the returns among the different quarters of the year for CNX Auto index.

QUARTER OF THE YEAR EFFECT

TABLE 1: DESCRIPTIVE STATISTICS FOR QUARTER 1, 2, 3 AND 4 OF CNX AUTO INDEX

Quarter 1 (April to June)		Quarter 2 (July to September)		Quarter 3 (October to December)		Quarter 4 (January to March)	
Mean	0.962	Mean	14.218	Mean	3.758	Mean	0.921
Standard Error	6.323	Standard Error	4.563	Standard Error	5.169	Standard Error	6.187
Median	-5.417	Median	11.897	Median	8.256	Median	-8.331
Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A
Standard Deviation	18.969	Standard Deviation	13.690	Standard Deviation	15.508	Standard Deviation	18.561
Sample Variance	359.806	Sample Variance	187.407	Sample Variance	240.499	Sample Variance	344.512
Kurtosis	3.350	Kurtosis	2.836	Kurtosis	3.913	Kurtosis	-1.725
Skewness	1.635	Skewness	1.396	Skewness	-1.702	Skewness	0.518
Range	63.251	Range	47.806	Range	54.565	Range	46.111
Minimum	-18.760	Minimum	-3.180	Minimum	-32.335	Minimum	-20.757
Maximum	44.490	Maximum	44.626	Maximum	22.229	Maximum	25.354
Sum	8.656	Sum	127.961	Sum	33.820	Sum	8.293
Count	9	Count	9	Count	9	Count	9
Confidence Level (95.0%)	14.581	Confidence Level (95.0%)	10.523	Confidence Level (95.0%)	11.921	Confidence Level (95.0%)	14.267

TABLE 2: RETURN AND RISK FOR QUARTER 1, 2, 3, 4 OF CNX AUTO INDEX

Quarter	Return_Quarterly	Risk_Quarterly
Quarter 1	0.962	18.969
Quarter 2	14.218	13.69
Quarter 3	3.758	15.508
Quarter 4	0.921	18.561

TABLE 3: CORRELATION BETWEEN QUARTERLY RETURN AND RISK OF CNX AUTO INDEX

		Quarterly_Return	Quarterly_Risk
Quarterly_Return	Pearson Correlation	1	-.901
	Sig. (2-tailed)		.099
	N	4	4
Quarterly_Risk	Pearson Correlation	-.901	1
	Sig. (2-tailed)	.099	
	N	4	4

OBSERVATION

☞ There is negative strong Karl Pearson's coefficient of correlation between return and risk (Volatility) for quarter of the year effect on CNX Auto index.

☞ The maximum and minimum returns are observed in quarter 2 and quarter 4 respectively.

☞ The maximum risk (volatility) is observed in quarter 1.

INTERPRETATION

Auto industry is cyclical in nature; it follows business cycles peak and troughs. In case of recession this industry is not able to give good returns because automobile industry and its products perceived as a luxury, hence during recession demand for this product is quite low and due to low demand profitability of these industry is low and ultimately it hampers the psyche of investors and they prefer not invest into auto industry during recession period. As per the Society of Indian Manufacturers (SIAM) Indian automobile industry is growing at good pace. As per SIAM gross turnover of automobile industry, production of automobile industry, domestic sales of the automobile industry, exports of automobile industry are showing upward trend year on year basis. As per the analysis of CNX Auto index since past 3 years automobile companies are giving good returns to investors. In India monsoon has an impact on inflation, interest rates, currency value, Gross Domestic Product, power generation, fiscal deficit, auto industry, cement industry, FMCG industry, Banking industry etc. Karl Pearson's coefficient of correlation value between Risk and Return is indicates strong negative correlation (strong negative correlation -0.80 onwards) and $p=.099$ is greater than 0.01 hence the test is not significant. It can be concluded that Quarter 2 is giving maximum returns with minimized risk. Here it is a healthy sign of the market for the investors to invest in Quarter 2. Quarter 2 is giving maximum returns as compared with other quarters. Quarter 4 is highly volatile than other quarters. Quarter 4 is giving minimum returns compared with other quarters. Union Budget is announced exactly in the middle of this quarter i.e. 28th or 29th February. In India lot of pre-budget discussions take place every year. Due to pre-budget discussions January month is giving negative returns. Due to fractured politics and vote bank politics union budget becomes political event rather than finance or economic event. In the month of March lot of post budget analysis and discussions take place. Due to that pessimism among investors is high during that period. Quarter 1 is highly volatile quarter compared with other quarters because in this quarter Government is implementing the Fiscal Policy decisions. Quarter 2 gives maximum returns with minimum risk. Quarter 2 is the best quarter to reap the benefits of investment. There is significant difference in the returns among the different quarters of the year for CNX Auto index; hence the hypothesis gets rejected for CNX Auto Index because it shows maximum returns in the Quarter 2 as compare to other quarters.

HYPOTHESIS

H_2 - There is no significant difference in the returns among the different months of the year for CNX Auto index.

MONTH OF THE YEAR EFFECT

TABLE 4: DESCRIPTIVE STATISTICS FOR ALL 12 MONTHS (JANUARY TO DECEMBER) OF CNX AUTO INDEX

JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
Mean	-2.638	Mean	2.423	Mean	0.856	Mean	3.879	Mean	-3.088	Mean	-0.240
Standard Error	3.127	Standard Error	2.163	Standard Error	2.295	Standard Error	1.629	Standard Error	4.437	Standard Error	2.719
Median	-3.141	Median	1.451	Median	1.982	Median	2.576	Median	-4.917	Median	0.469
Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A
Standard Deviation	9.381	Standard Deviation	6.489	Standard Deviation	6.886	Standard Deviation	4.888	Standard Deviation	13.312	Standard Deviation	8.156
Sample Variance	88.007	Sample Variance	42.108	Sample Variance	47.423	Sample Variance	23.891	Sample Variance	177.200	Sample Variance	66.527
Kurtosis	0.110	Kurtosis	-0.665	Kurtosis	0.669	Kurtosis	0.092	Kurtosis	1.553	Kurtosis	1.308
Skewness	0.368	Skewness	-0.355	Skewness	0.959	Skewness	0.287	Skewness	1.256	Skewness	-0.956
Range	30.431	Range	19.817	Range	21.537	Range	16.309	Range	40.946	Range	26.810
Minimum	-16.117	Minimum	-8.777	Minimum	-6.860	Minimum	-3.992	Minimum	-15.772	Minimum	-17.083
Maximum	14.314	Maximum	11.040	Maximum	14.677	Maximum	12.317	Maximum	25.174	Maximum	9.727
Sum	-23.739	Sum	21.804	Sum	7.706	Sum	34.912	Sum	-27.792	Sum	-2.156
Count	9	Count	9	Count	9	Count	9	Count	9	Count	9
Confidence Level (95.0%)	7.211	Confidence Level (95.0%)	4.988	Confidence Level (95.0%)	5.293	Confidence Level (95.0%)	3.757	Confidence Level (95.0%)	10.232	Confidence Level (95.0%)	6.270
JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
Mean	4.129	Mean	2.125	Mean	5.777	Mean	-2.936	Mean	2.125	Mean	3.512
Standard Error	2.934	Standard Error	1.745	Standard Error	2.131	Standard Error	3.416	Standard Error	3.284	Standard Error	1.723
Median	2.062	Median	1.720	Median	7.083	Median	-1.591	Median	1.696	Median	3.615
Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A
Standard Deviation	8.801	Standard Deviation	5.234	Standard Deviation	6.393	Standard Deviation	10.249	Standard Deviation	9.851	Standard Deviation	5.17
Sample Variance	77.459	Sample Variance	27.394	Sample Variance	40.876	Sample Variance	105.044	Sample Variance	97.0378	Sample Variance	26.729
Kurtosis	3.053	Kurtosis	-0.223	Kurtosis	0.708	Kurtosis	3.378	Kurtosis	-0.484	Kurtosis	0.136
Skewness	1.563	Skewness	0.661	Skewness	-1.151	Skewness	-1.327	Skewness	-0.41	Skewness	-0.3733
Range	29.772	Range	16.302	Range	19.022	Range	37.529	Range	29.6518	Range	16.332
Minimum	-5.720	Minimum	-5.000	Minimum	-7.134	Minimum	-25.945	Minimum	-14.969	Minimum	-5.9461
Maximum	24.052	Maximum	11.301	Maximum	11.888	Maximum	11.584	Maximum	14.682	Maximum	10.386
Sum	37.159	Sum	19.126	Sum	51.994	Sum	-26.428	Sum	19.123	Sum	31.608
Count	9	Count	9	Count	9	Count	9	Count	9	Count	9
Confidence Level (95.0%)	6.765	Confidence Level (95.0%)	4.023	Confidence Level (95.0%)	4.9144	Confidence Level (95.0%)	7.878145	Confidence Level (95.0%)	7.57198	Confidence Level (95.0%)	3.974

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TABLE 5: RETURN AND RISK FOR JANUARY TO DECEMBER OF CNX AUTO INDEX

MONTH	Return_Monthly	Risk_Monthly
JAN	-2.638	9.381
FEB	2.423	6.489
MARCH	0.856	6.886
APRIL	3.879	4.888
MAY	-3.088	13.312
JUNE	-0.240	8.156
JULY	4.129	8.801
AUGUST	2.125	5.234
SEPTEMBER	5.777	6.393
OCTOBER	-2.936	10.249
NOVEMBER	2.125	9.851
DECEMBER	3.512	5.170

TABLE 6: CORRELATION BETWEEN MONTHLY RETURN AND RISK OF CNX AUTO INDEX

		Monthly_Return	Monthly_Risk
Monthly_Return	Pearson Correlation	1	-.719[**]
	Sig. (2-tailed)		.008
	N	12	12
Monthly_Risk	Pearson Correlation	-.719[**]	1
	Sig. (2-tailed)	.008	
	N	12	12
. Correlation is significant at the 0.01 level (2-tailed).			

OBSERVATION

☞ There is negative moderate Karl Pearson's coefficient of correlation between Return and Risk (Volatility) for Month of the year Effect on CNX Auto index.

☞ The maximum and minimum returns are observed in September month and May month respectively.

☞ The maximum risk (volatility) is observed in May month.

INTERPRETATION

Karl Pearson's coefficient of correlation value between Risk and Return is -0.719 indicates moderate negative correlation (range of moderate negative correlation -0.50 to -0.80) and p=.008 is less than 0.01 than the test is significant. It can be concluded that September month is giving maximum returns with comparatively minimum risk. May month is giving minimum returns with maximum risk. For the investors to invest in the month of September get good return. Negative correlation depicts that it disproves the theory i.e. high risk high returns. Seasonality plays a vital role in automobile industry. Monsoons boost tractors and motorcycles demand. Due to festive season Indians are fascinated to buy automobiles during this period with reasonable prices of automobiles. There is significant difference in the returns among the different months of the year for CNX Auto index; hence the hypothesis gets rejected for CNX Auto Index because it shows maximum returns in the month of September as compare to other months.

HYPOTHESIS

H_3 - There is no significant difference in the returns among the different quarters of the year for CNX Bank index.

QUARTER OF THE YEAR EFFECT

TABLE 7: DESCRIPTIVE STATISTICS FOR QUARTER 1, 2, 3 AND 4 OF CNX BANK INDEX

Quarter 1 (April to June)		Quarter 2 (July to September)		Quarter 3 (October to December)		Quarter 4 (January to March)	
Mean	4.560	Mean	18.126	Mean	5.392	Mean	-4.624
Standard Error	10.619	Standard Error	5.470	Standard Error	5.851	Standard Error	5.646
Median	-0.454	Median	19.711	Median	1.901	Median	-1.268
Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A
Standard Deviation	31.857	Standard Deviation	16.411	Standard Deviation	17.552	Standard Deviation	16.939
Sample Variance	1014.859	Sample Variance	269.307	Sample Variance	308.074	Sample Variance	286.924
Kurtosis	2.228	Kurtosis	1.744	Kurtosis	-0.244	Kurtosis	1.239
Skewness	1.543	Skewness	-0.872	Skewness	0.617	Skewness	0.293
Range	98.185	Range	57.738	Range	53.826	Range	60.552
Minimum	-23.926	Minimum	-15.875	Minimum	-16.396	Minimum	-32.813
Maximum	74.259	Maximum	41.863	Maximum	37.431	Maximum	27.738
Sum	41.039	Sum	163.134	Sum	48.524	Sum	-41.614
Count	9	Count	9	Count	9	Count	9
Confidence Level (95.0%)	24.487	Confidence Level (95.0%)	12.614	Confidence Level (95.0%)	13.492	Confidence Level (95.0%)	13.020

TABLE 8: RETURN AND RISK FOR QUARTER 1, 2, 3, 4 OF CNX BANK INDEX

Quarter	Return_Quarterly	Risk_Quarterly
Quarter 1	4.560	31.857
Quarter 2	18.126	16.411
Quarter 3	5.392	17.552
Quarter 4	-4.624	16.939

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TABLE 9: CORRELATION BETWEEN QUARTERLY RETURN AND RISK OF CNX BANK INDEX

		Return_Quarterly	Risk_Quarterly
Return_ Quarterly	Karl Pearson's coefficient of correlation	1	-.125
	Sig. (2-tailed)		.875
	N	4	4
Risk_ Quarterly	Karl Pearson's coefficient of correlation	-.125	1
	Sig. (2-tailed)	.875	
	N	4	4

OBSERVATION

☞ There is negative weak Karl Pearson's coefficient of correlation between return and risk (Volatility) for quarter of the year effect on CNX Bank index.

☞ The maximum and minimum returns are observed in quarter 2 and quarter 4 respectively.

☞ The maximum risk (volatility) is observed in quarter 1.

INTERPRETATION

Karl Pearson's coefficient of correlation value between Risk and Return is -.125 indicates negative weak correlation (negative weak correlation less than -.50) and p=0.875 is greater than 0.01 hence the test is not significant. It can be concluded that Quarter 2 is giving maximum returns with minimized risk. Here it is a healthy sign from the market for the investors to invest in Quarter 2. Quarter 2 is giving the maximum returns as compared with other quarters. In CNX Bank index Quarter 4 is the only quarter which shows negative returns. Quarter 4 is highly risky and with high risk it gives minimum returns. Short term investors should avoid investing as well as liquidating their position during this quarter. Whereas those investor can wait for 9 months for them investing into Quarter 4 gives maximum returns. Pre-budget discussions in India hampers the returns of Indian banking industry during January and February months, both months are giving negative returns during this period. Due to lot of post budget discussions March month is also giving comparatively lower returns. Quarter 1 is highly volatile quarter compared with other quarters because in this quarter Government is implementing the Fiscal Policy decisions. Quarter 2 gives maximum returns with minimum risk. Quarter 2 is the best quarter to reap the benefits of investment. There is significant difference in the returns among the different quarters of the year for CNX Bank index; hence the hypothesis gets rejected for CNX Bank Index because it shows maximum returns in the Quarter 2 as compare to other quarters.

HYPOTHESIS

H_4 - There is no significant difference in the returns among the different months of the year for CNX Bank index.

MONTH OF THE YEAR EFFECT

TABLE 10: DESCRIPTIVE STATISTICS FOR 12 MONTHS (JANUARY TO DECEMBER) OF CNX BANK INDEX

JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
Mean	-1.654	Mean	-1.199	Mean	1.083	Mean	4.962	Mean	-1.519	Mean	-0.383
Standard Error	3.558	Standard Error	2.373	Standard Error	2.752	Standard Error	3.528	Standard Error	5.930	Standard Error	3.163
Median	-2.887	Median	0.850	Median	1.942	Median	3.814	Median	-4.213	Median	1.915
Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A
Standard Deviation	10.675	Standard Deviation	7.120	Standard Deviation	8.256	Standard Deviation	10.585	Standard Deviation	17.790	Standard Deviation	9.490
Sample Variance	113.948	Sample Variance	50.691	Sample Variance	68.168	Sample Variance	112.048	Sample Variance	316.475	Sample Variance	90.066
Kurtosis	4.923	Kurtosis	-0.273	Kurtosis	2.772	Kurtosis	-0.400	Kurtosis	1.120	Kurtosis	2.099
Skewness	1.957	Skewness	-0.752	Skewness	-1.373	Skewness	0.056	Skewness	0.946	Skewness	-1.315
Range	36.969	Range	22.099	Range	28.460	Range	34.216	Range	59.566	Range	32.377
Minimum	-12.899	Minimum	-14.307	Minimum	-17.303	Minimum	-12.383	Minimum	-24.829	Minimum	-20.798
Maximum	24.070	Maximum	7.792	Maximum	11.157	Maximum	21.833	Maximum	34.737	Maximum	11.579
Sum	-14.886	Sum	-10.795	Sum	9.749	Sum	44.658	Sum	-13.669	Sum	-3.447
Count	9	Count	9	Count	9	Count	9	Count	9	Count	9
Confidence Level (95.0%)	8.205	Confidence Level (95.0%)	5.473	Confidence Level (95.0%)	6.346	Confidence Level (95.0%)	8.137	Confidence Level (95.0%)	13.674	Confidence Level (95.0%)	7.295
JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
Mean	6.662	Mean	-0.743	Mean	10.301	Mean	-2.335	Mean	2.736	Mean	2.925
Standard Error	2.839	Standard Error	2.420	Standard Error	2.913	Standard Error	3.805	Standard Error	3.659	Standard Error	3.335
Median	3.133	Median	-0.134	Median	13.664	Median	-1.800	Median	6.781	Median	3.060
Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A
Standard Deviation	8.516	Standard Deviation	7.260	Standard Deviation	8.739	Standard Deviation	11.416	Standard Deviation	10.976	Standard Deviation	10.006
Sample Variance	72.522	Sample Variance	52.710	Sample Variance	76.375	Sample Variance	130.318	Sample Variance	120.479	Sample Variance	100.123
Kurtosis	-0.654	Kurtosis	1.532	Kurtosis	-0.425	Kurtosis	0.570	Kurtosis	-0.908	Kurtosis	-0.002
Skewness	0.789	Skewness	0.398	Skewness	-0.932	Skewness	-0.720	Skewness	-0.236	Skewness	0.701
Range	24.280	Range	26.282	Range	24.762	Range	37.257	Range	32.406	Range	31.688
Minimum	-3.211	Minimum	-12.849	Minimum	-5.308	Minimum	-24.417	Minimum	-12.809	Minimum	-10.417
Maximum	21.070	Maximum	13.432	Maximum	19.454	Maximum	12.841	Maximum	19.596	Maximum	21.270
Sum	59.957	Sum	-6.686	Sum	92.707	Sum	-21.012	Sum	24.626	Sum	26.324
Count	9	Count	9	Count	9	Count	9	Count	9	Count	9
Confidence Level (95.0%)	6.546	Confidence Level (95.0%)	5.581	Confidence Level (95.0%)	6.718	Confidence Level (95.0%)	8.775	Confidence Level (95.0%)	8.437	Confidence Level (95.0%)	7.6914

TABLE 11: RETURN AND RISK FOR JANUARY TO DECEMBER OF CNX BANK INDEX

MONTH	Return_Monthly	Risk_Monthly
JAN	-1.654	10.675
FEB	-1.199	7.120
MARCH	1.083	8.256
APRIL	4.962	10.585
MAY	-1.519	17.790
JUNE	-0.383	9.490
JULY	6.662	8.516
AUGUST	-0.743	7.260
SEPTEMBER	10.301	8.739
OCTOBER	-2.335	11.416
NOVEMBER	2.736	10.976
DECEMBER	2.925	10.006

TABLE 12: CORRELATION BETWEEN MONTHLY RETURN AND RISK OF CNX BANK INDEX

Correlations		Return_Monthly	Risk_Monthly
Return_Monthly	Karl Pearson's coefficient of correlation	1	-.257
	Sig. (2-tailed)		.420
	N	12	12
Risk_Monthly	Karl Pearson's coefficient of correlation	-.257	1
	Sig. (2-tailed)	.420	
	N	12	12

OBSERVATION

☞   There is negative weak Karl Pearson's coefficient of correlation between Return and Risk (Volatility) for Month of the year Effect on CNX Bank index.

☞   The maximum and minimum returns are observed in September and October month respectively.

☞   The maximum risk (volatility) is observed in May month.

INTERPRETATION

Karl Pearson's coefficient of correlation value between Risk and Return is -.257 indicates negative weak correlation (negative weak correlation less than -.50) and p=0.420 is greater than 0.01 hence the test is not significant. It can be concluded that September month is giving maximum returns with comparatively minimized risk. Here it is a healthy sign of the market for the investors to invest in the month of September. January, February, May, June, August and October months are giving negative returns. May month is highly risky because May month is showing Maximum Volatility and returns are also low. January and February both months are giving negative returns during this period. There is significant difference in the returns among the different months of the year for CNX Bank index; hence the hypothesis gets rejected for CNX Bank Index because it shows maximum returns in the month of September as compare to other months.

HYPOTHESIS

H_5 - There is no significant difference in the returns among the different quarters of the year for CNX FMCG index.

QUARTER OF THE YEAR EFFECT

TABLE 13: DESCRIPTIVE STATISTICS FOR QUARTER 1, 2, 3 AND 4 OF CNX FMCG INDEX

Quarter 1 (April to June)		Quarter 2 (July to September)		Quarter 3 (October to December)		Quarter 4 (January to March)	
Mean	4.715	Mean	10.844	Mean	4.138	Mean	2.838
Standard Error	4.829	Standard Error	2.272	Standard Error	2.624	Standard Error	4.513
Median	11.281	Median	12.584	Median	6.197	Median	-0.278
Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A
Standard Deviation	14.488	Standard Deviation	6.816	Standard Deviation	7.873	Standard Deviation	13.539
Sample Variance	209.898	Sample Variance	46.462	Sample Variance	61.978	Sample Variance	183.301
Kurtosis	-1.582	Kurtosis	1.673	Kurtosis	-0.618	Kurtosis	3.696
Skewness	-0.605	Skewness	-1.170	Skewness	-0.179	Skewness	1.812
Range	37.094	Range	22.888	Range	24.475	Range	44.456
Minimum	-14.968	Minimum	-3.543	Minimum	-7.753	Minimum	-10.187
Maximum	22.126	Maximum	19.345	Maximum	16.722	Maximum	34.270
Sum	42.433	Sum	97.594	Sum	37.244	Sum	25.546
Count	9	Count	9	Count	9	Count	9
Confidence Level (95.0%)	11.136	Confidence Level (95.0%)	5.239	Confidence Level (95.0%)	6.051	Confidence Level (95.0%)	10.407

TABLE 14: RETURN AND RISK FOR QUARTER 1, 2, 3, 4 OF CNX FMCG INDEX

Quarter	Return_Quarterly	Risk_Quarterly
Quarter 1	4.715	14.488
Quarter 2	10.844	6.816
Quarter 3	4.138	7.873
Quarter 4	2.838	13.539

TABLE 15: CORRELATION BETWEEN QUARTERLY RETURN AND RISK OF CNX FMCG INDEX

Correlations		Return_Quarterly	Risk_Quarterly
Return_ Quarterly	Karl Pearson's coefficient of correlation	1	-.659
	Sig. (2-tailed)		.341
	N	4	4
Risk_ Quarterly	Karl Pearson's coefficient of correlation	-.659	1
	Sig. (2-tailed)	.341	
	N	4	4

OBSERVATION

☞ There is negative moderate Karl Pearson's coefficient of correlation between return and risk (Volatility) for quarter of the year effect on CNX FMCG index.

☞ The maximum and minimum returns are observed in quarter 2 and quarter 4 respectively.

☞ The maximum risk (volatility) is observed in quarter 1.

INTERPRETATION

Karl Pearson's coefficient of correlation value between Risk and Return is -.659 indicates negative moderate correlation (range of negative moderate correlation -.50 to -.80) and p=0.341 is greater than 0.01 hence the test is not significant. It can be concluded that Quarter 2 is giving maximum returns with minimum risk. Quarter 2 is giving the maximum returns as compared with other quarters. In CNX FMCG index Quarter 4 is giving minimum returns. Quarter 1 is highly risky but in terms of returns it secured second rank. After Quarter 1 Quarter 4 is risky but with high risk it gives minimum returns. Short term investors should avoid investing as well as liquidating their position during Quarter 4. Fast Moving Consumer Goods (FMCG) goods are all consumable items (other than groceries/pulses) that one needs to buy at regular intervals. FMCG Sector gets established in the year 1950. The FMCG sector is the fourth largest sector with a total market size in excess of USD 13.1 billion as of 2012. FMCG sector is growing in India. This sector survives in market in spite of any phase of business cycle. FMCG product has inelastic demand in the market though the market is moving at any direction FMCG stocks are not get impacted much. Though the market is bearish consumers will not stop buying toothpaste, groceries, soap etc. Hence FMCG sector called as "Defensive Sector" and it is advantageous from investor's point of view to invest in FMCG sector. There is significant difference in the returns among the different quarters of the year for CNX FMCG index; hence the hypothesis gets rejected for CNX FMCG Index because it shows maximum returns in the Quarter 2 as compare to other quarters.

HYPOTHESIS

H_6 - There is no significant difference in the returns among the different months of the year for CNX FMCG index.

MONTH OF THE YEAR EFFECT

TABLE 16: DESCRIPTIVE STATISTICS FOR 12 MONTHS (JANUARY TO DECEMBER) OF CNX FMCG INDEX

JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
Mean	-1.964	Mean	0.416	Mean	1.728	Mean	3.353	Mean	-1.750	Mean	2.367
Standard Error	2.138	Standard Error	2.020	Standard Error	2.039	Standard Error	0.968	Standard Error	2.965	Standard Error	2.548
Median	-0.984	Median	0.278	Median	2.379	Median	4.083	Median	-2.670	Median	5.248
Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A
Standard Deviation	6.414	Standard Deviation	6.061	Standard Deviation	6.117	Standard Deviation	2.904	Standard Deviation	8.894	Standard Deviation	7.643
Sample Variance	41.140	Sample Variance	36.732	Sample Variance	37.415	Sample Variance	8.435	Sample Variance	79.103	Sample Variance	58.414
Kurtosis	-1.024	Kurtosis	2.174	Kurtosis	0.488	Kurtosis	4.801	Kurtosis	0.574	Kurtosis	1.583
Skewness	-0.306	Skewness	1.053	Skewness	-0.324	Skewness	-2.009	Skewness	-0.703	Skewness	-1.333
Range	18.725	Range	20.772	Range	20.499	Range	9.774	Range	29.522	Range	24.306
Minimum	-12.406	Minimum	-7.370	Minimum	-9.524	Minimum	-3.644	Minimum	-18.957	Minimum	-13.922
Maximum	6.319	Maximum	13.402	Maximum	10.975	Maximum	6.130	Maximum	10.565	Maximum	10.385
Sum	-17.678	Sum	3.746	Sum	15.548	Sum	30.178	Sum	-15.749	Sum	21.301
Count	9	Count	9	Count	9	Count	9	Count	9	Count	9
Confidence Level (95.0%)	4.930	Confidence Level (95.0%)	4.659	Confidence Level (95.0%)	4.702	Confidence Level (95.0%)	2.232	Confidence Level (95.0%)	6.837	Confidence Level (95.0%)	5.875
JULY		**AUGUST**		**SEPTEMBER**		**OCTOBER**		**NOVEMBER**		**DECEMBER**	
Mean	4.282	Mean	1.472	Mean	4.364	Mean	-1.802	Mean	4.869	Mean	1.551
Standard Error	2.152	Standard Error	1.483	Standard Error	1.560	Standard Error	2.730	Standard Error	2.056	Standard Error	1.586
Median	3.386	Median	2.681	Median	3.406	Median	-1.775	Median	5.979	Median	2.268
Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A	Mode	#N/A
Standard Deviation	6.455	Standard Deviation	4.448	Standard Deviation	4.680	Standard Deviation	8.191	Standard Deviation	6.171	Standard Deviation	4.757
Sample Variance	41.661	Sample Variance	19.785	Sample Variance	21.906	Sample Variance	67.099	Sample Variance	38.078	Sample Variance	22.629
Kurtosis	1.802	Kurtosis	-0.264	Kurtosis	-1.254	Kurtosis	0.022	Kurtosis	-0.907	Kurtosis	-1.396
Skewness	0.937	Skewness	-0.524	Skewness	-0.150	Skewness	-0.508	Skewness	0.251	Skewness	-0.124
Range	22.813	Range	14.124	Range	13.113	Range	25.688	Range	18.213	Range	13.669
Minimum	-5.092	Minimum	-6.241	Minimum	-2.112	Minimum	-16.524	Minimum	-2.893	Minimum	-5.783
Maximum	17.721	Maximum	7.883	Maximum	11.001	Maximum	9.163	Maximum	15.320	Maximum	7.885
Sum	38.542	Sum	13.245	Sum	39.275	Sum	-16.222	Sum	43.824	Sum	13.958
Count	9	Count	9	Count	9	Count	9	Count	9	Count	9
Confidence Level (95.0%)	4.961	Confidence Level (95.0%)	3.419	Confidence Level (95.0%)	3.597	Confidence Level (95.0%)	6.296	Confidence Level (95.0%)	4.743	Confidence Level (95.0%)	3.657

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TABLE 17: RETURN AND RISK FOR JANUARY TO DECEMBER OF CNX FMCG INDEX

MONTH	MEAN	S.D.
JAN	-1.964	6.414
FEB	0.416	6.061
MARCH	1.728	6.117
APRIL	3.353	2.904
MAY	-1.750	8.894
JUNE	2.367	7.643
JULY	4.282	6.455
AUGUST	1.472	4.448
SEPTEMBER	4.364	4.680
OCTOBER	-1.802	8.191
NOVEMBER	4.869	6.171
DECEMBER	1.551	4.757

TABLE 18: CORRELATION BETWEEN MONTHLY RETURN AND RISK OF CNX FMCG INDEX

Correlations		Return_Monthly	Risk_Monthly
Return_Monthly	Karl Pearson's coefficient of correlation	1	-.535
	Sig. (2-tailed)		.073
	N	12	12
Risk_Monthly	Karl Pearson's coefficient of correlation	-.535	1
	Sig. (2-tailed)	.073	
	N	12	12

OBSERVATION

☞ There is negative moderate Karl Pearson's coefficient of correlation between Return and Risk (Volatility) for Month of the year Effect on CNX FMCG index.

☞ The maximum and minimum returns are observed in November and January month respectively.

☞ The maximum risk (volatility) is observed in May month.

INTERPRETATION

Karl Pearson's coefficient of correlation value between Risk and Return is -.535 indicates negative moderate correlation (rage of negative moderate correlation -.50 to -.80) and p=0.073 is greater than 0.01 hence the test is not significant. It can be concluded that November month is giving maximum returns. January, May and October months are giving negative returns. May month is highly risky because this month is showing Maximum Volatility and returns are also negative. There is significant difference in the returns among the different months of the year for CNX FMCG index; hence the hypothesis gets rejected for CNX FMCG Index because it shows maximum returns in the month of November as compare to other months.

FINDINGS

The following are important findings of the study

☞ The study found that the CNX Auto index, CNX Bank index, CNX FMCG index earned maximum quarterly returns of 14.218, 18.126, 10.844 in Quarter 2 respectively and minimum quarterly returns recorded in Quarter 4 i.e. 0.21, -4.624, 2.838 respectively during the study period. Therefore it is suggested that the investors would yield good returns Quarter 2.

☞ It is advised that the investors should buy shares in Quarter 4 and sell the same in Quarter 2 in CNX Auto index, CNX Bank index and CNX FMCG index.

☞ The study also found that the highest value of standard deviation of CNX Auto index, CNX Bank index and CNX FMCG index was recorded in Quarter 1 and least value of standard deviation in Quarter 2. The same is observed even for "NIFTY index 1st Quarter which is comparatively more volatile than other quarters". This indicates that Indian stock market is more volatile in Quarter 1. For CNX Auto index, CNX Bank index and CNX FMCG index quarter 2 is the best period to yield maximum returns with minimum risk.

☞ It is to be noted that the return distribution is positively skewed in Quarter 1, 2 and 4 for CNX Auto index, Quarter 1, 3 and 4 for CNX Bank index and Quarter 4 for CNX FMCG index. It is observe that the return distribution is negatively skewed in Quarter 3 for CNX Auto index, Quarter 2 for CNX Bank index, Quarter 1, 2 and 3 for CNX FMCG index.

☞ The returns of month wise analysis revealed the fact that there is a highest mean return recorded in the month of September for CNX Auto index, CNX Bank index i.e. 5.777, 10.301 respectively whereas CNX FMCG index yield highest mean return in the month of November i.e. 4.869. Negative mean returns recorded in the month of January, May, June and October for CNX Auto index, January, February, May, June, August and October for CNX Bank index, January, May and October for CNX FMCG index. January, May and October are common months in all 3 indices. The same is observed even for "NIFTY index shows negative returns in January, May and October".

☞ The study found that the months of September and July offer reasonably high returns in CNX Auto index, CNX Bank index whereas November and September months are giving high returns in CNX FMCG index. Thus, it is advised that the investors want to sell their holdings; September and July could be considered as the best period for CNX Auto index, CNX Bank index, for FMCG November and September could be the best month to liquidate the position in respective index.

☞ The Study provides evidence that the market was not able to price the risk appropriately as higher returns were possible by taking less risk and this indicates market inefficiency. Hence the market regulators should take appropriate steps to stabilize the volatility for the benefits of long term and small investors.

☞ The highest value (13.312) and lowest value (4.888) of Standard Deviation has been recorded in the month of May and April respectively for CNX Auto index, for CNX Bank index highest value of Standard Deviation (17.790) and lowest value of Standard Deviation (7.120) in May and February months respectively. The highest value (8.894) and lowest value (2.904) of Standard Deviation has been recorded in the months of May and April respectively for CNX FMCG index. Hence all indices indicate maximum volatility in the same month i.e. May month whereas CNX Auto index and CNX FMCG index indicates maximum volatility in the month of April. The same is observed even for "NIFTY shows maximum volatility in the month of May". This indicates that Indian stock market is more volatile in the month of May.

☞ All 6 hypotheses are tested with the help of descriptive and inferential statistics for this study. All hypotheses are rejected and it clearly indicates that the quarter of the year effect, month of the year effect exists in CNX Auto index, CNX Bank index, CNX FMCG index for the study period.

CONCLUSION

In this study returns are measured by mean and risk is measured by standard deviation. This study reveals that there is significant difference in quarterly, monthly returns of CNX Auto index, CNX Bank index, CNX FMCG index compared with remaining quarters, months. All 6 hypotheses are tested with the help of descriptive and inferential statistics for this study are rejected and it clearly indicates that the quarter of the year effect, month of the year effect exists in CNX

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Auto index, CNX Bank index, CNX FMCG index for the study period. In India festive season starts from September hence buyers are buying automobiles in the month of September. Due to high sales this sector gives positive returns in quarter 2 and in the month of September. Thus study reveals that the seasonal variation exists very much among CNX Auto index, CNX Bank index and CNX FMCG index. The results established that these 3 indices are not efficient and investors can improve their returns by timing their investment. The present study would be useful to investors, traders and arbitrageurs who could formulate profitable trading strategies if they were able to predict the share price behaviour of these 3 indices with full information on these anomalies. The study also provides evidence that the market is not able to price the risk appropriately as higher returns were possible by taking less risk and this indicates market inefficiency to the extent in CNX Auto index, CNX Bank index, CNX FMCG index. It has been observed that stock market follows risk and returns anomalies due to market capitalisation size of the companies. Temperature has severe impact on volatility. Behaviour finance has shown that temperature significantly affects mood, and mood changes in turn cause behavioural changes. Evidence suggests that lower temperature can lead to aggression, while higher temperature can lead to both apathy and aggression. In this study all 3 indices are also showing maximum volatility in the month of May. Government policies play an important role in stock market volatility and returns. Variation in demand and supply drives the market momentum. Variation in monetary policy leads to increase or decrease in interest rates and interest rates ultimately decides the direction of banking stocks. Monetary policy decisions have huge impact on consumption and savings. Business cycle phases i.e. recession, recovery and stagnation has impact on consumers psyche to buy luxurious items or not for e.g. automobiles sales are going down during recession phase. Rather than economic event Union Budget is political event. Due pre and post budget analysis and discussions this period i.e. quarter 4 is giving minimum returns with comparatively maximum risk. Various macroeconomic parameters have impact on risk and returns of CNX Auto index, CNX Bank index and CNX FMCG index. Holiday effect has an impact on stock market risk and return including these 3 indices. Dividend factor also plays an important role in risk and returns of these 3 indices. Monsoon has positive impact on various sectors of economy. Speculators, hedgers and arbitragers behavior has an impact on stock market including these 3 indices. Both the mentioned objectives are covered in this research article.

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EMPLOYEES' AWARENESS TOWARDS TNSTC LIMITED, VILLUPURAM REGION

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ABSTRACT
The awareness by an individual in general but it is complex to measure accurately the level of awareness perceived by employee particularly in Tamil Nadu State Transport Corporation Limited, Villupuram whenever a research study the working environment and work culture. The various dimension of working environment such the corporation policies, service system, inter - personal relationship, supervision, working hours, recognition of employees, responsibilities, work tasks are the major factors to judge the satisfaction. It is important for every corporation to care about the employees' awareness towards TNSTC Ltd, Villupuram Region.

KEYWORDS
HRM, work culture, work environment.

INTRODUCTION

Satisfaction was subsequently linked to increase in productivity. Happy employees are productive employees". This statement made by HR Professional and managers in organizations. Work performance and behaviors are consultant attached with physical conditions of work such as noise, illuminations of heat, humidity etc. It is now increasingly realized that many work behavior problems are associated with productivity, morale, absenteeism, accidents, fatigue etc. the workers are forced to spend more energy to accomplish task which they can do with much lesser effort in otherwise conditions. This study discusses and analyzed various components of job satisfaction of employees working in Tamil Nadu State Transport Corporation Limited, (TNSTC). Thanthai Periyar Transport Corporation Limited were rationalized and this wing started operating as an independent Corporation under the name of Pattukottai Azhagiri Transport Corporation Limited with headquarters at Vellore from the 1st December 1982 with a fleet strength of 268. The operational area of this Corporation was fixed as entire Vellore and Thiruvannamalai Districts. Pattukottai Azhagiri Transport Corporation Ltd (Villupuram) was renamed as Tamil Nadu State Transport Corporation, Vellore on 01.07.97. The fleet strength of the Corporation as on 31.03.2003 was 836. During the year 2002-2003, 51 buses have been purchased for replacement.

STATEMENT OF PROBLEM

The human being strives to seek satisfaction in every aspect of the working life. There are many ways to seek satisfaction by an individual in general but it is complex to measure accurately the level of job satisfaction perceived by employee particularly in Tamil Nadu State Transport Corporation Limited, Villupuram whenever a research study the working environment and work culture. The various dimension of working environment such the corporation policies, service system, inter - personal relationship, supervision, working hours, recognition of employees, responsibilities, work tasks are the major factors to judge the job satisfaction. It is important for every corporation to care about the employee's job satisfaction through these factors. Whenever, a slackness in any of the above mentioned factors it directly affects the individual employee and that will affect in the form of demoralization and disappointment. In this research an attempt was made to assert that to what extent the top management of Tamil Nadu State Transport Corporation has been taken care of the employees welfare and to analyze the extent of motivation practice to make a friendly approach with the employees. The other aspects such as hygienic issues which lead to dissatisfaction especially strict implementation of rules and regulations, narrow span of supervision, over work load, which creates not conducive work environment.

OBJECTIVES OF THE STUDY
The following specific objectives of the study are as follows.
1.   To study the performance of employees' awareness in general and in particular to TNSTC Ltd, Villupuram Region.
2.   To analyse the employees' awareness towards TNSTC Ltd, Villupuram Region.

METHODOLOGY
The present study is based on both primary and secondary data were used. For collecting the primary data using well framed questionnaire was designed to elicit necessary data and details from the drivers, conductors, technical, Administrative and others employees of TNSTC Villupuram Region. The secondary data were collected from the books, journals, web portal, the well equipped libraries, records from Tamil Nadu State Transport Corporation Limited, Villupuram Region, and publication of the department of TNSTC, Indian Journal of Transport Management Pune. At the outset of the study or as a prelude of the employees awareness towards Tamil Nadu State Transport Corporation Limited, Villupuram Region.

SAMPLING DESIGN
Tamil Nadu State Transport Corporation Limited, Villupuram Region was purposively selected on familiarity and it had unique performance in fleet utilization, Kilometer per litre and man power productivity. The Proportionate Stratified Sampling Method was used to select the respondents in TNSTC Ltd, Villupuram. This sampling involved in drawing sample from each stratum in proportion to the latter's share in the total employees. 3 percent of each category of employees namely Drivers, Conductors, Technical staff members Administration staff members and others staff members were selected for the study. The sample size constituted 3 percent of the universe i.e., 652 employees. The universe constituting 21718 employees were classified on the basis of their nature of employment as shown in the following table.

SELECTION OF SAMPLING DISTRIBUTION

S. No.	Category of Employees	Total Employees	Sample Selection of (3%)
1.	Drivers	7949	239
2.	Conductors	8048	242
3.	Technical staff	2611	78
4.	Administration staff and	1339	40
5.	Others staff members	1771	53
	Total	**21718**	**652**

Source: Annual Report of TNSTC Ltd, Villupuram

EMPLOYEES' AWARENESS ANALYSIS

The nature and relationship between such personal characteristics and level of employees opinion on job satisfaction was thoroughly examined with the help of (employee safety, health & welfare measures, policies and practices, work load, attendance, wage and salary system, promotions, attendance and trade union) percentage analysis and ANOVA test.

EMPLOYEE SAFETY, HEALTH AND WELFARE MEASURES

The details are furnished in the following table-1, the level of opinion of respondents in respect of employee safety, health & welfare measures.

TABLE-1: EMPLOYEE SAFETY, HEALTH AND WELFARE MEASURES

Rating	Drivers	Conductors	Technical staff	Administration staff	Others staff	Total / Percentage
Low	37	39	71	0	3	150 (23)
Moderate	56	82	01	16	21	176 (27)
High	146	121	06	24	29	326 (50)
Total	**239**	**242**	**78**	**40**	**53**	**652**

Source: - Primary data

It can understood, that the rating of 23% of the total (652) respondents were found low in respect of employee safety, health & welfare measures 27% of them moderate rating and 50% of them had revealed high rating about employee safety, health & welfare measures provided by TNSTC Villupuram region. It is concluded that the majority of the respondents were high rating of employee safety, health & welfare measures.

RESPONDENTS AWARENESS OF WORK LOAD

In the categories of drivers, conductors, technical staff, administration staff and others staff members was studied because of satisfaction of work load and timing of employees.

TABLE-2: RESPONDENTS AWARENESS OF WORK LOAD

S. No.	Opinion	No of Respondents	Percentage
1.	Satisfied	261	40
2.	Not Satisfied	391	60
	Total	**652**	**100**

Source: - Primary data

It is identified from the above table that 60% of the respondents were not satisfied in the work load and remaining 40% of the respondents were satisfied with the work load. It is concluded that the majority 60%, of the respondents were not satisfied in the work load.

KNOWLEDGE REGARDING POLICIES AND PRACTICES

The policies and practices that government employees' exhibit may generate a positive or negative feeling towards the organisation.

TABLE-3: KNOWLEDGE REGARDING POLICIES AND PRACTICES

S. No.	Opinion	No of Respondents	Percentage
1.	Yes	548	84
2.	No	104	16
	Total	**652**	**100**

Source: - Primary data.

Table-3 exhibits that 84% of the respondents have a thorough knowledge regarding the organisation policies and practices and 16% of the respondents have inadequate knowledge regarding policies and procedures. It is concluded that the majority, 84% of the respondents have a thorough knowledge about the organizational policies and practices.

RESPONDENTS AWARENESS ON ATTENDANCE

The attendance was studied under the three category namely above average, average and below average. The details are furnished in the following table-4

TABLE-4: RESPONDENTS AWARENESS ON ATTENDANCE

S. No.	Opinion	No of Respondents	Percentage
1.	Above Average	469	72
2.	Average	176	27
3.	Below Average	07	01
	Total	**652**	**100**

Source: - Primary data

It is noted that the above table the majority of the respondents72%, have above average in their attendance.27% of the respondents attendance was average and a 1% shown below average in their attendance. Hence, it was concluded that the majority, 72% of the respondents are having above average in their attendance.

AWARENESS ABOUT WAGE AND SALARY STRUCTURE

The respondents' awareness present salary system was studied because salary is the base to fulfill the needs and wants of the employees.

TABLE-5: AWARENESS ABOUT WAGE AND SALARY STRUCTURE

S. No.	Ratings	Drivers	Conductors	Technical	Administrative	Others	Total
1	Low	43 (18)	44 (18)	25 (40)	13 (32)	14 (27)	139 (21)
2	Moderate	172 (72)	174 (72)	51 (60)	26 (65)	30 (56)	453 (70)
3	High	24 (10)	24 (10)	0 (0)	1 (3)	9 (17)	58 (9)
	Total	239 (100)	242 (100)	78 (100)	40 (100)	53 (100)	652 (100)

Source: - Primary data, Figures in Parentheses denote Percentages

Table-5 exhibits that 72% of the respondents expressed moderate rating (both drivers and conductors) and 17% of them had revealed high rating (others staff members) about training and development programmes followed in TNSTC Limited, Villupuram region. the present salary system and remaining 40% of the respondents expressed low rating (technical staff). It is concluded that the majority 72%, of the respondents expressed moderate rating (both drivers and conductors) in the present salary structure.

