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INTRODUCTION

REVIEW OF LITERATURE

NEED/IMPORTANCE OF THE STUDY

STATEMENT OF THE PROBLEM

OBJECTIVES

HYPOTHESIS (ES)

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

FINDINGS

RECOMMENDATIONS/SUGGESTIONS

CONCLUSIONS

LIMITATIONS

SCOPE FOR FURTHER RESEARCH

REFERENCES

APPENDIX/ANNEXURE

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- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.

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

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- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–23

UNPUBLISHED DISSERTATIONS

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

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WEBSITES

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

FORECAST SALES OF SEMICONDUCTOR INDUSTRY IN TAIWAN

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ABSTRACT

In the recent years, semiconductor industry has developed well, representing Taiwan the prosperity of the electronics industry. Semiconductor industry have IC design, IC manufacturing and IC packaging and testing. In order to maintain the world accounting rate Taiwan's IC packaging and testing industry the world's first, accurate prediction of product sales, is not only reducing costs, but also is better able to control the budget, trace market trends. Main purpose of this study is established the sales forecasting model, understanding the sales status of the Semiconductor Industry in Taiwan. The research range is the sales volume of Taiwan's Semiconductor Industry starting from 1999 year until year 2014, using Exponential Smoothing and ARIMA model is used to forecast and also analyze the data. In the end we will use Alpha Significance in order to measure the accuracy of model, moreover, finding more fit models. The research results show that Exponential Smoothing Holt's model is better than ARIMA in ASSY plant sales and ARIMA (0, 1, 0) is better than Exponential Smoothing in TEST plant sales.

KEYWORDS
ARIMA, Exponential Smoothing, Forecast Sales, Semiconductor Industry**.**

INTRODUCTION
In the recent years, IC assembly industry has developed well; it has played a leading role in the whole supply chain of semiconductor industry. The output value was ranked number one in the world according to Department of Statistics Ministry of Economic Affairs. The past literature shows that Semiconductor industry represents a country and the prosperity of the electronics industry. The semiconductor industry is divided into wafer design, wafer fabrication, packaging, testing and so on, their study was to explore the field of the semiconductor industry, science and technology research program on personnel training. Supply and demand is balanced development and use exponential smoothing method, which is the easiest and the most logical approach to the temporality of the information, and the prediction is true (Lee et al. 2010). Also Chiu et al. (2014) explored the performance evaluation perspective, the impact of the financial storm on each individual sector of the semiconductor industry, as IC design, IC manufacturing and IC packaging and testing and Fang et al. (2014) explore Taiwan's IC packaging and testing industry, how a high degree of global competition pressure, operating performance, industry management and planning capacity can direct, to maintain the world accounting rate the world's first.

Organizational profits will reduce because of the increase for difference between standard cost and actual cost when judged wrong with regard to standard output and actual output (Hsieh et al. 2013). Thus sales forecast is an important phenomenon. According to Huang et al. (2013) prediction accuracy is the most important because the accurate prediction of product sales not only reduce costs, but also better controls the budget, trace market trends. As above mentioned points helped us in sparking the idea of this study. The purpose of this study is establishing the sales forecasting model, understanding the sales status of the Semiconductor Industry in Taiwan, to help reduce costs, control the budget, trace market trends.

OBJECTIVES
The following are the objectives set for the present study:
1. To established the sales forecasting model in ASSY
2. To established the sales forecasting model in TEST

REVIEW OF LITERATURE
We sort out the methods to be used from IBM SPSS Statistics and otexts Forecasting: principles and practice. Time series forecasting is often useful to specify exactly what information we have used in calculating the forecast. $\hat{y}_{t|t-1}$ to mean the forecast of y_t taking account of all previous observations. Similarly, $\hat{y}_{T+h|T}$ means the forecast of y_{T+h} taking account of $y_1,...,y_T$.