The following table exhibits the significant P value computed in respect of the opinions held by various groups of respondents.

TABLE-5A: WAGE AND SALARY STRUCTURE (ANOVA)

Source	Sum of Squares	D.F	Mean Square	F	Sig.
Between Groups	11.67	2	5.37	13.52	0.00
With in Groups	313.43	649	0.41	-	-
Total	**325.10**	**651**	-	-	-

Source: Computed data

The following inferences may be drawn: the null hypotheses was rejected. it is inferred that the opinions of respondents belonging to various categories were significantly different at 1% level. Thus, the wage and salary had different effects on three categories of sample respondents.

AWARENESS ABOUT THE PROMOTION

Promotions provide an inducement and motivation to the employees and also remove feelings of stagnation and frustration.

TABLE-6: AWARENESS ABOUT PROMOTIONS

S. No.	Ratings	Drivers	Conductors	Technical	Administrative	Others	Total
1	Low	67	68	6	13	7	161 (25)
2	Moderate	100	101	33	0	14	248 (38)
3	High	72	73	39	27	32	243 (37)
	Total	**239**	**242**	**78**	**40**	**53**	**652 (100)**

Source: - Primary data, Figures in Parentheses denote Percentages

Table-6 exhibits 38% of the respondents expressed moderate rating (both drivers and conductors) and 37% of them had revealed high rating (administrative staff members) about training and development programmes followed in TNSTC Limited, Villupuram region. the present salary system and remaining 25% of the respondents expressed low rating (technical staff). Hence, it is concluded that the majority 38%, of the respondents expressed moderate rating (both drivers and conductors) are getting promotions in time.

REASONS FOR JOINING THE TRADE UNIONS

The reasons why workers' jointed in the unions would have an important bearing on labour management relations.

TABLE-7: REASONS FOR JOINING THE TRADE UNIONS

Reasons	Drivers	Conductors	Technical	Administration	Others	Total
Job Security	112	155	48	23	06	344 (53%)
To get Wages & Allowances	46	53	17	12	09	137 (21%)
To get Welfare Facilities	72	24	11	15	02	124 (19%)
Others	09	10	02	03	23	47 (7%)
Total	**239**	**242**	**78**	**53**	**40**	**652**

Source: - Primary data

Table-7 exhibits that out of 344 sample respondents, more than 53 percent of the employees in sample TNSTC revealed that job security was the prime reason to take part in trade union. Further, the employees joined trade unions to get adequate wages and allowances and welfare facilities that is 21 percent and 19 percent respectively.

POLICY IMPLICATIONS

The following are the important policy implications of the study:

- The promotion and transfer policy adopted in the corporation is only threatening the employees and transfer by punishment is on the higher side which needs serious consideration as it would have a direct bearing on HRM.
- Drivers are required to be well experienced and be aware of driving skills before embarking on any driving assignment. Drivers should be taught how to be on a friendly note with their passengers, this bring about peaceful condition during driving and leads to safety of both the passengers and the driver.
- Drivers recklessness attitude has cause lost of lives and properties. Most drivers do not attach much important value to the life of the passengers and because of this they drive carelessly and recklessly on the road, showing lack of care resulting to danger and disregard towards the safety of passengers. There should be public enlightenment on danger of smoking, drinking alcoholic drink while driving and receiving of mobile calls while driving as well.
- Drivers are ready doing a sensitive job to the society and their life is at heavy risk which they face every day. Hence, the corporation has to enhance their safety measures and risk allowance has to be provided along with all generous work benefits.
- Political and higher official influence, which should be eradicated at any cost since this factor will have an adverse impact on the functioning of other employees who do not use political influence.

- Drivers and conductors of the corporation are the only production point employees and they must be provided with all the training facilities from the corporation more than others.
- Stress management programmes at all levels should be conducted at frequent intervals since drivers and conductors are moving with the general public daily.
- The union are not treated alike, therefore it is recommended that all unions must be given equal importance. The issues represented by them must be considered on merit basis.
- Human resource management department can be fully equipped with necessary resources of manpower, finance and other facilities for the purpose of Human resource management activities.

CONCLUSION

From this study concluded that, the effective employees awareness would cause increased productivity and contribute to overcome losses. Further, it would gear mutual relationship between the employees and management. It would ensure sustainable growth and provide good service to the general public. The understanding of the employees' awareness analysis towards Tamil Nadu State Transport Corporation Ltd, Villupuram, would help the corporation to formulate policies and programmes for further improvement.

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THE CHANGING FACE OF RISK MANAGEMENT IN INDIAN COMMERCIAL BANKS

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ABSTRACT

Banking is an important segment of the tertiary sector and acts as a backbone of economic process .A bank is a financial intermediary that accepts deposits and channels those deposits into lending activities, either directly or through capital markets. A bank connects customers with capital deficits to customers with capital surpluses. Banks face a number of risks in order to conduct their business that must be managed carefully, especially since a bank uses a large amount of leverage. Without effective management of its risks, it could very easily become insolvent. Banking is generally a highly regulated industry and restrictions on financial activities by banks have varied over time and location. The current set of global bank capital standards is called Basel-II. This paper briefly describes main risks face by banks, risk management, deposit, economy and about banking industry.

KEYWORDS
types of risks, risk management, deposits, economy, banking industry.

1. INTRODUCTION

The commercial banks play an important role in the process of economic development of a country. They are the major source of mobilizing savings in an economy. They also help in accelerating the rate of capital formation. Bank face a number of risks in order to conduct their business and how well these risks are managed and understood is a key driver behind profitability and how much capital a bank is required to hold. Some of the main risks face by banks includes:

Type of Risk		Possible Risk Events
External Risk	Environment	Compliance, Contamination, employment theft and public health
	Country	Civil disorders, economic shock, expropriation, natural disaster
	Fiscal	Change of Government, corporate/sales tax rate changes
	Government	Consumer demand, effect of Government change, inflation, anti-business ethos
	Litigation	Product liability, safety, side effects
	Regulatory	Capital adequacy, competition policy, tariff barriers, trade policy
	Security	Intellectual property theft, sabotage, physical property theft
Fund Management Risk	Dealing	Market information, inappropriate internal information, market collapse, personnel, rogue dealing
	Processing	Collusion, dealing error, fraud, input/output error,
	Statutory	Financial regulation, legal issues, taxation treaties
	Trading	Documentation, execution accuracy, settlement, valuation methodology
Infrastructure Risk	Human resource	Lack of staff, quality of staff, strike action, lack of training, succession planning
	Organizational	Objectives, policies, alliances, market image, authority limits, audit, sales force profile
	Planning	Accuracy of situation appraisal, incorrect budgeting, poor quality of data, forecasting inaccuracies
	Reporting	Accounting policies, data flow, complex management policy
	Systems	Inadequate performance, alignment to business strategy, availability of systems, data integrity, disaster planning, programming quality, network security, telecommunication, verified algorithms
Liquidity Risk	Cash flow	Business interruption, customer confidence, forecasting quality, access to finance
	Counter party	Default(credit) risk, financial performance of counter party, credit rating, bank confidence liquidity, supplier confidence
	Rating	Market confidence, market sector, re-rating, shareholder risk
Operational Risk	Logistics	Delivery mechanism, global distribution, handling of shortages
	Procurement	Alternative source identification, quality of parts, stock exchanges, supplier profile
	Production	Cost, make versus buy, process problem, quality reviews, technology
Position(Market) Risk	Currency	Non-convertibility of currency, economic factors, transaction risk, translation risk, mismatches, volatility
	Interest Rate	Basis risk, parallel yield curve shifts, twists in yield curve, incorrect day count basis
Proposition Risk	Competitive	Competitor product action, inferior product, product imitation, patent expiry
	Economic	Client pricing, competitor pricing, market share, market developments, product expiry
	Strategy	Business portfolio, communication, development methodology, efficiency, human resource profile, initial pricing, lack of competitor knowledge, poor market identification, poor market strategy, reputation, research focus, tracking against plan

2. LITERATURE REVIEW

Within the last few years, a number of studies have provided the discipline into the practice of risk management within the corporate and banking sector. An insight of related studies is as follows:

Amran, *et al*. (2009), explored the availability of risk disclosures in the annual reports of Malaysian companies. The study was aimed to empirically test the characteristics of the sampled companies. The level of risk faced by these companies with the disclosure made was also assessed and compared. The findings of

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the research revealed that the strategic risk came on the top, followed by the operations and empowerment risks being disclosed by the selected companies. The regression analysis proved significantly that size of the companies did matter. The stakeholder theory explains well this finding by stating that "As company grows bigger, it will have a large pool of stakeholders, who would be interested in knowing the affairs of the company." The extent of risk disclosure was also found to be influenced by the nature of industry. As explored within this study, infrastructure and technology industries influenced the companies to have more risk information disclosed.

Hassan, A. (2009), made a study "Risk Management Practices of Islamic Banks of Brunei Darussalam" to assess the degree to which the Islamic banks in Brunei Darussalam implemented risk management practices and carried them out thoroughly by using different techniques to deal with various kinds of risks. The results of the study showed that, like the conventional banking system, Islamic banking was also subjected to a variety of risks due to the unique range of offered products in addition to conventional products. The results showed that there was a remarkable understanding of risk and risk management by the staff working in the Islamic Banks of Brunei Darussalam, which showed their ability to pave their way towards successful risk management. The major risks that were faced by these banks were Foreign exchange risk, credit risk and operating risk. A regression model was used to elaborate the results which showed that Risk Identification, and Risk Assessment and Analysis were the most influencing variables and the Islamic banks in Brunei needed to give more attention to those variables to make their Risk Management Practices more effective by understanding the true application of Basel-II Accord to improve the efficiency of Islamic Bank's risk management systems.

Al-Tamimi (2008) studied the relationship among the readiness of implementing Basel II Accord and resources needed for its implementation in UAE banks. Results of the research revealed that the banks in UAE were aware of the benefits, impact and challenges associated in the implementation of Basel II Accord. However, the research did not confirm any positive relationship between UAE banks readiness for the implementation of Basel II and impact of the implementation. The relationship between readiness and anticipated cost of implementation was also not confirmed. No significant difference was found in the level of Basel II Accord's preparation between the UAE national and foreign banks. It was concluded that there was a significant difference in the level of the UAE banks Basel II based on employees education level. The results supported the importance of education level needed for the implementation of Basel II Accord.

Al-Tamimi and Al- Mazrooei (2007) provided a comparative study of Bank's Risk Management of UAE National and Foreign Banks. This research helped them to find that the three most important types of risks facing the UAE commercial banks were foreign exchange risk, followed by credit risk and then operating risk. They found that the UAE banks were somewhat efficient in managing risk; however the variables such as risk identification, assessment and analysis proved to be more influencing in risk management process. Finally, the results indicated that there was a significant difference between the UAE National and Foreign banks in practicing risk assessment and analysis, and in risk monitoring and controlling.

Koziol and Lawrenz (2008) provided a study in which they assessed the risk of bank failures. They said that assessing the risk related to bank failures is the paramount concern of bank regulations. They argued that in order to assess the default risk of a bank, it is important considering its financing decisions as an endogenous dynamic process. The research study provided a continuous-time model, where banks chose the deposit volume in order to trade off the benefits of earning deposit premiums against the costs that would occur at future capital structure adjustments. Major findings suggested that the dynamic endogenous financing decision introduced an important self-regulation mechanism.

3. GENESIS OF BANKING IN INDIA

Banking in India is as old as ancient Vedic period. However, the English Agency House established the first modern bank known as "The Bank of Hindustan" at Calcutta in 1770. After that Bengal Bank was setup in 1784 and around 1786 "General Bank of India" was established, but these banks could not provide the services due to their own crises.

The Reserve Bank of India was established in 1935. The State Bank of India was established on April 01, 1935 and acted as a Bankers Bank and an agent of the government. India's present financial system is large with a variety of banks, financial institutions, capital market institutions, non banking institutions and a number of indigenous banks. Among the financial institutions in India, banks are the prominent financial intermediaries and in fact financial inter-mediation is largely synonymous with banking. Banking operation in India are the controlled by the Reserve Bank of India. The structure of Indian system is depicted in the flow chart given below:

CHART 1

```
                            Reserve Bank
                             of India

          Organised Sector                    Unorganised Sector

                                        Money Landers      Indigenous Bankers

      Non Banking      Banking
      Institution      Institution
                                   Development   Cooperative   Commercial
                                      Bank          Bank          Bank
  LIC   GIC   UTI   Private
                    Finance                Indian Banks              Foreign Banks
                    Company

              Private Sector Banks        Public Sector Banks

                          Nationalised Banks (Including SBI and        Regional Rural Banks
                          its 7 Associated Banks)
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4.IMPACT OF REFORMS ON INDIAN BANKING SECTOR

The process of liberalisation, globalisation and opening up the contours of national economies began in the early nineties in many countries including India. Major changes in the policies, reversing the past over four decades of regulation took place during the nineties. The Government took a number of initiatives to open up the economy. Broadly, the initiatives include the following:

- Driven by commitments under WTO, the first initiative was the lowering of tariff and non-tariff trade barriers. Thereby, protection given to industrial and other sectors was practically removed. This was accompanied by de-listing of items reserved for manufacture by small scale industrial units, reducing to the controls on items of import, reduction in duties on incoming consumer goods, etc.
- Earlier, the entry and exit of business entities/groups in a particular sector or a threshold was controlled by the government, at times both at the central and state levels. Such controls were implemented through licensing or/and other approval procedures that were time consuming and industrial units faced many problems. As a liberalisation measure, industrial licensing was abandoned in many sectors.
- Foreign capital for indigenous units was not , previously acceptable to the policy makers. Inviting foreign capital/equity was therefore consciously discouraged. This was more evident in the case of public sector units. With reforms, government reversed the erstwhile policy and permitted inflow of foreign/private capital in many areas previously reserved for the public sector.
- The case of foreign direct investments was similar to the foreign capital. The then rules and regulations discouraged the inflow of such funds , in the case of foreign entities in banking business, where the licensing policy was restrictive. Restrictions on foreign direct investment as also entities were more or less were removed as a globalization measure.
- Privatisation of public sector units either through strategic or general public participation in ownership is one of the reform oriented measures adopted in the nineties. The progress in this regard in the early part of the decade was slow. This process has been now speeded up notwithstanding the opposition to such a measure from within the ruling coalition or outside. Food subsidies have been reduced.
- On the external front, the fillip to exports had been the major priority. Towards this end in addition to fiscal incentives to export promotion, the last decade has also witnessed some devaluation of the rupee. The external value of rupee has been rationalized to reflect its inherent purchasing power in external terms.

Banking industry has been, all along responding to such changes. Banks have taken steps to change their policies and processes to ensure that they remain strong and manage the reform related changes effectively. It must be recognised that the thrust placed by banks on issues like risk management, asset/liability management, technological advancement etc is necessary for a strong, viable and profitable existence. In case, banks do not change, there is a possibility of getting marginalized by the new competitors.

Risk taking is inherent to banking business. Banks engage themselves in the process of financial intermediation by taking risks to earn more than what they pay to the depositors. Each bank as well as every banker needs to understand and appreciate that risk is unavoidable. The existence and quantum of risk associated with each transaction cannot be ascertained with certainty. Whatever models that have been developed for risk management, are primarily on the basis of observed occurrences of the past, which may or may not be repeated in future. Risk is inherent to business. Since it cannot be eliminated, it has to be managed.

5. CHANGING FORMS OF RISK

Risk is associated with every business activity. It is more prominent and pronounced in respect of financial sector in general and banks in particular. In a repressed financial system risk is not apparent. Risk management in such a situation may not be well organised. With deregulation, the unorganised efforts towards risk management have now been substituted by systematic and formal policy endeavours. New concepts like 'anticipate/prevent/monitor mitigate' have substituted the earlier ethos of 'inspect/detect/react'. The emphasis is now more on processes and not on people alone. The changed scenario for risk management has thrown up many challenges for banks. Banks are advantageously placed as they deal with a large volume of public funds. As they are accountable for the same and for performing effectively and objectively, the bank management needs a strong MIS (Management Information System)/DSS (Decision Support System) on an online real time basis.

6. COMMITTEES DEDICATED TO RISK MANAGEMENT DEPARTMENT

Committees who are responsible for supervising the risk management activities of the bank are the following:

- **Credit Risk Management Committee (CRMC) :** This committee deals with issues relating to credit policies and procedure and manages the credit risk on a Bank-wide basis.
- **Asset Liability Management Committee (ALCO):** This committee is the decision-making unit responsible for balance sheet planning and management from the angle of risk-return perspective including management of market risk.
- **Operational Risk Management Committee (ORMC):** This committee is responsible for overseeing Bank's operational risk management policy and process.

7. CONCLUSION

Risk Management Department of the Bank provides support functions to the risk management committees mentioned above through analysis of risks and reporting of risk positions and making recommendations as to the level and degree of risks to be assumed. The department has the responsibility of identifying, measuring and monitoring the various risk faced the bank, assist in developing the policies and verifying the models that are used for risk management from time to time.

Bank carried out a comprehensive Self-Assessment exercise spanning all the risk areas and evolved a road map to move towards implementation of Basel-II as per RBI'S directions The program in implementation of Risk Management, Organisational Structure, Risk measures, risk data compilation and reporting etc. is as per this laid down road map.

The Policies framed and procedures/practices adopted are benchmarked to the best in the industry on a continuous basis and the Bank has a clear intent to reach an advanced level of sophistication in management of risks in the coming year. The ever-improving risk management practices in the Bank will result in Bank emerging stronger, which in turn would confer competitive advantage in the Market.

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ESTIMATION OF ENERGY CONSUMPTION IN GRID BASED WIRELESS SENSOR NETWORKS

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ABSTRACT

The wireless networking is the current technology where you can plug the power of the wireless device and then to share/connectthe device to the internet. The various technologies can be categorized are MANETs (Mobile Adhoc networks) and WSN (Wireless Sensor Networks).The main drawback of MANETs was that it consumed more power than WSN. The WSN saved the power consumption because transmission radius to limit the number of nodes in its transmission range. The wireless Sensor networks can be employed in different applications such as medical, military, environmental etc.The most powerful feature of this technology over other technologies is energy. This reduces overall energy consumptionof the fully connected wireless scenario. In this way it maximize the lifetime of whole the network. This paper consideredgrid based network to compute the energy and analyzed that by using the fully mesh grid based network consumed less energy when to compared other network topologies/scenarios. In this paper we planned a fully mesh networks and routed eachmessage to different sensor nodes.

KEYWORDS

WSN, AODV, sink node, coordinator, Transmission Power, Energy Consumption.

1. INTRODUCTION

In a wireless sensor networkis to evaluate the sensing field is monitored by sensors and also known as the coverage ofthe network. The coverage area of the network is directly related to the sensing capabilityof the network on monitoring phenomenon's occurring in the sensingarea for sensing other neighbouring nodes.Apartfrom the traditional wired or mobile ad hoc networks, there is always one ora set of special data collection nodes (the sink) that functions as a gatewaybetween the network and end users. The sink has reliable connections (e.g.,wired or satellite) to the Internet, powerful processing capabilities, and adequatepower supplies shown in figure 1.Sensor-actuator networks are heterogeneous networks that comprisenetworked sensor and actuator nodes that communicate among each otherusing wireless links to perform distributed sensing and actuation tasks.Actuators (called also actors) are resource-rich, usually mobile, and areinvolved in taking decisions and performing appropriate actions. Such networksare expected to operate autonomously in unattended environments.

FIGURE 1: ROUTING IN WSN
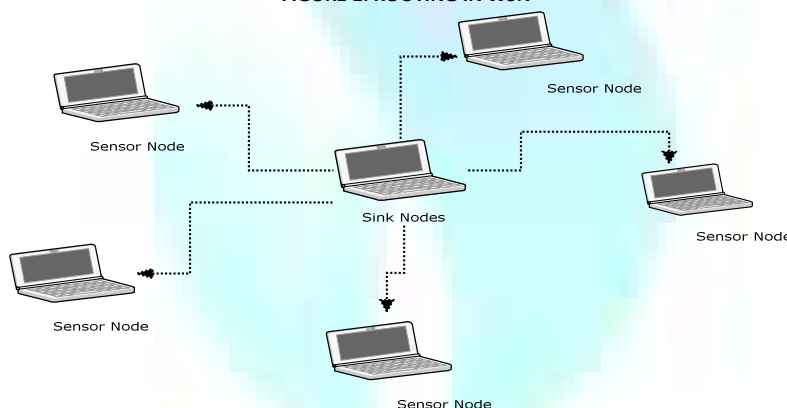
The sink node has been responsible for sending and receiving data to each node for effective routing in the entire network as shown in figure 1. Sensors provide new communication and networkingparadigms.They have small size, low battery capacity, nonrenewable power supply, small processing power, limited buffer capacity and a low-power radio, and lack unique identifiers.These nodes areautonomous devices with integrated sensing, processing, and communicationcapabilities.Mobile sensors, mobile sinks, and mobile actuators alsospend energy for moving around the network, and there is a tradeoffbetween energy spent on mobility and energy spent for communication.Further, energy needs to be saved not only by sensors, but potentially bysinks and actuators.

1.1 IEEE 802.15 STANDARD

The IEEE 802.15 standard shown in figure2, and is therefore able to support a wide variety of network topologies and routing algorithms. The IEEE 802.15 standard incorporates many features designed to minimize power consumption of the network nodes. In addition to the use of long beacon periods and the battery life extension mode, the active period of a beaconing node can be reduced (again by powers of two), allowing the node to sleep between beacons.

FIGURE 2: IEEE 802.15 STANDARD
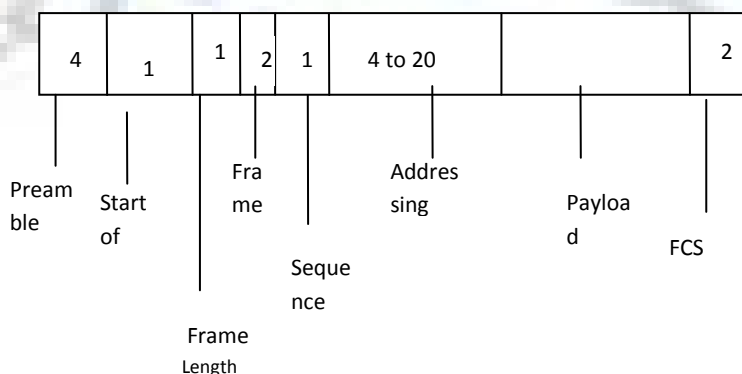
ThePreamble is a spread spectrum signal, which signals the start of the delimiter. The length field describes the total length of the frame fields which follow, but precede theframe check sequence.The frame check sequence (FCS) used by ethernet is a 4 byte (32 bit) cyclic redundancycheck (CRC) code.The payload is padded (PAD) to bring it to standard length.

1.2 AODV PROTOCOL

ADOV come under the category of Reactive routing protocolsare designed to reduce the overheads associatedwith proactive routing protocols. They do this by only maintaining informationfor active routes. Reactive routing protocols do not proactively maintain routesto all nodes; therefore, they must perform route discovery when a route to adestination node is required. Route discovery requires that a route request (RREQ) packet be flooded throughout the network.When the destination(or a node with an active route to the intended destination) receives the RREQ aroute reply (RREP) is sent back to the source of the route request. The RREPmay either be flooded back to the source or it may be unicast back along thepath followed by the RREQ.

2. MOTIVATION OF THE WORK

The motivation for such restriction is thatsensors otherwise may not learn their hop distance for reporting to thenearest actuator because of asymmetric links.Therefore, it may be safer to restrict actuatorsto the same transmission radius that the sensors are using. This also allowsfor immediate construction of backward paths from sensors to actuators,also including alternative neighbors with the same hop count distance incase the first choice fails at reporting time.Each sensor is able to recursivelydetermine its hop distance to the nearest actuator based on recenthello messages received from other sensors. Each sensor associates itself with a parent sensor, and forwards the field reports to it. The parent sensormay collect reports from several associated sensors.

Although many schemes with WSN design have beenproposed for wireless networks, there are stillsome open issues that need to be addressed. First, thepotential complexity brought by the WSN design with IEEE 802.15needs to be analyzed. Moreover, the performance gain thatcan be achieved by the WSN design needs tobe studied. Secondly, with the evolvement of emerging wireless technologies, such as cooperative communicationand networking, as well as opportunistic networking, oneneeds to investigate their impact to efficient the WSN with MAC Layerdesign. Lastly but not least important, more real-systemdevelopment is needed to evaluate the real value of theWSN design.

3. NETWORK MODEL

The monitoring area is divided into regions, one per each actuator. Allsensors within a region, when event occurs, are reporting, each one to itsnearest actuator.Positions of all theactuators can be learned by broadcasting from each one of them. Actuatorsnormally have larger transmission radii than sensors, which enables themto communicate among themselves, either via a common sink or in a multihopfashion. They may transmit therefore with larger transmission radiithan the one available to sensors, possibly even large enough to reach allthe sensors with one transmission. Only sensors on the border of transmissionradius need to retransmit: these are exactly the sensors that haveneighbors which did not receive the message directly from the actuator.The received power only depends on the transmittedpower Pt, the antenna's gains (Gt and Gr), and on the distance between thesender and the receiver. It accounts mainly for the fact that a radio wave whichmoves away from the sender has to cover a larger area. So the received powerdecreases with the square of the distance. In this formula L is an additional lossfactor independent of the propagation.

$$P_r = P_t G_t G_r \lambda^2 / (4\Pi)^2 d^2 L \tag{1}$$

4. EVALUATION AND IMPLEMENTATION

We study the grid topology and choose to place 25 nodes in a grid. Each row (column) contains 5 nodes equally spaced with distance 789x480 m apart shown in figure 3. There is a single broadcast source located at the left top corner. It continuously sends CBR traffic at the rate of a packet every 1.5 ms.

Each Sensor node begins the simulation by selecting a random destination in the defined area and moves to that destination at a random speed.Each time a mobile node transmits a frame in asimulation, ns-2 uses a propagation model to calculatethe receive power of the radio signal for everypotential receiving node.All frames with a power below the carriersense threshold are ignored by the receiver.The ''free space'' model was used in this paper with equation shown in thesection "Network Model". We first characterize theTransmission Power and energy consumption per flow insensor networks, based on the heterogeneous transmission rangesthat we have obtained. We then summarize these results andexplore the insights and implications that they may provide us.Simulation results are shown in Figures 4–5 and Simulation Statistics has shown in Table1.

FIGURE 3: SCENARIO OF GRID BASED NETWORK ALONG WITH COORDINATOR
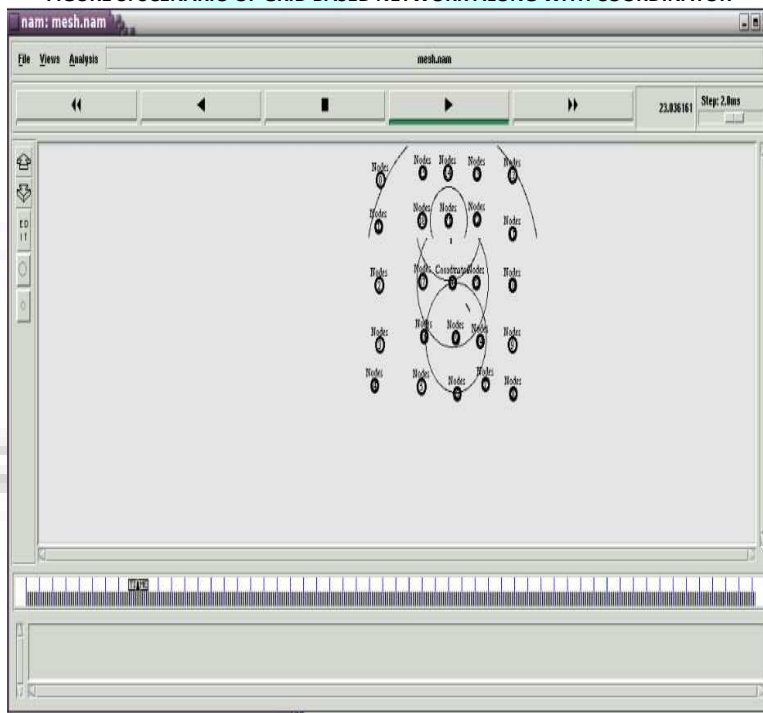
The positions of nodessignificantly impact the network lifetime therefore we used grid based mesh networks.from the figure 3 to achieve maximal coverage withthe least number of sensors, a square grid hasbeen used.The coordinator usedto find a placement of nodes that achieves thecoverage goals using the least

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number of sensorsand also maintain a strongly connected networktopology even if one node fails. The objective of this paperis to minimize energy consumption at the individual sensors whilemaximize the network lifetime.

TABLE 1: SUMMARY OF SIMULATION STATISTICS

Parameter	Value
Number of Nodes	25
Topography Dimension	789 m x 480 m
Radio Propagation Model	Two-Ray Ground Model
MAC Type	802.15Mac Layer
Packet Size	1024 bytes
Protocol	AODV

4.1 ENERGY CONSUMPTION

The energy consumption metrics used for the routing algorithm should be adjusted based on application specific and or even site-specific data. This energy metric used to evaluate a specific path incorporates the cost of using the path, the energy health of the nodes along the path, the lifecycle of the nodes, and topology of the network. In the Network scenario, the packets used the primary path about half the time but in order to meet the expected lifecycle; a communication will use the other sub-optimal paths at different times. In this manner, the overall energy consumption of the network is reasonably minimized without burning the energy of any single nodes along the optimal paths.

FIGURE 4: ENERGY CONSUMPTION OF WSN
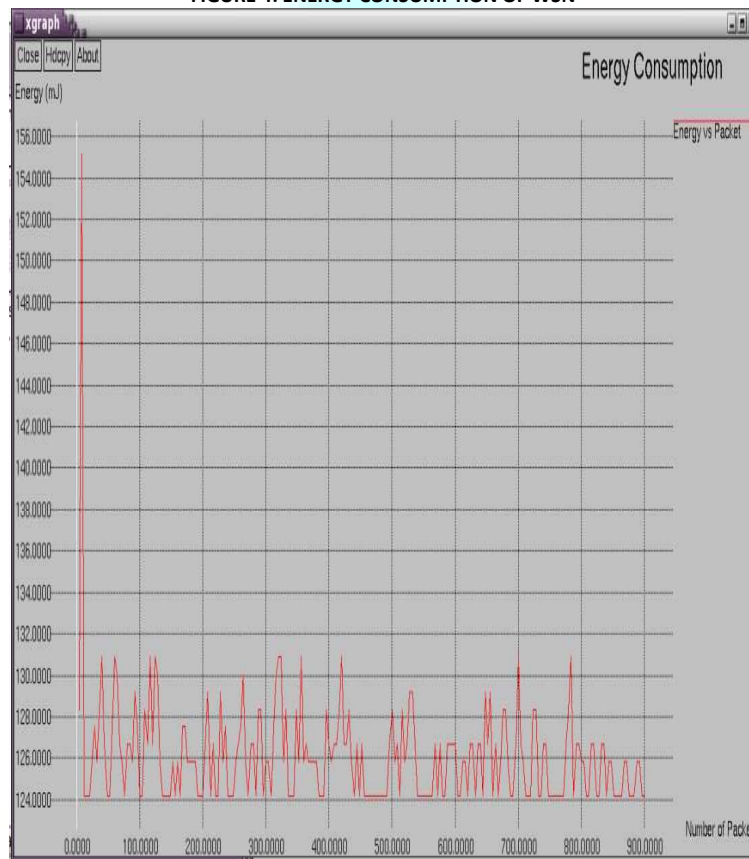
4.2 TRANSMISSION POWER

Power is a valuable resource in wireless networking especially for routing, power is highly needed.The nodes may have the ability to vary theirtransmission power. This is important, since at a higher power, nodes havemore direct neighbors and hence connectivity increases, but the interference between nodes does as well. Transmission power control can also result inunidirectional links between nodes, which can affect the performance ofrouting protocols.Energy reduction for each node occurs for every transmission or reception made. Hence, the probability of choosing the same node as the next hop is reduced. Thereby, the energy has been balanced and fairly used. The less area a sensor covers, the lower the amount of energy it consumes. The application determines the frequency of the sensing activity, but there is still an opportunity to reduce power consumption by the sensing task by decreasing the coverage area of a particular sensor.

FIGURE 5: TRANSMISSION POWER OF WSN
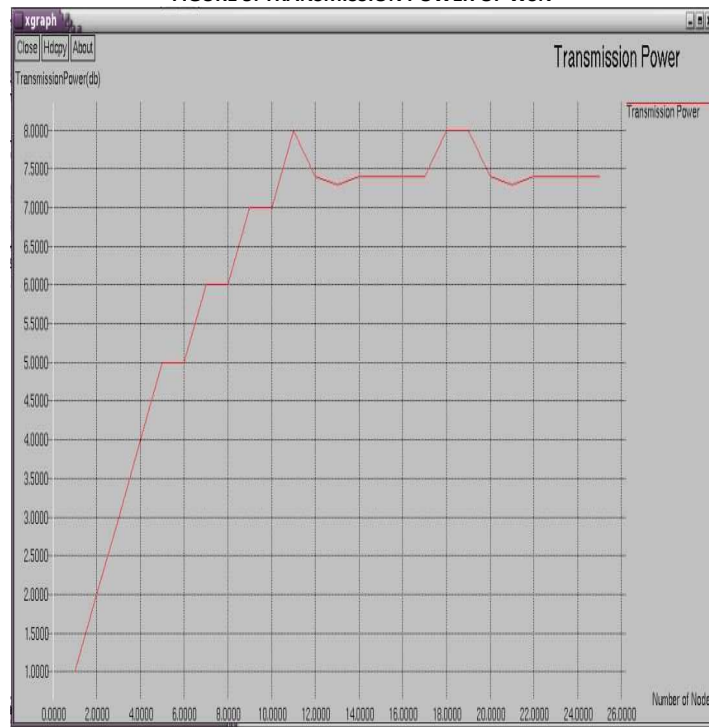
CONCLUSION

This study has presented a broad overview ofthe research work conducted in the field of Wireless Sensor Networks(WSN) with respect to MAC Layer.The real issue with regard to such arrangementis whether it actually improves the energy consumption.We have developed the heterogeneous transmission range forthe WSN network under the random walk mobility model with nontrivial velocities respectively.In addition, results of the Transmission Power and Energy Consumption areconsequently derived for mobility sensorynetworks.Besides, in comparison to existing works weclearly show that we save energy and also properly managed during this network scenario and life time ofthe whole network was increased.

FUTURE WORK

Future sensor network systems will bemore heterogeneous and radically distributed, potentially with millionsof nodes. They will respond to multiple tasks, to multiple and potentiallymobile sinks, and multiple sensor networks will be integrated into a single network.

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EXPERIMENTAL INVESTIGATION ABOUT INFLUENCES OF PROCESSING PARAMETERS IN PLASTIC EXTRUSION PROCESS

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ABSTRACT

The objective of this paper is to find the root causes for nonconformity occurrences in plastic extrusion process. Data has been taken on the main causes for products defect and studied the relative contribution of plastic extrusion process parameters .To achieve this four sample products were selected which are pipe (HDPE1 Ø 50mm, Plain pipe Ø 25mm), conduit (F/C Ø 16mm) and poly products (F/B 8cm/220µm). Four independent process parameters were investigated, namely vacuum pressure, take-off speed, screw speed and temperature were considered for DOE. The defects identified are such as surface roughness and scratches, bulging, sink marks, uneven wall thickness, uneven film Width, dimensional variation, centering problem, tears and marks. On this particular case study, by using the principle of Taguchi's loss function, loss function was calculated and compared with the quality loss before applying of DOE. From this it was understood that, using Taguchi's method of design of experiment the quality loss because of performance deviation improves by about 85.31% for the selected products.

KEYWORDS

Plastic Extrusion, Nonconformity, Influence Factors, Design of Experiment.

1. INTRODUCTION

Polymers have many advantages as they are light in weight, provide design flexibility, offer electrical insulation, and have relatively low overall and manufacturing cost. Hence the advantages of synthetic polymers are over competent than other materials like metals, it is reasonable to predict that polymers will take an even greater allocation of the total material market in the future [1].

It is estimated that the material used in extrusion can account for 50%-70% of total costs, and if the costs of labour are included, these altogether can vary within an order of 60%-80% of total costs. Any technique that can reduce labour costs, minimize material wastage and attain the required quality is undoubtedly an important factor for consideration [2].

Bahir Dar plastic factory PLC is engaged in production and sales of plastic products such as conduits, PVC, dripper elements, HDPE, plane pipe, FB (film bloom) etc. It manufactures products by injection molding, blow molding and extrusion process. However, the factory produces enormous amounts of nonconformities; quantitatively the total rejection was from 14,346.584kg to 65,426.78kg per month on the year of 2010/11. The most important polymer processing operation in the factory is extrusion and the most popular materials used in the factory are PVC, HDPE, LDPE and LLDPE. Extrusion is material intensive. This process involves the following sequence; heating and melting the polymer, pumping the polymer to the shaping unit, forming the melt in to the required shape and dimensions, cooling and solidification (Fig.1).

FIG. 1: SCHEMATIC ILLUSTRATION OF A TYPICAL SINGLE-SCREW EXTRUDER
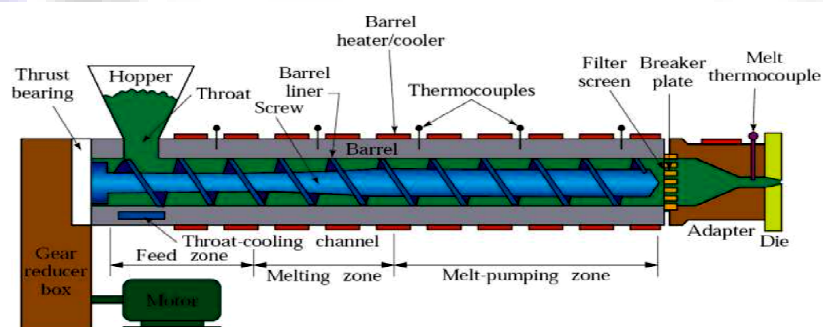
Good quality of extrusion is ideally carried out under the design condition of constant screw rotational speed and temperature and uniform composition. Poor extradite quality for a given designed extruder can be related to the inappropriate setting of processing conditions [3].

2. LITERATURE REVIEW

To show how the inappropriate setting of processing conditions affected the product quality, Maddock [4] in his work described the case of quality requirement for the extrusion of 1.0 mm thick film. Due to temperature difference the viscosity is affected and the viscosity variations act to produce pressure changes and so caused large thickness variations. High extrusion rates and good extrusion quality are often two extremes and thus incompatible. Tadmor and Klein [5] classified bad mixing of the components forming the product can result in bad appearance and a non-uniform product. Non-uniformity in products can lead to weakness of mechanical strength. Poor extrusion quality for a given extruder is frequently related to random difference of temperature, pressure, and flow rate. Dowd [6] and young [7] reported that the product properties are depends on the extrudate temperature. Fenner, et al. [8] also stated that screw cooling reduces throughput, thus eliminating these fluctuations without cooling the screw will allow these extruders to achieve a higher level of productivity. And extrusion experts identify five factors that limit product throughput and quality: power or screw speed, temperature, feed, vacuum pressure, and downstream processing [9].

3. THE PLANNING OF THE EXPERIMENT

In this case design of experiment was applied to study of influence of the factors (process parameters) in plastic extrusion process, which were considered to be the main causes for defect of products. The products selected were pipe (HDPE1 Ø 50mm, Plain pipe Ø 25mm), conduit (F/C Ø 16mm) and poly products (F/B 8cm/220μm). Sample of the selected types of products are shown in Fig. 2.

FIG. 2: THE SAMPLE PRODUCTS

3.1 DEFECTS IN EXTRUSION PROCESS

Defect is any form of deviation of the product's characteristic from the specification set up by the manufacturing process. It can be caused by a single source or the cumulative effect of several factors, which may arise at any stage of the processing. The Common failure or defects which are normally occurring in plastic extrusion process are due to three main causes are part and mold design, material selection, and processing. In many cases, the failures occur during the processing and these failures causes some defects that can be found in extruded parts such as: warpage, sink mark, residual stress, air trap, weld line, sink marks, low gloss, uneven surface gloss, spotted surface, rough surface, extruder surging, thickness variation, uneven wall thickness, diameter variation, centering problem as shown in fig. 2. In extrusion products, defects due to processing include, poor understanding of the processing method, use of inadequate or old machines, lack of trained staff, machine break down, and inappropriate working environments.

A   Surface roughness
B   Marks
C   Bulging
D   Dimensional variation
E   Out of round
F   Sink marks

FIG. 3: OBSERVED DEFECTS
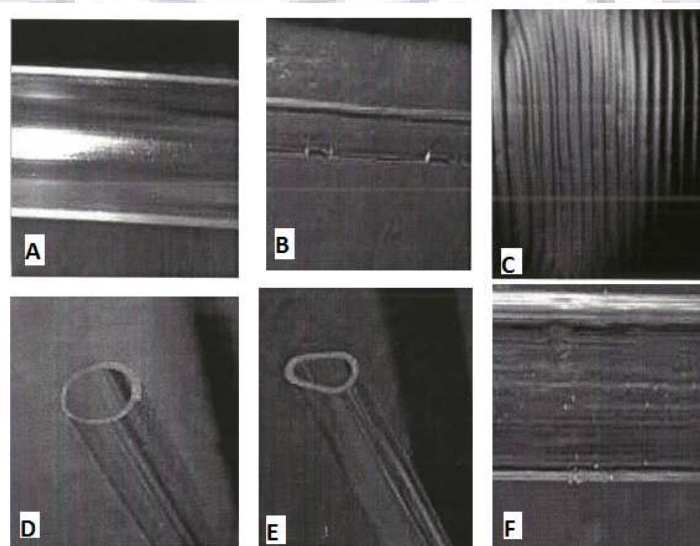
Here data was collected from reported data and from personal observation of the case factory in this particular section, the collected data are presented, analyzed and corrective actions will be selected, suggested and developed.

3.2 INDENTIFY MAJOR DEFECT OF THE PRODUCTS

The total defects occurring on the specific product type (categories) with in a six month was recorded and this is analyzed using the Pareto chart to know the most frequently occurring. The detailed analysis of this major extrusion defect for a specific product is made very precisely.

FIGURE 4. PARETO CHART FOR DEFECTS HAPPENING FREQUENTLY IN POLY PRODUCTS (FILM BLOOM, POLY BAG, POLY TUBULAR, POLY CARRIER)

Pareto Chart of defects

Type of quality defects						
Uneven Width (A)						
Thickness Variation (B)						
Length Variation (C)						
Shrinkage/Folding (D)						
Chatter marks (E)						
Scratching (F)						

Type of quality defects	A	B	C	D	E	F	Other
Count	370	213	62	45	24	18	36
Percent	48.2	27.7	8.1	5.9	3.1	2.3	4.7
Cum %	48.2	75.9	84.0	89.8	93.0	95.3	100.0

The highest frequency percentage is 75.9% that indicates the defects occurring on poly products are thickness variation and width variation. So that, the company as well as the researcher should give emphasis on these Quality defects of Poly products and should identify appropriate raw material, root causes and optimal process parameters to improve output quality of poly products in achieving this, the company will profitable, competent and order winners.

FIGURE 5. PARETO CHART FOR DEFECTS HAPPENING FREQUENTLY IN PIPE PRODUCTS(IDP, PVC, HDPE, IR AND LDPE)

Pareto Chart of defects

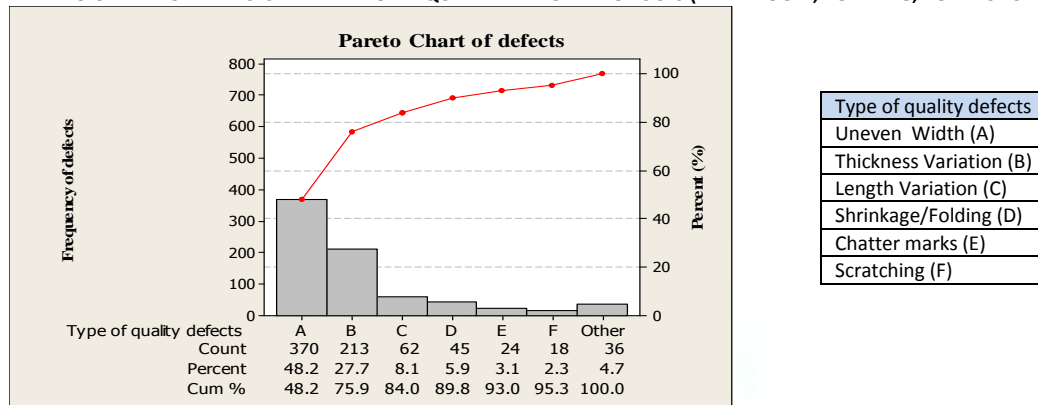| TYPE OF QUALITY DEFECTS	
Uneven Wall thickness (A)	
Centering problem(off-center) (B)	
Diameter variation (C)	
Sink marks(D)	
Scratching (E)	
Discontinuity (F)	
bend(G)	
Poor surface finishing (H)	

Type of quality defects	A	B	C	D	E	F	G	H	Other
Frequency of defects	335	219	195	125	121	58	47	30	53
Percent	28.3	18.5	16.5	10.6	10.2	4.9	4.0	2.5	4.5
Cum %	28.3	46.8	63.3	73.9	84.1	89.0	93.0	95.5	100.0
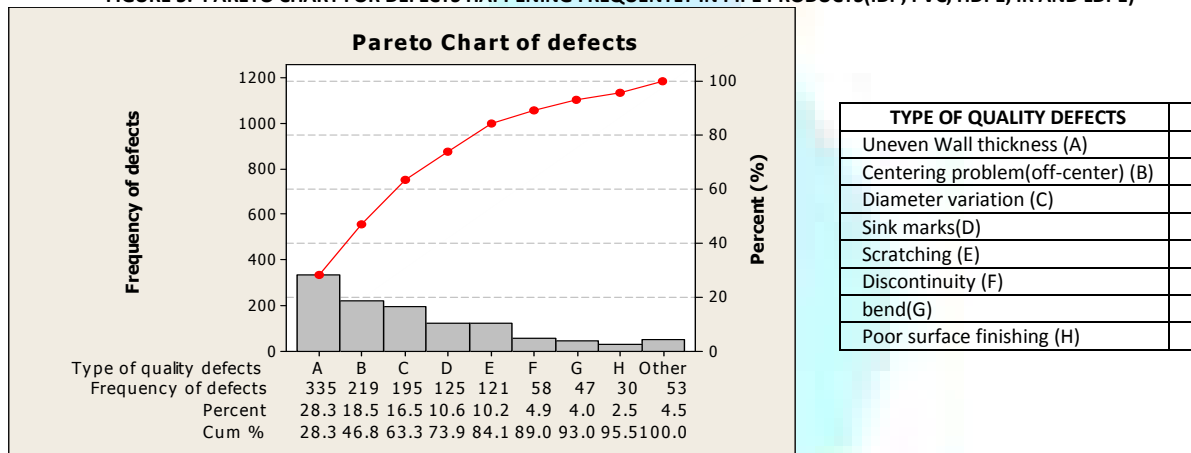
The highest frequency percentage is 63.3% that indicates the defects occurring on pipe products are wall thickness variation, centering problems (off-centering) and diameter variation. In this case great attention is given for those defects in order to minimize those defects.

FIGURE 6: PARETO CHART FOR DEFECTS HAPPENING FREQUENTLY IN CONDUIT PRODUCTS (RIGID CONDUIT, FLEXIBLE CONDUIT, DRIPPER ELEMENT)

Pareto Chart of defects

Type of quality defects						
Uneven Wall thickness (A)						
Centering problem (off-center) (B)						
Diameter variation (C)						
Marks & Sink marks (D)						
Poor surface finishing (E)						
Tearing/discontinuity (F)						

Type of quality defects	B	C	A	D	E	F	Other
Count	280	165	135	86	57	49	86
Percent	32.6	19.2	15.7	10.0	6.6	5.7	10.0
Cum %	32.6	51.9	67.6	77.6	84.3	90.0	100.0
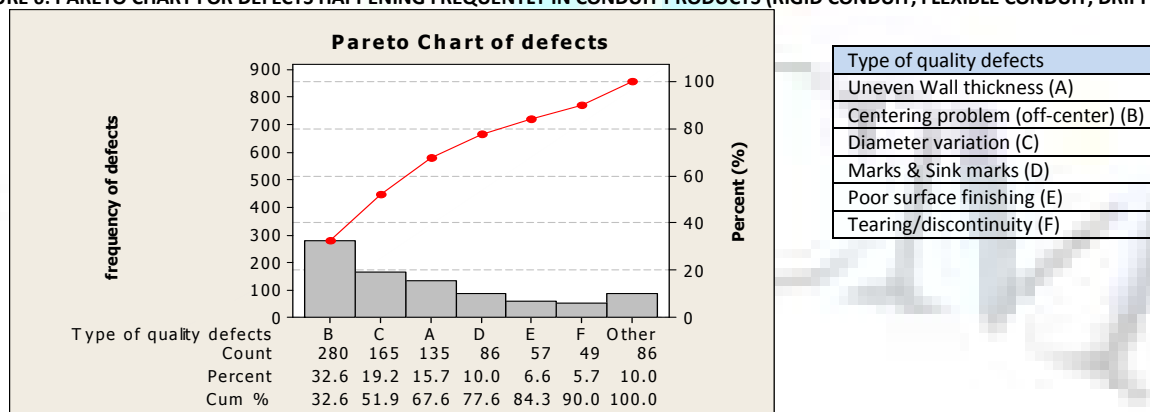
The highest frequency percentage is 67.6% that indicates the defects occurring on Conduit products are centering problems (off-centering), diameter variation, and uneven wall thickness.

It can be seen from the above table and bar chart that the following Table .1 as the summery of these data for the frequency of defects occurred for the last six months.

TABLE 1: SUMMARIZED FOR FREQUENTLY OCCURRING DEFECTS OF THE COMPANY'S PRODUCTS

Product type	Frequently occurring defects
Poly products	Uneven Width Thickness Variation Length Variation
Pipe products	Uneven wall thickness Centering problems Diameter variation
Conduits	**Centering problems Diameter variation Uneven wall thickness**

From those defects when we see their level of impact on customer satisfaction and increasing cost of production, diameter variation and wall thickness variation are the main concerns of the company. As a result, attention has been given for this product category in reducing diameter variation for F/C Ø 16mm (flexible conduits dia16/1.0/16bar) is chosen as a case because this product is produced frequently..

3.3 X - CHART ANALYSIS OF THE SELECTED PRODUCTS

From the data collected of each product of our case study, X - Chart analysis is developed for some samples in order to show clearly whether the production process is out of limit or control. The data collected for each product was given below with X –Chart form.

FIGURE.7: X – CHART OF HDPE1 Ø 50mm, F/C Ø 16mm, PLAIN PIPE ϕ25 mm PRODUCTS, AND F/B 8cm/220μm PRODUCT RESPECTIVELY FROM LEFT TO RIGHT
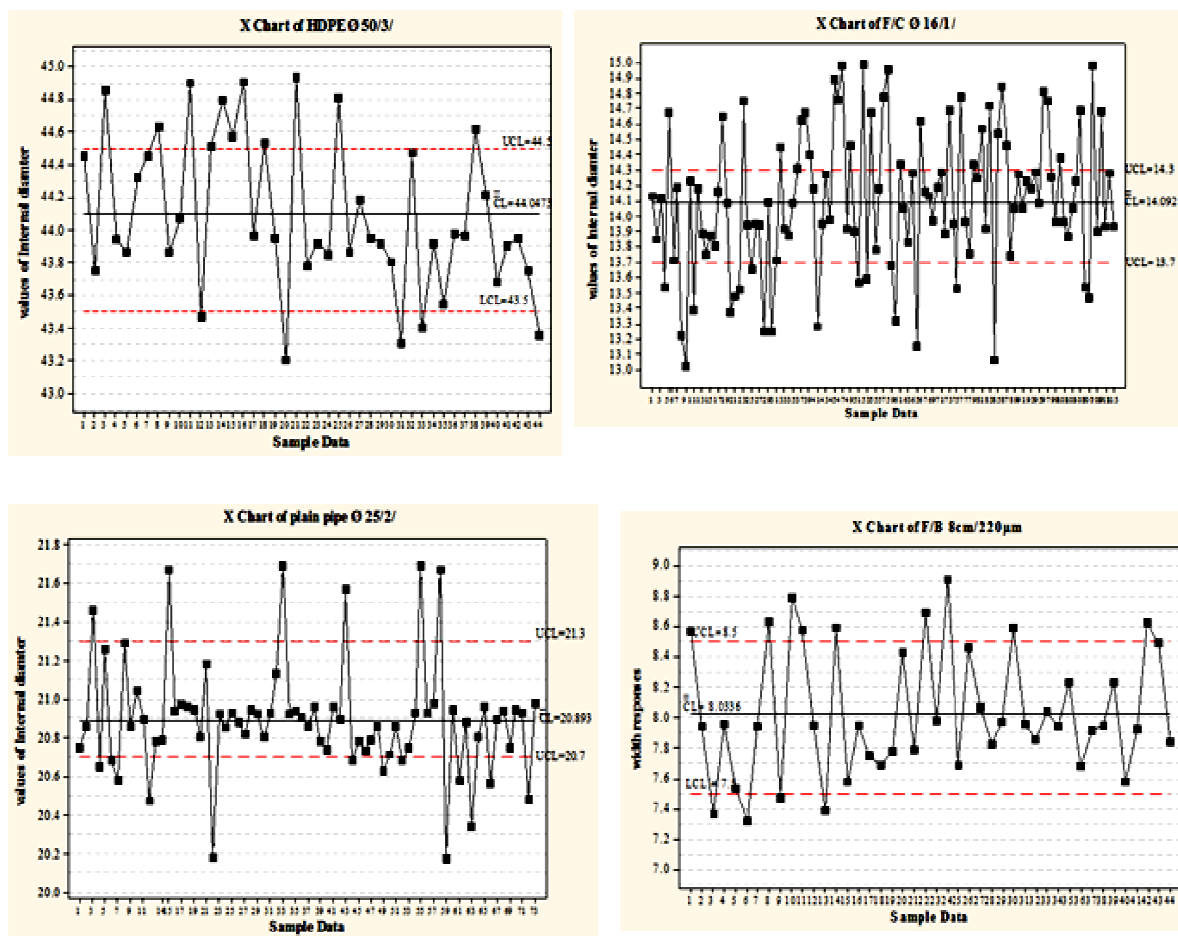
4. ANALYSIS OF QUALITY LOSS FOR DETERMINING THE INFLUENCE OF PROCESS PARAMETERS

From the results of the Pareto data analysis and X – Chart from the above sections, type and frequency of defects that occurred in those products were identified. Taguchi's loss function has been functional to calculate the quality loss of the chosen products.

4.1. SELECTION OF PROCESS PARAMETERS FOR THE PRODUCTS

The optimum operating condition for different extrudates is varied so as to get quality product. Based on the above to minimize the selected defects, the main process parameters should be selected and those are residence time, temperature zones, screw speed, vacuum pressure and cooling time. In this case, this study will give emphasis to vacuum pressure, take-off speed, screw speed and temperature zones settings for getting quality products, and setting other parameters constant.

High density polyethylene Pipe (HDPE1 Ø 50/3.0/ 10bar PE- 100) -The Process parameters used in the experiment for this product are vacuum pressure 1, take-off speed 2 and Temperature 3 Temperature 4, Temperature 5 and Temperature 6 Temperature7 Temperature 8 are the process parameters in this case the response value or target value is internal diameter & uneven wall thickness.

Plain pipe (IR Ø 25/1.8/16bar PE-100) - The process parameters used in the experiment for this product are vacuum pressure 1, take-off speed 2 Temperature 3, Temperature 4, Temperature 5 and Temperature 6 while the performance measures are internal diameter wall thickness.

Flexible conduit (F/C Ø 16mm/1.0/) -The process parameters used in the experiment for this product are vacuum pressure 1, take-off speed 2 Temperature 3, Temperature 4 and Temperature 5 hence the performance value (response value) are internal diameter& uneven wall thickness.

Film Bloom 8cm/220µm (F/B 8cm/220µm - LLDPE) - Variables and Control factors used in the experiment for this product are speed 1, take-off speed 2, and Temperature 3, Temperature 4, Temperature 5, Temperature 6, Temperature 7, and Temperature 8 while width is the performance measure (response value) for this product.

4.2. QUALITY LOSS CALCULATION

For this paper, Nominal-The-Best (NTB) quality loss measurable characteristic has been used for analysis and decision confirmation for the optimization the critical process parameters that influence the campiness product quality. Here to calculate the loss function for the selected product using the theory of Taguchi's loss function the value of L (failure cost) used in this calculation is taken from the following data.

TABLE 2: SIX MONTH PRODUCTION DETAILS

Types of products	Six month production(Kg)	Mass of a product per piece (Kg)	Cost of raw material (birr/Kg)	Production cost (birr)
HDPE PIPE Ø50 mm	163,407.00	0.458	35.0849	12.551
Plain pipe Ø25 mm	89,652.00	0.139	35.0849	4.3232
Flexile conduit Ø16mm	27,544.56	0.1816	10.36	2.498
Film Bloom 8cm/220µm	105,476.00	1.0	33.5	24.78

NB: 1Pc of conduit product is cut into 3m.

This company loses a lot in each month and the total cost could be multiplied with the current market of Ethiopia shortly illustrated on Table 4.2. The general formula used to calculate the failure cost for all selected products is;

Failure cost = production cost (birr/pc) − (mass of aproduct (Kg/pc) ∗ % recyclable ∗ cost of raw material (birr/Kg))

TABLE 3: FAILURE COST OF SAMPLE PRODUCTS PER A UNIT OR WEIGHT

Product	Failure Cost
Film Bloom 8cm/220µm	9.728birr/kg
Flexible Conduit Ø16mm	1.21 birr/pc
Plain Pipe Ø25 mm	1.53birr/pc
HDPE Pipe Ø50 mm	2.484 birr/pc

To calculate the quality loss some assumptions should be set and they are; 1. Failure cost = production cost - cost saved by recycling scraps and 2. Maximum loss was occur at the two tolerance

SD = Standard deviation, µ = mean value of samples, m = target value, TL = tolerance limit, L = failure cost of the product.

4.2.1. HIGH DENSITY POLYETHYLENE PIPE (HDPE1 Ø 50/3.0/ 10bar PE-100)

SD= 0.265, µ=44.0473mm, m=44mm, TL=44±0.5mm and L=2.484 birr (data taken) (Failure costs of the selected products, taking into consideration there is recyclable scraps) so this loss is calculated as the following, for a single product.

$L(y) = k(y − m)^2 \implies 2.484 = k(44.5 − 44)^2 \implies k = 9.936$

Average quality loss for this specific product is,

$L = k(s^2 + (\mu − m))^2 \implies L = 9.936(0.265^2 + (44.0473 − 44)^2) \implies L = 0.7199birr/pc$

4.2.2. F/C Ø 16/1.0/16bar

SD = 0.1624, µ=14.092mm, m=14mm, TL=14±0.3mm and L=1.21birr. Depending on the above values the failure costs of the product (per single) was calculated as,

$L(y) = k(y − m)^2 \implies 1.21= k(14.3 − 14)^2 \implies k = 13.44$

The average quality loss for this product is,

$L = k(s^2 + (\mu − m))^2 \implies L = 13.44(0.1624^2 + (14.092 − 14))^2 \implies L = 0.468 \text{ birr/pc}$

4.2.3. PLAIN PIPE dia25/2/ 16bar PE-100)

SD =0.1932, µ=20.893mm, m=21mm, L=1.53birr, TL=21±0.3mm

$L(y) = k(y − m)^2 \implies 1.53= k(21.3 − 21)^2 \quad k = 17.0$

Therefore, the average quality loss function for this product is,

$L = k(s^2 + (\mu − m))^2 \implies L = 17.0(0.1932^2 + (20.893 − 21)^2) \implies = 0.8294birr/pc$

4.2.4. F/B 8cm/220µm

SD =0.1415, µ=8.0336cm, m=8cm, L= 9.728birr, TL=8cm±0.5cm

$L(y) = k(y − m)^2 \implies 9.728 = k(8.5 − 8.0)^2 \implies k = 38.91$

Therefore, the average quality loss function for this type of product is,

$L = k(s^2 + (\mu − m))^2 \implies L = 38.91(0.1415^2 + (8.0752 − 8.0)^2) \implies L = 0.999birr/kg$

4.3 DESIGN OF EXPERIMENT

The effect of many different parameters on the performance characteristic in a condensed set of experiments can be examined by using the orthogonal array experimental design proposed by Taguchi (DOE). Once the parameters affecting a process that can be controlled have been determined, the levels at which these parameters should be varied must be determined. The process parameters considered in DOE of the case company's production process were vacuum pressure, Take-off speed, screw speed and temperature but here we have to give more emphasis to temperature.

TABLE 4: PARAMETERS USED FOR CONDUCTING THE EXPERIMENT (DOE)

High density polyethylene Pipe (HDPE dia50/3/ 10bar PE- 100)					Film Bloom 8cm/220µm (F/B 8cm/220µm)			
Control factors (Temperature zones in C ,vacuum pressure in bar and take-off speed in m/min)	Levels				Control factors (Screw speed in KHZ , Temperature zones in C and take-off speed in m/min)	Levels		
	1	2	3	4		1	2	3
pressure 1	-50.5	*-55.0*	-58.5	*-62.5*	Screw speed 1	56	*60*	65
take-off speed 2	1.6	1.8	2.0	2.4	take-off speed 2	16	*18*	20
Temperature 3	125	130	135	140	Temperature 3	70	*80*	85
Temperature 4	130	135	140	145	Temperature 4	110	*114*	121
Temperature 5	140	145	150	155	Temperature 5	114	*121*	125
Temperature 6	155	160	165	165	Temperature 6	22	*124*	130
Temperature 7	155	160	*165*	*170*	Temperature 7	125	*130*	133
Temperature 8	160	165	170	175	Temperature 8	128	*130*	135
Response variable: Internal diameter & wall thickness					Response variable: Width			

TABLE 5: PARAMETERS USED FOR CONDUCTING THE EXPERIMENT (DOE)

Flexible conduit (F/C Ø 16mm/1.0/)					Plain pipe (IR Ø 25/2.0/16bar PE-100)				
Control factors (Temperature zones in C ,vacuum pressure in bar and take-off speed in m/min)	Levels				Control factors (Screw speed , Temperature zones and take-off speed)	Levels			
	1	2	3	4		1	2	3	4
pressure 1	-3.0	*-5.0*	*-7.0*	*-8.0*	pressure 1	-5.5	*-6.5*	*-7.5*	*-9.0*
take-off speed 2	10.5	*12.0*	*14.0*	*16.0*	take-off speed 2	5.0	*6.0*	*7.5*	*8.5*
Temperature 3	150	160	165	170	Temperature 3	110	115	120	125
Temperature 4	150	155	160	170	Temperature 4	125	130	135	140
Temperature 5	130	140	145	150	Temperature 5	125	130	140	145
					Temperature 6	130	145	150	155
Response variable: internal diameter & wall thickness					Response variable: internal diameter & wall thickness				

From the data obtained from the experiments for each selected products, mean response and signal to noise ratio (S/N) analysis were done. So that Corresponding S/N ratio equation for nominal the best (NTB) is given as:

$$SN = 10\log\left(\frac{(ybar)^2}{s^2}\right)$$

5. RESULT AND DISCUSSION

5.1. HIGH DENSITY POLYETHYLENE PIPE (HDPE dia50/3/ 10bar PE- 100)

FIG. 8: HIGH DENSITY POLYETHYLENE PIPE
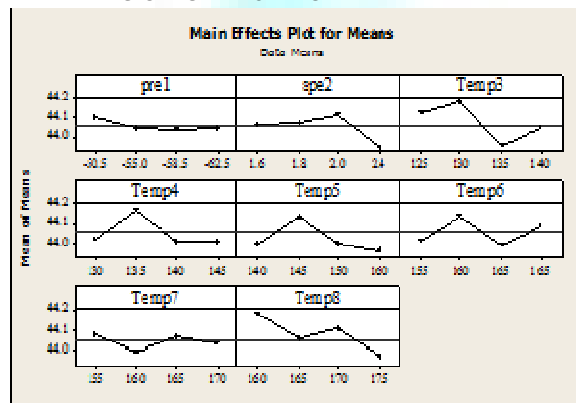
5.2. FLEXIBLE CONDUIT (F/C Ø 16mm/1.0/)

FIG. 9: FLEXIBLE CONDUIT
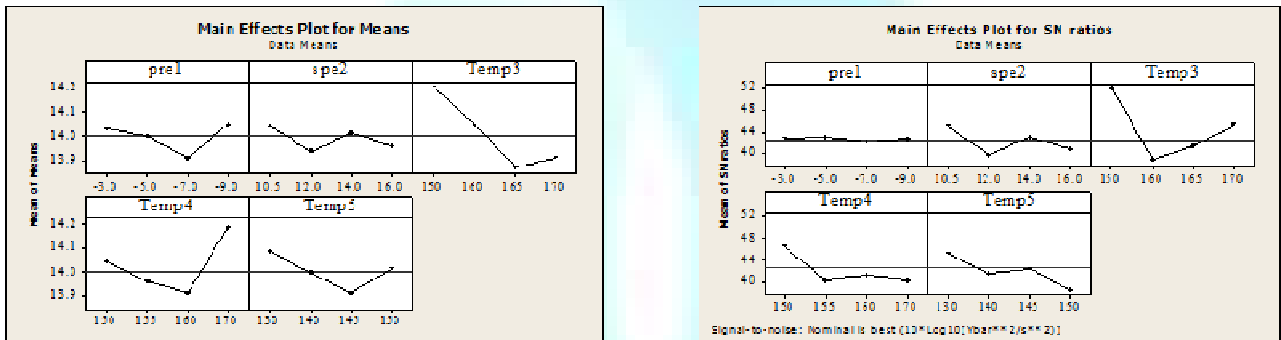
5.3. FILM BLOOM 8cm/220μm (F/B 8cm/220μm)

FIG. 10: FILM BLOOM

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5.4. PLAIN PIPE (IR Ø 25/2.0/16bar PE-100)

FIG.11: PLAIN PIPE
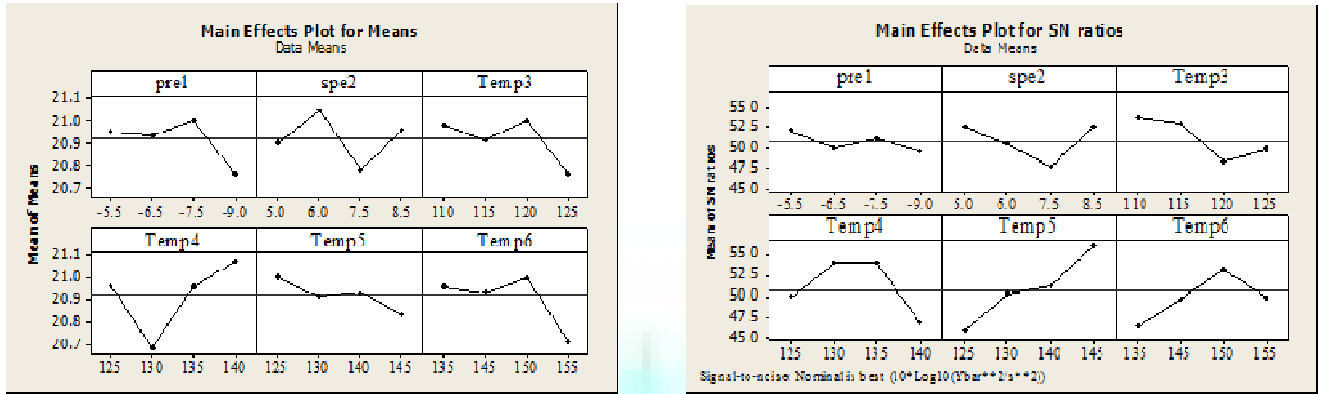
The Summary of factor settings selected using the design of experiment is shown in the following table.

TABLE 6: SUMMARY OF FACTOR SETTINGS SELECTED USING THE DESIGN OF EXPERIMENT

1. HDPE1 Ø 50/3.0/ 10bar PE -100				2. F/B 8cm/220µm			
Controllable factors	Level selected	Value of the level	Rank of affecting the response	Controllable factors	Level selected	Value of the level	Rank of affecting the mean response
Vacuum pressure 1	1	-50.5	8	Screw speed 1	2	60	3
Take-off speed 2	2	1.8	3	Take off Speed 2	2	18	6
Temperature 3	4	140	1	Temperature 3	3	85	2
Temperature 4	4	145	5	Temperature 4	1	110	8
Temperature 5	3	150	4	Temperature 5	1	114	4
Temperature 6	1	155	6	Temperature 6	1	122	1
Temperature 7	2	160	7	Temperature 7	2	130	7
Temperature 8	2	165	2	Temperature 8	2	130	5

TABLE 7: SUMMARY OF FACTOR SETTINGS SELECTED USING THE DESIGN OF EXPERIMENT

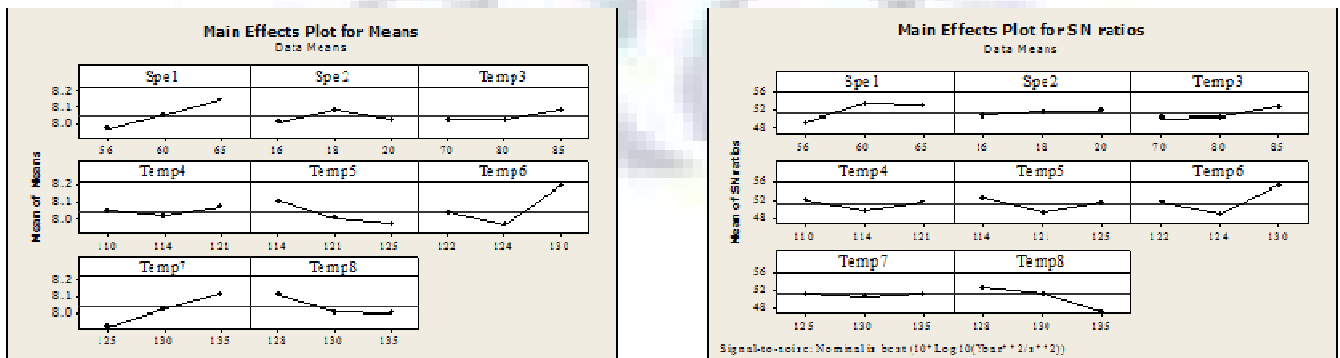| 3. F/C Ø 16mm/1.0/				4. Plain pipe Ø 25/2.0/16bar PE-100		
Controllable factors	Level selected	Value of the level	Rank of affecting the mean response	Level selected	Value of the level	Rank of affecting the mean response
Vacuum pressure 1	2	-3.0	3	1	-5.5	4
Take-off speed 2	3	14.0	4	1	5.0	5
Temperature 3	3	165	1	3	120	1
Temperature 4	1	150	2	3	135	3
Temperature 5	2	130	5	2	140	6
Temperature 6				3	150	2

5.5. FORECASTING OF RESPONSE RECOMMENDED VALUES OF SELECTED PRODUCTS

TABLE 8: THE PREDICTED VALUES AND ACTUAL MEAN VALUES OF THE PRODUCTS

Product type	Predicted values			Target value (mm)	Actual mean value (mm)	Predicted mean value(mm)
	Mean		Standard deviation			
	Diameter/Width	Wall thickness	Diameter/Width			
HDPE1 Ø 50mm	43.9766	accepted	0.120385	44.00	44.0473	43.9766
F/B 8cm/ 220µm	8.0436	accepted	0.0235702	80	80.752	80.436
F/C Ø 16mm	13.9583	accepted	0.064872	14.00	14.092	13.9583
Plain pipe Ø 25mm	20.9642	accepted	0.065068	21.00	20.893	20.9642

Here with the help of the forecasted (predicted) value and the actual average value of the recorded data production of the company (X –Chart analysis of the products) we compare these two values as the table 9.
Total average loss
HDPE Ø 50mm   =   0.1494 Birr/piece
F/B 8cm/220µm   =   0.0956Birr/piece
F/C Ø 16mm   =   0.0799 Birrr/piece
Plain pipe Ø 25mm   =   0.0943 Birr/piece
To summarize the quality loss function after and before the application of Taguchi's method of design of experiment (DOE) the following table. 9 show briefly.

TABLE 9: COMPARISON OF QUALITY LOSS BEFORE AND AFTER EXPERIMENTAL ANALYSIS

Type of product	Loss before experiment/Pc of product (birr)	Loss after experiment /pc of product (birr)	Percentage Improvement (%)
HDPE1 Ø 50mm	0.7199	0.1494	79.25
F/B 8cm/220µm	0.999	0.0956	90.43
F/C Ø 16mm	0.468	0.0799	82.93
Plain pipe Ø 25mm	0.8292	0.0943	88.63

From this table that is the percentage of loss improvement for the selected products was dramatically improved through the application of Taguchi's method of design of experiment.

CONCLUSION

From the result of the X-chart analysis all of the production process of the product is out of control, so that improvement should be made by minimizing its causes for the best target values. And it can be observed on cause and effect diagram that the root causes of these quality problems (defects) are inappropriate setting of operational parameters. By the application of Taguchi's method of design of experiment the percentage of loss has shown a dramatic improvement, as predicted, for the selected products. These process parameters are recommended. Therefore, as a consequence of processing the statistic data obtained, the influence of four process parameters is determined on the Extrusion processes, (vacuum pressure, take-off speed, screw speed and temperature). The greatest importance belongs to temperature in general for all products.

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A STUDY ON CUSTOMERS PERCEPTION TOWARDS DTH SERVICES

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ABSTRACT

The paper is concerned with Direct -To - Home (DTH) services. Now -a- days every one is very well aware of DTH services. DTH (Direct - To - Home) television is one of the recent contributions of science, DTH is defined as the reception of satellite programmes with a personal dish, in an individual home. DTH has become a powerful, useful and attractive mass media compared with cinema and cable TV. The role of DTH operations is effective and inevitable in our life. It serves not only for viewing of cinemas but also for promoting education and sharing information. In the beginning Doordarshan was the only Government player in the market. Now most of the market is covered by private sector players like Dish TV, Sun Direct, Tata Sky etc. This paper highlights the customer's preference, attitude, perception and their problems. So a study of this kind will help the consumers to know which DTH products will suit their requirements.

KEYWORDS

DTH, Dish TV, Service Operators, Set-Top Boxes, Consumer Attitude.

1. INTRODUCTION

DTH stands for Direct-To-Home television. DTH (Direct - To - Home) television is one of the recent contributions of science, which is meant mainly for the dissemination of information and which is an achievement of the human brain. DTH has become a powerful, useful and attractive mass media compared with cinema and cable TV. The role of DTH operations is effective and inevitable in our life. It is meant not only for viewing cinemas but also for promoting education and sharing information. Direct-to-home (DTH) television is growing rapidly throughout India, with its easy setup, interactive services, and competitive offerings. The Direct-To-Home (DTH) service is a digital satellite service that provides television services directly to subscribers anywhere in the country. DTH helps in keeping broadcasters in direct touch with consumers, thus eliminating the need for cables and cable infrastructure and cable operators. This is particularly valuable in remote places and in areas which are difficult to reach and where cable and in many cases, terrestrial television services are poor or non existent.

DEFINITION

A. DTH is defined as the reception of satellite programme with a personal dish, in an individual home.
B. DTH Digital TV system receives signal directly from satellite through the dis, decodes it with the Set-Top Box and then sends stunningly clear picture and sound to TV.

HOW DOES DTH NETWORK WORK?

The latest technology of DTH Network includes satellites, multiplexers, broadcasting center, modulators, encoders and DTH receivers. Technologically speaking, the process starts with DTH service provider leasing Ku-band transponders from the satellite. Thereafter, encoder gets into the process of converting video, audio, and data signals into the digital format.

Once encoding is done, the multiplexer mixes these signals. Users have to install a small dish antenna and set-top box which decodes these mixed signals and lastly users get to view numerous TV channels. Primarily, dth is an encrypted transmission received directly from the satellite by the consumer at his place with the help of dish antenna.

LIST OF DTH OPERATORS

There are seven major DTH providers or operators in India today, all competing for your attention and business: Doordarshan Direct Plus, Airtel Digital TV, Dish TV of Zee Groups, Sun Direct of Sun Networks, Reliance Digital TV, Videocon d2h, and Tata Sky of TATA Industries. Dish TV was the first major provider and has benefited from the early mover advantage. But while Airtel, Reliance, and Videocon matured late, they also offer better technology and more channels. They are more aggressive and flexible and offer the consumers value for money.

TECHNOLOGY

COMPRESSION TECHNOLOGY

Better Compression technology enables platforms to be more effective and carry more channels without compromising on quality. Tata Sky and Dish TV promise MPEG-2 compression for their standard television boxes, but new operators like Videocon, Reliance, Sun Direct, and Airtel DTH have brought MPEG-4. Videocon and Airtel also have access to DVB S-2 technology which gives more interactive services.

RAIN

With monsoons in summer, it's important to choose a DTH operator that can withstand the rains while keeping signals.

HD AND 3D

Almost every provider offers some level of high-definition services. Reliance Digital TV HD leads the race, offering 250 HD-like channels, though Videocon offers the most 'real HD' channels (12 channels). Reliance's set top box has the ability to upgrade content to 1080 p (a higher resolution), higher than competitors' 1080 i functionality. Reliance, Airtel, and Videocon are the only ones with 3D ready option.

PORTABILITY IN AUTOMOBILES

While all are oriented around the television, Dish TV and Airtel are the only ones who also give you the comfort of TV portability in automobiles.

CHANNEL SELECTION

NUMBER OF CHANNELS

Probably the most important factor for any user is " What are the channels offered?" In the digital world, the scope for these offers has increased which range from entertainment, news, infotainment, Saas Bahu sagas, spectacular sporting events, and classic Hindi and English movies. While Hindi General Entertainment

Channels (GECs) and Hindi movie channels have traditionally dominated what people watch, the growing trend is the interest in depth in the different categories, and access to niche content.

ADVANTAGES

What are the advantages of DTH ?

1. Dynamic Program Packages to choose from. You only pay for what you want to watch. It is not an all or nothing proposition like most cable connections. You can watch Premium Channels of your choice which the consumer can select anytime by a simple call to Customer Service Center .

2. Advanced Viewing Control Features like the Electronic Program Guide (EPG) which provides the current and next program on all channels

3. Parental Lock which safeguards your children's viewing options

4. Pre-booked Pay-Per-View and Impulse Pay-Per-View - Watch that boxing or golf match, horse racing or Olympic events you have been waiting to see - in the comfort of your own home.

5. DTH services provide the finest of picture and sound quality, which is considered to be second to none worldwide.

2. REVIEW OF LITERATURE

DTH services were first proposed in India in 1996. But they were not approved then because there were concerns over national security and cultural invasion. Finally in 2000, DTH was allowed. The new policy requires all operators to set up earth stations in India within 12 months of getting a license. DTH licenses in India will cost approx. $2.14 million and will be valid for 10 years. As of now, number of total customers stand at 14 million whereas total cable TV households number is 75 million. This reflects the huge potential of this industry in the longrun.

3. NEED FOR THE STUDY

Miryalguda is a popular Industrial Town. It is the hometown of a key commercial center, town, and mandal & revenue divisional headquarters in the region of Telangana. Miryalguda is a well known town in India and also in the foreign countries for its industrial production of Rice, Cement, Chillies (mirchi), Cotton, Real Estate business and is famous for Food Corporation of India (F.C.I) etc. These industries are providing innumerable employment opportunities. TV is the best medium of entertainment for the people of Miryalguda. They also like to watch different channels with quality picture. So they like subscribing with DTH services. In Miryalguda, the number of dth subscribers is high. Hence, there is a vast scope for research in this area. So a study on the subscriber attitude towards the DTH services has been undertaken.