EXPONENTIAL SMOOTHING MODELS
Exponential smoothing models (Gardner, 1985) is divided into two kinds seasonal or non-seasonal. If data is of cyclical component, it can be to use as seasonal models. We use 3 kinds of models as follows:
1. **Simple Exponential smoothing model**
This model is suitable no trends or no cyclical. Level is it's only smoothing parameter. Simple exponential smoothing and ARIMA models is similar to it: self-return order of the autoregressive part 0, degree of first differencing involved 1, order of the moving average part 1.
2. **Holt's Exponential smoothing model**
This mode is suitable for a linear trend and no cyclical. Its smoothing parameters are level and trend, and are not limited by the value of each other. Holt's model is more common than the Brown's model, but huge data for computing time will be longer. Holt's exponential smoothing and ARIMA model is similar in that: order of the autoregressive part 0, degree of first differencing involved 2, and order of the moving average part 2.
3. **Brown's Exponential smoothing model**
This mode is suitable for a linear trend and no cyclical trend. Its smoothing parameters are level and trend and all are assumed to be equal. According to Brown's special observation mode from Holt's model. Brown's exponential smoothing and ARIMA model is similar in that perspective: order of the autoregressive part 0, degree of first differencing involved 2, and order of the moving average part 2, and Moving average second order coefficient is equal first order of half coefficient square.

ARIMA MODEL

ARIMA also known as Box-Jenkins (Jenkins, 1994). If it combines differencing with auto regression and a moving average model, we obtain a non-seasonal ARIMA model. Non-seasonal is special cases of the ARIMA model as shown in the following Table 1.

TABLE 1: NON-SEASONAL ARIMA MODEL

ARIMA(p,d,q)	p= order of the autoregressive part;d= degree of first differencing involved;q= order of the moving average part.
ARIMA(0,0,0)	White noise
ARIMA(0,1,0) with no constant	Random walk
ARIMA(0,1,0) with a constant	Random walk with drift
ARIMA(p,0,0)	Autoregression
ARIMA(0,0,q)	Moving average

RESEARCH METHODOLOGY

DATA SOURCE

This study in order to construction of the semiconductor industry sales forecast model, quote Department of Statistics, Ministry of Economic Affairs, Industrial Production Statistics of the announcement of 1999 to 2014, sales of semiconductor industry in Taiwan as shown in Table 2, as a model of the raw data.

TABLE 2: SALES OF SEMICONDUCTOR INDUSTRY

YEAR	ASSY plant (K)	TEST plant (K)	YEAR	ASSY plant (K)	TEST plant (K)
1999	11,852,496	5,998,734	2007	31,230,934	76,073,108
2000	15,318,612	9,720,382	2008	32,607,257	72,084,186
2001	9,800,247	12,298,427	2009	34,567,873	56,737,142
2002	12,626,752	24,607,512	2010	47,569,529	71,995,155
2003	16,555,335	31,517,355	2011	49,453,755	70,099,770
2004	20,584,032	41,826,636	2012	54,775,923	68,042,475
2005	22,371,952	54,468,346	2013	60,242,097	65,529,789
2006	26,718,263	64,560,354	2014	68,193,998	73,398,940

RAW DATA ANALYSIS

Before establishment of a model, we need to understand the nature of the data. From Figure (1) ASSY plant and Figure (2) TEST plant sequence diagram based on the data in Table 2 drawn a line chart of annual sales volume. The line shows upward trend, and no equidistant peak, indicating no periodic variation data.