4. STATEMENT OF THE PROBLEM

The history of Indian Television dates back to the launch of Doordarshan, India's national TV network in 1959. In this period television was a luxury and the transmission was in black & white. In 1991, Indian economy was liberalized from the Licenses and the Government invited Foreign Direct Investment (FDI) and deregulations of domestic business emerged. In 1992, the cable TV industry started. Later on cable tv network has literally changed the face of public television. This lead to the influx of foreign channels like Star TV and domestic satellite channels like SUN TV and Zee TV. This has virtually destroyed the monopoly held by doordarshan.

DTH offers better quality picture and digital surround sound than cable tv. DTH services are available to the subscriber's with varying features like interactive TV services movie-on-demand, internet access, video conferencing and e-mail. The task of the marketers is to mould the consumer's perception so as to occupy the desired position for their brands. This paper highlights the customer's attitude towards the DTH services.

5. OBJECTIVES OF THE STUDY

The researcher has undertaken to study the following objectives.

1. To find out the preference of the DTH Subscriber
2. To find out the level of brand loyalty
3. To identify the reasons for preferring the DTH services
4. To examine the level of satisfaction of the subscribers towards DTH service
5. To study the problems faced by the DTH customers and offering suggestions to them to solve the problems

6. HYPOTHESIS

The study has been made with the following hypothesis which have been tested then and there.

NULL HYPOTHESIS (Ho)

There is a no relationship between the Advertisement and Subscriber's behavior and perception towards DTH services.

ALTERNATIVE HYPOTHESIS(H1)

There is a significant relationship between Advertisement and subscribers attitude towards DTH services.

7.RESEARCH METHODOLOGY

The present study relies on practical research experience based on survey method. To fulfill the objectives of the study, the researcher has collected both primary and secondary data.

PRIMARY DATA

Primary Data was collected directly from the respondents by using questionnaire. The researcher has made convenient random sampling of 230 respondents in his report and the collected data was analyzed properly by using suitable statistical tools.

SECONDARY DATA

The relevant Secondary Data has been collected from various sources like Internet, Journals, Books, Magazines, and News Papers etc., to supplement the primary data in the present study.

STATISTICAL TOOLS

The collected data were coded, calculated and analyzed with the help of statistical tools like measures of central tendencies, ranking, chi-square test, percentiles and tabulations.

SAMPLE DESIGN

A sample study was undertaken at Miryalguda as the number of respondents is invariably high. The researcher has collected the primary data from different categories of DTH Subscribers. Since the DTH subscribers in Miryalguda are more in number, convenience sampling technique has been adopted and 230 sample customers have been selected for the study.

8. RESULTS & DISCUSSION

REASONS FOR PREFERRRING DTH SERVICES

The DTH provides quality services to the subscriber like picture clarity, effective sound system, more number of channels etc. To ascertain the reasons for preferring DTH services, a study was made and the responses were analyzed by adopting Ranking Techniques. In order to reveal the importance of the variables in the ranking process, weightage has been assigned for five ranks. For the first rank 5 weights, second rank 4 weights and so on. The subsequent results have been shown in the table.

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TABLE 8.1: REASONS FOR PREFERRING DTH SERVICES

Sl. No.	Ranks	I	II	III	IV	V	Total points	Rank
	Reasons/Weighs	5	4	3	2	1		
1	More Channels	86 (430)	69 (276)	41 (123)	20 (40)	14 (14)	883	1
2	Picture Clarity	48 (240)	55 (220)	58 (174)	42 (84)	27 (27)	745	2
3	Effective Sound	37 (185)	59 (236)	62 (186)	31 (62)	41 (41)	710	3
4	Price	33 (165)	35 (140)	37 (111)	62 (124)	63 (63)	603	4
5	Uninterrupted Services	39 (195)	28 (112)	32 (96)	65 (130)	66 (66)	599	5

Source: primary data

The table shows that out of the selected respondent's, majority of the respondents preferred DTH services as it offers more number of channels in various languages and is ranked first among all other reasons. Picture Clarity is ranked second and is better than cable TV which is followed by Effective Sound which has been ranked the third and Price and Uninterrupted Services hold the fourth and fifth rank respectively.

BRAND PREFERENCE OF DISH

In the Open Market, various DTH brands are available. The consumers are finding it difficult to choose a particular brand from the numerous brands available in the market. The researcher has also collected the details of dish brand which is the most preferred by the respondents. The results are presented in the following table.

TABLE 8.2: BRAND PREFERENCE OF DISH

Sl.No.	Name of the DTH Service	No. of Respondents	Percentage
1	Sun Direct	66	28.70%
2	Dish TV	48	20.87%
3	Tata Sky	42	18.26%
4	Airtel Digital TV	30	13.04%
5	Reliance Big TV	25	10.87%
6	Videocon d2h	19	8.26%
	Total	230	100%

Source: primary data

It is obvious from the table that among the respondents chosen for the study 28.70% are using Sun Direct, 20.87% of the of respondents prefer Dish TV, 18.26% of the informants likes Tata Sky, 13.04% of the customers prefer Airtel Digital TV, 10.87% e prefer Reliance Big TV, and another 8.26% of sample DTH users prefer Videocon d2h. In short majority of the respondents have preferred to use Sun Direct DTH Service.

SATISFACTION LEVEL OF SUBSCRIBERS TOWARDS DTH SERVICES

Each and every customer wants to get maximum level of satisfaction with the offered product. The customer satisfaction leads to brand loyalty. So the researcher has collected the opinion of the subscribers with regard to their satisfaction towards the services offered by DTH service operators which is being presented in the table below .

TABLE 8.3: SATISFACTION LEVEL OF RESPONDENT

Sl.No.	Satisfaction of Operator's service	Level of satisfaction					Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	
1	More Channels	67	55	48	22	38	230
2	Picture Clarity	58	65	43	27	37	230
3	Effective Sound	44	59	68	33	26	230
4	Price	31	45	54	61	39	230
5	Other Services	26	78	56	36	34	230

Source: primary data

The above table indicates that most of the respondents are highly satisfied with the number of channels offered and picture clarity. The subscribers are satisfied with the sound effect and the level of satisfaction is neutral with the subscription rate and they are dissatisfied with subscription rate. The survey reveals that most of the customers are satisfied with the DTH Operator's Service they preferred.

PROBLEMS

The survey further reveals the nature of problems faced by the subscribers after purchasing the DTH. The following table has been designed to present this data.

TABLE 8.4: NATURE OF PROBLEMS AFTER PURCHASE

Sl.No.	Problems faced by Subscribers	Number of Respondents	Percentage
1	Installation Problems	24	10.43%
2	Technical Problems	52	22.61%
3	Recharge Problems	57	24.78%
4	Signal Problems	64	27.83%
5	Picture Clarity Problem	33	14.35%
	TOTAL	230	100%

Source: primary data

It is a lucid fact from the above table that 10.43% of the respondents are facing Disk Installation Problems, 22.61% of the respondents face technical issues, 24.78% of the respondents face problems with regard to recharge and renewal of subscription fee, 27.83% of the respondents face Signal Problems and the remaining 14.35% of the informants are affected by poor picture clarity .

AWARENESS ABOUT THE DISH

Generally Consumers try to collect opinion and information from various sources (like other users or acquaintances) before purchasing any product. Based on the knowledge gained through various sources, the consumer will decide upon the best brand to be purchased. The following table shows the source by which the consumer becomes aware about the Brand.

TABLE 8.5: AWARENESS ABOUT THE DISH

Sl.No.	Awareness	Number of Respondents	Percentage
1	Advertisement	97	42.17%
2	Friends	41	17.83%
3	Relatives	58	25.22%
4	Colleague	34	14.78%
	TOTAL	230	100%

Source: primary data

CHI-SQUARE TEST

For the calculation of the chi-square test the researcher has considered the above factors which have motivated the consumer to prefer his brand of DTH where advertisement includes(print media, Electronic Media, salesman).

TABLE 8.6: CHI-SQUARE TEST

Degree of Freedom	Level of significant	Calculated Value	Table Value	Inference
3	5%	41.47	7.815	Rejected

For 3 degree of freedom at 5% level of significant, the table value is 7.815. Since the calculated value (41.47) is more than the table value, the researcher has rejected the hypothesis.

9. FINDINGS

1. Majority of DTH service users were in the income group of Rs.10, 000-15,000. i.e., DTH service was mostly availed by middle and high income group people. Low income group people have not availed this service widely.
2. Sun direct DTH service was preferred widely among all DTH services.
3. Majority of the respondents opined that advertisement was an effective factor in making a decision for their preferred DTH.
4. Majority of respondents have DTH services with above 100 channels and are observed to prefer more channels.
5. DTH service is a recent concept among the people of miryalguda.
6. Out of all kinds of programmes in DTH service, majority of the respondents have selected 11% music channels, 34% Daily Serials, 18% News Channels, 16% movie channels, 6% comedy channels and 10% religious channels.
7. In the area where the survey was conducted, most of the people face technical problems and issues with regard to signals.
8. The level of satisfaction of consumers of DTH services in the area surveyed is more with regard to more number of channels and better picture quality.

10. RECOMMENDATIONS & SUGGESTIONS

DTH service Operators have to reduce the initial entry cost which will have good impact in attracting customers.

1. DTH Service Operators should offer more Local Channels (mother tongue) with minimum price.
2. Picture Clarity and Effective Sound System like Digital Sound is must in DTH Service. Therefore, DTH service operators should try to enhance the same through latest technology.
3. To attract people from urban areas they have to provide National and International channels with High Definition (HD) system.
4. The company must adopt different promotional strategies or package structures for the Rural and Urban Markets.
5. In the cut-throat open market competition, a new DTH operator can enter the market with low price, differentiate his product from that of his competitors by introducing add on services like movies on demand, interactive programme guides, Internet services and a few complimentary channels to attract more customers.
6. Effective customer care service centres with faster and quick response is required. Retaining existing customers and attracting new customers will enhance the value of the product.
7. Service is a key factor in DTH services. Hence service provides have to reduce the technical glitches by providing better Dish Antenna with water proof coating and strong transmission power.
8. DTH service operators have to provide instant facility to check the balance and validity of service of DTH whenever the subscriber wants to such informaion.
9. The subscriber should be reminded regarding renewal of services by giving either SMS or a call or an e-mail when it is due.
10. Improve the services of recharge or renewal of DTH service through easy recharge on mobile, internet, physical vouchers etc.,

11.CONCLUSIONS

India is the home for entertainment of hungry populace. India has a total television population of close to 135 million, out of which 108 million have access to cable and satellite. The total DTH subscribers are close to 22 millions. According to the prediction on DTH service, India will overtake Japan as Asia's largest DTH and be Asia's leading cable market by 2010 and the most profitable pay-TV market by 2015. The DTH has a market share of approximately 20%. DTH is the only source which will reach people who live in Hill stations, Rural and Remote Areas. Therefore, there is a vast scope for DTH operators to precede by giving strategic package offers for sustaining the growth rate.

12. SCOPE FOR THE FURTHER REFERENCE

Mr. P. Chidambaram, Ministry of Finance, In Union Budget 2013-14, has increased cost of set-top boxes: Though the Government has hiked customs duty on the import of set-top boxes (STBs) to boost domestic manufacture, it is likely to add to the cost burden of a majority of Direct-to-Home (DTH) and Multi System Operators (MSOs). The DTH industry is already paying 32 per cent of its revenue as taxes. The doubling of customs duty on set-top boxes could lead to a slowdown in the pace of digitization. The players already offer the boxes to consumers at subsidised rates and bear the burden of multiple taxes. While some players believe this move could lead to a price increase, others pointed out that given the cut-throat competition with the ongoing digitization between cable and DTH companies, it would be difficult for players to pass on the hike to consumers. So, all these changes will impact on the buyers attitude. Hence, Research on DTH services is required further depth study in present situation.

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CUSTOMER SATISFACTION AND ELECTRONIC BANKING SERVICE ON SOME SELECTED BANKS OF ETHIOPIA

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ABSTRACT

In Ethiopia cash is still the most dominant medium of exchange. Electronic-banking is not developed in a good manner due to lack of available resources to adopt E-banking in all banks, under-development of technological infrastructure, low level of relevant knowledge creation and innovation, interruption of network, lack of suitable and regulatory frame work for e-commerce, resistance to changes in technology among customers and service providers as result of fear of risk, and lack of sufficient number of trained employees in most banks. The research design was descriptive in nature and survey method was used. Sample size was 371 and simple random sampling technique was used. In data analysis part researcher used frequency table, Pearson correlation and regression. ATM is the mostly used form of E-banking service in selected banks of Ethiopia; conveniences, privacy, security, Speed, cost saving, reliability, reasonable fees and responsiveness were positively and significantly related to customer' satisfaction when the customers use e-banking. This is the first formal study to date to addresses the customer satisfaction on e-banking in Ethiopia. Understanding the customer satisfaction on E-banking is significant value to scholars, practitioners, and policy makers.

KEYWORDS

E-bank and customer satisfaction.

INTRODUCTION

In the recent years there has been explosion of Internet-based electronic banking applications (Liao & Cheung, 2003). Beckett, Hewer & Howcroft (2000) states that the development of new forms of technology based self service sector has created highly competitive market conditions for bank providers. However, the changed market conditions demand for banks to better understanding of consumers' needs (Beckett et al., 2000). From the banks perspective the main benefits of electronic banking are cost savings, reaching new segments of the population, efficiency, cross selling, third-party integration, and customer satisfaction (Hiltunen et al., 2004;. Sheshunoff (2000) admits that banks implement Internet banking services in an attempt to create powerful barriers to customers exiting. In general, it has been reported that Internet banking saves time and money, provides convenience and accessibility, and has a positive impact on customer satisfaction (Karjaluoto, 2002; Mattila, 2001). To summarize, Internet banking offers many benefits for both to banks and their customers (Karjaluoto, 2002; Mattila, 2001).

Despite of these benefits Internet banking includes many challenges. HCI-related challenge of Internet banking is how to satisfy new online customer segments. Hiltunen et al. (2002) argue that a key factor in this competition for online customers is the quality of customer service, which includes usable user interfaces of Internet banking. From this perspective the usability of Internet banking becomes an essential factor in the competition for online customers.

According to khan (2010) Bank sector driving in automation of their service delivery of because of that to attain cost-effectiveness which can be used as a strategic competitive weapon. ATMs have been playing a pioneering and pivotal role here. In order to identify the current strength and weakness of the technology measuring customer satisfaction has attracted wide spread research attention, given

it is often used as an indicator of success. The main factors which focused when measuring customer's satisfaction are accessibility, security, convenience, reliability and ease to use.

BACKGROUND OF THE ETHIOPIAN ELECTRONIC BANKING SERVICE

Commercial Bank of Ethiopia (CBE), introduced ATM service for local users in 2001 with its fleet of eight ATMs located in Addis Ababa. Moreover, CBE has had Visa membership since November 14, 2005. However, due to lack of appropriate infrastructure it failed to reap the fruit of its membership. Despite, being the pioneer in introducing ATM based payment system and acquired Visa membership, CBE lagged behind Dashen Bank, which worked aggressively to maintain its lead in electronic payment systems.

At the end of June 2009, Dashen bank has installed automatic teller machines. It is the first bank in Ethiopia to provide a full –fledged payment card services as a principal plus member of VISA international and master card, the world leader card association. The bank is engaged in both card issuing and transaction acquiring businesses.

Currently CBE increase the number of ATM in to 54 ATM and by 77400 ATM users, in addition to this the bank has 250 POS (point of sell) in its branches in order to assist ATM service. The bank also purchase 400ATM but they are not installed rather they were in the process of logistics from foreign countries.

Currently the Dashen bank installed 85 ATM in its area branches, university compounds, shopping mails, restaurants and hotels and has maintained its leadership in introducing and expanding E-banking service in Ethiopia. The bank introduced VISA branded payments card service which entities customers to 24x7 encashment privilege from ATM and purchase of goods and service from merchant location using point of sales terminals(pos). Besides, international VISA and master card holders are able to get cash and effects payments by accessing their accounts abroad from the bank systems in the world. ATM is one of the electronic banking systems in the world abroad from the Dashen bank system in the world.

The main reason for installation of ATM machines in Dashen bank for the customer are giving efficient, reliable, available, convenience, secure, private , fast service, provide continuous service(24 hour service in a week(7 days) to satisfy customers based on their needs and wants, the total number of ATM users in Dashen bank reached more than 160,000.

Wogagen bank installs e-banking service (ATM) in December 2011G.c. currently the bank installed more than 26 ATM, 22910 ATM users and 88 POS in Ethiopia. The bank adopted the latest German ATM which has the ability to perform the function of withdrawal, deposit, purchase payment, balance enquiry, mini –statement for 24 hours seven days in a week. The bank also getting the commission and foreign currency. The main factors those affect e-banking service on Wogagen bank were lack of convenient ATM service, lack of customers awareness of E-banking service, Internet fluctuation, restriction of withdrawal maximum for 24 hours by 5000birr is not balanced by demand of the customers. But the Wogagen bank is better in providing unlimited withdrawal service Based on the agreement of the bank in which the customers saving branches for foreign customers.

Zemen bank has 20 ATM. Now they are introducing mobile banking, but they did not actually involved in it.

RESEARCH GAP

In the real world there are three ways to pay for goods: cash, check, and credit or debit cards. Cards can be smart cards, and any kind of credit card. They all serve a special purpose: they are also online payments media. E-commerce environment with a payment needs more complex design. A payment system means needs a security, privacy, system integrity, customer authentications using real world systems. Carter: 2002, p.209)

According to khan (2010), the dimensions of the E-banking service quality dimensions are giving efficient and effective service to targeted customers, availability of E-banking service, convenience location of ATM service, reliability of E-banking service, responsiveness of E-banking service to provide relevant and appropriate service to the customer, efficient operation of automatic teller machine, security and privacy are essential dimensions for E-banking in order satisfy customers.

Currently there are some factors which affect customer satisfaction in electronic banking service in selected banks (commercial banks of Ethiopia, wogagen bank, and zemen bank) of Ethiopia. These are; Machine out of order, Machine out of cash, No printing statements; cards get blocked; frequent breakdown of ATM service; unreliability of ATM service; lack of sufficient technicians in all bank who solve breakdown of ATM machine, lack of sufficient alternative system which substitute ATM service for the customer when temporary problem happen in the machine, lack of convenience of E-bank service, lack of mobile banking service, Lack of reliable Tele-banking , lack of credit card service, under-development of technological infrastructure, low level of relevant knowledge creation and innovation, interruption of network, lack of suitable and regulatory frame work for e-commerce, resistance to changes in technology among customers and service providers as result of fear of risk, lack of fair distribution of E-banking service in all over Ethiopia during pretest of this study.

The existence of these problems may lead to dissatisfaction of customers and this problem motivate this study to address the ability of the commercial bank, wogagen bank and zemen E-banking service in satisfying customers.

RESEARCH QUESTIONS

The main research questions were:

1. What are the major service quality dimensions to satisfy the customers in E-banking service?
2. What are the main factors which affects customer's satisfaction in use of E-banking service?
3. What are the policies to be followed to ensure the quality of E-banking services for customer satisfaction?
4. What are possible solutions for existing problems of ATM machine?

OBJECTIVE OF THIS STUDY

The main objective of this study was to examine customer satisfaction on E-banking service in selected banks of Ethiopia.

SPECIFIC OBJECTIVES OF THIS STUDY ARE;

1 To identify the different form of E-banking in selected bank of Ethiopia.
2. To identify determinants of E-banking service quality dimensions.
3. To provide some possible Recommendations, Summary, and Conclusion about the existing e-banking service in selected bank of Ethiopia.

LITERATURE REVIEW

Electronic banking is an umbrella term, the process by which a customer may perform banking transactions electronically without visiting a brick- and-mortar institution. Electronic banking include; personal computer(pc) banking, internet banking, online banking, home banking, remote electronic banking, and phone banking, and internet or online banking are the most frequently used designations.

Growth of Electronic banking in a country depends on many factors, such as success of internet access, new online banking features, household growth of internet usage, legal and regulatory framework. E-banking can offer speedier, quicker and dependable services to the customers for which they may be relatively satisfied than that of manual system of banking. E-banking system not only generates latest viable return, it can get its better dealings with customers. (kaejaluoto, 2002) electronic banking is the delivery of information and service by banks customers via different delivery platforms that can be used with different terminals devices such as a personal computer and mobile phone with browse or desktop software, telephone or digital television.

ATM SERVICE

There are two ways to make payments on a web site: debit cards and credit cards. Pull out your e-bank card. Chances are it is a debit card with a Visa or Master card logo. They look exactly like credit cards, except they directly tap your account every time you make a purchase or a withdrawal. They are easier, more convenient, less burdensome, and offer greater access to your money than do checks, ATMS, or credits cards. They are descendants of the ATM cards that become popular in the early 1980s. Debit cards are different, however, because transactions are processed through the issuing bank's credit card net work.

According to turban (2002), debit card also known as a check card, is a card that authorize the electronic fund transfer. While a credit card is away to pay later, in debit card the amount is immediately deducted from your bank account. Debit card are accepted at any many location including grocery, retail store, gasoline stations, and restaurants. You can use your ATM card where merchants debit card's brand name/ or logo. A debit card is an alternative to carrying a check book or cash.

In present-day ATM is widely used for many purposes. Some of the purpose is withdrawal, balance statements, transfer account, and saving money. When customers use E-banking, they save their money, time, energy, free carrying bulk paper money, reduce waiting time of the customers.

E-SERVICE QUALITY

According to Kotler (2009, p.353) identified **E-service quality** dimensions. These are

RELIABILITY /FULFILLMENT

The product that came was represented accurately by the website; you get what you ordered by the time promised by the company'

WEBSITE DESIGN

The website provider in depth information, this site doesn't waste customer time, it is quick and easy to complete a transaction at this website, the level of personalization at this site is about right, not too much or too little, this web site has good selection

SECURITY/PRIVACY

Customer feels safe in their transaction with web site

CUSTOMER SERVICE

Answering and providing appropriate answers for customer questions. For self service technology convenience, variety transactions, accurate transaction, fast, reduced cost, are important dimensions.

Based on the SERVQUAL attributes, Dabholker etal(1996) found five basic service quality dimensions in retailing. These are physical aspects (convenience, Appearance), reliability (promises, doing it right), personal interaction (inspiring confidence, courtesy), problem solving (handling complaints, accepting merchandise, in return), policy (opening hours).

According to khan (2010) identified conveniences, efficient operation, security and privacy, reliability and responsiveness are significant dimensions of E-banking service quality dimensions.

FIGURE 1: SHOW THAT TECHNOLOGY BASED SELF–SERVICE AND EFFECTS ON CUSTOMER'S SATISFACTION MODEL BASED ON JAMES, MATHEW (2005)
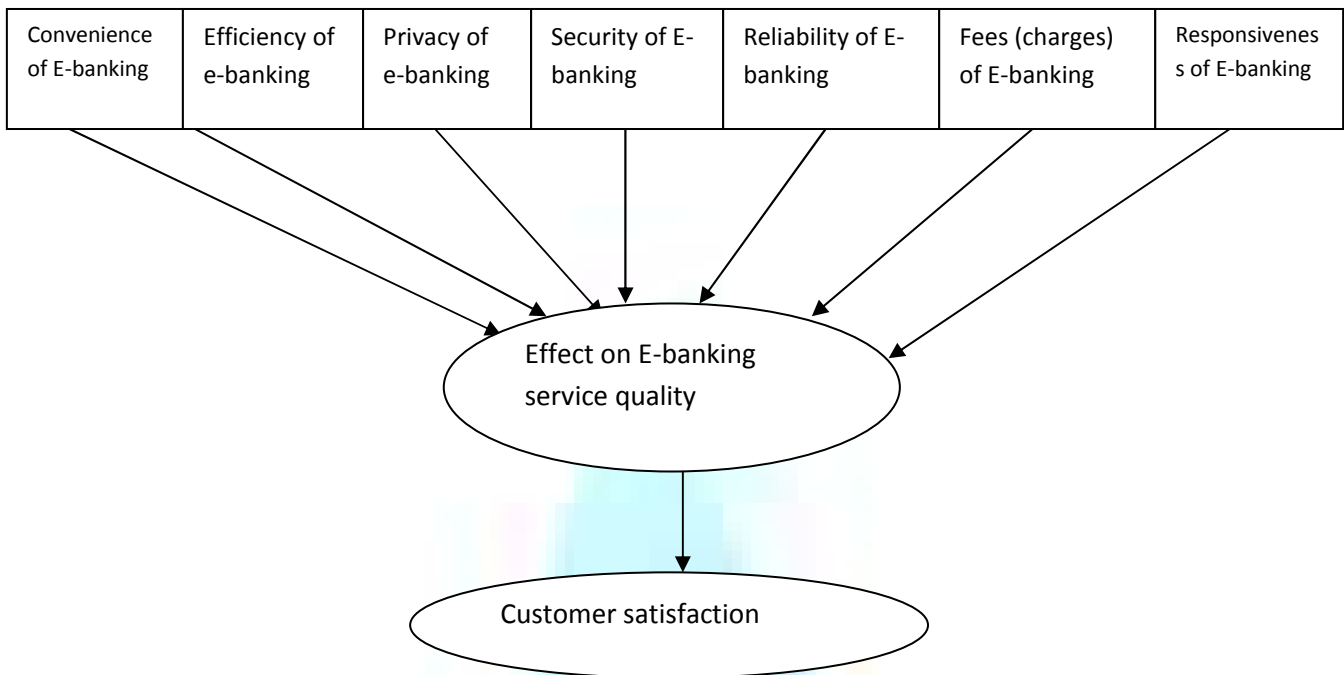
According to the Gronros (1990) perceived value of customers can be measured through functional and technical quality. That means functional quality refers to how "" the service is delivered, while the outcome or technical quality refers what customers receive, the benefits of using the service.

E-BANK SERVICE QUALITY DIMENSIONS AND CUSTOMERS SATISFACTIONS

Satisfaction is consumer's fulfillment response. It is judgmental that a product or service feature or service itself, provides a pleasurable level of consumption related fulfillment (Zeithaml and Bitner 2004, p.97).

The bank need to constantly monitor and up-date and differentiate their E-banking service quality dimensions to ensure continuous satisfaction and retention of customers, optimize their limited resources. Speed or Quick response to customers' needs and queries about the E-bank related service to improve the service standards of e-banking. This would increase customers participation in improvements of technology based self service quality. Customers aware and perform the operation of self service technology and have a better experience through two-way communication. Bank should make a commitment for service recovery when there are failures of ATMS. If the banks don't recover the service failure it becomes the source of customer's dissatisfactions. If the customers are dissatisfied they are going to switch the brand, products, and service. Without customer's establishment, the bank is meaningless. So that it is better the bank work with collaborations of customers. That means the bank management must identify the needs and wants of the customers and based on the customers needs and wants.

RESEARCH HYPOTHESES

Based on literature review, the following hypotheses were emerged

Hypothesis 1: Convenience of E-banking service has positive and significant relationship with customer satisfaction.

Hypothesis 2: Fair & Reasonable Fees (charges) during the transaction of E-banking service has positive and significant relationship with customer's satisfaction.

Hypothesis 3: Efficient operation of E-banking service has positive and significant relationship with customer satisfaction.

Hypothesis 4: Privacy of E-banking service has positive and significant relationship with customer satisfaction.

Hypothesis 5: Security of E-banking service has positive and significant relationship with customer satisfaction.

Hypothesis 6: Reliability of E-banking service has positive and significant relationship with customer satisfaction.

Hypothesis 7: A Responsiveness of employee to solve at E-banking service failure has significant and positive relationship with customer satisfaction.

RESEARCH METHODOLOGY

The researcher selected descriptive method to conduct an empirical study on Customer Satisfaction and E-banking Service in some selected banks of Ethiopia. The unit of analysis for this research was customers in Commercial bank, Wogagen bank and the Zemen bank who are using e-bank service. To collect valid and reliable data for this research, the researcher used survey method. Questionnaires were prepared for 371 customers who are using currently E-banking in Commercial bank, Wogagen bank and the Zemen bank. The researcher used different kinds of secondary resource for this research. Some of them are: E-banking journal, e-commerce books, service marketing book, and the selected banks website

SAMPLE SIZE AND SAMPLING TECHNIQUE

From 24 branches of commercial bank of Ethiopia those were installed E-banking service researcher took 10% of 24(2) branches of commercial bank by using rule of thumb method due to time and cost. Two branches were determined.

In order to take the two branches of commercial bank, the simple Random method were employed. From simple random method lottery method were employed in order to pick the two branches of commercial bank of Ethiopia. Based on the lottery system number 2(commercial Bank, Bahir Dar Area Bank with 1200 E-bank users) got the first chance to count the two branches and commercial banks of Gofa branches with 1153 E-bank users were identified. From Bahir Dar Branches 10% of 1200(120) were participated and from Gofa branches 10% of 1153(115) were participated. Totally 235 customers were participated from commercial bank of Ethiopia.

Currently 20 branches of wogagen bank installed e-banking services in its branches, from this researcher took 10% of 20(2) branches by using rule of thumb method. Based on lottery system number 1 is got the first chance to count 2 branches. The selected two branches were Wogagen bank Aba Kore branhes(562 customers) and Wogagen Bank Bahir Dar branches(500 customers) from total 1062,reasercher took 10% of 1062,which is 106 customers from Wogagen bank were participated.

Researcher used convenience sampling method in order to take sample of customers from Zemen bank, current number of e-bank users is not fixed in Zemen bank in a centralized data. As result researcher took 30 customers conveniently.

DATA ANALYSIS AND PRESENTATION

To analyze the collected data SPSS (statistical package for social science) version 16 was used to compute and analyze the collected data. Researcher conducted pretest by taking 30 customers of E-bank service users in selected banks through convenience sampling method. Seven likert scale was used (strongly disagree up to strongly agree) in order to identify customer satisfaction on E-bank service.

The researcher collected 350 questionnaires out of 371 questionnaires distributed. In other word 94.33% returned and 5.66% of the questionnaire were not returned. Based on frequency table Analysis show that 62.5% of the customers who are using e-banking service were male and the remaining 37.5% were females.

RESULTS OF CORRELATIONS ANALYSIS

Results of correlations analysis indicated in table 8 shows that efficiency, convenience, privacy, security, reliability, responsiveness of employees and reasonable and fair fees of E-bank service has positive and significant relationship with customer satisfaction. This can be clearly identified in following table 8. **Table8.**

		conveniences of e-bank service	efficiency of e-bank service	reliability of e-bank service	fees(charges) of e-bank service	privacy of e-bank service	Security of e-bank service	responsiveness e-bank	Customer satisfaction On e-bank dimension
conveniences of e-bank service	Pearson Correlation	1	.109	.088	-.005	.331**	.161*	.221**	.332**
	Sig. (2-tailed)		.169	.268	.948	.000	.043	.005	.000
efficiency of e-bank service	Pearson Correlation	.109	1	-.017	.215**	.159*	.215**	.040	.174*
	Sig. (2-tailed)	.169		.831	.006	.044	.006	.613	.028
reliability of e-bank service	Pearson Correlation	.088	-.017	1	.137	.331**	.223**	.242**	.207**
	Sig. (2-tailed	.268	.831		.085	.000	.005	.002	.009
fees(charges) of e-bank service	Pearson Correlation	-.005	.215**	.137	1	.162*	-.009	.320**	.280**
	Sig. (2-tailed	.948	.006	.085		.040	.911	.000	.000
privacy of e-bank service	Pearson Correlation	.331**	.159*	.331**	.162*	1	.192*	.339**	.561**
	Sig. (2-tailed	.000	.044	.000	.040		.015	.000	.000
security of e-bank service	Pearson Correlation	.161*	.215**	.223**	-.009	.192*	1	-.014	.198*
	Sig. (2-tailed	.043	.006	.005	.911	.015		.859	.012
responsiveness of employees(technician) to solve the customers problem	Pearson Correlation	.221**	.040	.242**	.320**	.339**	-.014	1	.369**
	Sig. (2-tailed	.005	.613	.002	.000	.000	.859		.000
customer satisfaction e-bank service dimensions	Pearson Correlation	.332**	.174*	.207**	.280**	.561**	.198*	.369**	1
	Sig. (2-tailed	.000	.028	.009	.000	.000	.012	.000	

Correlation results from SPSS version 16.

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).Assessments of hypothesis

HYPOTHESIS 1

There is a significant relationship between convenience of e-bank service and customer satisfaction. The results of correlation analysis states that the customers satisfaction was positively and significantly correlated with the convenient location of e-bank service, their correlation is .332** significant at the 0.01 level (2-tailed)

HYPOTHESIS 2

There is a significant relationship between reasonable and fair Fees (charges) during the transaction) of e-bank service and customer satisfaction. The results of correlation analysis stated that the customers satisfaction was positively and significantly correlated with reasonable fees of e-bank service, their correlation is .280**significant at the 0.01 level (2-tailed).

HYPOTHESIS 3

There is a significant relationship between efficient operation of e-bank service and customer satisfaction. The results of correlation analysis stated that the customers satisfaction was positively and significantly correlated with the efficient operations of E-bank service, their correlation is .174*significant at the 0.05 level (2-tailed).

HYPOTHESIS 4

There is a significant relationship between, privacy of e-bank service and customer satisfaction. The results of correlation analysis stated that the customers satisfaction was positively and significantly correlated with the privacy of e-bank service, which is R= .561** significant at the 0.05 level (2-tailed)

HYPOTHESIS 5

There is a significant relationship between Security of E-bank service and customer satisfaction. The results of correlation analysis states that the customers satisfaction was positively and significantly correlated with the security of E-bank service, their correlation is.198*significant at the 0.05level (2-tailed).

HYPOTHESIS 6

There is a significant relationship between Reliability of E-bank service and customer satisfaction. The results of correlation analysis states that the customers satisfaction was positively and significantly correlated with the reliability of e-bank service, their correlation is.207** significant at the 0.01 level (2-tailed

HYPOTHESIS 7

There is a significant relationship between Responsiveness of employee to solve e-bank service failure and customer satisfaction. The results of correlation analysis states that the customers satisfaction was positively and significantly correlated with the responsiveness of employees of e-bank service, their correlation is .369**significant at the 0.01 level (2-tailed.

RESULT OF REGRESSION ANALYSIS

Researcher used customer satisfaction as dependent variable and the E-banking service quality dimensions as independent variables by using linear regression analysis.

The amount of customer satisfaction explained by the model1(R square) was .110 (11%), individual contribution of convenience of E-banking service towards customer satisfaction (Beta=.332), and T-value was 4.425, variance influencing factor was 1, since T-value was greater than2, the hypothesis one was accepted according to the Chang and Chang(2010).

The amount of customer satisfaction explained by the model 2(R square) was .077(7.7%), individual contribution of fair and reasonable fees (charges) of e-banking service towards customer satisfaction (Beta=.277), and T-value was 3.607, variance influencing facto was 1, since T-value was greater than2, the hypothesis two was accepted.

The amount of customer satisfaction explained by the model 3(R square) was .045 (4.5%), individual contribution of efficiency of E-banking service towards customer satisfaction (Beta=.212), and T-value was 2.721, variance influencing facto was 1, since T-value was greater than2, the hypothesis three was accepted.

The amount of customer satisfaction explained by the model4 (R square) was .315 (31.5%), individual contribution of privacy of e-banking service towards customer satisfaction (Beta=.561), and T-value was 8.522, variance influencing factor was 1, since T-value was greater than2, the hypothesis four was accepted.

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The amount of customer satisfaction explained by the model 5 (R square) was .039 (3.9%), individual contribution of security of E-banking service towards customer satisfaction (Beta=.198), and T-value was 2.543, variance influencing facto was 1, since T-value was greater than2, the hypothesis five was accepted.

The amount of customer satisfaction explained by the model6(R square) was .118 (11.8%), individual contribution of reliability of E-banking service towards customer satisfaction (Beta=.344), and T-value was 4.599, variance influencing factor was 1, since T-value was greater than2, the hypothesis six was accepted.

The amount of customer satisfaction explained by the model 7(R square) was .136 (13.6%), individual contribution of responsiveness of e-banking service towards customer satisfaction (Beta=.369), and T-value was 4.983, variance influencing facto was 1, since T-value was greater than2, the hypothesis seven was accepted.

Total R square was 84%. This result indicated that the independent variables explained through dependent variable by 84% percent. The remaining 16% was explained by other variables. This can be explained in following model specification.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_K X_K + \epsilon$$

Where Y is independent variable which represent customer satisfaction; X_1, X_2, ----, X_K are the independent variables which represent the E-bank service quality dimensions (convenience, fair and reasonable fees, efficiency, privacy, security, reliability and responsiveness); βo, β_1, ---, β_K are the coefficients; ϵ is the error variable,

$$Cus = \beta_0 + \beta_1 co + \beta_2 f + \beta_3 e + \beta_4 p + \beta_5 s + \beta_6 re + \beta_7 res + \epsilon$$

$$Cus = \beta_0 + 0.332co + 0.277f + 0.212e + 0.561p + 0.198s + 0.344re + 0.369res + \epsilon$$

Where "Cus" represent customer satisfaction, "co" represent convenience of E-bank service, "f" represent fair and Reasonable fees of E-bank service, "e" represent efficiency of e-bank service, "p" represent privacy of e-bank service, "s" represent security of e-bank service, "re" represent reliability of e-bank service, and "res" represent responsiveness of e-bank service. Based on the correlation and regression analysis the entire hypotheses were supported.

DISCUSSION

The main purpose of this study was to identify the E-banking service quality and customer satisfaction in Commercial bank, Wogagen bank and the Zemen bank. The researcher identified E-banking service quality dimensions such as convenience, security, privacy, Reliability, and Responsiveness. Pearson correlation analysis shows that, the above dimensions have significant effect on customers' satisfactions in E-banking service.

In today's, technology has become one of the key aspects for the organizations to deliver their service. As results the companies started giving importance to new technologies, lead for development of self service are related with technological aspects where companies have to strive on to improve their technological features that will increase the quality level in delivering the services.

If the self service technology is not convenient to the customers (e-bank service users, the customers become easily dissatisfied). The customers prefer convenient E-bank service to meet their financials needs at all times, which affects their perceptions of the E-bank service quality (Gerrard& Cunningham, 2003). One of ATM service quality dimensions to satisfy customers is providing efficient service for 24 hour in 7 days in a week without any technical failures. If the ATM service provides 24 hour service without any mistakes, it optimizes the resources of the customers. The e-bank instructions, communications, service delivery, usage of languages, must be user-friend line. If the instructions, communications, service delivery language are not familiar with the e-bank users, it becomes sources of the customer's dissatisfaction. According to the khan (2010), the efficient and fast delivery has positive effects on customer perceptions of automatic teller service quality. In addition to that the minimum break down of machine constitutes essentials aspects of automatic teller machine service quality.

Based on the correlations analysis of this study, privacy of automatic teller machine service is an important E-banking service quality dimensions that affects technology based self service. According to (Gerrard& Cunningham, 2003), customers have questions about the trust and confidence of the ability of the e-banking privacy. Private information must be maintained by their pin number. Privacy and security are an important e-banking service quality dimensions to satisfy the customers. If the ATM service give private and secure to the targeted audience, the customers become satisfied with the self service technology unless they are vulnerable to the fraud and risk. Fraud and risk lead to the dissatisfaction of the customers to the self service technology and finally they switch ATM service to the other service sector.

Reliability of E-banking service(ATM, mobile banking, tele- banking and internet banking) to the customers with regard to the self-service technology especially in a bank sector include providing promised service to the customers, provide accurate and with no mistakes to the customers for 24 hours in 7 days per week. Providing service right for the first time, serving customers as promised effectively and efficiently.

Responsiveness of employees in order to solve the customer's problem with regard to ATM service. When there is technical failurity of automatic teller machine service, ATM block the ATM card, when there is unclarity of instructions in ATM usage language, operations, and the like customer need help from the employees(technicians) who solve their problem. If the automatic teller machine customer's don't get responsiveness of employees from the bank side, the customers become dissatisfied.

Fair and reasonable Fees (charges) are essential dimensions of self service technology (automatic teller machine service to the users. According to Ahmad (2011), the service companies like bank have to offer self service technology to reduce operating and administrative costs which lead to the bank to offer service with the lower or no service fees. If the service fees are high the customers become easily dissatisfied.

MANAGERIAL IMPLICATIONS

Today's in a globalization world the growth of automated delivery channels service in banking sector increasing rapidly. Banking sector competing each Other by changing the delivery of service. Payment system is one of the e-commerce. This study provides necessary input to technology based service sector like automatic teller machine service, mobile banking and Tele banking. According to khan (2010) in order to survive in competing World, Bank sector must maintain customer satisfaction. According to Ahamad(2011) For E-banking functionality can be measured through conveniences, privacy, security, design, content, Speed, fees and charges of E-banking service. This clearly show that conveniences, privacy, security, efficient operation, fees and charges, reliability, responsiveness are not the only characteristics that influences of customers satisfaction in e-bank service. The other factors that increase the customer satisfaction in E-banking sector are content, design, trust, reputation, value of the bank.

To increase automatic teller machine service quality, the bank sector should provide variety service like cash withdrawal, balance statements, account transfer, deposit service with reasonable fees and charges with different languages based on customers' needs, on their knowledge level, provide suggestion box in order to handle customer complaint effectively and efficiently, provide sufficient promotional tool in order to make customer awareness on operation and usage of ATM service.

The E-bank service users always want updated information, accurate data, and accurate account balance, secure and private information about account statements.

Technical failure of ATM service cause ATM service user's dissatisfaction. Convenience, efficient operation, reliability and responsibility of employees to support technical failure of ATM service. As much as possible the banking sector should solve technical problem and fulfill the above criteria.

In order to keep customer satisfaction and customer loyalty, based on the Zetithmal and V. (2004, p.197), the service sector should follow the following service recovery strategies. These are: do it right the first time, welcome and encourage complaints, act quickly, treat customers fairly and learn from lost customers. Bank should develop strategies to motivate no users through awareness, education, extending personalized service and demonstrating the functions of ATM service.

Government should provide adequate and encouraging regulatory framework that will ensure customer and E-banker protection, and security of transaction. That is why; bank customers' increase their confidence and their satisfaction in E-banking.

RESEARCH LIMITATION AND FUTURE RESEARCH AREA

In conducting this research the researcher   faced the following research problem. These are; lack of cooperation from Dashen bank management body, lack of awareness of the society about the research, lack of sufficient budget and time to conduct research in All banks in Ethiopia those were installed e-banking service, one time study, lack of available access for secondary data for this research and study focus only in some selected banks make the researcher difficulty to conclude the whole customer satisfaction level on E-banking service in Ethiopia. It is better future researcher include all Ethiopian banks those installed e-bank service in order to identify the impact of E-banking on customers satisfaction. In addition to this future researcher investigate the impact of e-banking service on customer satisfaction, customer loyalty and customer retention.

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INTERNET SURFING AMONG THE STUDENTS OF ASSAM UNIVERSITY, SILCHAR

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ABSTRACT

The present study is undertaken with a view to know the frequency of internet use, preference of place, time and purpose of using internet and attitude towards internet among the Assam University students. The sample of the present study is drawn from PG students, M. Phil and Ph.D. scholars. The sample consisted of 100 students of different subjects in Assam University, Silchar. Out of 100 students 50 each belong to male and female category. For selection of sample purposive sampling technique has been adopted. In order to assess for surfing internet self designed questionnaire comprising of 18 items relating to internet access and attitude towards internet scale were used. On the basis of filled up questionnaire received from the respondents, the data has been analysed and tabulated using SPSS (17.0 Version) Software. For data analysis and interpretation, percentage analysis and pie chart and 't' test has been adopted. The present work was carried out during May 2012 to July 2012. Therefore the present investigation is delimited to the students of Assam University, Silchar.

KEYWORDS

Internet surfing, Assam University.

INTRODUCTION

Internet is a multipurpose tool with numerous potentials. It enables students to communicate with other students abroad and thus share each other's ideas, knowledge, experiences, and cultures. It enhances skills and capabilities of students, which assist them in studies and in professional life.

The academic landscape in education sector has been comprehensively transformed by the recent advances in Information and Communication Technologies (ICTs). Consequently, the teaching and learning processes along with educational programmes and pedagogy of instruction are being restructured, reformed to meet the expectations of a whole new breed of students entering the Universities. ICT applications in education sector can greatly enhance the quality of education. The learners, through multifaceted ICT applications, can control the content, time and pace of learning. It is also one of the greatest recent advancement in the world of information technology and has become a useful instrument that has fostered the process of making the world a global village. This is a universal fact that the use of internet has a great impact on the student's academic carrier. The use of Internet has become a very popular in many areas as well as in education in recent years. Accordingly, Internet access in schools has increased greatly over the last 20 years (Berson, 2000). As this study has shown, more students are relying on the Internet for their academic needs than any other areas.

Nowadays internet is very effective and popular tool used by the students for education as well as variety of other purposes including entertainment. Internet provides an interactive environment for sharing as well as seeing of information on a wide, diverge and variety of subjects. Consequently, it has become very popular among the student community; and it is also used by them to supplement their studies.

Many people and students are educated through using internet and media. It is the most obvious and inevitable element to experience this relation in the routine life too. It is clear that internet has a key role in human life. So we need to obtain a lot of important information about internet about relations with other variables especially in educational contexts that are important for young generations. So the present study is an attempt to study the Internet use among Assam university students.

REVIEW OF RELATED LITERATURE

Hong, K. S., Ridzuan and Kuek (2003) studied students' attitudes toward the use of the Internet for learning at the University of Malaysia Sarawak. The study revealed that in general, students there had positive attitudes towards learning through the Internet. The students had the basic skills in using the Internet and perceived the learning environment in the university conducive to the use of the Internet as a learning tool.

Rajeev Kumar and Amritpal Kaur (2004) studied the use of internet by teachers and students in Shaheed Bhagat Singh College of Engineering & Technology, Ferozepur (Panjab). They found that 46.7% teachers and 36.7% student's daily use the internet. About 90% respondents use internet at their college. Yahoo is found as the favorite search engine. Only 31.7% respondents were fully satisfied, whereas 36.7% were partially satisfied with internet facilities.

Luambano and Nawe (2004) investigated the Internet use by students of the University of Dar es Salaam. Their findings revealed that the majority of the students were not using the Internet due to the inadequacy of computers with Internet access, lack of skills in Internet use and slow speed of computers. It was also revealed that most students who used the Internet did not use it for academic purposes. It was suggested that more computers connected to the Internet should be provided and that training should be given to the students on the use of Internet.

Ruzgar (2005) studied the purpose of the Internet use and learning via Internet. It was concluded that the Internet has become an integral part of college life and its usage is approaching 100 percent among students. It was found that 36 percent of the students spent 1-10 hours per week on the Internet. In terms of activities online, sending/receiving e-mail topped the list, followed by reading news and finding sports information, research for school-related work, chat, research for products and services, and downloading images. Because of their online activities, students watched less television.

Biradar and others (2006) conducted a study on internet usage by the Student and faculties in Kuvempu University. The results indicated that 42.1 % students use internet twice a week and 31.25% faculties use it every day. The majority of students as well as faculties use Internet for study/ teaching purpose. The favourite place for using Internet is library followed by commercial places. A thumping majority of respondents are satisfied with Internet sources and services.

Ani (2010) investigated the extent and level of Internet access as well as the use of electronic resources by undergraduate students in three Nigerian Universities. Ani's findings revealed that undergraduate students use the Internet extensively. However, access to the Internet in the university libraries, departments/faculties and university computer/ICT centres was grossly poor due to the infrastructure. The majority of the respondents relied on private, commercial Internet services, and cybercafés. It was also found that Internet education for the respondents is needed for the use of electronic resources and databases.

Ozad (2010) explored the use of the Internet in tertiary media education. It was suggested that in addition to using the Internet as a source of information, students majored in communication and media should also use it as a tool of communication.

Dominika Sokol and Vit Sisler (2010) conducted a Study on Internet Use among University Students in the United Arab Emirates The study aims to analyzes socializing on the Internet and attitudes towards the Internet as a medium of social interaction among university students in the United Arab Emirates (UAE). The result reveals that the Internet can largely act as a vehicle for resisting social exclusion and gender segregation; it can also simultaneously serve as a mechanism for reinforcing pre-existing norms within newly-networked traditional communities.

Sakina Bashir (2011) conducted a study on Internet Use among University Students: A Survey in University of the Punjab, Lahore. The objective of the study was to explore the Internet use behaviour of students. The results show that most of the students use this technology for course related reading and research needs.

They are new users of the Internet. They use it at the University Library's Digital Lab Unit as well as their departments and homes. A large number of them have learnt to use the Internet tools by themselves, or relying on assistance from friends without attending any formal training programs. Ease of work and time saving are the reasons of Internet use among university students.

OBJECTIVES OF THE STUDY

The objectives of the study are:
1. To find out the frequency of Internet use among University students.
2. To find out the preference of place and time for accessing internet.
3. To find out the purpose of using internet among Assam university students.
4. To study the attitude towards internet among Assam university students

RESEARCH METHODOLOGY

SAMPLE

The sample of the present study is drawn from PG students, M. Phil and Ph.D. scholars. The sample consisted of 100 students of different subjects in Assam University, Silchar. Out of 100 students 50 each belong to male and female category. For selection of sample purposive sampling technique has been adopted.

PROCEDURES OF DATA COLLECTION

To collect the requisite data related to various aspects of assessing internet self designed questionnaire was used. The researcher established a rapport with them. Initially the researcher was distributed the questionnaire and requisite directions and instructions were given. One can spend as much as time as required. But in general it consumes maximum 15 to 20 minutes.

TOOLS USED

The self designed questionnaire comprising of 18 items relating to internet access and attitude towards internet scale has been used.

STATISTICAL TECHNIQUES USED

Percentages analysis, pie chart and 't' test were used to analyse and interpret the data.

RESULTS AND DISCUSSION

TABLE -1: QUALIFICATION WISE DISTRIBUTION OF THE RESPONDENTS

Student Ednl. Qualification	Male	Female	Grand Total
M.A	27	33	60
M.Sc	7	8	15
M. phil	0	6	6
Ph.D.	16	3	19
Total	50	50	100

FIGURE – 1: DISTRIBUTION OF THE RESPONDENTS QUALIFICATION
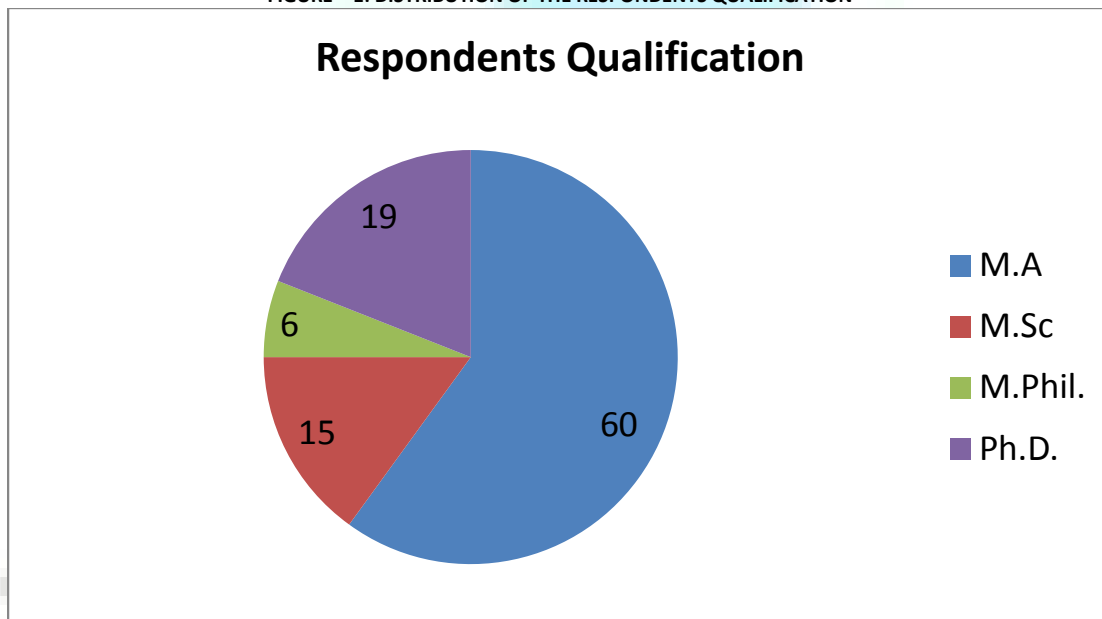
Table -1 and figure – 1 clearly shows the qualification wise distribution of the respondents. Out of 100 respondents, about 60 respondents are M.A, 19 Ph.D. Scholars, 15 M. Sc and 6 M.Phil. Scholars.

TABLE – 2: FREQUENCY OF USING INTERNET

Frequency of using	Male		Female		Grand Total
	Frequency	Percentage	Frequency	Percentage	
Daily	27	54	22	44	49
Twice a Week	9	18	10	20	19
Weekly	9	18	11	22	20
Monthly	1	2	2	4	3
Rarely	4	8	5	10	9
Total	50	100	50	100	100

FIGURE – 2: FREQUENCY OF USING INTERNET
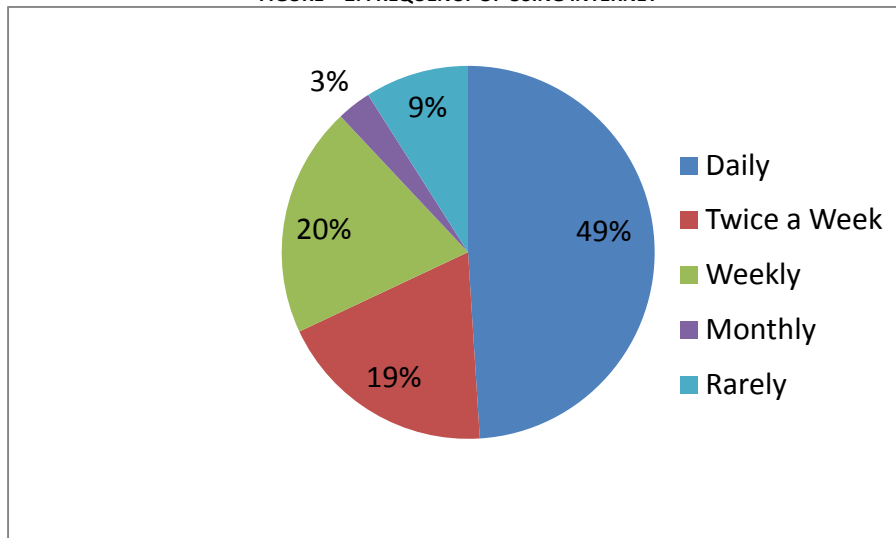
Table – 2 and figure – 2 shows that the frequency of using internet by Assam University students. It has been observed that 49% are used daily, 19% are used twice a week, 20% are used weekly, 9% are used rarely, and only 3% are used monthly. Among 50 male respondents majority 54% respondents are used daily, 18% are used twice in a week, another 18% are used weekly, 8% are used rarely and very less number i.e. 2% are used monthly.

Among 50 female respondents 44% are used daily, 20% are used twice a week, 22% are used weekly 10% are used rarely 4% are used monthly.

Internet is one of the most important and powerful means for information retrieval and dissemination. It helps students/researchers in collecting the right information at a right time easily and also updates their knowledge. So they use internet daily.

TABLE -3: FREQUENCY OF INTERNET USE IN A DAY

| Internet Usage in a day	Male		Female		Grand Total
	Frequency	Percentage	Frequency	Percentage	
Less than 1 hour	13	26	11	22	24
1 hour	5	10	12	24	17
2 hour	14	28	20	40	34
3 hour	8	16	6	12	14
4 hour +	10	20	1	2	11
Total	50	100	50	100	100

FIGURE – 3: FREQUENCY OF INTERNET USE IN A DAY
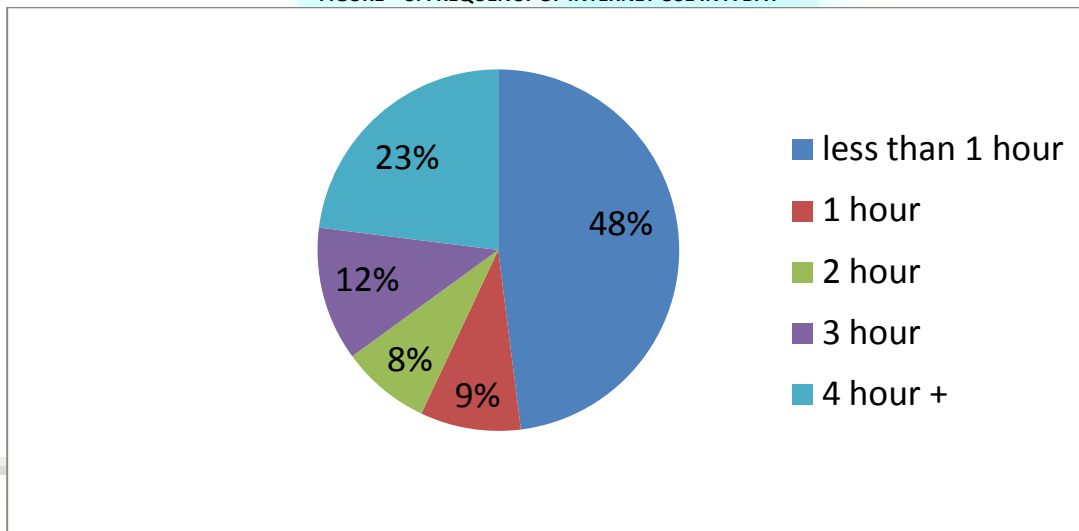
Table – 3 and figure – 3 shows that the frequency of internet used in a day. It also reveals that out of a total 100 respondents, 24% are used less than 1 hour in a day, 17% are used 1 hour, 34% i.e., majority of the respondents are used 2 hour, 14% are used 3 hour and 11% are used 4 hour and above.

Among 50 male respondents, 28% are used 2 hour in a day followed by 26% less than 1 hour, 20% 4 hour and above 16% 3 hour and only 10% are used 1 hour.

Among 50 female respondents 40% are used 2 hour in a day, 24% are used 1 hour, 22% less than 1 hour, 12% are used 3 hour and only 2% are used 4 hour and above.

An observation of above data reveals that both male and female respondents majority of them are used 2 hour in a day.

TABLE – 4: PREFERENCE OF TIME TO ACCESS INTERNET

Preference	Male		Female		Grand Total
	Frequency	Percentage	Frequency	Percentage	
Morning	5	10	3	6	8
Afternoon	5	10	6	12	11
Evening	12	24	11	22	23
Night	24	48	25	50	49
Late night	4	8	5	10	9
Total	50	100	50	100	100

FIGURE – 4: PREFERENCE OF TIME TO ACCESS INTERNET

Preference of time to access internet

- Morning — 8%
- Afternoon — 11%
- Evening — 23%
- Night — 49%
- Late Night — 9%
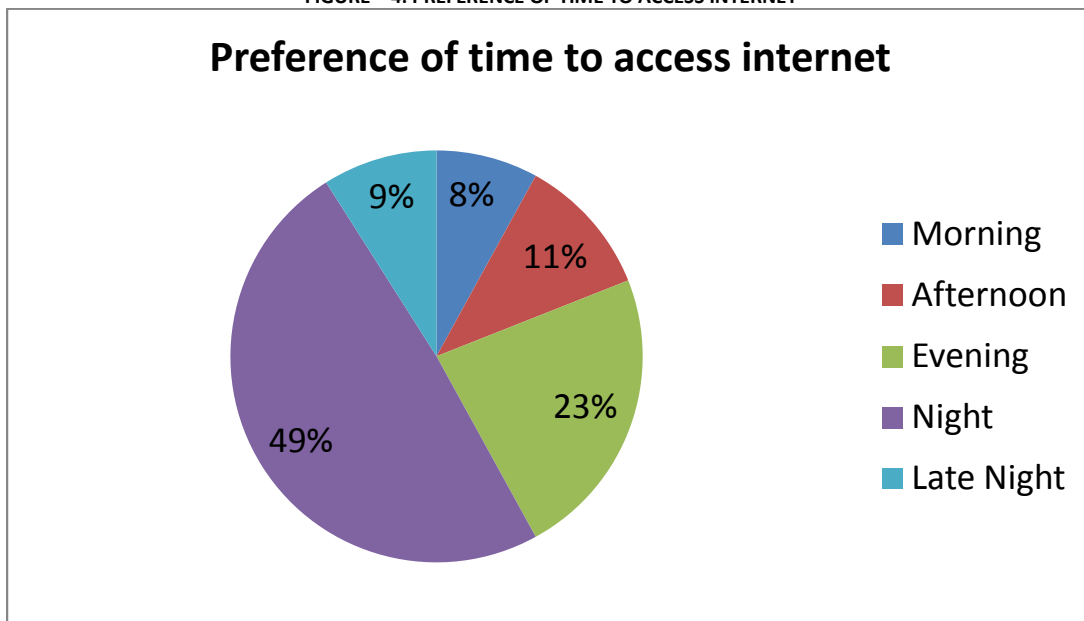
Table – 4 and figure – 4 presents the preferences of time to access internet. It reveals that out of 100 respondents 49% maximum number of respondents prefers to access at night time which is followed by evening 23%, afternoon 11% prefer at late night and 8% prefer in morning.

Table – 4 further shows that among 50 male respondents 24% prefer night time to access internet which is followed by 12% evening, 10 prefer morning and another 10 % access in afternoon and only 8% late night to access internet.

A close observation of above table reveals that maximum number of respondents prefers to access at night time. Because in morning they are busy for learning in their respective discipline. Afternoon and evening they spend their spare time in department. So they prefer at night time.

TABLE- 5: DISTRIBUTION OF RESPONDENTS ACCORDING TO PLACE OF INTERNET ACCESS

Place of Internet Access	Male		Female		Grand Total
	Frequency	Percentage	Frequency	Percentage	
At Home	15	30	26	42	48
Cyber Cafe	10	20	6	12	9
Library	6	12	2	4	8
Dept.	10	20	2	4	12
University	9	18	14	28	23
Total	50	100	50	100	100

FIGURE – 5: INTERNET ACCESS OF THE RESPONDENTS

- Home — 48%
- Cyber Café — 9%
- Library — 8%
- Department — 12%
- University Hostel — 23%
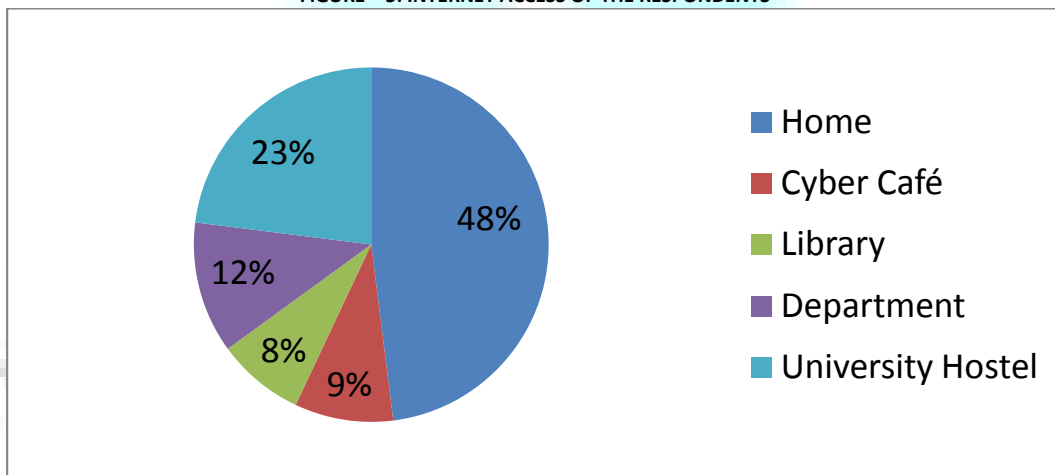
Table -5 and figure -5 shows the internet access of the respondents. It reveals that the majority of the respondents 48% are accessed to internet at home, 23% at the University hostel, 12% from the departmental computer lab, 9% at cyber cafe and 8% from the library.

This indicates that girl's students experience difficulty in accessing interest at Cyber Cafes which is due to lack of adequate number of cyber cafes in the campus.

TABLE – 6: PURPOSE OF USING INTERNET

Purpose	Male		Female		Grand Total
	Frequency	Percentage	Frequency	Percentage	
Study	28	76	26	52	54
Chatting	8	16	6	12	14
E-mailing	4	8	5	10	9
Download	6	12	10	20	16
Any Others	4	8	3	6	7
Total	50	100	50	100	100

FIGURE – 6: PURPOSE OF USING INTERNET

Purpose of using internet of the respondents

- Study
- Chatting
- E-mailing
- Download Material
- Any Others
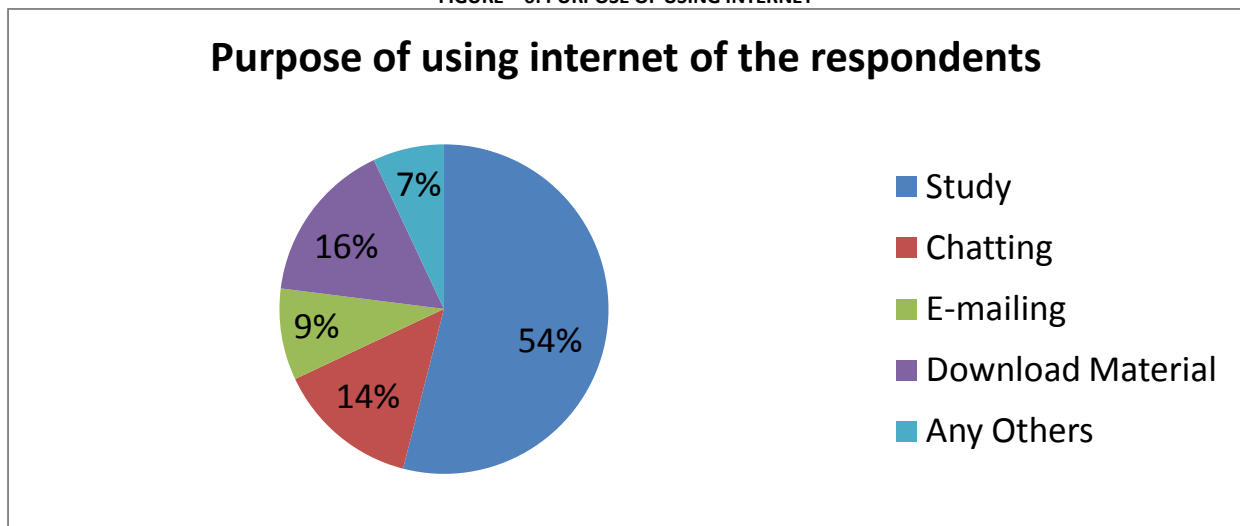
Table – 6 and figure – 6 shows that maximum numbers of respondents (54%) are use internet for their study, which is followed by 16% download material, 14% for chatting with friends, 9% to send e-mail, and 7% used for any others.

The use of Internet has become a very popular in education in recent years. The above results reveal that use of internet is quite high among the students for educational purpose. Internet access in schools has increased greatly over the last 20 years (Berson, 2000). As this study has shown, more students are relying on the Internet for their academic needs than any other areas.

TABLE - 7 SEARCH ENGINES FOR ACCESSING TO INTERNET

| Search Engines	Male		Female		Grand Total
	Frequency	Percentage	Frequency	Percentage	
Google	40	80	45	90	85
Altavista	2	4	-	-	2
Google Chrome	7	14	5	10	12
Any Others	1	2	-	-	1
Total	50	100	50	100	100

FIGURE – 7: SEARCH ENGINES FOR ACCESSING TO INTERNET

Search engines for accessing to internet

- Google
- Aitavista
- Google Chrome
- Any Others
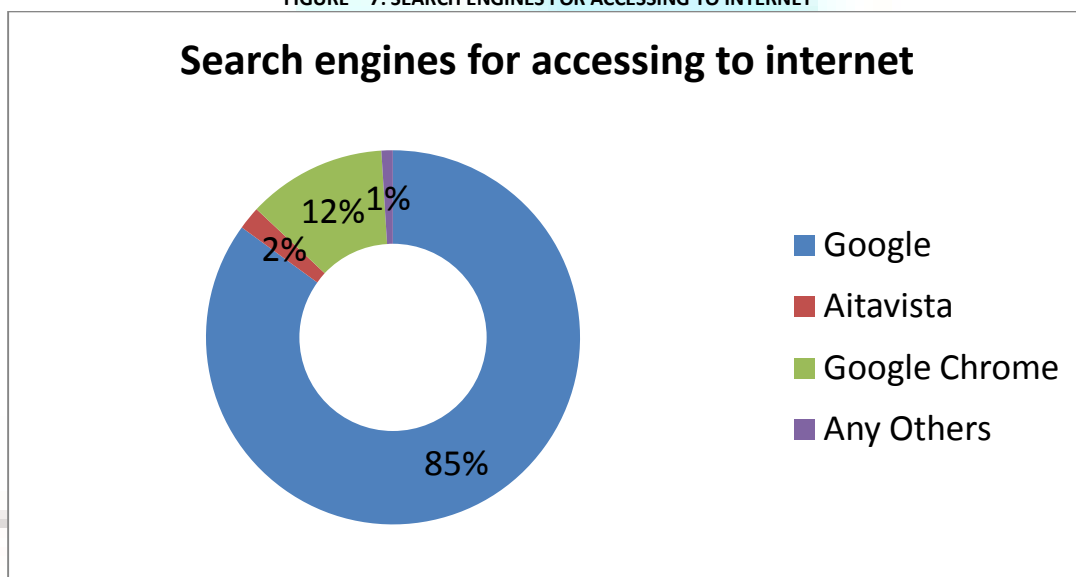
Table - 7 and figure – 7 represents the search engines for accessing t search. Almost all the search engines provide information to the users at no cost. Table 25 gives the details about the most commonly used search engines by the users. The result reveals that the majority of the respondents 85% are access to google search followed by google chrome 12%, 2% altavista and any other 1%.

Among 50 male respondents 80% access to google, 4% google chrome 4%, altavista and any other 2%. The result reveals that the Google Search Engines is the most popular Used by the Assam University Students.

TABLE- 8: PREFERENCE OF E-MAIL PROVIDER

E-mail Provider	Male		Female		Grand Total
	Frequency	Percentage	Frequency	Percentage	
Gmail.com	29	58	35	70	64
Yahoo.com	15	30	10	20	25
Rediffmail.com	3	6	8	8	7
BSNL	2	4	2	2	3
Any others	1	2	-	-	1
Total	50	100	50	100	100

FIGURE – 8: PREFERENCE OF E-MAIL PROVIDER

Preference of E-mail provider

- Gmail
- Yahoo
- Rediffmail
- BSNL
- Any others
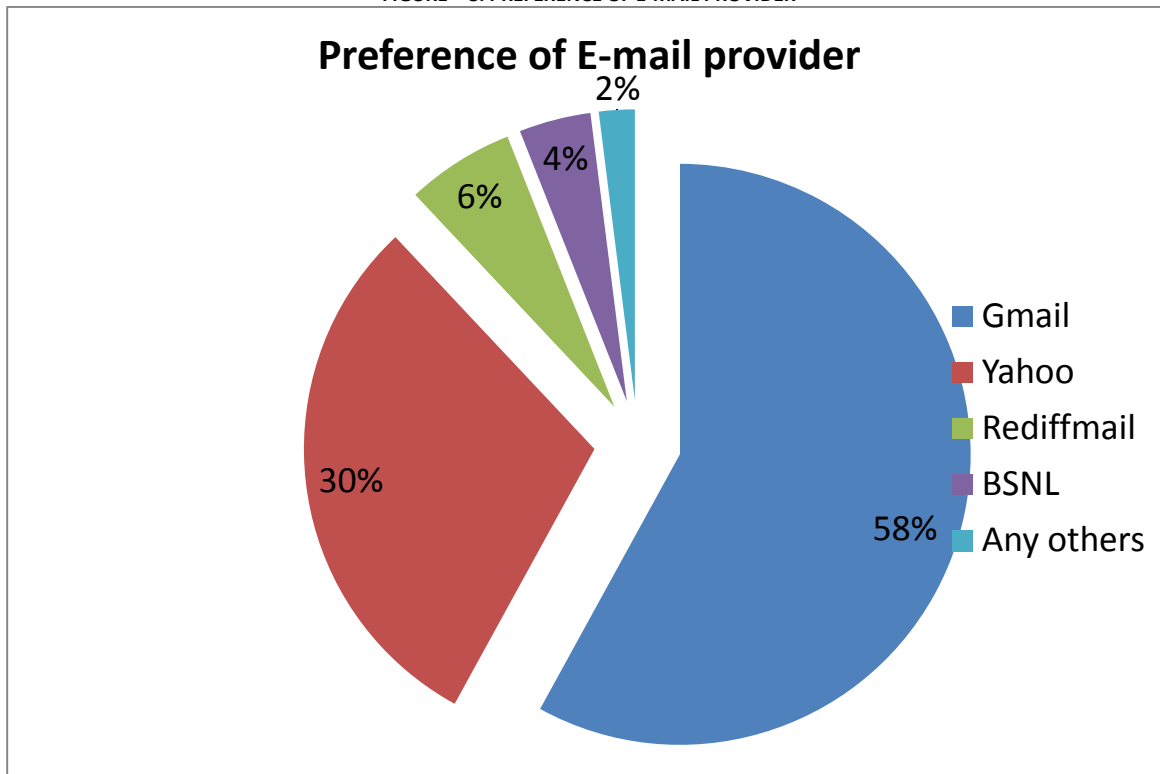
E – mail is provided by many internet service providers like BSNL there are many commercial service like Google mail, Yahoo mail, Indiatimes etc. which provide for e-mail services. Table – 8 and figure – 8 shows that out of 100 respondents, Gmail is used most of the respondents 64% followed by 25% Yahoo mail, 7% rediffmails, 3% BSNL and only 1% used with any other mail services.

The result also reveals that out of 50 male respondents maximum numbers of respondents 58% prefer Gmail which is followed by 30% yahoo mail, 3% BSNL and only 1% is used with any other mail services.

The result further shows that among 50 female respondents maximum numbers of respondent prefer Gmail (70%), Yahoo 20%, Rediffmail 8% and 2% BSNL.

COMPARISON OF ATTITUDE TOWARDS INTERNET OF MALE AND FEMALE RESPONDENTS

To fulfil the fourth objective, the significance of difference between male and female respondents of attitude towards internet the means, standard deviations and 't' test were applied. The mean value of attitude toward internet of male respondents is 46.84 and standard deviation is 5.74, whereas the female respondents' the attitude towards internet, mean value and standard deviation are 46.94 and 5.31 respectively.

TABLE - 9: COMPARISON OF MEANS AND SDS OF ATTITUDE TOWARDS INTERNET OF MALE AND FEMALE RESPONDENTS

Attitude Towards Internet	Male N= 50		Female N=50		't' Value	Degrees of freedom	Level of significance
	Mean	SD	Mean	SD			
	46.84	5.74	46.94	5.31	0.90	98	Not Sig.

The obtained 't' value is 0.90 which is not significant at any level. It means both male and female respondents do not differ in their attitude towards internet. Importance of internet is gender neutral and similar attitude of both male and female respondents.

TABLE – 10: COMPARISON OF ATTITUDE TOWARDS INTERNET OF M.A AND M.SC. RESPONDENTS

Attitude Towards Internet	M.A N= 60		M.Sc N=15		't' Value	Degrees of freedom	Level of significance
	Mean	SD	Mean	SD			
	46.70	6.02	46.52	5.57	0.13	73	Not Sig.

Table – 10 shows the significance of difference between MA and M.Sc. respondents of attitude towards internet the means, standard deviations and 't' test were applied. The mean value of attitude toward internet of MA students is 46.70 and standard deviation is 6.02, whereas M.Sc. students, the attitude towards internet, mean value and standard deviation are 46.52 and 5.57respectively. The obtained 't' value is 0.13 which is not significant at any level. It means MA and M.Sc. students do not differ in their attitude towards internet.

Perhaps it may be due to similar attitude towards internet in both the discipline. In different disciplines students' access internet to serve their purpose in different ways. So the attitude of accessing internet is on an average similar.

TABLE- 11: COMPARISON OF ATTITUDE TOWARDS INTERNET OF MA. MALE AND MA. FEMALE RESPONDENTS

Attitude Towards Internet	MA. Male N= 27		MA. Female N=33		't' Value	Degrees of freedom	Level of significance
	Mean	SD	Mean	SD			
	46.60	5.77	47.75	4.59	0.83	58	Not Sig.

TABLE- 12: COMPARISON OF ATTITUDE TOWARDS INTERNET OF M.Sc. MALE AND M.Sc. FEMALE RESPONDENTS

Attitude Towards Internet	M.Sc. Male N= 7		M.Sc. Female N=8		't' Value	Degrees of freedom	Level of significance
	Mean	SD	Mean	SD			
	47.14	4.52	47.47	4.40	0.22	13	Not Sig.

Table -11 and 12 clearly shows that the attitude towards internet of MA and M.Sc. Male and female respondents. The obtained 't' value is not significant at any level. It means that the attitude towards accessing internet do not differ significantly an MA and M.Sc. Male and female students of Assam University.

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TABLE- 13: COMPARISON OF ATTITUDE TOWARDS INTERNET OF MA. STUDENTS AND Ph.D. SCHOLARS.

Attitude Towards Internet	MA. students		Ph. D. Scholars		't' Value	Degrees of freedom	Level of significance
	N= 60		N=19				
	Mean	SD	Mean	SD			
	46.60	5.77	45.85	4.74	0.77	77	Not Sig.

TABLE- 14: COMPARISON OF ATTITUDE TOWARDS INTERNET OF M. Sc. STUDENTS AND Ph.D. SCHOLARS

Attitude Towards Internet	M.Sc. Students		Ph.D. Scholars		't' Value	Degrees of freedom	Level of significance
	N= 15		N=19				
	Mean	SD	Mean	SD			
	47.75	4.59	45.85	4.74	0.77	31	Not Sig.

TABLE- 15: COMPARISON OF ATTITUDE TOWARDS INTERNET OF M.PHIL SCHOLARS AND PH.D. SCHOLARS

Attitude Towards Internet	M.Phil. Scholars		Ph.D. Scholars		't' Value	Degrees of freedom	Level of significance
	N= 6		N=19				
	Mean	SD	Mean	SD			
	47.83	2.92	45.85	4.74	1.16	23	Not Sig.

The above Table No 12,14 and 15 shows that none of the 't' value are significant at any level . It indicates that the attitude towards internet of MA. students and Ph.D. Scholars, of M.Sc. students and Ph.D. Scholars and M. Phil scholars and Ph.D. Scholars did not differ significantly.

CONCLUSION

The present study has highlighted the existing scenario regarding student's access, purpose and the pattern of internet use in Assam University, Silchar. The picture regarding the ICT infrastructure and its usage is not quite satisfactory. There is an urgent need to put –in place, an appropriate ICT infrastructure which will motivate the students as well as teachers to make use for educational purpose also. Teachers also need to be trained in the use of ICTs. This needs to be given priority to realize the true potential of ICTs and meet the increasing demand for educational services.

The study showed that the use of the Internet has created a great impact upon the students of Assam University in their research and academic works. It is clear from the study that the younger generation has accepted the Internet as a means for accessing to the relevant information for academic and research work. The present study also found that internet plays a key role in day today life.

The findings of the study listed above have important implications in our university. Some implications are mentioned below:

1. Internet has immense potential for the information society. It enables the students to get instant information for their varied purposes. In order to make more beneficial and effective, awareness programme for maximum use of Internet should be undertaken by the Information Technology Institutions, Libraries and Information Centres of Universities.
2. The present study most of the respondents are getting knowledge of accessing internet from their institutions. Proper vigilance in the computer laboratory should be ensured and also provide on-line facilities for students their departments and take some steps to increase the number of systems with higher configuration and speed of access internet. To prevent misuse of Internet facilities, proper monitoring of services should be ensured as restricted sites should be blocked.
3. Approximately 80% the main purpose of using internet is mainly for study. But frequently power failure is one of the major problems. So the users are facing lots of problem in accessing internet in academic purpose or collecting other information. To maintain their interest towards these the University must ensure adequate and continuous uninterrupted power supply.
4. Some steps to increase the number of systems with higher configuration and speed of access internet and the library service hours should be increased. So that prolonged stay and study, in the library is possible. Proper training is imparted to the faculty members, research scholars and students. The performance of the post-graduate students, research scholars and teachers of the academic community of universities will be increased to make the Assam University Campus in particular for effectively accessing to Internet for their academic and research work.

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AN ASCERTAINMENT OF EMPIRICAL AND THEORETICAL SACREDNESS OF SOCIAL SAFETY AND SECURITY OF READYMADE GARMENT WORKERS IN BANGLADESH: A THRIVING COUNTRY NOUMENON

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ABSTRACT

This research will try to analyze the social safety and security of RMG workers in Bangladesh. In spite of being a developing country Bangladesh has a great reputation about the ready made garment products around the world. Its garment industry is contributing a major part of its foreign exchange. The readymade garments (RMG) of Bangladesh emerged as value chain member of European, USA cloth merchants and retails. The safety and security system for garment workers in Bangladesh is not enough. Though the workers work hard for day and night long they are the victims of coaxing of the administration. There are labor laws, ordinances and rules to provide social security services to the workers. Even government, Bangladesh Garment Manufacturers and Exporters Association (BGMEA) and International Labor Organization (ILO) have their respective and exclusive rules for workers' facilities. Regrettable news is that not every garment factory follows these rules sincerely. The objective was to find out the social safety and security of the garment workers. Findings of the study will show that most of the time the workers do not get the required rights and facilities as they were supposed to. They are deprived from their rights. Even they lead a very much unsecured life inside of the garment factories. These cause labor unrest, insecurity, anxiety and lockout or such kind of strikes is occurred. The country has to consider a great loss for such kind of activities every year. This work is for realizing the present situation about the problems of social safety and security of the garment workers and for providing suggestion to recover it.

KEYWORDS

RMG workers, security, social safety, ILO, BGMEA.

BACKGROUND

From the beginning of the 1980's small and medium home based garment industries were introduced in Bangladesh as a purpose of liberation of economy. At present the readymade garment industry (RMG) is a highly globalized industry. It was the global market that has created an environment congenial to the growth and development of garment industry in Bangladesh. The paper titled "Globalization and Bangladesh-A Discussion on Bangladesh's Garment Industry" was about globalization & Bangladesh garment industries. Ready made garment sector is the most dominant foreign currency earning sector of Bangladesh. More than 75 percent of its foreign export earnings come through this sector. In 1990-91, 736 million US dollars were earned through the exporting readymade garment products (Export Promotion Bureau and Bangladesh Bank, 2002) that extends USD 8654.52 millions in 2004-2005, and 2005-2006 it has been USD 10674.44 millions (Export Promotion Bureau Stats, 2006 and BGMEA, 2007). Now it is 24287.660million US dollars (BGMEA, 2011-2012). Yearly growth of product is 1955.11 million USD and growth of factory is 5400 (BGMEA, 2011-2012). According to BGMEA, garments factories alone absorb 4 million workers (BGMEA, 2011-2012). It is found that the workers presently involved in garments sector were involved in agriculture or were unemployed. Though their salary is low but it is several times higher than the income of previous occupation. According to different conventions and recommendations introduced and implemented by ILO and labor laws & regulations enacted by the government of Bangladesh following are some important rights of workers which are mentioned below. Workers are entitled to rights to get employment, to 8 hours daily work, to have break-time during working period, right to enjoy leave/holidays, right to get prior notice before termination, minimum wage and regular wage, equal pay for equal work, supplementary facilities, favorable and safe working environment and last but not the least right to form trade union/other forms of labor organization.

Since May 2006, the RMG industry of Bangladesh has been beset with very serious labor unrest problems which has resulted in large scale damaging of garment factories by the workers and has at times appeared to threaten the very existence of this industry. The main source of conflict between the RMG factory owners and the workers has been the allegedly low level of wages paid in this industry, particularly wages paid to unskilled workers, together with other issues like late payment of wages, lack of security of workers resulting from absence of a formal contract between the worker and the employer, nonpayment of maternity and other benefits to female workers, etc. This issues, which form part of what is commonly known as 'compliance with social standards', have also posed problems for Bangladesh's RMG industry on the external front for the past few years during which time foreign buyers of Bangladesh's garments have insisted on strict social compliance on the part of RMG enterprises in Bangladesh as a pre-condition for their importation from the country (Rashid, 2006: 2) and it is matter of more regret that recently two major accident has been occurred in Tazreen Fashions and Rana Plaza. However many of the factories is trying to maintain 'compliance with social standards'.

LITERATURE REVIEW

The paper titled "Globalization and Bangladesh-A Discussion on Bangladesh's Garment Industry" is about globalization & Bangladesh garment industries. Naila Kabeer and Simeen Mahmud in their paper discussed the nature of female workers contracts and their terms and conditions, their rights & restructuring processes of garment industries. Begum and Najma were also talk about the garment workers in their publication. S Akhter, AFM Salahuddin, M. Iqbal, ABMA Malek and N Jahan discusses about health and occupational safety for female workforce of garment industries in Bangladesh in their papers. Sawlat Hilmi Zaman and Mohammad Mainuddin Mollah wrote an article "Socio-Economic Security of Female Garment Workers in Bangladesh: An Empirical Study". But most of the workers work on the safety of the female. But very few publications have been published about the safety of total workforce in the garment sector. Ferdous

Ahmed discusses about improving social compliance in Bangladesh's Ready-made Garment industry. However Zohir, Salma Chowdhari, Majumder and Pratima Pal said about the economic, social and health condition of the garment workers.

OBJECTIVES

The principal objective was to analyze the factors of social safety and security of RMG workers in Bangladesh followed by some specific objectives:
1. Identify the causes of social safety and security of the garment workers.
2. Analyzing their living standard on the basis of their social safety.
3. Examine their social security situation at work place.
4. Provide collective suggestions for developing policies, laws, legislation and programs at macro and micro levels for ensuring safety and security and for the betterment of the garment workers.

METHODOLOGY

The study gives emphasis on the social safety and security of RMG workers in Bangladesh. The selected twenty garments of the study area were surveyed during April, 2013 covering Dhaka and Gazipur. Total number of interviewee was 50. 22 of them were female. Both structured and open ended questionnaire were used. Variables such as salary, safety sign, medical facilities, hygiene, emergency exit doors, building structures and necessity of public private cooperation were taken into consideration. Gender discrimination, maternity leaves, wage fixation, child care centre etc were the extra variables for women workers.
The research covers the following section:
Step 1: Conducting Primary Survey: A primary survey was conducted to have a clear conception on the project area in order to develop a format with variables of interest.
Step 2: Preparing Primary Questionnaire: Based on the primary survey and the knowledge gathered from the literature, questionnaire was prepared. It was checked to ensure its validity.
Step 3: Verifying and Finalizing the Questionnaire: A necessary modification was made before finalizing questionnaire as per the objectives of study.
Step 4: Data Collection: Questionnaire: Based on questionnaire, data on the variables for twenty garment industries were collected. These steps also included diagnostic interviews with the management level and the individuals respectively to gather some other relevant information regarding safety and security issues.
Step 5: Data Processing and Analysis: For the analysis of data, SPSS (Statistical Program for Social Science) was used in the personal computer.

PROBLEMS FACED

The obstacles that were faced are as follows:
1. Workers were afraid to give data.
2. There were absurdities between the data of workers and the owners.
3. The garment workers are not concerned about every topics related to their safety etc.

FINDINGS OF THE STUDY

Entrepreneurs in the garment industry think that labor force in Bangladesh is so much cheap so that they normally do not give the proper value of their labor. It is also a matter of arguing that they prefer to hire more women because of prevailing beliefs that women are nimble and patient, more controllable than men because of their docile nature, less likely to join trade unions, and better at sewing. They are also willing to get lower wages than men. In most cases however men or women, employment in the garment industry has given them the first opportunity to earn wages, which are typically several times higher than what they could have earned doing agricultural work or domestic service. Not to mention very few other job opportunities open to them.

1. FREQUENCY DISTRIBUTION OF OCCUPAION CATEGORY OF RMG WORKERS

The data shows that there are different types of occupation categories among the workers such as helper, seizer man, operator etc. It is found that female workers do the job of lower categories mostly such as cleaner, helper etc. It is found that most of the workers were operator. According to data 62 percent workers were operator. Most of them are unmarried. Normally the general concept about women workforce is that they join in the work after divorced, separated or widowed and surprisingly it is slightly true.

TABLE 1

Occupation Category	Frequency	Percent
Helper	7	14
Operator	31	62
Seizer man	2	4
Administration Officer	8	16
Cleaner	1	2
Guard	1	2
Total	50	100.00

2. CURRENT SALARY OF RMG WORKERS

Salary is the spine of a worker. But the salary structure is so much shabby in this sector. Labor cost in the garment industry of Bangladesh reflects not only low wage rates, but also low non wage benefits and poor working environment. Violation Act 1965 and Factory Rules 1979 are widespread in the garment sector (Zaman-Mollah, 2009). According to labor law all workers should be given an appointment letter but very few get this. Md. Gazi Salah Uddin (2008) said about the poor condition of the wage structure of the RMG workers.The study shows that most of the workers get the salary between 4000-6000 BDT. It counts 62 percent of the total percentage. It is also found that about 16 percent of all workers get their salary between 2000-4000 BDT. Even they can not afford their food with this money, give up the topic about social safety. It is more regrettable news that salary is not paid properly or proper time and most of the workers do not get the remuneration of over time working. Even many of them do not receive the minimum wage for the lowest category workers by the Minimum Wage Ordinance, 2010 sometimes.

CURRENT SALARY

TABLE 2

	Frequency	Percent	Valid Percent	Cumulative Percent
2000-4000	8	16.0	16.0	16.0
4000-6000	31	62.0	62.0	78.0
6000-8000	6	12.0	12.0	90.0
8000-10000	2	4.0	4.0	94.0
10000-12000	3	6.0	6.0	100.0
Total	50	100.0	100.0	

3. SAFETY ABOUT CURRENT SALARY

Most of the workers strongly think that they can not get the minimum standard of social safety with this money. 32% workers strongly disagreed about the hypothesis that current salary gives them social safety and security. Other 26% think that they are not safe. But many of them think that current salary is good.

28% were agreed and 6% were strongly agreed. The main reason of it is they were involved in domestic or agricultural work previously or were unemployed. Their current work is giving them several times higher return from their previous work. It is found that mostly lowest level workers think that they are good because of lower expectation.

SAFETY ABOUT CURRENT SALARY

TABLE 3

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	16	32.0	32.0	32.0
Disagree	13	26.0	26.0	58.0
Neutral	4	8.0	8.0	66.0
Agree	14	28.0	28.0	94.0
Strongly Agree	3	6.0	6.0	100.0
Total	50	100.0	100.0	

4. CONDITION OF THE SAFETY SIGN ACCORDING TO THE ILO CONVENTION

It is found that only export oriented factories uses safety signs meticulously. But it is nicely to hear that it covers most of the workers and more and more factories is trying to be export oriented. But the condition of the ordinary factories is very bad. They are so much unsecured for the workers. However 62 percent workers think that the condition is outstanding and 16 percent, most of them are the workers of ordinary factories think that current situation is unsatisfactory.

SAFETY SIGN

TABLE 4

	Frequency	Percent	Valid Percent	Cumulative Percent
Unsatisfactory	8	16.0	16.0	16.0
Improvement Needed	3	6.0	6.0	22.0
Good	8	16.0	16.0	38.0
Outstanding	31	62.0	62.0	100.0
Total	50	100.0	100.0	

5. MEDICAL FACILITIES

Previously it is said that export oriented factories are careful about this type of issues. The study shows that 58 percent of total interviewees think that it is outstanding and 16 percent think that it is good. 10 percent think that improvement needed. 14 percent think unsatisfactory most of them work in ordinary factory. It is found that at least one nurse always stays in the factories but in some case doctor dose not stay all time. But in some cases it was an objection that they do not supervise the workers.

MEDICAL FACILITIES

TABLE 5

	Frequency	Percent	Valid Percent	Cumulative Percent
Unsatisfactory	7	14.0	14.0	14.0
Improvement Needed	5	10.0	10.0	24.0
Neutral	1	2.0	2.0	26.0
Good	8	16.0	16.0	42.0
Outstanding	29	58.0	58.0	100.0
Total	50	100.0	100.0	

6. HYGIENE FACTOR OF THE FACTORIES

It is relatively good in all the factories. The most provable reason is to show the buyers that they are clean. 68% workers think that it is outstanding and 28% considers it as good. Only 2% think that it is unsatisfactory.

HYGIENE

TABLE 6

	Frequency	Percent	Valid Percent	Cumulative Percent
Unsatisfactory	1	2.0	2.0	2.0
Neutral	1	2.0	2.0	4.0
Good	14	28.0	28.0	32.0
Outstanding	34	68.0	68.0	100.0
Total	50	100.0	100.0	

7. FIRE EXIT DOORS AND VENTILATION FOR AIR CIRCULATION IN THE INDUSTRY BUILDING

The conditions of emergency exit doors were so much tender in the past. But recently some major fire accidents were occurred. The last ferocious fire accident was occurred in Tazreen Fashions during November, 2012. It causes the death of at least 112 workers death and 56 could not be identified for severe burning in the body. After this accident government became aware and now the condition is under control. But the dangerous news is that even now main exits become closed in some places in emergency situation. Owners think that in emergency situation their assets can be stolen by the workers. This type of answers humiliates the humanity. But it is in very few cases. However, 42 percent of total workers think that it is outstanding since few months. 34 percent think it good and 14 percent is totally dissatisfied about it. 8 percent think that improvement is needed.

EXIT DOORS AND VENTILATION

TABLE 7

	Frequency	Percent	Valid Percent	Cumulative Percent
Unsatisfactory	7	14.0	14.0	14.0
Improvement Needed	4	8.0	8.0	22.0
Neutral	1	2.0	2.0	24.0
Good	17	34.0	34.0	58.0
Outstanding	21	42.0	42.0	100.0
Total	50	100.0	100.0	

8. GENDER DISCRIMINATION

Though the working environment inside the factory building is not so good there is very few evidence of gender discrimination. Among 22 female 59.1% disagreed strongly that there is any kind of gender discrimination in the working place. It is 26% of all the workers. Only 9.1% said that there is gender discrimination inside the factory. But it is seen that they were frightened about the local outrage created by the he local boys as most of them stays in slums.

GENDER DISCRIMINATION

TABLE 8

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	13	26.0	59.1	59.1
Disagree	6	12.0	27.3	86.4
Agree	1	2.0	4.5	90.9
Strongly Agree	2	4.0	9.1	100.0
Total	22	44.0	100.0	

9. SEPARATE TOILETS, MATERNITY LEAVES AND OTHER FACILITIES

Most of the factories have separate toilets for men and women workers. But there is a problem about the maternity leaves. They should get maternity leave of 112 days. But they do not get it according to the rules of BGMEA as well as they do not get the money during leave what they should get. Sometimes they get maternity leaves for only one month. For this reason they have to reassign or sometimes accident occur. Recently after the accident of the Rana Plaza at Savar a number of dead bodies have been identified with last stage pregnancy. But there is little evidence about the problem of wage fixation. According to data 40.9% female workers are dissatisfied about these facilities and 31.8% is moderately satisfied.

MATERNITY LEAVES & OTHER FACILITIES

TABLE 9

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Dissatisfied	1	2.0	4.5	4.5
Dissatisfied	9	18.0	40.9	45.5
Satisfied	7	14.0	31.8	77.3
Extremely Satisfied	5	10.0	22.7	100.0
Total	22	44.0	100.0	

10. NECESSITY OF CHILD CARE CENTER

It is found that there are child care centers in almost every garment. But they were filled by the boxes or there was no child at all. The female workers think that there should be a fully facilitated child care centre. Almost everyone wants a fully facilitated child care center should exist in the factory.

NECESSITY OF CHILD CARE CENTRE

TABLE 10

	Frequency	Percent	Valid Percent	Cumulative Percent
Needed	1	2.0	4.5	4.5
So Much Needed	21	42.0	95.5	100.0
Total	22	44.0	100.0	
System	28	56.0		
Total	50	100.0		

11. FEELINGS ABOUT BUILDING STRUCTURE

It is the most burning issue in Bangladesh right now. Recently Rana Plaza has been fallen due to construction problem. More than 1000 people died and about 2500 workers injured due to this fortuitous occurrence. So many buildings are fractured and they are so much brittle. Inherently they data have come inversely. About 32 percent people think that they are not safe at all inside the factory building. More 16 percent told that they are dissatisfied. However 30 percent is moderately satisfied.

BUILDING STRUCTURE

TABLE 11

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Dissatisfied	16	32.0	32.0	32.0
Dissatisfied	8	16.0	16.0	48.0
Neutral	4	8.0	8.0	56.0
Satisfied	15	30.0	30.0	86.0
Extremely Satisfied	7	14.0	14.0	100.0
Total	50	100.0	100.0	

12. NECESSITY OF PUBLIC PRIVATE COOPERATION

Almost every people think that public-private cooperation can reduce or fix the problems existing in the RMG sector. A study shows that, majority of the respondents' emphasized cooperation of public and private sectors in four areas such as maintaining law and order situation, investigating the incidents of labor unrest, bridging gap between the owners and workers and involving the work-force in the decision-making process in attempt to solve the problem (Khan, 2011). 90 percent strongly agree and 8 percent agree about the necessity of public-private cooperation. Only one person disagrees about it and he thinks government should not entered in the garment industry because of corruption operated bureaucracy system in Bangladesh.

PUBLIC PRIVATE COOPERATION

TABLE 12

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	1	2.0	2.0	2.0
Agree	4	8.0	8.0	10.0
Strongly Agree	45	90.0	90.0	100.0
Total	50	100.0	100.0	

OVERALL SAFETY AND SECURITY

The workers think that they are good because of their earnings. It is previously said that the workers were either unemployed or domestic worker or agricultural labor. It is true that their current earnings are greater than their previous earnings. They can stay in Dhaka or near the capital. Though their living standard is not high, their family can survive with their income. Female workers can play a vital role in their families. They are not burden now it is their proud. Someone can study his or her child. It is a great achievement of them. They know their income has incongruity with their labor. But they are proud to hear that they work. 50 percent workers think that, they are not living so well but they are good and 20 percent think that improvement is needed.

OVERALL SAFETY

TABLE 13

	Frequency	Percent	Valid Percent	Cumulative Percent
Unsatisfactory	6	12.0	12.0	12.0
Improvement Needed	10	20.0	20.0	32.0
Neutral	1	2.0	2.0	34.0
Good	25	50.0	50.0	84.0
Outstanding	8	16.0	16.0	100.0
Total	50	100.0	100.0	

RESULTS

For the analysis of data we make some analysis to see that how the independent variables such as hygiene, medical facilities, building structure etc. are related with the overall safety & security. The total variance explained section identified the number of common factors extracted the eigenvalues associated with these factors, the percentage of total variance accounted for by the factor. Using the criterion of retaining only factors with eigenvalues of 1 or greater, five factors were retained. These factors accounted for 28.154%, 16.055%, 14.250%, 11.339% and 8.433% of the total variance respectively for total of 78.231%.

TOTAL VARIANCE EXPLAINED

TABLE 14

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.378	28.154	28.154	3.378	28.154	28.154
2	1.927	16.055	44.209	1.927	16.055	44.209
3	1.710	14.250	58.459	1.710	14.250	58.459
4	1.361	11.339	69.797	1.361	11.339	69.797
5	1.012	8.433	78.231	1.012	8.433	78.231
6	.932	7.769	86.000			
7	.452	3.765	89.765			
8	.424	3.533	93.297			
9	.409	3.408	96.705			
10	.244	2.035	98.740			
11	.112	.932	99.672			
12	.039	.328	100.000			

Extraction Method: Principal Component Analysis.

From the table above we found that 12 variables are categorized into the 5 variables. Considering the 5 components the highest value is .866 which is the value of medical facilities.

COMPONENT MATRIX

TABLE 15

	Component				
	1	2	3	4	5
Current salary	-.295	.476	.519	.124	.435
Safety about current salary	.327	.486	.498	.206	-.371
Safety sign	.860	-.250	.139	-.100	.181
Medical facilities	.866	-.404	.148	.052	.007
Hygiene	.853	-.176	.154	-.022	.110
Exit doors and ventilation	.536	.384	-.079	-.337	.542
Gender discrimination	.392	.495	-.041	.241	-.154
Maternity leaves & other facilities	.272	-.522	-.205	.632	-.081
Necessity of child care centre	-.239	-.002	.329	.756	.295
Building structure	.370	.568	-.613	.086	-.244
Public private cooperation	.126	-.019	.759	-.274	-.411
Overall safety	.492	.468	-.130	.256	-.003

Extraction Method: Principal Component Analysis.

5 components extracted.

FREQUENCY

Here is a table of frequencies like mean, median, mode etc. of the factors. The important things which the table shows are that the average salary of the workers is very low. The average condition of the satisfaction about salary is not good. Necessity of child care center & public-private cooperation is high. Satisfaction about building structure is below average. Standard deviation is lowest about the necessity of child care center & public-private cooperation because of same type of answers. Most of the workers are positive about these factors.

STATISTICS

TABLE 16

	CS	SCS	SS	MF	H	EDV	GD	MLO	CCC	BS	PPC	OS
N	50	50	50	50	50	50	22	22	22	50	50	50
Mean	2.2200	2.5000	4.0200	3.9400	4.6600	3.8200	1.7727	3.2727	4.9545	2.7800	4.8400	3.4400
Median	2.0000	2.0000	5.0000	5.0000	5.0000	4.0000	1.0000	4.0000	5.0000	3.0000	5.0000	4.0000
Mode	2.00	1.00	5.00	5.00	5.00	5.00	1.00	2.00	5.00	1.00	5.00	4.00
Std. Deviation	.97499	1.35902	1.53184	1.51738	.72843	1.42414	1.26986	1.35161	.21320	1.51577	.61809	1.31180
Variance	.95061	1.84694	2.34653	2.30245	.53061	2.02816	1.61255	1.82684	.04545	2.29755	.38204	1.72082

CS= Current Salary, SCS= Safety about Current Salary, SS= Safety Sign, MF= Medical Facilities, H= Hygiene, EDV= Exit Doors & Ventilation, GD= Gender Discrimination, MLO= Maternity leaves & Other Facilities, CCC= Necessity of Child Care Center, BS= Building Structure, PPC= Necessity of Private-Public Cooperation, OS= Overall Safety.

CHI SQUARE

The chi square analysis shows that there is lower variation in answer about the necessity of public private cooperation. People did not argue about it. There were only two types of answer in the segment about the necessity of child care centre. Most of the female workers think that it is so much need. Rest of them thinks that it is necessary. Nobody told against it.

TEST STATISTICS

TABLE 17

	CS	SCS	SS	MF	H	EDV	GD	MLO	CCC	BS	PPC	OS
ChiSquare (a,b,c,d,e)	57.400	14.600	37.840	48.000	58.320	29.600	16.182	6.364	18.182	11.000	72.520	32.600
df	4	4	3	4	3	4	3	3	1	4	2	4
Asymp. Sig.	.000	.006	.000	.000	.000	.000	.001	.095	.000	.027	.000	.000

a 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 10.0.
b 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 12.5.
c 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 5.5.
d 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 11.0.
e 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 16.7.

CS= Current Salary, SCS= Safety about Current Salary, SS= Safety Sign, MF= Medical Facilities, H= Hygiene, EDV= Exit Doors & Ventilation, GD= Gender Discrimination, MLO= Maternity leaves & Other Facilities, CCC= Necessity of Child Care Center, BS= Building Structure, PPC= Necessity of Private-Public Cooperation, OS= Overall Safety.

CORRELATION AMONG THE FACTORS

From the correlation analysis it is found that now a days overall safety and security not only depends on salary but also many other important factors such as medical facilities, hygiene, emergency exit facilities or building structure etc. It is found that over all safety and security is strongly related with hygiene and building structure. They are significant at .01% and the results are .399 and .383 and. It proves that the workers are satisfied about hygiene and building structure; the workers are overall satisfied normally. It is also found that medical facilities, hygiene and emergency exit factors are strongly correlated. The highest value is .773 and it is the correlation between safety sign and medical facilities. This indicates that the factories are concerned about safety sign are normally concerned about medical facilities. There are some negative correlations. Over all safety and security is negatively correlated with the necessity of public-private cooperation. It indicates that the workers think that they are not safe most of them desire public-private cooperation in the garment sector. The lowest value is (-.213) which exists between public private cooperation and building structure. It shows that the workers are not feeling secured with the building structure want the interference of the government in this industry. If we accumulate it is clear that the workers are not feeling good with their building structures so that they are not actually feeling safe. They think public private cooperation is necessary to reduce or fix this type of problems.

CORRELATIONS

TABLE 18

		CS	SCS	SS	MF	H	EDV	GD	MLO	CCC	BS	PPC	OS
CS	PC	1	.085	.038	.106	-.075	.205	-.025	-.279	.295	.047	-.042	-.003
	Sig.	.	.559	.793	.465	.606	.152	.913	.208	.182	.745	.772	.984