FIGURE 1: ASSY PLANT LINE CHART
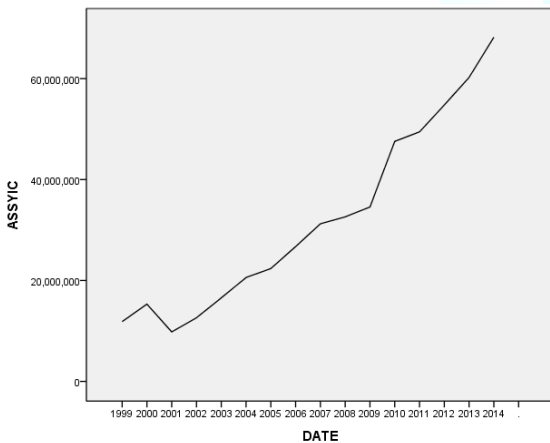
FIGURE 2: TEST PLANT LINE CHART
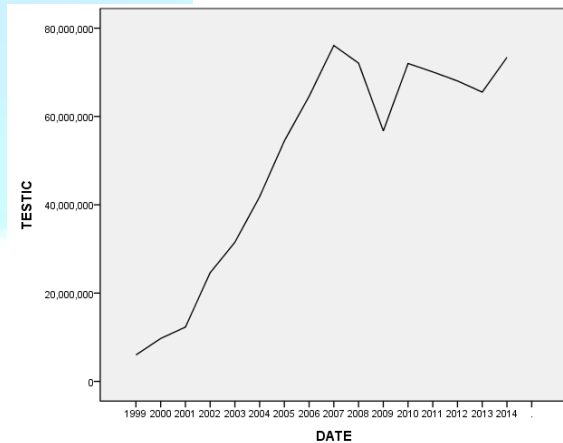
Related time series itself and partial self-correlation, can check whether the information is cyclical. Figure 3 and Figure 4, shows that self-correlation function displays the peak fall significantly at the end of a long index containing 1 - is a typical time series. However, this ASSY and TEST plant no significant peak, indicating that the data is not cyclical component. Check the partial self-correlation function can provide more reliable conclusions. . From Figure 5 and Figure 6, show that Partial self-correlation function of the gap is no significant peak, it could be sure that the data is not an annual periodic component.

FIGURE 3: ASSY PLANT ACF
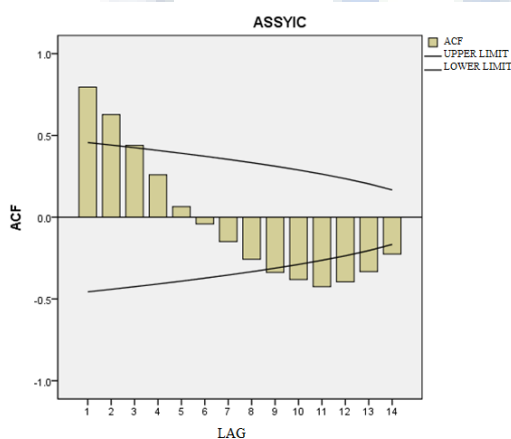
FIGURE 4: TEST PLANT ACF
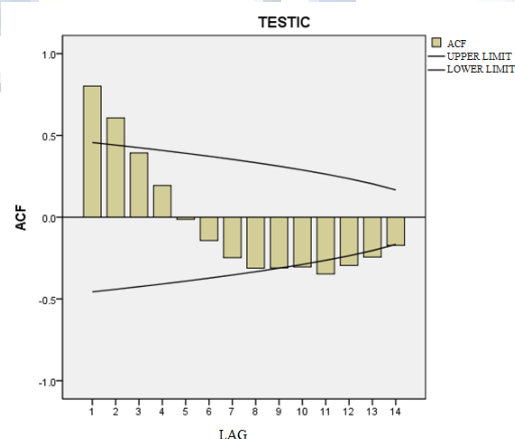
FIGURE 5: ASSY PLANT PACF
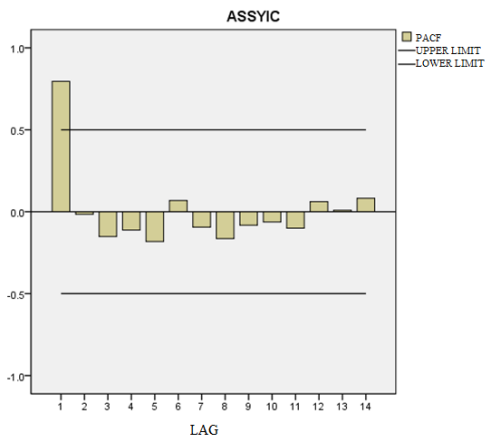
FIGURE 6: TEST PLANT PACF
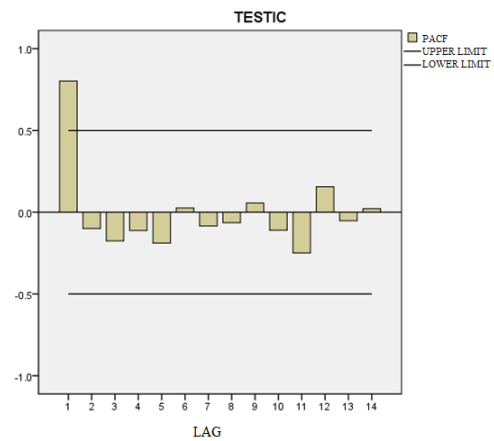
METHODOLOGY

Based on raw data analysis result that ASSY plant and TEST plant data is not an annual periodic component. As we using Exponential Smoothing and ARIMA model to sales forecast, choose the 4 kinds to compare and analysis, that are Simple Exponential Smoothing, Holt's Exponential Smoothing, Brown's Exponential Smoothing and ARIMA (0, 1, 0).