	N	50	50	50	50	50	50	22	22	22	50	50	50
SCS	PC	.085	1	-.025	.094	.186	.047	.267	-.094	.099	.074	-.121	.052
	Sig.	.559	.	.866	.516	.197	.743	.231	.678	.660	.608	.401	.722
	N	50	50	50	50	50	50	22	22	22	50	50	50
SS	PC	.038	-.025	1	.773(**)	.391(**)	.479(**)	.181	.241	-.147	.020	-.083	.251
	Sig.	.793	.866	.	.000	.005	.000	.421	.280	.514	.893	.568	.079
	N	50	50	50	50	50	50	22	22	22	50	50	50
MF	PC	.106	.094	.773(**)	1	.550(**)	.373(**)	.161	.410	-.137	-.024	-.097	.269
	Sig.	.465	.516	.000	.	.000	.008	.475	.058	.544	.871	.501	.059
	N	50	50	50	50	50	50	22	22	22	50	50	50
H	PC	-.075	.186	.391(**)	.550(**)	1	.146	.189	.215	-.149	.140	-.100	.399(**)
	Sig.	.606	.197	.005	.000	.	.313	.398	.337	.508	.331	.491	.004
	N	50	50	50	50	50	50	22	22	22	50	50	50
EDV	PC	.205	.047	.479(**)	.373(**)	.146	1	.282	-.211	-.190	.265	-.172	.279
	Sig.	.152	.743	.000	.008	.313	.	.204	.347	.398	.063	.231	.050
	N	50	50	50	50	50	50	22	22	22	50	50	50
GD	PC	-.025	.267	.181	.161	.189	.282	1	-.045	.136	.468(*)	.070	.189
	Sig.	.913	.231	.421	.475	.398	.204	.	.841	.546	.028	.759	.400
	N	22	22	22	22	22	22	22	22	22	22	22	22
MLO	PC	-.279	-.094	.241	.410	.215	-.211	-.045	1	.210	.044	-.174	.073
	Sig.	.208	.678	.280	.058	.337	.347	.841	.	.347	.846	.438	.746
	N	22	22	22	22	22	22	22	22	22	22	22	22
CCC	PC	.295	.099	-.147	-.137	-.149	-.190	.136	.210	1	-.279	-.069	-.077
	Sig.	.182	.660	.514	.544	.508	.398	.546	.347	.	.209	.760	.732
	N	22	22	22	22	22	22	22	22	22	22	22	22
BS	PC	.047	.074	.020	-.024	.140	.265	.468(*)	.044	-.279	1	-.213	.383(**)
	Sig.	.745	.608	.893	.871	.331	.063	.028	.846	.209	.	.138	.006
	N	50	50	50	50	50	50	22	22	22	50	50	50
PCC	PC	-.042	-.121	-.083	-.097	-.100	-.172	.070	-.174	-.069	-.213	1	-.176
	Sig.	.772	.401	.568	.501	.491	.231	.759	.438	.760	.138	.	.222
	N	50	50	50	50	50	50	22	22	22	50	50	50
OS	PC	-.003	.052	.251	.269	.399(**)	.279	.189	.073	-.077	.383(**)	-.176	1
	Sig.	.984	.722	.079	.059	.004	.050	.400	.746	.732	.006	.222	.
	N	50	50	50	50	50	50	22	22	22	50	50	50

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Here, PC= Pearson Correlation, Sig. = Sig. (2-tailed), CS= Current Salary, SCS= Safety about Current Salary, SS= Safety Sign, MF= Medical Facilities, H= Hygiene, EDV= Exit Doors & Ventilation, GD= Gender Discrimination, MLO= Maternity leaves & Other Facilities, CCC= Necessity of Child Care Center, BS= Building Structure, PPC= Necessity of Private-Public Cooperation, OS= Overall Safety.

From the results of analysis above it came to front that overall safety and security does not depends only on salary but it is accompanied with medical facilities, gender discrimination, building structure, working environment etc. So the employers should give emphasis on these types of facilities along with the salary structure.

SOME MAJOR ACCIDENTS OCCURED RECENTLY IN BANGLADESH

TABLE 19

Date	Place	Dead	Injured	Cause
24.04.2012	Rana Plaza, Savar	More than 1000	2500	Building Collapse
24.11.2012	Tazreen Fashions, Ashulia	112	At least 200	Fire
25.02.2006	Phoenix Textile	At Least 9	50	Building Collapse
23.02.2006	KTS Textiles, Chittagong	91	400	Fire

FINDINGS

1. Salary is the major problem of the workers. The minimum wage for the garment workers is much lower than the national standard as well as they do not get the salary at the proper time. Most of the time they do not get the salary fully let alone overtime rate. Minimum Wage Ordinance is not followed.
2. Safety sign, hygiene and medical facilities are relatively good in export oriented factories. But it has been seen that not all the factories are concerned about the issue. The condition of these facilities is very poor in some cases. Even many of them do not have fire alarms at all!
3. In the recent past some major accidents have occurred due to insufficiency of emergency exit doors. Fire exit doors are not available in all factories. Even in the emergency situation, these remain closed along with the principal exit of the factories.
4. Current situation of gender discrimination seemed to be under control. But in some cases complains were against supervisors who use slang words to the female workers.
5. The situation of maternity leaves is not good. They are not getting the proper duration of this leave. As well as female workers have been deprived of maternity benefit payable under the Maternity Benefit Act of 1950. In some factories separate toilets do not exist. Due to absence of a formal appointment letter, however, garment industry women are largely deprived of it.
6. Child care centre is present in most of the cases. But that is not enough. Even where the child care centers are present they are occupied with the boxes in most of the cases. Female workers do not have separate prayer rooms, dining places or resting places all have the very problem.
7. The building structures in most of the factories are very poor. As recently, a major accident has been occurred due to construction error. The workers are very much frightened about the building construction. Many of the buildings are found fractured as well.
8. Most of the workers do not contain ID card of their companies.
9. The workers, especially female workers, suffer most from insufficiency of gate pass.
10. There are insufficiency of weekly holidays and recreation facilities.
11. Most of the workers do not get formal appointment letter which deny them from the wages at times.
12. Above all the workers have to face a great hassle for accommodation.

RECOMMENDATIONS

The questionnaire seeks recommendation from the workers. Most of the recommendations were about salary, building structure or policy of government etc. According to the author and the workers the recommendations should be as following:

1. As the minimum wage for the garment workers is much lower than the national standard, it is recommended that it should be set equal or higher than the national average given the importance of an industry in export earning. Hours of overtime should be reduced and overtime rate should be increased. Shift work should be introduced in all the places so that- a) overtime hours can be reduced, b) more employment can be created and c) more production can be produced. Above all remuneration should be paid at proper time and proper scale.
2. The factories should be made more hygiene. Fulltime medical care and first aid treatment with female doctor and highly trained nurses should be ensured. Proper exit sign and safety sign should be applied in appropriate areas of the industry.
3. Sufficient fire exit doors and enough ventilation with proper maintenance for air circulation should be designed for industry building. The main exit should not remain closed in emergency situation at all.
4. Maternity leave & weekly holiday with pay for female workers should be introduced so that gender discrimination can be reduced. The garment industries should arrange for family planning services. Fully organized child care center should be provided. Separate toilets need to be provided with some space for taking rest, eating and prayer. Pure water supply for drinking and washing for female workers should be ensured. ILO convention on maternity leaves needs to be ratified. ILO convention N.I00: Equal Remuneration Convention, 1951 should be ratified also.
5. Building should be scrutinized at least twice a year.
6. Regular fire drill must be made mandatory for each garment industry.
7. All kinds of workers should be given formal appointment letter as well as provide safety management training, company ID, enough gate pass.
8. The conflict between managers and workers should be reduced by negotiation.
9. Above all, Garment industries should introduce group insurance so that the workers can save their small income. On-day banking services can be made available. A package scheme can be provided with health insurance, education, awareness about the rights of the workers etc. Job-Bank could be established to facilitate re-employment of the retrenched RMG workers within or beyond the RMG sectors.

CONCLUDING REMARKS

The garment industries in Bangladesh created an important sector of working with a vast number of employments. It has allowed people of low income to earn cash income. Despite the positive impacts the workers are confronted with very much problems. Their income is incongruous with their labor. Women are the ninety percent of the total work force in the garment sector. But they are deprived of their basic facilities. Equal Remuneration Convention of 1950 and Employment Policy Convention of 1964 are not followed seriously yet now. Rising public concern about inhuman working conditions in developing countries led to the creation of the Council of Economic Priorities Accreditation Agency in 1997. A conscious public policy package aimed at encouraging skill development, facilitating technology transfer and rising of the productivity level of female workers thus needs to be put in place to translate Bangladesh's comparative advantage into competitive advantage. The garment industry is the main operating stream of this developing economy. Appropriate measures should be taken and applied immediately to improve the social safety and security system of the RMG workers in Bangladesh both at micro and macro level otherwise these problems can be a great threat for this industry which can perish its opportunity.

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BRAND SALIENCE AND BRAND ASSOCIATION, A TOOL TO GAIN TOURIST DESTINATION REVISITATION: DMO's PERSPECTIVE

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ABSTRACT

Revisitation is the dream of every stakeholder as it does not only provide the business from the revisitors but also add new tourist arrivals, it has been seen that due to the positive word of mouth (WoM) from the existing tourists there is tremendous flow of new tourists as well as existing at a destination. There are number of other factors or reasons for attracting the new tourist flow, branding is one among them which is further influenced by brand salience, brand association, equity, and awareness and brand resonance. Destination Management Organisations (DMO's) seek to attract tourists by differentiating and marketing the products and services offered to them. This study puts an emphasis on role of brand salience in attracting the different types of tourists like recreational, diversionary, experimental, experimental and existential for revisitation through DMO's perspective. For conducting the research the 5- point Check list of GACVB (2005) is used to get implemented and secondary data from sources like published journals, books and electronic print media is used in order to get the motive of revisitation. The research findings illustrate that brand salience of destination and products have enough effect on the revisitation of existing tourists as it made them to ToMA (Top of Mind Awareness) thinking about the destination.

KEYWORDS

Branding, revisitation, brand salience, brand association, Destination Management Organisation.

INTRODUCTION

BRANDING AND ITS SALIENCE

Careful brand management seeks to make the product or services relevant to the target audience. Brands should be seen as more than the difference between the actual cost of a product and its selling price - they represent the sum of all valuable qualities of a product to the consumer. When the brand is retrieved, the customer also gets some sense of how much they know about the brand. This provides a sense of assurance that the brand will be appropriate for the situation.

But on the other hand the brand salience provides a further benefit by then making the brand, once thought of, more likely to be chosen. It is the foundation of the hierarchy and represents the strength of the destination's presence in the mind of the target for a given travel situation. It is suggested salience is best operationalized though unaided top of mind awareness (ToMA), rather than through recall by prompting. The proposition that ToMA is an indicator of purchase preference (Axelrod, 1968), was supported in the 2003 study (Pike, 2006).

This benefit is, however, secondary to the influence of the brand being thought of in the first instance, as without that initial step, positive evaluations will have no effect on buyer behaviour (e.g. Holden and Lutz, 1992).This concept of brand salience is distinct from the concept of brand attitude, where the focus is on evaluation of the brand rather than the quantity and quality of the memory structures. It provides a different perspective and explanation for the fact that buyers buy different brands in different circumstances and situations (and even in the same situations).The particular interest to destination marketers is in understanding how travellers select a holiday destination from so many places offering the same benefits. The theory of consumer decision sets offers, introduced by Howard (1963) and Howard and Sheth (1969), is helpful in this regard. Many tourism studies have supported the assertion that the number of destinations a traveller will actually consider in the purchase process is limited to four plus or minus two (see, e.g., Crompton, 1992; Thompson & Cooper, 1979). These destinations form the decision set, which provides a measure of brand salience relative to competitors. This CBBE (consumer-based brand equity) dimension relates to the destination's first brand objective: To increase awareness of the destination. Brand associations are anything linked in memory to the destination. Mayo and Jarvis (1981) suggested destination attractiveness is a function of the specific benefits sought by travellers and the ability of the destination to provide them. From this perspective it is important to gain an understanding of what decision criteria will be used by the consumer-traveller when making differentiating destinations under consideration. Reviews of the extensive destination image literature (see Chon, 1990; Echtner & Ritchie, 1991; Gallarza, Saura, & Garcia, 2002; Pike, 2002, 2007; Tasci, Gartner, & Cavusgil, 2007) indicate there is no commonly agreed conceptualization of the construct. Not surprisingly therefore, no accepted destination image scale has been developed.

Kotler, Haider, and Rein (1993) highlighted the way in which minds simplify the process of destination image formation: "Images represent a simplification of a large number of associations and pieces of information connected with the place. They are the product of the mind trying to process and essentialize huge amounts of data about a place" (p. 141).

Mayo and Jarvis proposed an individual would make a brand selection based on what is "important and relevant to them" (p. 68), and so associations need to be measured in terms of attributes deemed determinant for a given travel situation. That is, the researcher needs to elicit from the respondent, from a selection of salient attributes, those that determine destination selection for a given travel situation. Although most popular measurement approach is structured surveys using scales of cognitive attributes and affective benefits, the issue of travel situation salience and determinance has been neglected in the destination image literature. This CBBE dimension relates to the destination's third objective: to educate the market about things to do.

Brand resonance represents willingness to engage with the brand, or level of identification a consumer has with a brand. It is suggested that for destinations, resonance can be measured behaviourally, such as in previous visitation, and also attitudinally through stated intent to visit. This CBBE dimension is related to the destination's second objective: To stimulate interest in, and visitation to, the destination. This objective is also related to the highest level of the hierarchy, *brand loyalty*, which has received little attention in the destination marketing literature. Loyalty can be measured by repeat visitation and word of mouth recommendations. In this way the CBBE hierarchy incorporates perceptual and behavioural measures. There has been criticism in the marketing literature of what has been failure in market research to link attitudinal data with measures of actual behaviour. Certainly, there has been a lack of longitudinal tourism studies investigating the relationship between attitude and behaviour (Pike, 2006), such as stated preferences and actual travel.

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TRAVEL EXPERIENCE

Cohen (1979) describes the first mode as the 'recreational' in which individuals step outside the ordinary in search of entertainment. In this mode a person will prefer to the place which is having high level of prominence or resilience in terms of security and safety.resilence here may vary from the last visits experience and feelings. In the 'diversionary' mode, a person takes a short break from the stresses of everyday life, here a person who wishes to take break from the day to day busy routine in order to get rid of from stresse,for this a tourist would prefer to go to spa destination lie in India Goa,Utrakhand are the places which possess the word of mouth about their peculiarity in terms of spa of sauna bath. The third mode is called the 'experiential' mode, which proceeds from the belief that ordinary life lacks richness and those more authentic experiences of social life, culture and nature must be sought elsewhere. In the 'experimental' mode, alienation deeply affects the individual, who is in danger of losing her- or himself in everyday life and who makes the effort to rediscover her- or himself in another, foreign context, be it natural or social. India is vast in terms of diversity in culture and heritage that is the Stake holders should take a corrective and attractive step to attract these experiential and experimental' mode tourists. The fifth and final mode is the 'existential'. Here, individuals feel they are living in the wrong place and/or at the wrong time. This estrangement from ordinary life is so strong that a better world is sought elsewhere, at the tourist location and, if possible, on a permanent basis. In all the above modes the brand resilience and brand resonance and association plays a paramount role in attracting heavy influx of tourists.

BACKGROUND

Any destinations tourism marketability may be evaluated according to their attraction for tourists and their tourism infrastructure which in turn depends upon Branding aspects like prominence of brand, association of brand and its resonance. Most tourism activities take place at a particular destination; therefore the destination itself forms a pillar of any modelling that is done for the tourism system (Pike 2004). Destination can be seen as an area that includes all services and goods a tourist consumes during his or her stay (Terzibasoglu 2004; wt o 2007). This destination appeal shape should transfer to a unique and competitive destination brand which expresses the reality of the destination and conveys the tourist perspective. According to Goeldner, Ritchie, and Mac-Intosh 2000; Kaplanidou and Vogt (2003)destination branding is defined as: selecting a consistent element mix to identify and distinguish it through positive image building, i.e. how consumers perceive the destination in their minds. Destination branding conveys the promise of a memorable travel experience that is uniquely associated with the destination; it also serves to consolidate and reinforce the recollection of pleasurable memories of the destination experience. Recently brand salience has assumed a greater prominence in both branding and advertising literature. There have been calls for the consideration of building brand salience as an outcome of effective advertising (Bullmore, 1999; Ehrenberg et al., 2000a; Miller and Berry, 1998), as well as discussion of the role of brand salience from a brand management perspective (Ehrenberg et al., 1997; Keller and Davey, 2001; Romaniuk, 2002). Therefore it seems timely to re-examine what the concept of brand salience should mean in a marketing context and the implications for measurement. In this article, we explore how brand salience is relevant to brand buying. This concept of brand salience is distinct from the concept of brand attitude, where the focus is on evaluation of the brand rather than the quantity and quality of the memory structures. It provides a different perspective and explanation for the fact that buyers buy different brands in different circumstances and situations. Brand resonance represents willingness to engage with the brand, or level of identification a consumer has with a brand. It is suggested that for destinations, resonance can be measured behaviourally, such as in previous visitation, and also attitudinally through stated intent to visit.

OBJECTIVES OF THE STUDY

1) To know about the role of Brand salience and resonance on revisitation.
2) To know the role of Destination Management Organisation's in re branding of destination.
3) To suggest the marketing strategies about the destination branding.

RESEARCH METHODOLOGY

This paper is based on secondary data collected from published articles, journals books, government reports, websites and news papers.

BRANDING OR MARKETING STRATEGIES (5-POINT CHECK LIST)

As per the Georgia Association of Convention & visitors Bureaus (2005), the marketing agencies or stake holders should follow following in order to get the Brand salience about the destination.

1) Conduct a visitor-demand study:
- In this aspect the Marketer should know about their demographics, visitor segments, needs, interest, purpose of their visit, length of stay, size of travel party, service like shopping, sightseeing, business meetings etc.
- identify the travellers of your region, learn about them

2) Go-through discreetly with already existing Resources:
- Get awareness about their primary reason like type of visit e.g education, business, leisure, sports, pilgrimage etc
- What is already with you?

3) Position Your Destination's attraction among competing destinations:
- Do SWOT analysis of your existing onsite and offsite amenities.
- Prepare the strategies for the same.
- Try to implement the eco-friendly practices if you don't follow earlier.
- Improve your recognition/identification techniques like good signage, proper logo etc Educate the community as they are the basic source for information and authenticity.

4) Develop & Implement Marketing Plan:
- Identify the different segments of market you want to target, make the product or destination appealing for this entire target.
- Keep the availability of resources for every segment.
- Train the human resource as per the needs of tourists.

5) Promote your destination as a reminiscent experienced destination:
- Aware and educate the community involved in the day to day tourism activities within or near the destination as they play pivotal role in tourist satisfaction.
- People visit destination because of certain prominence and resonace, do high efforts to meet their expectations.

ROLE OF DMO's IN BRANDING A DESTINATION

Destination Management Organisations are the professional bodies responsible for the marketing and managing i.e. 'selling'the destinations as a whole in broader sense. The world Tourism Organisation in 2004 defines DMO's as organisations responsible for the management and marketing destinations e.g. NTA, STDC, local DMO's.(presenza,Sheehan and Ritchie,2004).Although the concept of branding has been applied extensively to products and services, today though the branding helps in many other aspects like creating identity, protection from competition, enhancing image, brand equity and creating and keeping brand loyal customers to repeat business. DMOs rely on demand-side approaches to evaluate the impact of activity of branding. According to Genc and Pirnar,(2010) brand management by destination management organisations are emphasizing the important point, due to this nature of customers, branding gains a special importance to Destination Organisation's since repeat tourists are target groups. It is understood that destination management is most effective when accomplished through organised destination management organisations which specialise in using updated management and marketing techniques like image management, bringing partners together, co-branding and brand in order to rebrand the destination.

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CONCLUSION

Memorable travel experience acts as pull factor for a tourist to revisit the destination as there are number of tangible and intangible things associated with a tour, which a tourist remembers and due to those reminiscent experiences a person takes the decision regarding revisit. So in order to make the travel memorable and reminiscent the destination Management organisations play a pivotal role in attracting the business for a particular destination as these are the people who are well acquainted regarding the possessions, resources, level of service which they can render to the clients and which in turn create the image of any destination by their word of mouth to the others, branding and by providing best services during tourism cycle. The awareness which these organisation provide, helps to gain the destination brand equity by creating the market credibility and trust among the consumers as the marketing organisations are the basic source of information for the travellers these are the first hosts who come in contact with the tourists so it is very necessary for DMOs to create the brand of their organisation and destination too so that the people gains credibility and enhances their travel experience and revisitation as there are certain prominent factors like salience of courtesy, service or products which has lead positive effect on tourists memory. It has been found that the symbiotic relationship of Destination Management Organisations, stake holders and service providers will definitely lead the brand resonance of the destination and Top of Mind Awareness.

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ROLE OF EFFECTIVE LEADERSHIP ON INTERNET BUSINESS MODELS OF RELIANCE LIFE INSURANCE IN INDIA

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ABSTRACT

Experience shows that life insurance markets tend to take time to develop, often developing later than banks and non-life insurance companies. It is difficult to generalize on how life insurance products change and widen in scope as a life insurance market matures. There are an interplay of economic, political and cultural and commercial factors at work, which vary from country to country, Nevertheless, there are two aspects of product development that has been evident in many countries. First, one is that life insurance products tend to move from having a primary emphasis on insurance protection towards a greater savings role, especially saving for retirement purposes. Second, there is a move away from simple products sold either on an individual and group basis to more complex products sold mainly on an individual basis. In the present time is relatively fast in terms of science & technology. It is the technology in general & prior to information technology that guide us to manage the time with skillful work culture. In this position particularly internet proves decisive device to make assignment scientifically & systematically. So no doubt internet business model is being prefer to manual business model of insurance sector. Reliance'' is the name of reliability Validity in business field of telecommunication not only in the India subcontinent but in the South Asian continent. Reliance company entered in the insurance market after grounding the base of internet & mobile industry & infrastructure. There for it is need & necessity of present business era to enquiry the different dimension of online insurance marketing in the financial service sector in India.

KEYWORDS

Effective leadership, Insurance Policy, selling Skills, organizer, Motivation, inspiration, successful, business model.

INTRODUCTION

xperience shows that life insurance markets tend to take time to develop, often developing later than banks and non-life insurance companies. This reflects the fact that has long term savings across the population as a whole increases as standards of living rise and as standards of living rise, longevity also increases. As GDP per head within an economy remains low, spending on life insurance remains low, often growing less than the growth of GDP. But as GDP per head increases beyond a certain threshold, spending of life insurance begins to accelerate. At very high level of GDP per head, the rate of acceleration tends to slows, partly due the fact that wealthier economies tends to have older populations who begin to draw down their savings during retirement.

It is difficult to generalize on how life insurance products change and widen in scope as a life insurance market matures. There are an interplay of economic, political and cultural and commercial factors at work, which vary from country to country, Nevertheless, there are two aspects of product development that has been evident in many countries. First, one is that life insurance products tend to move from having a primary emphasis on insurance protection towards a greater savings role, especially saving for retirement purposes. Second, there is a move away from simple products sold either on an individual and group basis to more complex products sold mainly on an individual basis.

HYPOTHESIS

Insurance is the known phenomena of the great Indian society but even the crores of Indian have a lacuna in the internet base or online marketing in this service sector. Again as we realize uncertainty, insurgency, struggle and disorderness is the realty of human life, these situations creates the sense of insecurity and offence-defense. With this psychology normally each and every citizen wants to be insure & secure to some extent. Insurance at this juncture of life comes as a crucial solution. Therefore it is basic hypothesis that the concept & consequences of life insurance has been firmly rooted in every strata of present society.

On the other hand the present time is relatively fast in terms of science & technology. It is the technology in general & prior to information technology that guide us to manage the time with skillful work culture. In this position particularly internet proves decisive device to make assignment scientifically & systematically. So no doubt internet business model is being prefer to manual business model of insurance sector.

Reliance'' is the name of reliability Validity in business field of telecommunication not only in the India subcontinent but in the South Asian continent. Reliance company entered in the insurance market after grounding the base of internet & mobile industry & infrastructure. There for it is need & necessity of present business era to enquiry the different dimension of online insurance marketing in the financial service sector in India.

OBJECTIVES OF THE STUDY

The present study which seeks to analyse the Business Model of the Reliance Life Insurance revolves around the following objectives: To analyse the penetration of the life insurance to the depth of the insurance industry in India. To delineate the size and structure of the Reliance Life Insurance. To analyse the growth potential and the future prospect of the Reliance Life Insurance in India. To present an analytical understanding of the Internet Business Model of the Reliance Life Insurance.

RESEARCH METHODOLOGY

The Secondary sources of data is based on a set of open ended unstructured questions directed to a list of 20 senior officials of the Reliance Life Insurance industry and a set of structure questions administered to the 42 customers of the insurance sector who were randomly selected in consideration of the problem of the study. The present study has exploited both the secondary and primary sources of data. The primary sources of data include the relevant corporate documents, available literature and books and magazines pertaining to the problem of the study. To be very humble, the present study is both qualitative and quantitative and I hope this as per the requirement of the Problem of the study.

LITERATURE REVIEW

Reliance Capital Ltd is a part of the Reliance - Anil Dhirubhai Ambani Group, and is ranked among the 25 most valuable private companies in India. Reliance Capital is one of India's leading and fastest growing private sector financial services companies, and ranks among the top 3 private sector financial services and banking groups, in terms of net worth. Reliance Capital has interests in asset management and mutual funds, life and general insurance, private equity and proprietary investments, stock broking, depository services, distribution of financial products, consumer finance and other activities in financial services. The Reliance Anil Dhirubhai Ambani Group is one of India's top 2 business houses, and has a market capitalization of over Rs.2,90,000 crore (US$ 75 billion), net worth in excess of Rs.55,000 crore (US$ 14 billion), cash flows of Rs. 11,000 crore (US$ 2.8 billion) and net profit of Rs. 7,700 crore (US$ 1.9 billion).

The Indian business scenario is littered with examples of FOBEs splitting once they enter the second and the third generations. The splitting of FOBEs has become even more common since the late 90s. Reliance Life Insurance Company Limited is a part of Reliance Capital Ltd. of the Reliance - Anil Dhirubhai Ambani

Group. The company acquired 100 per cent shareholding in AMP Sanmar Life Insurance Company in August 2005. Taking over AMP Sanmar Life provided Reliance Life Insurance a readymade infrastructure and a portfolio. Reliance Capital is one of India's leading private sector financial services companies, and ranks among the top 3 private sector financial services and banking companies, in terms of net worth. Reliance Capital has interests in asset management and mutual funds, stock broking, life and general insurance, proprietary investments, private equity and other activities in financial services. Reliance Capital Limited (RCL) is a Non-Banking Financial Company (NBFC) registered with the Reserve Bank of India under section 45-IA of the Reserve Bank of India Act, 1934. Reliance Capital sees immense potential in the rapidly growing financial services sector in India and aims to become a dominant player in this industry and offer fully integrated financial services. Reliance Life Insurance is another step forward for Reliance Capital Limited to offer need based Life Insurance solutions to individuals and Corporates.

CONTENT VALIDITY

The total number of respondents were 62 (42 from Customers group & rest of 20 members belong to official groups. The official were selected from the head office of Reliance life insurance, Delhi whereas the group of customers where belonging to the multi stratified as age, sex, occupation & class on random basis for the understanding of the internet business model of RLI. In terms of customers, the daily based sample survey where conducted. The whole region was divided in to 7 district & sample categorized into metro level, city level & village level. We got the two metro type sample from each district. Then the 14 city type to sample where taken in to consideration from each district & subsequently the two sample were taken from 28 village consisting four sample each from a couple village from each district.

Each & every respondents gave me permission, there name whenever required also there contact details & Phone Numbers. The first hand information about customers in different settings was meaningfully obtained. Therefore the scope was widened to include representation from various angle & all the customers where willing to approaches primarily to pay their premium through internet system. RLI company was providing information to those clients who where unable to access on Net.

MODEL ONE: MARKETING SUPPORT

The "marketing support" approach is the first step to e-commerce for most insurers. Many insurers feel comfortable maintaining this strategy in view of the nature of the customer base. The website has some decision support tools such as calculators and quotes but does not provide a facility to complete policy applications online.

It is important to consider the characteristics of an insurer's customers and target markets. There is a higher opportunity cost associated with the time expended by higher income consumers (who are more likely to use computers). They may not find it more efficient to utilize the Internet if they cannot complete transactions online. Companies tapping the low end of the market are faced with the opposite problem; clients are not prepared to use the facilities provided by Internet. Therefore, the company has to follow an educational campaign to prepare its customer base gradually to be able to interact in a virtual environment. Prudence suggests that insurers use mechanisms that are tailored to the realities of their customer base, even if those mechanisms lag behind what would be technologically possible.

Direct Channel
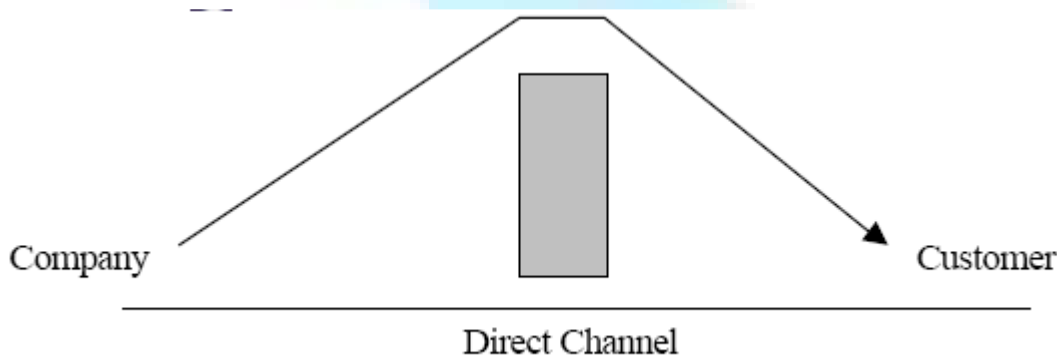
The Reliance Life Insurance Web site is a platform designed to inform customers (or potential customers) and to present the company's product and services. Each part of the company's website offers possibilities for dialogue with experts by mail or telephone. It assures customers that it will connect them with the right expert, someone with answers and the ability to develop solutions. The company is still heavily dependent on its agency network. Its Internet strategy is therefore aimed at strengthening its traditional distribution channel.

MODELS TWO : ONLINE DISTRIBUTIONS OF TRADITIONAL AND INTERNET PRODUCTS

The step in the traditional path followed by insurers is to facilitate sales of insurance products online. This is the most advanced staged for the majority of traditional insurance companies.

E-commerce

The Reliance Life Insurance website is a sales channel dedicated exclusively to insurance products provided by the company. One of the advantages of the site is the choice of products (simple, low advice requirement) from sound companies at low fees. The shortcomings of such a model are evident, however. Integrated financial advice requires a set of features that are not easily packaged in a virtual environment.

MODEL 3: ONLINE ADMINISTRATION

Online Administration possesses extended capabilities in offering services to different types of customers and intermediaries.

The Reliance Life Insurance has facilities to enable its companies to offer a full range of insurance products, services and resources through a customer friendly online process. The Reliance Life Insurance e-model is designed to offer the following features:

⇒ One-stop shopping through a comprehensive portfolio of products.
⇒ 7 day no obligation quoting.
⇒ Leading edge Web-based customer service, including: claims first notice, policy processing, and online customer service for most products.
⇒ Insurance-related content and resources, including calculator tools, feature articles, expert advice and money saving tips.

The Reliance Life Insurance offers products to intermediaries (brokers) through the Internet. The service provides basic advice and is aimed at servicing advisors around the clock. The company provides online phone or fax facilities to conduct transactions. This is a model that other "big players" are likely to adopt.

MODEL 4: PRODUCT PORTALS

It has teamed with insurance companies to provide low-cost insurance solutions to consumers via Internet and the telephone. Consumers are contacted by telephone by an agent after they have sent an application.

A completely customer centric company, Reliance Insurance Co Ltd aims at making insurance affordable and accessible to all. The interests of the policyholders are protected to the best of their capabilities and complete cooperation is provided in insurance claims. a pan India presence of Reliance Standard Insurance brings the insurance policy best suited to your requirements right to a branch near you.

CONNECT WITH THE BENEFITS OF 'CUSTOMER TO CARRIER' PROCESSING

❖ Provide agents and policyholders with secure 'self-service' policy administration
❖ Eliminate process redundancy, improve efficiency and increase profitability.
❖ Shift processing demands from enterprise resources to external users
❖ Reduce manual paper processing and telephone servicing.
❖ Improve cash flows by reducing payment lag time.
❖ Increase customer retention and satisfaction.

Given the external and internal pressures impacting on the financial services industry over the past decade, the urgent need to simplify systems and products is being driven by a number of recognisable factors, including:

❖ **Cost pressures** – the need to reduce costs to allow more flexibility and the increasingly limited funds available for investment in IT systems.
❖ **Product development** – the necessity for ease of product development and subsequent speed to market.
❖ **Customer focus** – improving the service and accuracy of information to intermediaries and customers, which requires the aggregation of information across the customer space (single customer view) and across the wider organisation for the identification of sales and service opportunities?
❖ **Cumbersome systems** – the current systems are impeding responsiveness and productivity and leading to increased operational risk and escalating costs.
❖ **Dated software** – operational functions are being hampered by outdated software and there is a desire to move from older Cobol-style technology to modern Web enabled technologies.
❖ **Declining knowledge and skills** – the support and maintenance of multiple legacy systems is becoming increasingly difficult with ageing systems and people, and the resulting loss of corporate memory over decades of staff movement.
❖ **Innovation over automation** – IT must no longer simply automate, it must be able to free up people for innovation and provide opportunity for the business.
❖ **The systems maintenance/development balance** – too much resource is tied up in systems maintenance to the detriment of new development and service improvement.
❖ **Compliance and regulatory changes** – these are draining on resources and expenditure.
❖ **Optimisation** – targeting improved business performance without substantial system modifications.
❖ **Modernisation** – leveraging existing IT investments through the introduction of new technologies, mainly around the front-end.
❖ **Outsourcing** – driving near-term cost efficiencies and delivering skill sets that may be too difficult or costly to maintain internally.

DATA ANALYSIS

1. FOR HOW MANY YEARS YOU ARE ASSOCIATED WITH THE RELIANCE LIFE INSURANCE CORPORATION?

⇒ Less than one year -------------------------- 32 per cent
⇒ One year but<five year --------------------- 42 per cent
⇒ More than five year ------------------------ 06 per cent
⇒ Do not know/ Cannot say ------------------ 20 per cent

Less than one year	32%
One year but<five year	42%
More than five year	6%
Do not know/ Cannot say	20%
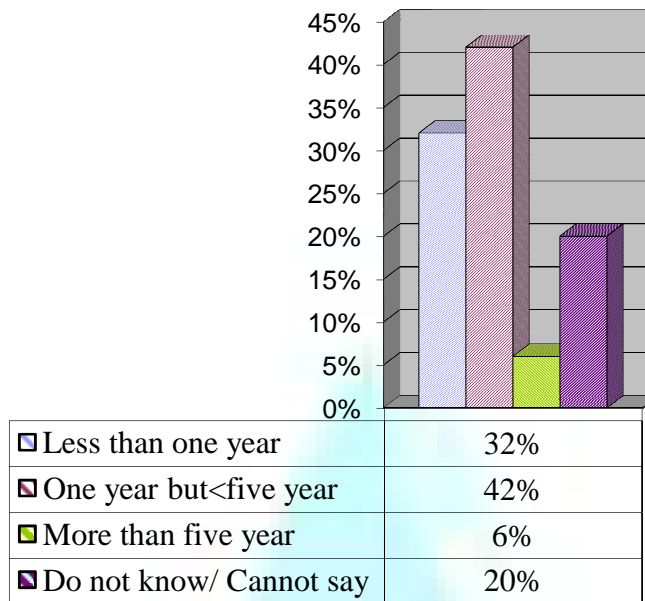
Interpretation: As regards the user profile of our respondents, it may be stated that 32 per cent of the employees are under one experience whereas 42 per cent of the employees are having one to five years of experience. From this, we can conclude that the Reliance Life Insurance has a generation of young officials for vibrant functioning of the corporation.

**2. WHAT IS THE MARKET SIZE OF THE RELIANCE LIFE INSURANCE COMPANY?**

⇒   Has already a wider market reach cutting across age, sex an occupational categories. -- 75 percent
⇒   Is still a growing market with a lot of potentiality that needs to be tapped. -- 18 percent
⇒   Has a very small market reach presently. ------------------   7 percent

Has already a wider market reach cutting across age, sex an occupational categories	75%
Is still a growing market with a lot of potentiality that needs to be tapped	18%
Has a very small market reach presently	7%
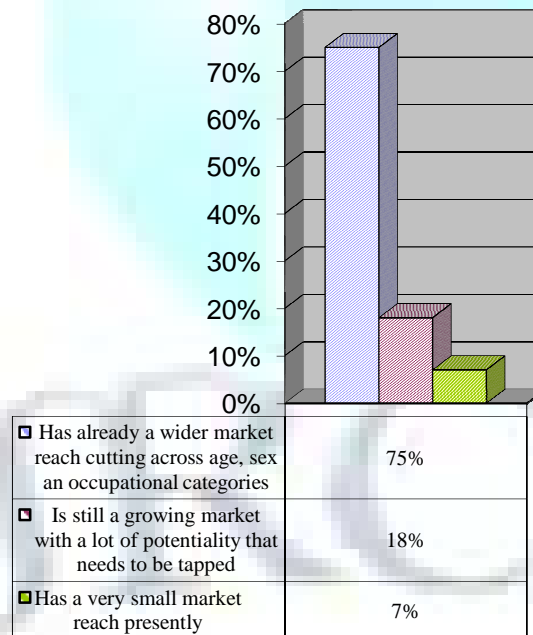
Interpretation: Reliance Life Insurance has a wider customer base in India cutting across age, sex, educational qualification and occupational barriers.

**3. WHY RELIANCE LIFE INSURANCE FOR THE CONSUMERS AND NOT ANY OTHER INSURANCE?**

⇒   It gives better return and other facilities along with fringe benefits-----------88 percent
⇒   Other life insurance policies are not so lucrative than those promote by Reliance ------------9 percent
⇒   Do not know / can not say------------------3 percent

gives better return and other facilities along with fringe benefits	88%
Other life insurance policies are not so lucrative than those promote by Reliance	9%
Do not know / can not say	3%
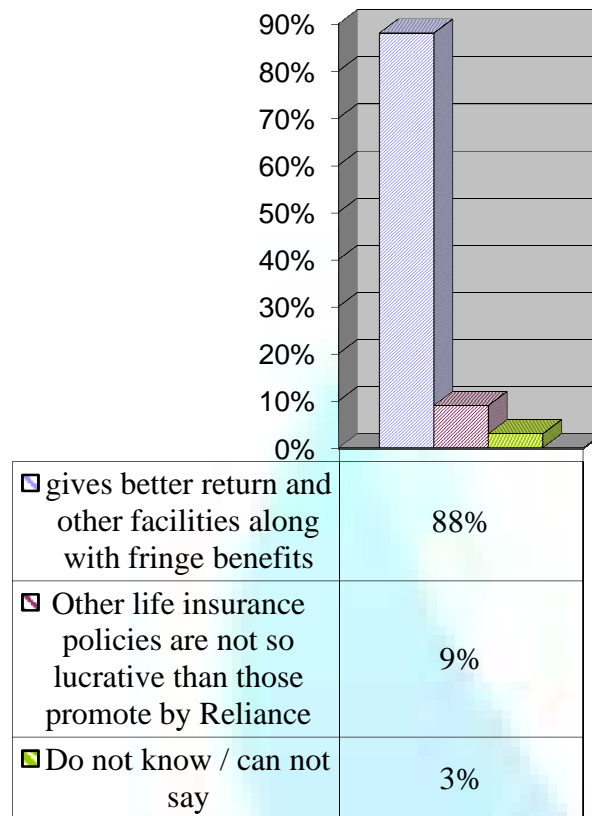
Interpretation: The officials in the Reliance Life Insurance Corporation believes that it is the return and the facilities that their company provides have made it a distinct life insurance company in the Indian market.

4. WHICH ARE THE POLICIES OF THE COMPANY THAT ARE FAVOURITE AMONG THE CUSTOMERS? PLEASE GIVE THE REASONS AS YOU THINK.

⇒   Endowment policies--------- 40 percent
⇒   Money back policies particularly Child growth, education and career oriented policies. --------- 45 percent
⇒   Percent-------------15 others

Endowment policies	40%
Money back policies particularly Child growth, education and career oriented policies	45%
Percent	15%
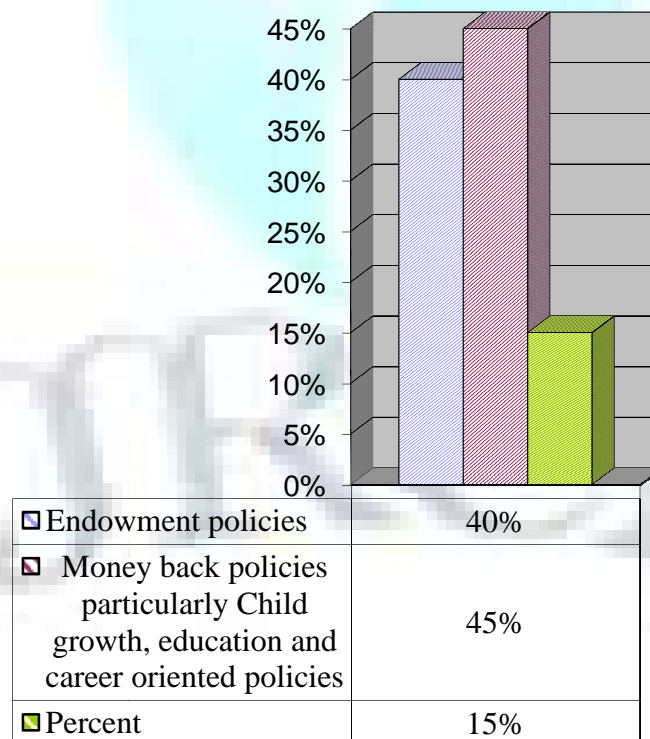
Interpretation: Both the Endowment and the Money back policies are favourite among the customers, however, the money back policies are more preferred to endowment policies.

5. WHAT MEASURES THE COMPANY IS TAKING TO MAKE ITS POLICIES ATTRACTIVE AND COMPETITIVE IN THE MARKET? YOU CAN CHOOSE MORE THAN ONE OPTION.

⇒ Professional management -------------------- 56 per cent
⇒ Wide publicity ------------------------------- 74 per cent
⇒ Attractive packaging ------------------------ 27 per cent
⇒ Market research ----------------------------- 65 per cent
⇒ Other Measures ----------------------------- 14 per cent
⇒ Do not know/ Can not say ------------------ 09 per cent
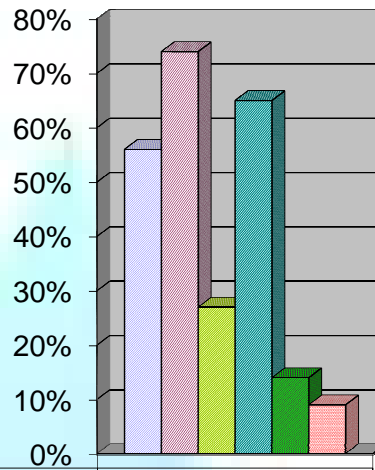
☐ Professional management	56%
☐ Wide publicity	74%
☐ Attractive packaging	27%
☐ Market research	65%
☐ Other Measures	14%
☐ Do not know/ Can not say	9%

INTERPRETATION: The management in the Reliance Life Insurance believes that wider publicity of their products along with professional management model and goal oriented market research can give an excellent return to the company.

CONCLUSION & RECOMMENDATION

According to the questionnaire & its data analysis the insurance holder is balanced to take online facility as internet. Also agent is kin into perform daily assignment of marketing without any constraints. It is remarkable that internet business model is well suited to the insurance sector as well as the other financial services. When we go through to the nature of question and answer, we find the association of clients, intermediaries & other significant parties are mutually satisfied to the operational activities monitored by the reliance company. Ultimately the knowledge, understanding and beneficial realities about the proposed company is much considerable by the players of social market as well as economical & financial market.

The insurance business is at a critical stage in India. Over the next two decades we are likely to witness high growth in the insurance sector for three reasons. Financial deregulation always speeds up the development of the insurance sector. Growth in income also helps the insurance business to grow. In addition, increased longevity and aging population will also spur growth in health and pension segments. Experience shows that life insurance markets tend to take time to develop, often developing later than banks and non-life insurance companies. This reflects the fact that has long term savings across the population as a whole increases as standards of living rise.

RECOMMENDATIONS ARE AS FOLLOW

Infrastructural Development. Wider Publicity. Increase in awareness level among the people. Public private nexus in the insurance sector in India. Spread the insurance culture fairly widely;. Mobilized large savings for national development and financed socially important sectors such as housing, electricity, water supply and sewerage; Acquire considerable financial strength and gained confidence of the insuring public;

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THE PRACTICE OF TEACHERS PEDAGOGICAL SKILLS IMPROVEMENT PROGRAM AT ADAMA SCIENCE AND TECHNOLOGY UNIVERSITY

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ABSTRACT

The main purpose of this research was to investigate the practice of teachers' participation in pedagogical skills improvement program at Adama Science and Technology University. It was intended to examine the contributions that teachers have gained as a result of their participation in this professional development practices. Currently over two hundred fifty instructors have completed the course designed for pedagogical skills improvement training program. The methodological approach of this study is qualitative research which tries to explore in depth practices and perceptions of small group of instructors (ten) who successfully completed this pedagogical skills improvement training program. Focus group discussion was employed to gather information from the group. For this case, purposive sampling was used to include those who already involved in the training program. Using the same sampling technique three tutors/facilitators were interviewed to obtain information regarding the training program. The evidence shows that instructors benefited so much from this pedagogical skills training program. They have gained good insights and skills from the training programs to improve their professional practices. In general, the findings of the study provide relevant information on the strengths and weaknesses of the practices in the training program.

KEYWORDS

Pedagogical skills, Professional Development, Teachers.

INTRODUCTION

In Ethiopia, higher education institutions are expanding rapidly than ever before. Students' enrollments in private and public institutions are dramatically increasing year after year. Expanding all these has compromised quality especially in the contexts of severely limited resources. The quality of education has become the issue of debate among the stakeholders and the community at large. In this regard, the former deputy minister in the Ministry of Education,, Teshome (2003: 8) states that "the standard of education in Ethiopia at all levels was declining greatly and the entire education system was at stake in the early 1990s…" Particularly, the writer indicated that the quality of instructors and their practices at higher education institutions are critical agenda that require immediate improvement through all possible interventions. One of the strategies devised by the Ministry of Education (MoE) to improve the quality of instructors in their professional practices at higher education institutions was establishing continuous professional development program through PSIP(Pedagogical Skills Improvement Program), HDP (Higher Diploma Program), and ADRC (Academic Development and Resource Center).

Adama Science and Technology University has given priority to improving instructors' professional knowledge and skills in recognition of the roles that they play in education. In line with this, Pedagogical Skills Improvement Training Center was established in September 2009. The main purpose of the center is to provide training for the academic staff so as to promote their pedagogical knowledge and skills and other related issues. Since its establishment over 250 instructors have completed the training program. Thus, this research is aimed at evaluating the successes and challenges in the implementation of the pedagogical skills improvement training program at this University. In particular, the intention of the research is to investigate the attitude of instructors toward the training program and to pin point some factors inhibiting the ongoing process of the professional development practices.

REVIEW OF RELATED LITERATURE

TEACHERS PROFESSIONAL DEVELOPMENT: CONCEPTUAL FRAMEWORK

These days the world at large has been under a dramatically growing process of change and reform in education. Teachers professional development has become one of the key elements in the rapid process of educational reforms. This is because teachers in educational reforms are the main executors of any changes and plans. In this regard, Vllegas-Reimers (2003: 7) noted that, teachers are not only one of the variables that need to be changed in order to improve the education system, but they are also the most considerable change agents in these reforms. Supporting this view OECD (1994) described that, teachers are at the centre of educational improvement. Any benefits that accrue to students as a result of education policies require the enabling actions of teachers. Fullan (2001) also places teachers at the heart of the success or failure of educational change by saying that if change is to happen, it requires teachers to understand themselves and to be understood by others. No matter how well defined education may be, it is the quality of teachers that makes a difference. Without effective teachers, their confidence and competence it is difficult to attain the desired objectives. Particular to higher education, Blair and Jordan (1994) noted that central to the realization of the higher education goals and objectives are the academic staff whose roles are diverse and decisive. Academic staff their quality and their effectiveness make the difference in the higher education. In general, as many literatures revealed the teacher is the most decisive factor in student learning. Student learning will undoubtedly be determined by teachers' effectiveness. The quality of a teacher is affected by his/her **knowledge of content** and by his/her knowledge of **how to teach**. It is through professional development efforts that knowledge of content and knowledge of strategies can be improved and promoted.

Levin (2003) also put a summarized report regarding teachers' quality and qualifications as keys to improving students learning. The writer elaborated that teachers preparation is a major component of teacher quality, along with ongoing opportunities for teachers' development. Effective teachers know their content, understand how their students learn, are able to develop and teach curriculum and also know to determine and support their students' needs. To discharge all these responsibilities, continuous professional developments are compulsory for teachers at all levels. Supporting Levin's idea, Guskey (2000) asserts that professional development is an extremely important component which is central to all educational programs. Without effective professional knowledge and skills, educators can not make strong contributions to the implementation of proper classroom activities and to the establishment of positive view of education.

In general, **p**rofessional development can be summarized as a planned, ongoing and systematic processes and activities designed to enhance the professional knowledge, skills and attitudes of educators for the improvement of students' learning. In other words, it is a program that intends to promote the professional knowledge (insights), skills and attitudes of teachers through formal and informal activities which are carried out on a continuous basis, from the pre-service teacher education through the whole remaining life span of the individual teacher.

IMPORTANCE OF PROFESSIONAL DEVELOPMENT FOR TEACHERS

According to Little (1997) what teachers know, do and believe has a major influence on students learning. If we are to improve the quality of teaching and learning in schools, we must invest in the learning of teachers. This learning should support the growth of the individual as well as contribute to the realization of the goals and priorities of the school and the system. Supporting this idea, Fullan (2001) noted that effective staff development is an essential and indispensable process without which schools and programs can not hope to achieve their desired goals to students' achievement. Having this in mind, literature has several justifications for teacher's professional development. Some rationale behind its necessity is discussed as follows.

Guskey (2000) relates the importance of teachers PD to the growing width and depth of human knowledge base that in turn requires new types of expertise. Educators have to keep up with the new intellectual and skill challenges to refine them and refine their own conceptual and craft skills. Educators need to update themselves to keep abreast of emerging knowledge and need to prepare themselves to use it. After all it could not be otherwise for them to survive safe in the profession that they have to develop professionally. According this scholar, if teachers' lag behind, the rapidity of change to which the society at large and their students from all walks of life and who are in the waves of dramatic changes could not accommodate them.

The other reason which is described by Guskey (2000) as the worth of professional development is related to the educational reforms that require teachers to transform their roles and take on new responsibilities. According to the writer, structural changes in the way schools are organized, shared decision making, and alternative school governance policies, and efforts to persuade greater parent and community participation all require educators to change the way they go about their jobs and redesign the culture in which they work.

More specifically, (Kwakman, 2003; Hord, 2004; and Freier, 1995) also described the importance of teachers' professional development from the view point of educational reform. According to these educators, many countries of the world are undertaking educational reforms that aim at major changes in: curriculum design, development, implementation and evaluation and methodology of teaching such as from the traditional teacher centered to the more students centered one. Methods of classroom or student assessment have been also shifting from the old written examination of a summative nature towards continuous or formative assessment that has a developmental value for students. The democratization process in education system including decentralization of decision making is also a new challenge of the changing trends in education. What is more reforms in curriculum are intending to achieve new levels of competencies like critical thinking, problem solving, and new cultures of teaching and learning like collaborative learning. Promoting these cultures of teaching and learning all require teachers to adapt new pedagogical approaches. Indeed against the traditional teachers' self-image as transmitters of knowledge, the constructivist view led teachers to see themselves as creators of opportunities and incentives that support learning (Loucks-Horseley et.al, 1998). It follows that for teachers to be up to date and in line with a prevailing viewpoint and approaches of teaching and learning, professional development plays a role of paramount importance. Hence a change driven, accountability based staff development is highly supported.

In sum, continuous professional development is a means for successful execution of educational reforms and has an immense benefit in promoting teachers knowledge, skills, and attitudes so that they can effectively discharge their duties and responsibilities in their professional career. Moreover, it enables teachers to go inline with the new emerging technological and pedagogical concepts that lead to quality of students learning

FEATURES OF EFFECTIVE TEACHERS PROFESSIONAL DEVELOPMENT

Concerning teachers and their professional practices, Borko and Putnam(1996) suggest five features that boost teacher learning in professional development opportunities. These five features are further stretched from current research report on professional development (Hawley & Valli, 1999, 2000; Loucks-Horsley et al., 1998; Putnam & Borko, 1996, 2000) as cited in Teclai (2006). These features involve: 1.Addressing teachers pre-existing knowledge and beliefs; 2.Enhancing teachers' subject matter and pedagogical knowledge and skills; 3.Grounding teacher learning and reflection in classroom practice; 4. treating teachers as adult learners; 5.Time and support. Although all these elements are essential, for the purpose of this study attention is given to the first three as follows.

1. Addressing teachers pre-existing knowledge and beliefs. It is believed that no one can exert an effort without benefit. Teachers come to PD opportunities with the number of expectations, knowledge, beliefs that serve them in their professional practices. Therefore, it is decisive that professional development opportunities explicitly address teachers pre-existing knowledge and beliefs. Borko and Putnam (1996) noted that one way to address teachers knowledge and beliefs is to enable teachers to reflect upon and make explicit their knowledge, beliefs, attitudes, and concerns about teaching, learning, and the subject matter. It is also equally important to assist teachers as they make their knowledge and beliefs explicit. This can be done by creating contexts in which they could examine and change their knowledge and beliefs.

2. Enhancing teachers' subject matter knowledge and pedagogical skills. In their wide-ranging analysis of literature on learning to teach the writers described that, professional learning must make teachers to have a rich and flexible understanding of the subject matter in order to teach in ways that are responsive to students' thinking and which facilitate learning with understanding. In addition to subject matter knowledge, effective teachers need a pedagogical knowledge and skills that guides their actions in highly contextualized classroom setting. Moreover, many educators (Hawley and Valli, 2000; Loucks-Horsley et al. (1998) described the pedagogical knowledge and skills as a way of representing and formulating the subject that makes it comprehensible to others, and includes among other things knowledge of how to represent and formulate content for student learning, knowledge of common conceptions and difficulties students encounter when learning a particular content and knowledge of specific strategies and representations that can be used to address students learning needs in particular classroom situations.

3. Grounding teacher learning and reflection in classroom practice. With respect to this Putnam and Borko (2000) described the principle which is based on the premise that knowledge is situated in a particular context where it is acquired and used. The writers argued that professional development programs can successfully address a systematically incorporating multiple contexts for teacher learning. Although the most appropriate context for professional development depends on the specific goals for teachers learning, Putnam & Borko (2000) suggest that a combination of approaches in a variety of contexts holds the best promise for facilitating powerful, multidimensional changes in teachers thinking and practices.

Overall, the above mentioned points are some of the critical features of effective professional development that should be acknowledged by program designers and implementers. As to effective professional development activities, Sparks (2002) indicated seven elements that are basic for high-quality professional development programs. These include:

1) *Ongoing learning and training*-this is to give emphasis to the need for continuous learning of new knowledge and skills so that teachers would cope up with changes in education.

2) *Institutional support*-this refers to support in terms of coordination, money, time, incentive and building a culture of collegiality among teachers.

3) *Hands-on and classroom-based experiences*- i.e. training through practice

4) *Individualized training*. This is because instructors vary in their levels of expertise at the time of their training. The context, which surrounds their professional development, must provide no threatening environment, that is, it should be sensitive to the individual instructor's level of expertise and experiences

5) *Follow-up training*, this refers to creating opportunities for teachers to work with mentors and colleagues. Perhaps the greatest challenge for instructors is putting newly gained knowledge and skills into action and to reinforce new knowledge, skills, and techniques because that will augments both what has been learned and the confidence to use it

6) *Mentoring*, Perhaps the greatest challenge for instructors is putting newly gained knowledge and skills into action. Therefore, it is helpful to arrange mentorship for teachers that play advisory roles.

7) *Train-the-trainers approaches to continuing education*. This also refers to providing opportunities in which teachers learn from each other in practice.

In general, effective professional development accomplishes variety of goals. It enriches teaching and improves learning for all students and an essential link to higher student achievement. It is considered as an ongoing process and is conducted in a long-term, sustained manner and also job-embedded and inquiry-based which focuses on practical activities. Effective professional development has a wide ranging positive impact in building learning community in educational institutions

PROFESSIONAL DEVELOPMENT MODALITIES

In many literatures there are various strategies of professional development activities. As described by Guskey (2000), some of these involve: Training, Observation/ Assessment, Involvement in a development/improvement process, Study groups, Inquiry, Individual guided activities, Mentoring/ peer coaching

1. Training: As explained by Guskey (2000), training is the most common form and most frequently conducted strategy of professional development and the one with which educators most experience. According to Joyce and Showers (2002), effective training includes an exploration of theory, demonstrations or modeling of skills, simulated practices, feedback about performance, and coaching in the workplace. The advantage of training in professional development practices

involve awareness creation, knowledge acquisition, sharing ideas and information with large group of educators and skill development and sometimes change in attitude and transfer of training.

2. Study Groups: Study groups engage in regular collaborative interactions around topics identified by the group. This provides opportunities to reflect on classroom practice and analyze student learning data. Groups can also read and discuss educational research publications in a collaborative and supportive environment, over an extended period of time. The study group model can include the entire staff of a school in finding solutions to common problems. Opportunities are then provided for groups to share their findings and recommendations with other staff members Guskey (2000). Collegiality, cooperation, and communication among teachers are valued by the school community.

3. Observation: According to Guskey (2000) one of the most effective ways to learn is by observing others, or being observed and receiving specific feedback from that observation. Analyzing and reflecting on this information can be a valuable means of professional growth. The most effective observations are well planned, focused on specific issues and with follow-up to document improvements. Peer observation promotes an open environment where public discussion of teaching is encouraged and supported. Peer coaching and clinical supervision are typical examples of observation. Observations of classroom teachers may focus on lesson design, instructional practices and classroom management or other issues related to teachers' roles.

The advantages indicated by scholars for observation is that it provides important benefits to both the observer and the being observed. The observer gains professional expertise by watching a colleague, preparing the feedback, and discussing common experiences. In the same vein the one being observed also benefits from another point of view, gain new insights, and receive helpful feedback. It also helps to break down the isolation of teaching and school administration by having colleagues work together on shared improvement goals.

4. Involvement in a development/improvement process: Most of the time educators come together to develop or review a curriculum, design a new program, plan strategies to improve instruction or solve a particular educational problem. Doing these professional activities may need participants to acquire new knowledge, through reading, research, discussion or observation. Through these design/development processes, they can improve their theoretical knowledge, practical skills and professional attitudes (Guskey, 2000).

5. Inquiry/ Action Research: Action research is a strategy for learning more about the teaching and learning process. Teachers decide what questions are important to examine in order for them to gain insight into what is happening in their classroom. It involves selecting a focus, collecting, analyzing and interpreting data and then taking action. The model is based on the belief that teachers have the ability to formulate valid questions about their own practice and pursue objective answers to these questions.

In so doing, it is quite evident that teachers' participation in action research improves their professional practices.

6. Mentoring/ peer coaching: Mentoring/or peer coaching is another effective model of teacher professional development in the workplace context. This type of professional development is conducted by creating a form of relationship between professional colleagues working together to reflect on their teaching and share ideas in order to improve their knowledge and professional skills. It applies by pairing a less experienced/beginning teacher with a well experienced and competent teacher. Discussions are held between the two in setting professional goals, ideas and strategies, class observations, exemplary practices, and ways of improving the mentoring teachers' practice.

7. Individual guided activities: Current theories of learning propose students active involvement in the learning to construct their own knowledge and skill. In order to realize this, the emerging teacher has to apply innovative methods to address the needs of students. To promote student active learning, teachers are required to adopt new pedagogical approaches (Kwakman, 2003). Individual guided activity helps teachers to keep up gaining new insights and developments that improve their practice, carry out readings on new subject matter, new teaching and pedagogical methods to affect student learning improvement and school change. According to Guskey (2000) this type of professional development model provides an opportunity for teachers to promote flexibility and individualization in making choice, decision making, personal reflection, and self-analysis..

In general, each of these types of professional development practices has an immense contribution in promoting teachers knowledge, skills and attitudes. Therefore, PD designers should consider the diversified and flexible approaches of these professional development practices that enhance the quality of teachers and there by improves the learning outcomes of students which are the ultimate beneficiaries of professional development programs.

RESEARCH METHODOLOGY

Since the establishment of the Pedagogical Skills Improvement Center, the researcher has been working as the coordinator for the overall activities of the training program. It is this experience that initiates the researcher to carry out this study through qualitative design to evaluate the implementation of the training program. In order to search answers to the questions posed, the researcher conducted a focus group discussion with ten instructors who already completed the pedagogical skills training program to obtain information as to how the training program is relevant and pertinent to their daily teaching practices. The researcher also interviewed three tutors/facilitators to get in-depth and detailed information about the training program. The total sample of informants, therefore, was made up of ten instructors and three trainers' /facilitators/. All together thirteen instructors were purposefully selected. Furthermore, observation was carried out to examine the participation of trainees during the training session. It is believed that gathering information from these potential groups will contribute to the validity and reliability of the information related to the pedagogical skills improvement training program at the University. The data gathered from the research respondents through focus group discussion and interview briefly analyzed and interpreted as follows.

RESULTS AND DISCUSSIONS

This part presents the findings of the study and discusses the outcomes of the major results that might have a considerable value for future improvement of pedagogical skills training program at Adama Science and Technology University. The findings were presented in three major parts. In the first part, the attitude and perception of instructors towards pedagogical skills improvement program was briefly discussed. The second part narrates the contributions of this pedagogical skills improvement training program for instructors' professional development. Finally, the factors influencing the implementation of this training program was presented and discussed.

A.   THE ATTITUDE OF INSTRUCTORS TOWARDS PEDAGOGICAL SKILLS IMPROVEMENT PROGRAM

The key issues raised by the researcher to understand instructors attitude towards this training were focusing on: how the training program is useful to make teachers knowledge up-to-date, how do they perceive that the training improves the quality of their performance, how the training encourages collaboration among themselves, to what extent they were satisfied with the training program, and how the contents of the training program are relevant to their classroom teaching. These were among the major points posed for the discussion with instructors. The results of the discussion are presented here under:

All teachers who participated in the study reported that the pedagogical skills improvement training program is so essential and useful to make teachers knowledge up-to-date. Education is dynamic by its very nature, what is true yesterday might not be true today and what is true today might be obsolete by tomorrow. So, to cope up with this rapidly changing situation it is vital to provide timely and relevant training for executors of the education i.e. for the teachers. They indicated that the PSI enables them to refresh their mind and examine the old fashioned approach of their teaching. They believe that the quality of teaching entirely depends on teachers' mastery of the subject matter and the pedagogical skills of how the subject matter knowledge is transferred to the students. In this regard, they indicated that the "how" is equally important to the "what" aspect of delivering and improving the quality of teaching. They thought that continuous on job training enables instructors to promote their knowledge and skills and also helps to maximize students learning. *"children can not be effective in tomorrow's world if they are trained in yesterday's skills" (watson, 2001)*

These respondents who completed the pedagogical skills improvement training program strongly believe that the training also encourages collaboration and intimacy among instructors of the same or different field of specialization. As indicated by the instructors, the opportunities to share experiences among themselves during the training have paramount importance to improve their knowledge and skills. Especially, the novice teachers were more benefited to acquire the good practices of relatively better qualified and experienced instructors. They also indicated that effective teaching takes place if the social components of the work environment are strong, smooth and attractive. They stressed that it is the pedagogical skills improvement training program that would

create the opportunity to work together, to conduct peer observation and peer assessment among each other which helps them to improve their professional practices.

PIC. 1: PICTURE DURING THE TRAINING SESSION

The above picture shows how instructors were actively participating and share experiences during the training. The researcher has conducted observation in the training session to get first hand information about the training program and how every member of the group was actively participating in the lesson. From the observation the researcher understood that the trainees were very much enthusiastic to the training program and there was high participation from every individual on the discussion points.

The other issue was as to how the training contents are relevant to their professional practices in general and classroom teaching in particular. They indicated that the training package in general is relevant to their professional exercise. These contents involve:

- The Reflective Teacher Educator
- English for Effective Communication
- Information and Communication Technology in Education
- Active Learning
- Student Assessment
- Research Methodology

The duration for completing the whole package of the training manual lasts six months. As pin pointed out by some instructors, few contents are not considering the particular nature of their filed of studies. They said that the contents are too general not specific to their areas. Exercises given, questions raised and terminologies used in the modules are far from their area of specialization. Instructors pointed out that the contents of the training materials have to be polished and adapted to the different field of studies and needs and interests of the schools. They believe that revising the training manual would improve the quality of the PSI training program and allow the trainees to apply what they have learned to their daily professional practices.

In general, the participants described that although there are some problems related to contents, they were very much satisfied with the training program. This program enables them to develop confidence in their teaching duties. It is after the training that they feel optimistic attitude towards the teaching profession. They asserted by giving suggestion that this training program should be compulsory to all instructors including professionals, para-professionals and novice instructors. It is through such type of effort that the institutions can maintain and improve the quality of students learning. The interview results with the tutors/facilitators regarding the attitude of instructors to the PSI training show that trainees have positive impression towards the program. From their daily interaction with the trainees they understand that this training program allows instructors to develop confidence in their teaching profession, enables them to discharge their duties and responsibilities, pave a good opportunity for instructors to work in collaboration among themselves and share experiences across all disciplines, departments and schools.

In general, the response of both trainees and trainers is consistent regarding the outlook of instructors towards the pedagogical skills improvement training program undertaking in Adama Science and Technology University.

B.   THE CONTRIBUTIONS OF PEDAGOGICAL SKILLS TRAINING FOR INSTRUCTORS PROFESSIONAL PRACTICES.

Here instructors are requested to indicate the extent to which the pedagogical skills training program enabled them to carry out their professional activities. Almost all of them have remarked the contributions of the training as follows: it helps to use a variety of teaching methods and techniques, to prepare instructional plan and use it accordingly, to use time effectively and efficiently, to improve the techniques of classroom management, to promote the knowledge and skills of conducting research, to regularly evaluate the strength and weaknesses of their courses and to address the needs and interests of the different learning styles of students. The instructors further noted that this training program motivated them to use student centered pedagogical approaches such as active-learning method, problem-solving method, project method and experiential learning method. They stressed that the use of these methods do not only improve the quality of teaching but also promotes students learning by minimizing the gap observed between students in classroom teaching,

On the other hand, the target population of this study explained that the training program enhances their efficiency in presenting the contents of their courses i.e. it initiates them to use varieties of instructional materials that support the lesson topic for better understanding of students. Moreover, during the discussion teachers reported that the training program permits to understand and use their time effectively and efficiently to achieve the intended purpose. As one of the participant reported regarding time utilization, I was very poor in time management before I had taken the pedagogical training. But, after the training I have made significant improvement in the use of time. As a whole, they reported that the PSI training allow them to know even more about their field of specialization.

The instructors and facilitators also explained that the participation to the PSI training program make them possible to use continuous assessment of students learning. According to the respondents, conducting continuous assessment enables them to monitor and follow-up student progress and create opportunity to address the needs and interests of the different learning styles of students. This continuous assessment also stretched to regularly evaluating the strength and weakness of the course they are assigned to teach.

It was reported by the instructors that attending this training program encourages them to conduct research on the daily practices of classroom problems. This is because one of the modules in the training package of pedagogical skills improvement is action research which is intended to develop the research capacity of instructors for immediate problem solving of classroom situations. Instructors also indicated that the PSI training inspire them not only to conduct research but also to seek further information and training to their profession development.

Instructors also emphasized on the importance of PSI training in introducing the use of IT in education in general and in the teaching learning process in particular. These days the global trends move towards the use of electronic support teaching method (e-teaching/learning) which might seem compulsory and essential. In this regard, all instructors said that the incorporation of introductory IT contents in the training modules of the PSI encourages them to use

computer and other instructional Medias for different purposes in the teaching – learning process. ICTs enable new ways of teaching and learning rather than simply allow teachers and students to do what they have done before.

C. FACTORS INFLUENCING THE IMPLEMENTATION OF PSI TRAINING PROGRAM

Although PSI (Pedagogical Skill Improvement) training has impressive contributions for instructors, there are various problems observed during the implementation. The researcher requested both instructors and facilitators to explain the major problems related to this program. The major problems that are frequently described by the majority of group members include shortage of resources and facilitates like computes, LCD (Projector), well organized training rooms, qualified and experienced tutors/facilitators, shortage of additional reading materials like books, professional journals etc in the center. The inadequacy of these essential resources has a negative effect on the ongoing training program. The budget allocated for the training program was also not sufficient to buy stationeries and other necessary materials for the training program. The top management of the University is promising to allocate necessary budget for the training program every year, but still the problem was not profoundly solved.

Most instructors in the school of Engineering and Information Technology need greater assistance from the PSI facilitators to promote their teaching skills since a great deal of them lack pre-service pedagogical training. However, due to shortage of qualified facilitators, instructors are not getting appropriate advisory services regarding their problems.

The respondents indicated that the expansion program going on in the university and high student population per class make them busy and overloaded with classroom activities. They are under time pressure to effectively participate in PSI training program. Implementation of the knowledge and skills acquired in practical classroom situation is so challenging due to high student population per class.

So far, no salary increment or incentives for those who successfully completed the nine months training program. Only certificate is given for the instructors who have completed the program. As they said, this is not enough. The University has to give due attention to the benefits and advantages of participation in PSI training program. For instance, the university has to find ways and possibilities in which the certificated individuals get fringe benefits, career development, or any form of incentives after completing the program.

IMPLICATIONS OF THE RESEARCH

As a whole the perceptions of instructors and facilitators towards pedagogical skills improvement training program is very much positive. They have motioned their agreements by confirming that PSI training contributes to a great extent to promote instructors knowledge and skills which by implications leads to improve the quality of students learning. The strategies and plans devised by the University management to establish pedagogical skills improvement center at Adama Science and Technology University is sounding and encouraging. Practically this helps all the academic staff to improve and promote their professional development in general and helps to alleviate the pedagogical deficiency of instructors who were not trained for the teaching profession in particular.

The needs and positive attitudes of the instructors towards PSI training combined by the strategies and plans designed by the university management to promote and strengthen the PSI, provide promising prospects for future improvement of pedagogical skills training program at Adama Science and Technology University.

In general, PSI is accepted as an inevitable device in implementing the recent educational reforms that consider interactive student-centered teaching and learning approaches as an integral element. It enables teachers to keep abreast of the current educational trends and new theories. It renews teachers' repertoires of knowledge, skills and attitudes. It also upgrades the research skills of the teachers. Moreover, it has potentials of strengthening friendship and collaborative works and develops the sprit of team work among the staff members. Therefore, it is a must to strengthen the training center to improve the quality of students learning.

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THE IMPACT OF FIVE FACTOR MODEL OF PERSONALITY ON ORGANIZATIONAL CITIZENSHIP BEHAVIOR OF NON-MANAGERIAL EMPLOYEES IN THE BANKING SECTOR IN SRI LANKA

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ABSTRACT

The purpose of this study was to investigate the impact of five factor model of personality of non-managerial employees on their organizational citizenship behavior in Sri Lankan banking sector. The convenience sampling method was used to collect the sample of 150 non managerial employees who work in North Central province in Sri Lanka. A questionnaire was administered among the non-managerial employees to measure their big five personality and organizational citizenship behavior. The collected data were analyzed using correlation coefficient and regression analysis. The results of the study indicated that extraversion, agreeableness, conscientiousness and openness to experience had significantly and positively correlated with organizational citizenship behavior. Results further indicated that neuroticism had significant negative association with organizational citizenship behavior.

KEYWORDS

Five Factor Model of Personality, Non - Managerial Employees, Organizational Citizenship Behavior.

INTRODUCTION

conomy or production process largely depends upon how efficiently the financial sector in general and the banks in particular perform the basic functions of financial transformations. In a country like Sri Lanka, this factor assumes further significance. The banking sector is the dominant sub sector within the financial sector. It plays the positive and important role for the overall development of the country. The performance of the banking sector directly affects to the other industrial and service sectors of the economy (Fernando, 2004).

Traditionally, the employees' job performance has primarily defined in terms of how well a employee completes his/her assigned duties. However, in recent past the researchers and practitioners found that the need of employees' willingness to accomplish their duties beyond the assigned duties to achieve the goals and objectives of the organizations. In the context of the banking, the banks performance fundamentally depends on their employees' willingness to go beyond role expectations voluntary. They have to illustrate more discretionary behavior that is not explicitly recognized by the formal organizational reward system. This concept is called Organizational Citizenship Behavior (OCB) & referred to as a set of discretionary workplace behavior that exceeds one's basic job requirements. OCB has received considerable attention among the researchers during the past decade as its importance to overall performance of an organization. According to Organ (1988), OCB is vital to the survival of an organization and it maximizes the efficiency & productivity of both the employees and the organization which ultimately contributes to the effective functioning of an organization. Some researchers argued that OCB has positively correlated with performance of an organization (Borman & Motowidlo, 1993; Organ, 1988; Organ & Near, 1983). OCB has contributed favorably to efficiency & effectiveness of work teams (Podsakoff, Mackenzie, Paine, & Bachrach, 2000), job involvement (Dimitriades, 2007), and organizational commitment (Podsakoff, Mckenzie & Bommer, 1996).

The concept of OCB acts as a crucial factor in the banking sector because all the cooperative behavior extended by its non-managerial employees help to build the relationship with coworkers, managers and customers. Since the OCB of the employees is one of the key factors in deciding the success or failure of any organization, many researchers and practitioners have focused their research to find out the antecedents of OCB. Among them personality characteristics (George, 1991; Moorman & Blakely, 1995), leadership behavior (Farh, Podsakoff, & Organ, 1990; Niehoff & Moorman, 1993), perceptions of organizational/supervisor support (Randall, Cropanzano, Borman, & Birjulin, 1999), conscientiousness (Organ & Ryan, 1995), affectivity (George, 1990), agreeableness (Konovsky & Organ, 1996), job satisfaction and organizational commitment (O'Reilly & Chatman, 1986; Williams & Anderson, 1991; Organ & Konovsky, 1989; Organ & Ryan, 1995; Shapiro, Kessler & Purcell, 2004; Bateman & Organ, 1983; Lee & Allen, 2002; Smith, Organ, & Near, 1983; VanYperen, Van den Berg, & Willering, 1999), job involvement (Shapiro et al. 2004), emotional intelligence (Jain & Sinha, 2003; Sitter, 2005) are the most investigated antecedents of OCB. In addition to these factors, dispositional factors influence on OCB. Organ (1990) stated that an employee's individual dispositions would provide the most valuable explanation of organizational citizenship behaviors to researchers and practicing managers. Although lots of researches have been conducted on the disposition factors and OCB relationship (Organ, 1990; Organ, 1994; Organ & Lingl, 1995; Penner, Midili, & Kegelmeyer, 1997), the relationship between personality and OCB is not clear and is somewhat illusive (Organ, 1994).

Understanding employees' personality is very important to managers because this understanding is very helpful for assigning people into jobs and it gives them clues about how employees are likely to behave in different situations. According to Kumar and Bakhshi (2010) the dispositional factors are always referring to the five-factor model of personality namely extraversion, agreeableness, conscientiousness, neuroticism and openness to experience (Kumar and Bakhshi, 2010). The five factor model of personality is one of the most important models in positive psychology to explain the most prominent aspects of personality (Goldberg, 1990; John & Srivastava, 1999).

In Sri Lankan research literature, there were few researches on personality and OCB but nothing can be found on the impact of five factor model of personality on OCB of non-managerial employees in the banking sector especially in North central province in Sri Lanka. Thus, it is important to study the impact of five factor model of personality on OCB filling the existing research gap.

PROBLEM STATEMENT

In reviewing the research literature, it can be found that lots of factors have influenced on OCB. Among them, dispositional factors especially personality have significantly influenced on OCB. Anyway, the importance of person's personality on OCB has not been adequately tested. In Sri Lankan banking sector, it cannot be found any research on the impact of five factor model of personality on OCB among the non-managerial employees. Therefore, the problem addressed in this study is to investigate "How does five factor model of personality influence on OCB of non-managerial employees in the banking sector in Sri Lanka?"

OBJECTIVE OF THE STUDY

To investigate the relationship between each dimension of five factor model of personality and OCB of non-managerial employees in the banking sector in Sri Lanka.

LITERATURE REVIEW

FIVE FACTOR MODEL OF PERSONALITY

The five-factor model of personality or the Big Five dimensions of personality involves five relatively independent traits that provide meaningful information about individual differences in an organization and their responses (Kumar and Bakhshi, 2010). Openness to experience, conscientiousness, extraversion, agreeableness and neuroticism are the traits of this model. These dimensions altogether provide a meaningful taxonomy for the study of individual differences.

Openness to experience is "the degree to which a person is curious, original, intellectual, creative, and open to new ideas." (Barrick & Mount, 1991; Lievens, Harris, Van Keer & Bisqueret, 2003) They further explain that highly openness people succeed in the situations that they need flexibility and learning new things. These people enthuse to learn new skills and they are success in training situation. The most prominent part of this personality is originality and creativity whereby this type of person is mostly innovators and initiators (Teng, 2008). According to Barrick & Mount (1991) conscientiousness refers "to the degree to which a person is organized, systematic, punctual, achievement-oriented, and dependable." This personality trait predicts the consistency of the performance of the individuals across the different occupation. This type of personality can be referred as self-discipline and ability to act obediently (Erdheim, Wang and Zickar, 2006). Extraversion is "the degree to which a person is outgoing, talkative, sociable, and enjoys socializing." (Teng, 2008) Employees with this type of personality have the propensity to have lots of friends and devote their time in social circumstances. Extraverts can easily adjust for new jobs than the introverts. The person with extraversion personality search information and feedback actively. They build effective relationship with others so as to adjust to the new jobs (Wanberg & Kammeyer-Mueller, 2000). Agreeableness is "the degree to which a person is affable, tolerant, sensitive, trusting, kind, and warm." (Kumar and Bakhshi, 2010) Highly agreeableness people are amiable people who like to live with harmoniously with others. They help other employees at work consistently (Ilies, Scott, & Judge, 2006). According to Teng (2008) neuroticism or emotional stability is "the degree to which a person is anxious, irritable, temperamental, and moody." The high in neuroticism is the only negative personality type within the five factor model of personality. Employees with high neuroticism face lots of problems at work. They are trouble creators & not maintaining good relationship with others. They do not like to go for advice (Klein, Beng-Chong, Saltz & Mayer, 2004).

ORGANIZATIONAL CITIZENSHIP BEHAVIOR

Organ (1988) defined OCBs as "an individual behaviour that is discretionary not directly or explicitly recognized by the formal reward system and that in the aggregate promotes the effective functioning of the organization." The word discretionary means that the behaviour that goes beyond the call of duty and it is not a requirement of formal job description. Allen, Barnard, Rush, and Russell (2000) defined OCB as behaviour which embodies the cooperative and constructive gestures that are neither mandated by formal job role prescriptions nor directly or contractually compensated for the formal organizational reward system. Bolino and Turnley (2003) identified it as an organization's ability to elicit employee behaviour that goes beyond the call of duty. They found that citizenship behaviours generally have two common features: they are not directly enforceable and they are representative of the special or extra efforts that organizations need from their workforce in order to be successful.

Several measures and OCB domains have been developed such as altruism, conscientiousness, loyalty, civic virtue, voice, functional participation, sportsmanship, courtesy and advocacy participation (Bateman & Organ, 1983). Organ (1988) has identified five dimensional model which are altruism, conscientiousness (compliance), sportsmanship, courtesy and civic virtue. These dimensions are frequently recognized in research (LePine, Erev & Johnson, 2002). According to Organ (1988) Altruism refers to employee behaviours directed toward helping or cooperating with other employees in face to face interactions on organizationally relevant issues. Compliance is defined as dedication to the job which exceeds formal requirements such as working long hours and volunteers to perform jobs besides duties. Although this dimension was initially labeled "conscientiousness", it was later renamed "compliance" in order to avoid confusions with the personality factor labeled "conscientiousness". (Organ, Podsakoff, MacKenzie 2006). Organ (1988) has identified sportsmanship as a willingness to tolerate the inevitable inconveniences and impositions of work without complaining. Courtesy includes behaviours which focus on the prevention of problems and taking the necessary step so as to lessen the effects of the problem in the future. Civic virtue is referring to the responsibility of the subordinates to participate in the life of the firm such as attending meetings which are not required by the firm and keeping up with the changes in the organization.

FIVE FACTOR MODEL OF PERSONALITY AND ORGANIZATIONAL CITIZENSHIP BEHAVIOR

According to Barrick & Mount (1991) extraversion is a key dispositional determinant of social behavior. As far as extraversion is concerned, individuals who are high in extraversion are sociable, gregarious, talkative, assertive and active (Barrick et al. 2005).Therefore highly extraverted people display more flexible behaviors that make them more likely to show OCB. Extrovert people engage more in OCB as they are more responsive to their social surroundings and might therefore be more open to the claims of others (Organ, Podsakoff and MacKenzie 2006).

H₁: Non managerial employees' personality of extraversion will be positively related to OCB

According to empirical evidence it can be predicted that persons high in agreeableness are more likely to perform OCB because highly agreeableness people are friendly, good natured, cooperative, helpful, courteous and flexible (Barrick & Mount, 1991; Witt, Burke, Barrick & Mount, 2002). As a result of this, they show higher level of interpersonal competence (Mount et al., 1998). They collaborate in team work effectively (Mount et al., 1998). Mount, Barrick & Stewart, (1998) stressed that agreeableness is significantly related to interpersonal performance. Agreeableness is a common predictor of citizenship (Hurtz & Donovan, 2000; Ilies et al., 2009; Organ & Ryan, 1995).

H₂: Non managerial employees' personality of agreeableness will be positively related to OCB