EMPIRICAL RESULT

Sales forecasting model in ASSY plant

We see Table3, ASSY plant for Exponential Smoothing mode, and which to Holt's Alpha is 0.253 Significance, is the best sales forecasting model ASSY plant. From Figure 7 show that Observations and fit, we find the Holt's more close in 2014.

TABLE 3: ASSY PARAMETERS, INCLUDING SIGNIFICANT PREDICTOR

ASSY		Estimate	SE	T	Significance
Simple	Alpha (levels)	1.000	.275	3.632	.002
Holt	Alpha (levels)	.273	.230	1.191	.253
Brown	Alpha (levels)	.506	.107	4.715	.000
ARIMA (0, 1, 0)	Constant	3756100.133	1006448.840	3.732	.002
	Difference	1			

FIGURE 7: ASSY MODEL CHART
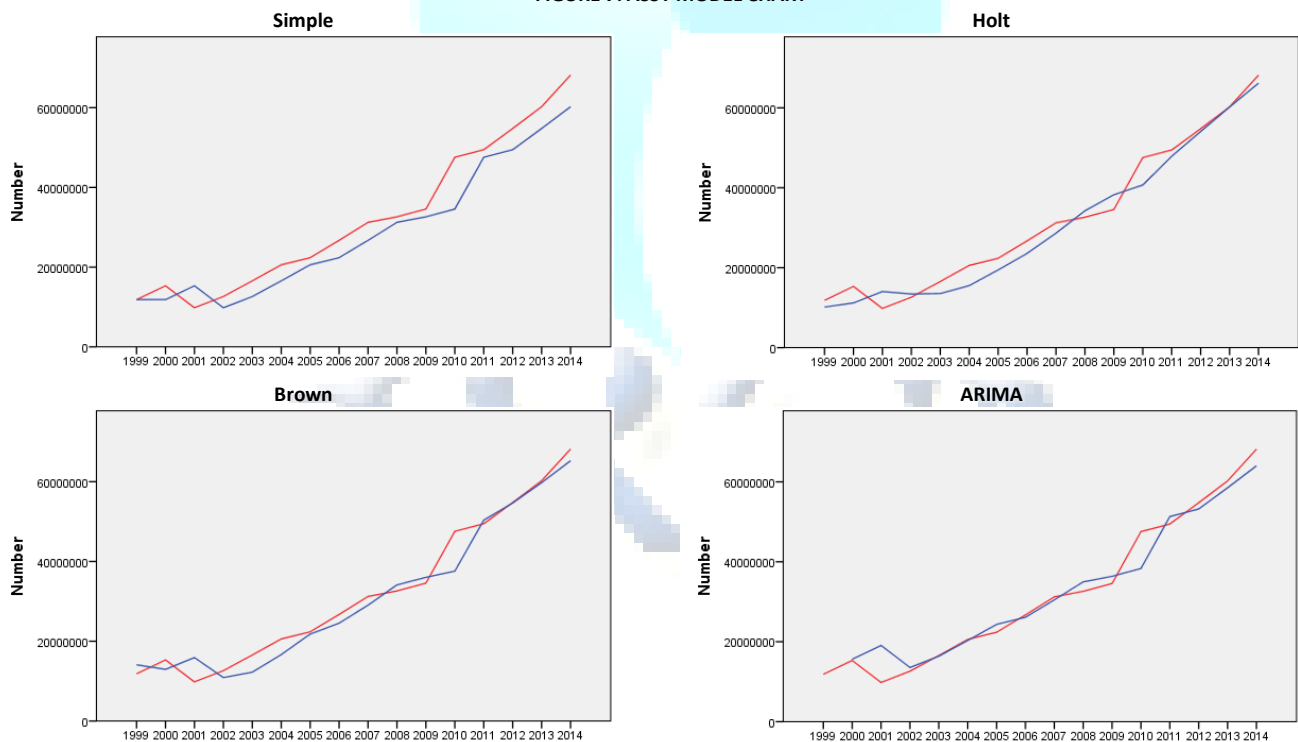
Note. red line is Observations, blue line is fit.