Consciousness or compliance is one of the most important personality traits in predicting OCB (Hossam & Abu Elanain, 2007; Hurtz & Donovan, 2000; Ilies et al., 2009; Organ & Ryan, 1995). Conscientiousness or compliance includes traits such as being dependent, organized, self-disciplined and persevering and is therefore claimed to have a link to more impersonal forms of OCB, such as compliance and civic virtue, directed to the job itself and the organization (Organ, Podsakoff and MacKenzie 2006). They are predisposed to take initiative in solving problems and are more methodical and thorough in their work (Witt, Burke, Barrick & Mount, 2002). These people are predisposed to develop behaviors which extend beyond the expected task performance. Barrick & Mount (1991) pointed out that the people who are high in conscientiousness generally perform better at work than those who are low in conscientiousness. Conscientious people are more likely to accept responsibility and be thorough in their approach to life's tasks. These characteristics translate well into an organizational setting such as following rules and helping others with their work. Empirical evidence suggests that the two factors that have most consistently correlated with OCB are conscientiousness and agreeableness (Organ, 1994; Organ & Ryan, 1995; Borman, Penner, Allen & Motowidlo, 2001). Conscientiousness correlates most highly with organizational compliance and altruism (Organ & Ryan, 1995).

H₃: Non managerial employees' personality of consciousness will be positively related to OCB

Barrick, et al. (2005) has expressed neuroticism or emotional stability as one of the key dispositional determinants of social behavior. Individuals who are high on this dimension are usually anxious, depressed, angry, embarrassed, emotional, worried, and insecure (Barrick & Mount, 1991) whereas employees who score low in the neuroticism scale are usually calm and relaxed under stressful or difficult situations, feeling secure and self-satisfied (Tsaousis, 1996).Therefore it can be assumed that there is a negative relationship between neuroticism and OCB. According to Organ, Podsakoff and MacKenzie (2006) emotionally stable people who score high on emotional stability are more likely to perform OCB in comparison to neurotic personalities. This is due to the fact that emotionally stable people are more open to problems of others. Whereas emotionally instable people, in contrast to emotionally stable people, are often overstrained with their own problems and are, consequently, less likely to engage in helping behavior.

H₄: Non managerial employees' personality of neuroticism will be negatively related to OCB

Individuals high on openness to experience display a preference for variety, they enjoy grasping new ideas, and they have an intrinsic interest in and appreciation for novelty (Kumar, 2009). Openness to experience is the most important personality trait in predicting OCB (Hossam & Abu Elanain, 2007). Openness and Agreeableness have stronger relationships with citizenship than with task performance (Chiaburu, In-Sue Oh, Berry, Li, and Gardner, 2011). According to Elanain (2007), Open individuals also differ from more closed individuals in social attitudes, and attitudes toward accepted values and assumptions. Importantly, open individuals display a preference for variety, they enjoy grasping new ideas, and they have an intrinsic interest in and appreciation for novelty. Thus, the study expects that persons high on openness to experience are more likely to show OCB.

H₅: Non managerial employees' personality of openness to experience will be positively related to OCB

METHODOLOGY

THE RESEARCH DESIGN

The current study employed a correlational research design in order to explore the relationship between non managerial employees' big five personality (independent variable) and their organizational citizenship behavior (dependent variable). This field study is conducted in natural environment in banks under non-contrived settings. The unit of study is individual.

POPULATION AND SAMPLE

The population of this study is all the non-managerial employees who work in the commercial banks in North central province in Sri Lanka.

The sample of this study was 150 non - managerial employees in the Commercial banks in North Central province in Sri Lanka. 100 non managerial employees were selected from Anuradhapura district and 50 non managerial employees were selected from Polonnaruwa district. The sample method of the survey was the convenience sampling. Ninety five of non - managerial employees were women; Eighty seven were married. Their average age and tenure in the organization were 32.27 years (*SD*= 8.97) and 10.38 (*SD* = 6.11), respectively.

MEASURES

Non managerial employees' OCB was the dependent variable and big five personality of the non-managerial employees was the independent variable of this research. These variables were measured using standard instruments. The questionnaire was separated into three sections for demographic data, big five personality types and OCB. Six questions were included to get the demographic information. The adapted big five inventory (John, Donahue, and Kentle, 1991) was used to measure big five personality. It was measured using 44 questions including 8, 9, 9, 8, 10 questions were used to measure extraversion, agreeableness, conscientiousness, neuroticism and openness to experience respectively. 24 questions were used to measure the OCB which was developed by Podsakoff, Mackenzie, Moorman and Fetter (1990). This variable was measured in terms of five dimensions as Altruism, Conscientiousness (Compliance), Sportsmanship, Courtesy, and Civic Virtue.

VALIDITY AND RELIABILITY

The questionnaire which was prepared for non-managerial employees consists of 02 instruments (big five personality and organizational citizenship behavior). Big five inventory is a standard questionnaire which has been developed by John, Donahue, and Kentle, (1991) and assured the content validity. The instrument which is used to measure OCB was developed by Podsakoff, Mackenzie, Moorman and Fetter (1990) and assured the content validity.

TABLE 01: ALPHA VALUE FOR TEST RETESTS RELIABILITY

Variables	Cronbach Alpha Coefficient
Extraversion	0.91
Agreeableness	0.84
Conscientiousness	0.88
Neuroticism	0.79
Openness to experience	0.87
OCB	0.89

It can be concluded that the instruments possesses high test retest reliability and the internal consistency reliability is satisfactory owing to the data represented in table 01and 02.

TABLE 02: CRONBACH COEFFICIENT ALPHA VALUE FOR INTERNAL CONSISTENCY

Variables	Test- retest coefficient
Extraversion	0.87
Agreeableness	0.81
Conscientiousness	0.91
Neuroticism	0.80
Openness to experience	0.82
OCB	0.90

METHODS OF DATA ANALYSIS

The data were analyzed using correlation coefficient and regression analysis. SPSS data analysis package of 17^{th} version was used to analyze the data.

DATA ANALYSIS

According to the results of the univariate data given in table 03, the level of OCB is in high level among the non-managerial employees. The majority of non-managerial employees have the personality type of conscientiousness and Neuroticism is the lowest personality trait among the non-managerial employees.

TABLE 03: THE RESULTS OF UNIVARIATE ANALYSIS

Variables	Mean	SD
Extraversion	4.01	0.80
Agreeableness	3.99	0.44
Conscientiousness	3.49	0.51
Neuroticism	2.61	0.52
Openness to experience	4.12	0.59
OCB	3.51	0.50

TABLE 04: CORRELATION COEFFICIENT BETWEEN INDEPENDENT VARIABLES AND DEPENDENT VARIABLE

Variables	1	2	3	4	5	6
1. Extraversion	-					
2. Agreeableness	0.29**	-				
3.Conscientiousness	0.21**	0.27**	-			
4.Neuroticism	-0.15*	-0.17*	-0.29**	-		
5.Openness to experience	0.22**	0.17*	0.12*	-0.11*	-	
6.OCB	0.21**	0.31**	0.41**	-0.12**	0.29**	-

*p<.05, **p<.01

The results of the correlations coefficient between big five personality and OCB of non-managerial employee in banking sector are presented in Table 04. According to the results, the correlation between extraversion and OCB (r = .21, p<0.01), agreeableness and OCB (r = 0.31, p<0.01), conscientiousness /compliance and OCB (r = 0.41, p<0.01), openness to experience and OCB (r= 0.29, p<0.01) were significant and positive. It was reported a significant negative relationship between neuroticism and OCB (r = -0.12, p<0.05). The result of the correlation coefficient of each dimension of big five personality and OCB is depicted in table 05.

TABLE 05: CORRELATION BETWEEN DIMENSIONS OF BIG FIVE PERSONALITY AND OCB

Variables	Altruism	Compliance	Sportsmanship	Courtesy	Civic Virtue
1. Extraversion	0.38[**]	0.35[**]	0.28[**]	0.34[**]	0.20[**]
2. Agreeableness	0.42[**]	0.29[**]	0.47[**]	0.46[**]	0.08
3.Conscientiousness	0.41[**]	0.35[**]	0.45[**]	0.49[**]	0.21[**]
4.Neuroticism	-0.13[**]	-0.15	-0.11	-0.20[**]	-0.06
5.Openness to experience	0.41[**]	0.43[**]	0.31[**]	0.44[**]	0.28[*]

*p<.05, **p<.01

TABLE 06: RESULTS OF THE REGRESSION OF EXTRAVERSION ON OCB

	β	R	R^2	F value	P value
OCB	0.15	0.11	0.07	5.27	0.02

TABLE 07: RESULTS OF THE REGRESSION OF AGREEABLENESS ON OCB

	β	R	R^2	F value	P value
OCB	0.21	0.17	0.14	8.32	0.00

TABLE 08: RESULTS OF THE REGRESSION OF CONSCIENTIOUSNESS ON OCB

	β	R	R^2	F value	P value
OCB	0.29	0.25	0.22	15.36	0.00

TABLE 09: RESULTS OF THE REGRESSION OF NEUROTICISM ON OCB

	β	R	R^2	F value	P value
OCB	-0.21	0.19	0.15	8.96	0.00

TABLE 10: RESULTS OF THE REGRESSION OF OPENNESS TO EXPERIENCE ON OCB

	β	R	R^2	F value	P value
OCB	0.20	0.19	0.16	10.32	0.00

The result of the regression analysis is reported in table 06 to 10. The relationship between extraversion and OCB (β = 0.15, $p < .05$), agreeableness and OCB (β = 0.21, $p < .01$), conscientiousness and OCB (β =0 .29, $p < .01$), openness to experience and OCB (β =0 .20, $p < .01$) were significant and positive. Neuroticism was found to be negatively related with OCB (β = -0.21, $p < .01$).

DISCUSSION AND CONCLUSION

The main objective of this study was to examine the relationship between five factors model of personality and OCB of non-managerial employees in the banking sector in Sri Lanka. The results of correlation coefficient and regression analysis indicated that personality types of extraversion, agreeableness, conscientiousness (compliance) and openness to experience of non-managerial employees have significantly and positively correlated to their OCB whereas the personality type of neuroticism has significantly and negatively correlated with OCB. Therefore, all the hypotheses can be accepted according to the statistical evidence. According to the data, conscientiousness was the best predictor of OCB. It has significantly explained 22% of variance in OCB. Openness to experience was the second highest correlated dimension of personality with OCB. It has explained 16% of variance in OCB. The personality type of extraversion has significantly explained 7% of variance in OCB. The agreeableness has an ability to explain 14% variance of OCB. Neuroticism has explained 15% variance in OCB.

The result of this study was generally consistent with previous studies. According to empirical evidence, the correlation between conscientiousness and various OCB dimensions is much stronger than the correlation of the other personality dimensions. The findings of this research were also support this argument and it has correlated significantly and positively with all the dimensions of OCB. This indicated that the employees have personality traits of organized, systematic, punctual, achievement-oriented, and dependable are helping and cooperating with others. Their job dedication is high and they are working long hours. This may be happen due to their achievement oriented trait. They tolerate inconveniences and focus on the prevention of problems and taking the necessary step so as to lessen the effects of the problem in the future.

Extraversion has significantly and positively correlated with all the dimensions of OCB. Agreeableness had significantly correlated with altruism, courtesy, sportsmanship and compliance. Neuroticism has significantly and negatively correlated with altruism, compliance and courtesy in this study. Openness to experience has significantly and positively correlated with all the dimensions of OCB.

Based on the results of this research, it can be concluded that the non-managerial employees' personality types has significant impact on their OCB. The personality types of extraversion, agreeableness, conscientiousness (compliance) and openness to experience of non-managerial employees have positively correlated to their OCB whereas the personality type of neuroticism has negatively correlated with OCB.

LIMITATION OF THE STUDY

The results must be considered with several limitations. The first limitation was its generalizability because the data collection was confined to the non-managerial employees of the banking sector in North Central province in Sri Lanka. Second limitation was of relying on self-reported data. The types of big five personality and OCB of non-managerial employees were measured according to the respondents' own attitudes. Thirdly, the difficulty of exploring the psychological factors like personality and OCB through the structured questionnaire was another limitation of this study.

FURTHER RESEARCH

The present study provides many potential paths for future researchers. In this study five factor model of personality and OCB were the major variables of interest. However, exploration of how personality influences other areas in an organization and life may be fruitful. For example, the question of how personality affects organizational commitment, job performance, job satisfaction, leadership styles, withdrawal intention, turnover, family conflict and stress etc. The research study attempted to demonstrate the direct relationship between five factor model of personality and OCB. The further researches would be advantages to explore potential moderators for this connection. This research focused only the education sector but other researchers can expand the sample to the other service organizations or different organizations in Sri Lanka.

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CORPORATE SOCIAL RESPONSIBILITY IN BANKING INSTITUTIONS IN RELATION TO CLIENT SATISFACTION AND COMPETITIVE ADVANTAGE: A CASE OF COMMERCIAL BANKS IN CHUKA

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ABSTRACT

Corporate Social Responsibility (C.S.R) plays a very important role in organizational development. studies have shown that institutions embrace this concept may reap many benefits including customer loyalty, positive attitudes towards brands, client trust, positive publicity and better financial perfomance.Increased spending on C.S.R. initiatives is expected to increase customer satisfaction and build competitive advantage. The purpose of this paper is to highlight the role of C.S.R. initiatives in building customer satisfaction and competitive advantage. The paper draws largely from various academic literatures by examining the early reflections of various scholars on C.S.R. and linking them to more contemporary theoretical and empirical reviews, further the paper has employed the use of primary data collected through questionnaires to inquire the practicability of C.S.R. on the ground. The paper found out not only is C.S.R. a main determiner of customer loyalty and competitive advantage but also for any organization seeking to survive in the dynamic environment of business should put much emphasis into research on new areas of C.S.R and implement them efficiently. The study recommend that retail banking institutions in Kenya should be involved more in C.S.R. initiatives so as to gain customer satisfaction and build competitive advantage in the ever changing business environment.

KEYWORDS

corporate social responsibility, Customer, satisfaction, competitive advantage.

INTRODUCTION

Businesses in Kenya today are facing a myriad of challenges that have threatened their competitive positions. Meeting customer satisfaction for the 21[st] century organization is quite a big task. Consumer needs keep on changing everyday thereby making it very hard for organizations to determine how best to please the consumer in order to gain a competitive edge. The performance of organizations today can no longer be measured on reported profits alone (Smith, 2008). The role of business in society has continually changed over time in that the 21[st] century organization not only aims at profitability through efficient conduct of business but also its contributions to the social well being of its social constituents. This social component which consists primarily of the external stakeholders demand that their interests be taken care of by the internal stakeholders

That includes the top management board of directors, shareholders and employees. In order to increase organizational efficiency and effectiveness, organizations must continually reorganize themselves in the face of these challenges in order to achieve their objectives. They must be responsive to the challenges they face in the macro and micro-environments. In order for the 21stcentury organizations to achieve a competitive edge over their rivals, they may have to embrace Corporate Social Responsibility (CSR) programs. Corporate Social Responsibility is the ability of organizations to relate their operations and policies to the wider society in ways that are mutually beneficial to them and their social constituents. These actions are taken for reasons that are partially beyond the organization's direct economic and legal obligations (Carrol, 1979; Matten and Crane, 2005). These are actions that are sometimes regarded as purely philanthropic and voluntary that is aimed at benefiting the organization's social constituents. Organizations that embrace this concept can reap long term benefits.
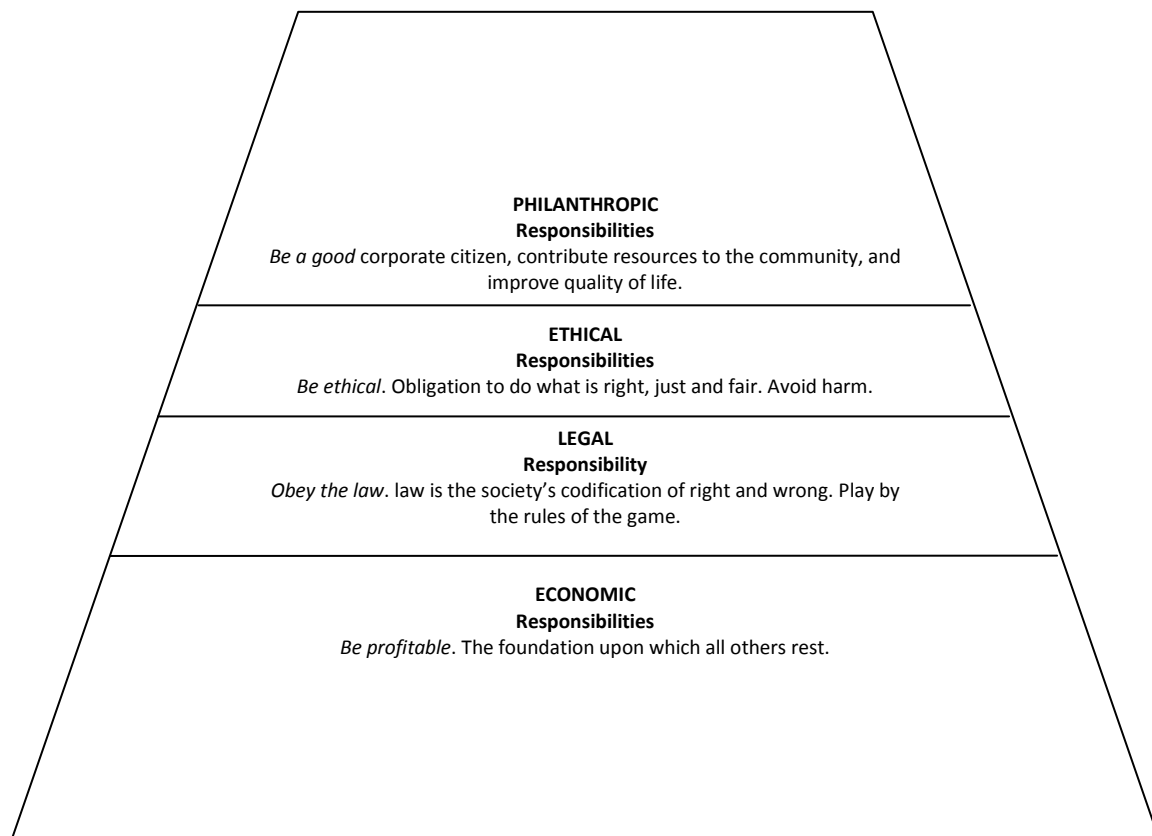
CORPORATE SOCIAL RESPONSIBILITY

According to Decker (2004), the concept of CSR is somehow vague because of its multi-dimensional nature that has led it to mean different things to different people. However, in recent years there has been a general agreement among scholars who have conceptualized it to include elements like organizational values and philosophies, societal and environmental concerns and how businesses and society relate.

The earlier scholars have defined CSR variously. According to Bowman (1953), CSR is "an obligation to pursue policies to make decisions and to follow lines of action which are compatible with the objectives and values of society." According to McGuire (1963), "the idea of social responsibility supposes that the corporation has not only legal obligations, but also certain responsibilities to society which extend beyond these obligations.'' Naylor (1999) defines Corporate Social Responsibility as "the obligation of managers to choose and act in ways that benefit both the interests of the organization and those of society as a whole."

One of the most widely accepted and a used definition of CSR is by Carrol (1979, 1991) who defines it as "the social responsibility of businesses which encompasses the economic, legal, ethical and discretionary

Expectations that society has of organizations.'' Carrol (1991) also conceptualized CSR in one of the early models as represented by what is commonly referred to as Carrols Pyramid (Fig. 1).

FIGURE 1: CARROL'S PYRAMID OF CORPORATE SOCIAL RESPONSIBILITY

PHILANTHROPIC
Responsibilities
Be a good corporate citizen, contribute resources to the community, and improve quality of life.

ETHICAL
Responsibilities
Be ethical. Obligation to do what is right, just and fair. Avoid harm.

LEGAL
Responsibility
Obey the law. law is the society's codification of right and wrong. Play by the rules of the game.

ECONOMIC
Responsibilities
Be profitable. The foundation upon which all others rest.

Source: Carrol (1991, pg 42)

Philathropic Responsibilities
Be a good corporate citizen, contribute resources to the community, and improve quality of life.
Ethical Responsibilities
Be ethical. Obligation to do what is right just and fair. Avoid harm.
Legal Responsibilities
Obey the law. Law is the society's codification of right and wrong. Play by the rules of the game.
Economic Responsibilities
Be profitable. The foundation upon which all others rest.
Later models like that of Schwarz and Carrol (2003) modified the earlier model by removing the philanthropic category arguing that it can not be classified as a "social responsibility" because it is purely discretionary. This revision of the earlier model is in line with contemporary views of CSR as being part of the whole business model as opposed to being imposed on the organization (Meehan et al, 2006).
According to Shahin and Zairi (2007), organizations have been involved in CSR programs for several years.
CSR programs where preceded by what social and economic theorists referred to as Corporate Social Contract which stipulated what society expected of business and vice versa (Bowie, 1983). CSR involves organizational paradigm shift from traditional profit maximization objective under shareholder-value creation to stakeholder-management approaches whereby the impacts of their activities on the social constituents are taken into account (Stubbs and Cocklin, 2007). The stakeholder's (Social Contract) theory posits that organizations have social responsibilities to all their stakeholders because these stakeholders have allowed these organizations to exist and conduct their businesses in a kind of social contract (O'Brien, 1996). Such actions in society are aimed at improving the conditions of the consumers and employees without degenerating the physical environment or subjecting the employees to inhuman working conditions.
The stakeholders of an organization are those that have diverse interests in the organization that can be of an economic or environmental nature, those involved in implementing the mission of the organization, those who make key decisions aimed at achieving organizational objectives like those related to allocation of resources and control and those who are impacted in one way or another by the organization's activities (Zappi, 2007).
According to researchers, organizations that have incorporated higher levels of CSR in their programs usually report higher profits (Harrison and Freeman, 1999; Barret, 1998). This means that the profit objective can still be achieved by being ethical in all operations, by observing all rules and regulations and by being socially responsive to stakeholders.

CSR IN THE BANKING INDUSTRY
Even though CSR initiatives are applicable to virtually all organizations, banks are more sensitive to these programs as they have to strive to satisfy a multiplicity of stakeholders. These include maximizing profit to shareholders who are the true owners of the business, maintaining optimal liquidity for depositors, complying with regulator's demands, satisfying the deficit sector demands for credits, contributing to the development of the economy as well as satisfying the needs of the immediate community in which they operate (Nwankwo, 1991).

Several factors have stiffened the competition among the various players in the banking industry leading the banks to look for more innovative ways of satisfying their customers while at the same time making profit.

Some of these factors include the concept of globalization which has taken competition beyond the national boundaries, advancement of technology, deregulation of financial services and privatization of banks that were initially public (Achua, 2008). The major stakeholders, especially the more informed ones are also demanding greater social and environmental performance by banks because they have come to understand and appreciate the fact that businesses can ever succeed without public trust and confidence.

CSR AND COMPETITIVE ADVANTAGE OF RETAIL BANKING INSTITUTIONS

Competitive advantage is gained when organizations perform better than their competitors in the same industry. In order for organizations to outwit competition and succeed in the market place, they must possess some kind of advantages compared to their rivals. According to Porter (1985), an organization that is able to consistently report above average profit in the industry has a competitive advantage. Competitive advantage involves choosing a favorable position within the industry and maintaining it in the long-run relative to competition (Porter, 1990).

There are several sources of competitive advantage (Reed and DeFillippi, 1990). These sources can be as many as there are activities in the organization. According to Jones (2000), there are two broad sources of competitive advantage; the "hard" factors that include physical facilities, production schedules, type of technology employed e.t.c. and the "soft" factors that include the organizations culture, knowledge available within the organization, worker and manager experience, etc. According to Meehan et al (2006) CSR can be integrated in the organization's strategic management process and be a source of competitive advantage.

It can be a key ingredient in the overall organizational success rather than a means of draining its resources. Such actions can lead to a change in consumer attitudes towards the organizations and the products and services that they produce and market. Negative consumer perception may lead to consumers boycotting some brands.

Businesses are giving their CSR activities a lot of publicity through favorable media coverage in order to achieve competitiveness (Luo and Bhattacharya, 2006). The stakes are higher in financial institutions because the clients normally have a higher involvement with those institutions (Matule-Vallejo et al, 2011).

Studies have shown that banking institutions that have embraced CSR practices have been able to reap benefits from these initiatives. Collado-Munoz and Utrero-Gonzalez (2011) studied the relationship between financial performance and CSR.

Their findings indicate that banks have been able to obtain a better strategic position in the market together with higher profit margins and higher demand due to positive consumer perceptions and as a result of their CSR initiatives. When banking institutions become socially responsive, this enables them enhance their public image and build their reputation which will in turn make them attract high quality employees, change higher tariffs as well as put them at an advantage when negotiating deals. It will also enable them attract more clients thereby increasing their customers. Such programmes can also play a big role in attracting more investors that will lead to their stability in the long-run as well as winning them public trust (Achua, 2008; Brettel and Arendt, 2010).

THE NEED FOR CSR IN KENYAN RETAIL BANKING INSTITUTIONS

Retail banking institutions in Kenya play a pivotal role in the country's socio-economic development.

They act as a catalyst in spurring the development of all other industries. According to G.O.K. (2008), having a well-functioning and vibrant financial sector is a critical ingredient in accelerating economic growth by spurring private sector development and ensuring macroeconomic stability thereby leading to the creation of employment and poverty reduction. It will also encourage Foreign Direct Investment (FDI) as well as turning Kenya into a regional financial hub as envisaged by the economic pillar of vision 2030 development plan.

The involvement of banks in CSR programs in the area of education and training, health, towards a clean and sustainable environmental and improving the livelihoods of vulnerable groups in society will also contribute to the realization for the social pillar of vision 2030. Retail banking institutions have over the years spent large sums of money on CSR programs. Despite their heavy investments in CSR initiatives, the banks have continued to experience increased customer dissatisfaction that has reduced their competitiveness. According to a banking survey conducted between 19th and 20th of July, 2012, by Info tract in partnership with Consumer Federation of Kenya, 39 percent of respondents expressed dissatisfaction with commercial banks citing poor services and high interest rates which do not give much thought to the interest of the consumers. If banks get more involved in CSR initiatives, they are likely to achieve higher client satisfaction and build competitive advantage.

PROBLEM STATEMENT

Corporate Social Rensponsibility (C.S.R) is a major aspect for any organization seeking to develop and expand. C.S.R enhances organizational development through customer loyalty, positive attitudes towards brands, client trust, positive publicity and better financial performance however most banking institutions focus on short-term economical and legal obligation to encourage development. Unless banks adopt C.S.R activities in their development plan, their long-term goals of customer loyalty and competitive advantage will not be accomplished and therefore the institutions long-term survival will be at risk. Past studies have not completely exhausted the importance of C.S.R in organization expansion instead they focused on profits as the main determinant of growth. This paper seeks to show the relevance of C.S.R in promoting competitive advantage and customer loyalty.

PURPOSE OF RESEARCH

The purpose of this paper is to highlight the role of C.S.R. initiatives in building customer satisfaction and competitive advantage.

RESEARCH OBJECTIVES

The paper addresses 3 specific research objectives among them;

(i)   To determine the roles played by customer centric activities of CSR in promoting competitive advantage and customer satisfaction.
(ii) Establish how corporate philanthropy promotes competitive advantage and customer satisfaction.
(iii) Find out how employee centered activities of CSR contribute to customer satisfaction and competitive advantage.

RESEARCH QUESTIONS

(i)   What are the contributions of customer centric activities towards customer
(ii) Does corporate philanthropy have any impact on customer satisfaction and competitive advantage?
(iii) Do bank employee's activities and behaviors translate to customer satisfaction and Competitive advantage?

JUSTIFICATION

The findings of this paper will be a mile stone in understanding and implementing C.S.R activities in the banking sector so as to adapt in the ever dynamic customer needs. Further the paper will shed light on new areas of focus for any organization seeking to expand and explore the vast area of corporate social responsibility.

DEFINITION OF TERMS

Corporate social responsibility

This is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large.

It can also be defined as operating a business in a manner that meets or exceeds the ethical, legal commercial and public expectations that society has of business.

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Banking institutions

Companies or associations which are engaged in the lending of funds obtained from the public through the receipt of deposits and the sale of bonds, securities or obligations of any kind.(*definition of terms-public finance, money and banking NCSB*)

Commercial banks

Corporations engaged regularly in the lending of funds obtained from the public through the receipt of deposits and which accept or create demand deposits subject to withdrawals by cheques.

Philanthropic responsibility

Additional behaviors and activities that society finds desirable and that the values of business supports, like giving support to charities or community projects.

It is the act of making sure that you are making responsible financial contributions to the communities in which you have the privilege of working and in which your employees reside. *(wiki.answers.com).*

Competitive advantage

The conditions that make a business more successful than the business it is competing with, or a particular thing that makes it more successful. *(Cambridge dictionaries online).*

Customer loyalty

The fact of a customer buying products or services from the same company over a long period of time (*Cambridge dictionaries online*)

LITERATURE REVIEW
THEORETICAL LITERATURE

Many researchers have shown how CSR initiatives can reap benefits for a company. Companies that have engaged in CSR all over the world have elicited favorable responses from their key stakeholders. These CSR activities have also acted as a source of competitive advantage. According to Sen and Bhattacharya (2001), CSR initiatives can lead to positive perceptions of the consumers about the organization and the product or service produced and marketed by the organization. Positive consumer perceptions have been shown to lead to customer loyalty and customer satisfaction. According to Oloko (2012), customer loyalty and satisfaction are key predictors of the overall performance of banking institutions in Kenya. Companies with CSR policies have been shown to attract high quality employees (Greening and Turban, 2000; Turban and Greening, 1997). Having high quality employees can be a source of competitive advantage in an organization. Investors are attracted to make investments in public companies with CSR Policies (Domini, 1992; Sen et al, 2006). Such investments can ensure long-term survival of the organization and also act as a source of competitive advantage. 2.3.2 Corporate Social Responsibility in Kenya

Kivuitu and Fox (2005) provide some insights into CSR in Kenya. Although the term is relatively new, the notion that business has responsibilities to society is well established in Kenyan society. Kivuitu and Fox (2005) assert that there already exist many initiatives that may be described as CSR.

The notion of CSR is most commonly associated with philanthropy at present. Companies make donations to help alleviate social problems, justified by the belief that companies should 'give something back' to the societies in which they operate. Unfortunately there is a "tradition of companies using philanthropy as a respectable means of buying off stakeholders to accept their operating practices" (Hopkins, 2007, p. 175). Corruption is a major obstacle to achieving CSR in Kenya. However, the trajectory of CSR has been influenced by civil society organizations campaigning against poor labour practices and environmentally damaging production processes, in the export sectors, such as cut flowers, horticulture and textiles (Dolan et al, 2005; Kiviutu and Fox, 2005). Though, government regulations to ensure socially responsible behavior remain limited.

Rather, CSR-related organizations including Ufadhili and the Sisa Center for Corporate Partnership are raising the profile of CSR at the national level. Multilateral and bilateral development agencies are also leading CSR initiatives. For instance, Kenya has been selected for the UN Global Compact/UNDP 'Growing Sustainable Business for Poverty Reduction' initiative (Kiviutu and Fox, 2005) and more than thirty national companies have joined the Global Compact Kenya network (UNDP, 2007). In addition, Kenya is attracting foreign investors who have already established CSR practices. The CSR initiatives of these companies provide a benchmark against which companies in Kenya develop and measure their CSR. CSR in Kenya may therefore be homogenous with Western notions of CSR. Kivuitu and Fox (2005) highlight the need to localize the CSR agenda, and for there to be a Kenyan CSR.

EMPIRICAL LITERATURE
CUSTOMER-ORIENTED CORPORATE SOCIAL RESPONSIBILITY INITIATIVES AND COMPETITIVE ADVANTAGE

In order for service organizations to be successful in the marketplace, they must be able to maintain a good and long-term relationship between them and their clients as this will lead to repeat purchases and eventual customer commitments (Paul et al, 2008). Such commitment is only possible when customers are satisfied with the services offered. Customer loyalty is a key factor in any business success (Kotler and Armstrong, 2008; Lewis and Soureli, 2006). Therefore it is the responsibility of organizations to provide equality products and services in order for them to be trusted by the consumers.

There is varied opinion in academic literature on the relationship between customer satisfaction and customer loyalty. Some researchers have concluded that the relationship is non-linear (Auh and Johnson, 1996).

There are some who have concluded that the relationship is asymmetrical (Anderson and Mittal, 2000). However, some have shown a direct link (Grace and O'Cass, 2004) by concluding that more satisfied customers are likely to make a repeat purchase that leads to the generation of more favorable evaluations and attitudes and ultimate consumer loyalty. This can be a source of competitive advantage.

One of the reasons why clients switch banks is dissatisfaction (Manrai and Manrai, 2007) which is caused mainly by unfavorable tariffs (Colgate and Hedge, 2001; Santonen, 2007). According to Richardson and Robinson (1986), customers close their accounts in banks because of dissatisfaction caused by among other reasons poor service as perceived by the customers, employees who are rude or unhelpful to the clients and the impersonal nature of the banking institutions. The most important factors that determine bank customer retention and acquisition are quality service and customer satisfaction (Jamal, 2004; Armstrong and Seng, 2000).

According to Mylonakis (2009), banks in the 21[st] century banking environment must continuously strive to improve on customer perceptions through the marketing concept and through closer interactions with customers in order to achieve customer loyalty and gain a competitive advantage. Taking measures to build customer loyalty and restore confidence is critical to the success of the financial institutions (Matute-Vallejo et al, 2011).

According to Brown and Dacin (1997), CSR record provides a general evaluation criterion for customer satisfaction. CSR influences positive client evaluation in three ways. Firstly, according to Daub and Ergenzinger (2005), social programs make consumers feel that they belong to a community or social group when consuming a service. Secondly, CSR strengthens a sense of positive feeling towards the organization thereby creating a convection between the client and the organization (Sen and Bhattacharya, 2001) and thirdly, clients view such organizations as providing more value to them when compared to the non-socially responsive organizations (Mohr and Web, 2005).

Banking institutions should endeavor to create positive evaluations in the mind of a customer through aligning their corporate image with their actions on the societies in which they operate (Kay, 2006) as the perceived customer positive image evaluations about a service organization depends on the organization's configuration of its social programs and strategies.

CORPORATE PHILANTHROPY AND COMPETITIVE ADVANTAGE

According to Ricks (2005), Corporate Philanthropy is "a discretionary responsibility of a firm that involves choosing how it will voluntarily allocate resources to charitable or social service activities in order to reach marketing and other business-related objectives of which there are no clear social expectations as to how the firm should perform". This definition is in line with Carrol's (1979) fourth level of CSR which identifies philanthropic activities of organizations through programs like contributions to the arts, education or community.

Corporate philanthropy falls within the organization's ethical and social commitments. These are values that organizations subscribe to comprising of ethical and social standards as evidenced in their mission, organizational objectives and organizational culture (Meeham et al, 2006).

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According to Porter and Kramer (2002), "Strategic Philanthropy" involves organizations' giving charitable contributions to society with an aim of generating organizational good-will, good publicity and also boosting employee morale. All these can be sources of competitive advantage. One of the earliest forms of "strategic philanthropy" is "cause-related marketing" whereby organizations concentrate on a single cause or a single organization over time. Such practice can improve the reputation of the organization as it links itself with the qualities of an admired corporate partner (Porter and Kramer, 2002).

Another form of corporate philanthropy involves giving time and expertise to local non-profit organizations through a form of partnership by way of Employee Volunteer Program (EVP) (Vaidyanathan, 2008). Through this program, organizations sponsor their employees to work with these organizations towards some cause.

Employee Volunteering Program can lead to several benefits including reaping returns from the market due to the organization's commitment to the cause, meeting social and economic objectives simultaneously and also attracting and maintaining high quality employees (Vaidyanathan, 2008). These programs can also add value to the organization by improving the reputation and credibility of the organization thereby enhancing the organization's public image. According to Clemes et al (2010), one of the reasons why customers switch banks in a competitive banking environment is the reputation created by a bank among its customers. When a banking institution has a good reputation, it creates a positive image among its customers and this can lead to corporate success. Bank managers should therefore use a relationship marketing approach in order to enhance trust between the banks and their clients and also build a good reputation. CSR can play a big role in building trust, reputation and hence increase customer retention and acquisition. What customers talk about among themselves about an organization is important to business success (Clemes et al, 2010). It is important for the banking institutions to understand how their social programs are likely to influence consumer perceptions about them for their corporate philanthropy activities to have a meaningful impact on their positive reputation (Lee et al, 2012).

According to Porter and Kramer (2002), organizations can use corporate philanthropy efforts to increase their competitive advantage as corporate philanthropy aligns the social goals of the organization with economic goals of profitability thereby creating long-term business success.

EMPLOYEE-CENTERED CORPORATE SOCIAL RESPONSIBILITY AND COMPETITIVE ADVANTAGE

It does not only take the provision of quality products and services for organizations to gain public support. The type of employees an organization has is also a major factor. Therefore it is prudent for organizations to develop responsible and ethical staff (Yeung, 2011).

According to Brammer and Millington (2007), CSR policies can lead employers to form favorable perceptions of the organization. Such policies influences employee commitment to the organization as they make them feel proud to be associated with the good that the organization does to its constituents and may make them more eager to share the "good deed" that the organization does with others outside the organization (Stawiski et al, 2010). Tsai et al (2006) say that employees should be encouraged to learn new and innovative ways of relating with customers as this will be beneficial to both the customers and the organization due to the positive feedback gained from the consumers. The end result will be a fulfillment of the organization's responsibilities towards society. The staff has to be committed in their work in order to establish an organizational culture devoted to provision of quality service to consumers (Michalos, 2006). This gains confidence from the consumers leading to customer satisfaction hence becoming a source of competitive advantage. Harrison (2000) points out that individual performance are influenced by "knowledge, skill and the environment". He says that poor performance is caused by several factors among them poor working conditions, lack of information or skills, inadequate working tools and poor motivation and/or incentives.

Employees can be actively involved in CSR activities not only on the responsible organizational labour practices like health and safety, fair remuneration, training, discrimination, work/life balance, e.t.c. but also as a group that can commit personal resources to make contributions to CSR activities (Haski-Leventhal, 2012).

They can commit their personal resources through participating in voluntary fundraising to assist particular causes within the community or make direct contributions through pay-roll deductions. These contributions can then be channeled to a particular cause. They can also volunteer their time and expertise in local non-profit programs through employee volunteering programs. Such involvement by employees can lead to their moral satisfaction, organizational commitment and business success.

Employee-centered CSR can be looked at from the perspective of organizational justice theory (Cropanzano et al, 2001). Recent studies on organizational justice have dwelt on how employees perceive the treatment of both the self and others by the organizational stakeholders and also how the organization treats the external stakeholders.

Rupp (2011) while deriving from organizational justice studies says that employees will "look in", "look around" and "look out" when forming perceptions about organizational justice. "Looking in" refers to how employees perceive the treatment of self by stakeholders, including the organization, the supervisor, co-workers, customers, e.t.c. "Looking around" refers to the interactions between the organization's members and how these interactional processes lead to collective justice perceptions. "Looking out" refers to how organizational employees perceive the treatment of others by the organization. They are formed when employees witness an organizational affiliate fall victim to injustice. This is often third-party in (justice) perceptions.

Positive perceptions formed by a "looking in" employee can boost organizational attractiveness; attract high quality potential employees, lead to employee organizational commitment, job satisfaction and improved employee performance (Booth et al, 2009). Positive perceptions formed by a "looking around" employee can lead to psychological feelings of belongingness (Rupp, 2011) and provide opportunities for more employees involvement in CSR activities like employee volunteerism and personal contributions to various causes (Aguinis, 2010). Such activities will tighten the bond between the employees and employers leading to overall organizational success.

Third-party justice ("looking out") can be viewed from the moral perspectives whereby organizations are expected to do the right things to their external stakeholders (Rupp, 2011). When employees perceive anything to the contrary, they are bound to react negatively hence affect the organization's performance in one way or another. According to Palazzi and Starcher (2006), employee-centered CSR can take several forms. These include management creating a good working environment whereby employees are developed so as to realize their potential. Empowering employees especially the middle management and also establishing good communication channels throughout the organization are other forms. There should be a balance between work, family and leisure for employees to be more productive in the long-run. Continuing employee education and training, job security and profit sharing to enhance employee turnover can also be implemented.

The results of such actions include improved organizational performance through increased profits and productivity and higher quality of life in the workplace. They can also make the more skilled and committed employees to be retained in the organization. Studies also show that employees' satisfaction can lead to customer satisfaction (pallazzi and starcher, 2006)

METHODOLOGY

A descriptive survey design was employed is to highlight the role of C.S.R. initiatives in building customer satisfaction and competitive advantage. The study used questionnaires to correct the data from all the banks within Chuka town in the Tharaka Nithi County. In order to obtain research results, some specific group of people that is managers tasked with the responsibility of adopting CSR in banks were given questionnaires.

RESULTS

On completion of the study the following inferences were made:

BANKING INSTITUTIONS AND CORPORATE SOCIAL RESPONSIBILITY

All respondents had a C.S.R program. This goes to show the importance of corporate social responsibility in the banking industry,

BANKS USE OF CUSTOMER CENTRIC, CORPORATE PHILANTHROPY AND EMPLOYEE BEHAVIOR & CONDUCT IN ITS C.S.R.:

The data collected showed a varied inclusion of these areas among the various respondents.

FIGURE 1: BANKS USE OF CUSTOMER CENTRIC, CORPORATE PHILANTHROPY AND EMPLOYEE BEHAVIOR & CONDUCT IN ITS C.S.R.
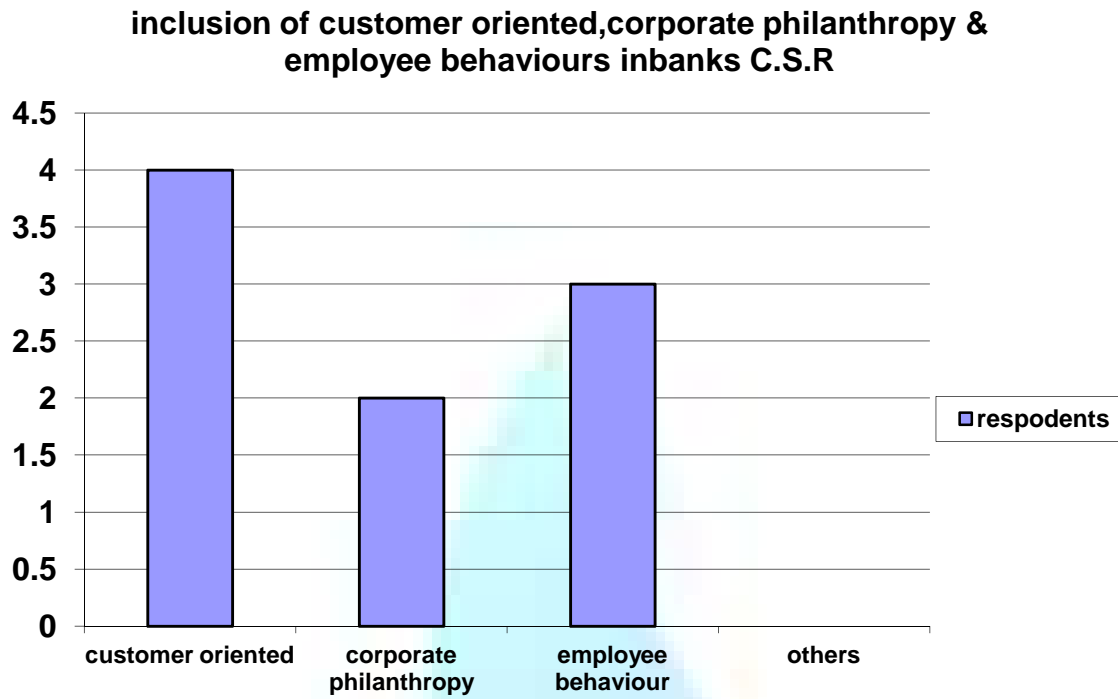
RELATION BETWEEN COMPETITIVE ADVANTAGE AND; CUSTOMER ORIENTED, CORPORATE PHILANTHROPY AND EMPLOYEE BEHAVIOR

Here the paper used a scale of 1 to 10 whereby 10 was the most significant and 1 being least. Figure 2 shows the results on the relationship between competitive advantage and various items. Results indicate that employee behavior is very significant determinant of competitive advantage followed by corporate philanthropy and then customer oriented.

CORPORATE SOCIAL RESPONSIBILITY SPENDING IN BANKS

The study also looked at the corporate social responsibility spending trend. The results showed that majority (72%) of the banks had an increasing spending trend in C.S.R. This implies that most banks realize the importance of C.S.R and the need to devise new ways, while marking those activities that have most influence to competitive advantage and increase investment in them.

FIGURE 3: CSR SPENDING TREND IN BANKS
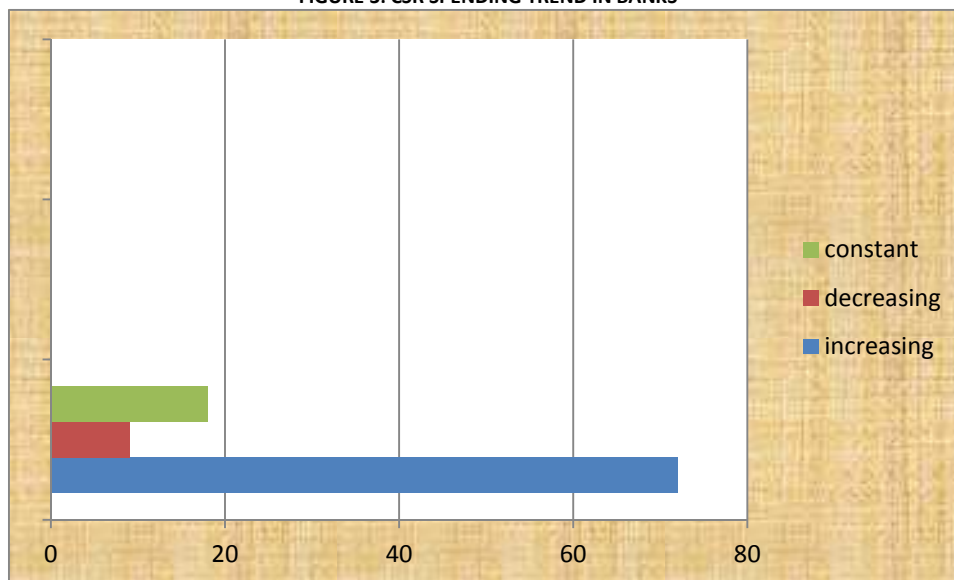
RELATION BETWEEN MARKETING STRATEGY AND C.S.R.

Here the paper sought to find out if banks marketing strategy performance was affected by C.S.R. This was because a successful marketing strategy is one that increases competitive advantage and customer loyalty. The results indicated that all the banks which had good corporate social responsibility had very good marketing performance, which means that they acquire competitive advantage and customer loyalty.

CONCLUSIONS RECOMMENDATIONS

In regard to the literature review and the findings of this paper, it indicates that CSR programs can predict organizational competitiveness, customer satisfaction in all types of organizations in general and retail banking institutions in particular.

Retail banking institutions can build competitive advantage through involvement in the above reviewed CSR activities because they are influenced by all of them. This means that these activities can easily be crafted into organization's overall strategy.

This paper therefore suggest that retail banking institutions in Kenya should investigate the CSR activities that have the greatest influence in building competitive advantage so as to invest more in them.

According to Collado-Munoz and Utrero-Gonzalez (2011), CSR can contribute to better financial performance of these institutions.

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