From Table 4 show that ASSY is actual value in ASSY plant, and 4 kinds of models (Simple Exponential Smoothing, Holt's Exponential Smoothing, Brown's Exponential Smoothing and ARIMA) predicted value. We find that Holt (66169646) > Brown (65268666) > ARIMA (63998197) > Simple (60241986), and Holt is more accurate to actual value (68193998).

TABLE 4: ASSY PREDICTED VALUE

YEAR	ASSY	Simple	Holt	Brown	ARIMA (0, 1, 0)
1999	11852496	11852567	10141245	14097945	
2000	15318612	11852496	11193942	12956801	15608596
2001	9800247	15318541	14034549	15906526	19074712
2002	12626752	9800359	13431374	10884468	13556347
2003	16555335	12626694	13546061	12246167	16382852
2004	20584032	16555255	15526622	16654857	20311435
2005	22371952	20583950	19450267	21783977	24340132
2006	26718263	22371916	23588828	24536551	26128052
2007	31230934	26718175	28639973	29054295	30474363
2008	32607257	31230842	34252385	34126527	34987034
2009	34567873	32607229	38256506	36013377	36363357
2010	47569529	34567833	40693114	37585242	38323973
2011	49453755	47569264	47899294	50363934	51325629
2012	54775923	49453717	54075194	54668316	53209855
2013	60242097	54775815	60209250	59770178	58532023
2014	68193998	60241986	66169646	65268666	63998197

SALES FORECASTING MODEL IN ASSY PLANT

We see Table 5, TEST plant for ARIMA (0,1,0) mode, and in which constant is 0.056 Significant, it is the best sales forecasting model TEST plant. From Figure 8 show that Observations and fit, we find the ARIMA more close in 2014.

TABLE 5: TEST PARAMETERS, INCLUDING SIGNIFICANT PREDICTOR

TEST		Estimate	SE	T	Significance
Simple	Alpha (levels)	1.000	.263	3.800	.002
Holt	Alpha (levels)	.999	.292	3.418	.004
Brown	Alpha (levels)	.617	.113	5.445	.000
ARIMA (0, 1, 0)	Constant	4493347.067	2157724.885	2.082	.056
	Difference	1			

FIGURE 8: TEST MODEL CHART
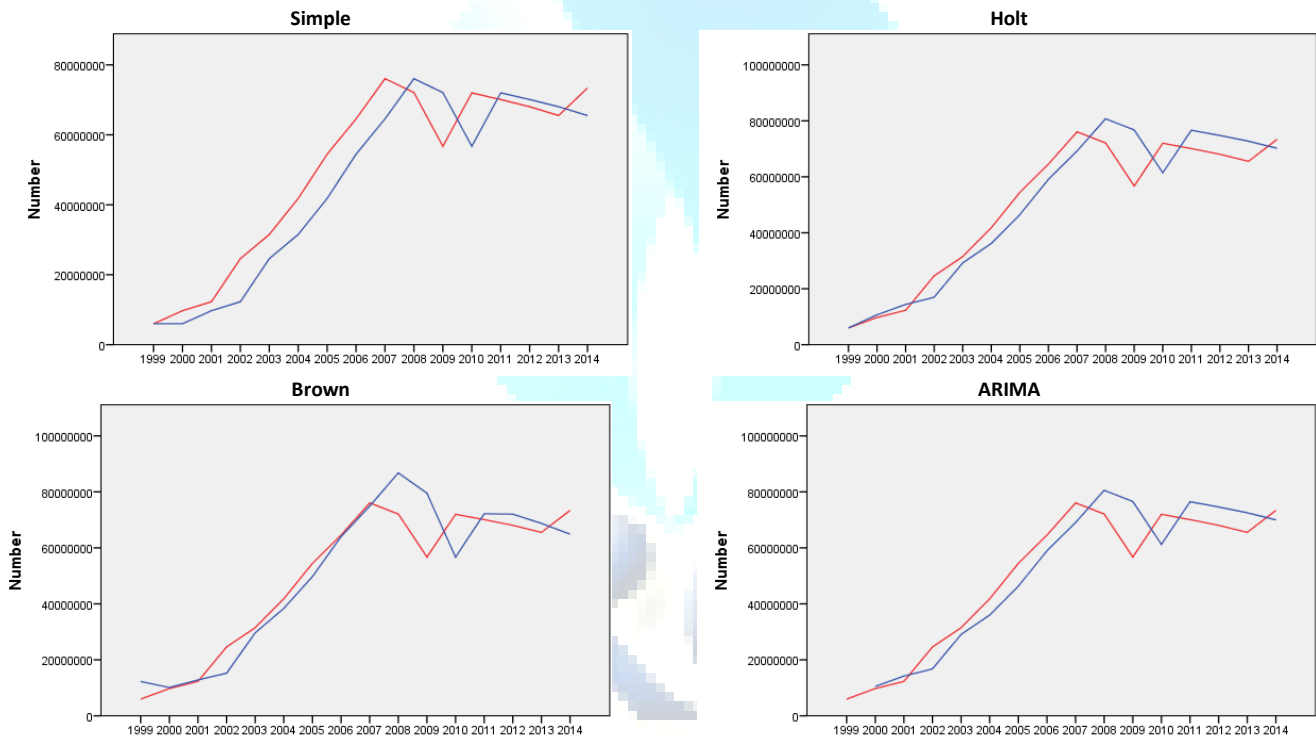
Note. red line is Observations, blue line is fit.

From Table 6 show that TEST is actual value in TEST plant, and 4 kinds of models (Simple Exponential Smoothing, Holt's Exponential Smoothing, Brown's Exponential Smoothing and ARIMA) predicted value. We find that Holt (70213666) > ARIMA (70023136) > Simple (65529925) > Brown (64893099) and Holt is more accuracy to actual value (73398940).

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TABLE 6: TEST PREDICTED VALUE

YEAR	TEST	Simple	Holt	Brown	ARIMA (0, 1, 0)
1999	5998734	5998935	5997992	12254132	
2000	9720382	5998734	10677138	10129502	10492081
2001	12298427	9720181	14399512	12838220	14213729
2002	24607512	12298288	16978408	15229862	16791774
2003	31517355	24606847	29280087	29656077	29100859
2004	41826636	31516982	36194139	38376707	36010702
2005	54468346	41826079	46500884	49766855	46319983
2006	64560354	54467663	59140916	64015465	58961693
2007	76073108	64559809	69234984	74924380	69053701
2008	72084186	76072486	80746751	86786056	80566455
2009	56737142	72084401	76769684	79522335	76577533
2010	71995155	56737971	61431114	56683477	61230489
2011	70099770	71994331	76665620	72186956	76488502
2012	68042475	70099872	74783385	72047613	74593117
2013	65529789	68042586	72726117	68746299	72535822
2014	73398940	65529925	70213666	64893099	70023136

CONCLUSION

This study uses the semiconductor industry sales data from 1999 to 2014, in order to construction of predictive models. The research results showed that Exponential Smoothing Holt's model is better than ARIMA in ASSY plant sales and ARIMA (0, 1, 0) is better than Exponential Smoothing in TEST plant sales. However, Observations and fit in the ASSY plant and TEST plant, was found Holt is more accuracy to actual value in 2014. This study is established the sales forecasting model, understanding the sales status of the Semiconductor Industry in Taiwan. We hope it's useful to help reduce costs, control the budget, and trace market trends for Semiconductor Industry.

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9. https://www.otexts.org/

SUSTAINABLE CONSTRUCTION SOLUTION FOR CHINA'S PUBLIC RENTAL HOUSING: INDUSTRIALIZED BUILDING ADOPTION

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ABSTRACT

With a new trend in China that the Public Rental Housing (PRH) becomes a main part of indemnificatory housing, as a new kind rental oriented indemnificatory housing, PRH presents new challenges for housing sustainability. This paper aims to solve the sustainable construction problem for PRH by adopting the Industrialized Building (IB). The research processed with an extensive literature review, and then the common barriers for the IB adoption in housing industry were investigated. Combine with the characteristics of PRH, the barriers and advantages for adopting IB in China indemnificatory housing was analyzed. Furthermore, the sustainability principles for China's PRH construction were discussed in three aspects, which are economics sustainability, environmental sustainability and social sustainability. The results shown that PRH is able to overcome most of common barriers of IB adoption in commercial buildings, such as high initial cost and lack of market demand. However, increased industrial scale, optimized supply chain and improved the make recognition are still key challenges for IB adoption in PRH project. The research finding will help developers to understand the barriers and advantages for adopting IB in China's PRH project, and achieve sustainable development for PRH.

KEYWORDS
construction solution, public rental housing, industrialized building adoption.

1. INTRODUCTION

With rapid development of China's urbanization and industrialization, improving the living conditions of middle and low-income urban residents has become an important livelihood issue for the Chinese government. Over the past thirty years, China's construction industry has made great strides towards improving the residents' living conditions. The average per capita living space in 2012 was 36 m^{2}compared to 6.4 m^2 in 1978 (ISSS, 2012) [1]. Meanwhile, the construction industry became an important drive for economic growth and provides abundant working opportunities. However, this growth comes at a cost as the urban commercial housing price increased 115% from 2003 to 2012 (NBSC, 2013) [2]. The commercial building price exceeded the affordability of most low-income or moderate-income families. The indemnificatory housing has become a focused topic in improving social welfare and a key solution to reducing the economic burden for the middle- and low-income families and improving their living conditions.

Over the past thirty years, the indemnificatory housing policy has experienced rapid development. However, due to the rapid growth of China's urbanization, housing shortage are still acute problems for middle- and low-income households, especially for new city immigrants and new graduates(Chen and Deng, 2014) [3]. Recently, the "twelfth Five-Year plan" of China proposes a plan to deliver 36 million units of indemnificatory housing to improve middle- and low-income group's resident conditions within next five years . China has ushered in a large-scale construction period of indemnificatory housings, in February 2013, the State Council issued "The notice on further keeping on controlling the real estate market", which required the completion of 4.7 million units and initiated the construction process for building another6.3 million units of affordable housing within the same year.

With large-scale indemnificatory housing construction, China is also facing a series of new challenges in indemnificatory housing construction, such as high quality control, renewable energy and materials utilization, environmental sustainability and convenient maintenance. In November 2013, the central government presented gradually cancelling the Economic and Comfortable Housing (ECH), and increasing the supply of Public Rental Housing (PRH). Before the central government decision, some cities have begun to stop new ECH projects due to the new socio-economic situation, such as Zheng Zhou City stopped new ECH project in 2012; Shen Zhen City launched the last batch of ECH in February 2013 and Guang Zhou City suspended the application of ECH since April 2013 and include the new qualified people into the scope of protection of PRH. Thus, it has become a general trend that PRH will replace ECH to be the main part of indemnificatory housing in China (Shen *et al.*, 2013) [4]. Based on this situation, new rental-oriented indemnificatory housing PRH presents new requirements for housing construction: (1) the PRH should has basic renovation which can meet the basic living requirements of the residents. This is significant difference between ECH and other sale-oriented indemnificatory housing, which also supplied by the government, but without renovation; (2) Due to the PRH will be rented by different residents, the renovation elements and other non-structural components should be easier to be replaced for the future renting; (3) With large-scale PRH construction, the sustainable construction method, low-energy consumption and high quality control should be considered. Based on this, the conventional construction mode is unable to meet the sustainable development requirements of PRH, and it is urgent for China to find a sustainable solution for RRH construction.

The object of this paper is to investigate new challenges for new rental-oriented indemnificatory housing in China, and develop a sustainable construction solution for PRH based on adopting Industrialization Building (IB) system. This paper processed with an extensive literature review, and then the common barriers of industrialized housing adoption were investigated, which followed by identifying the key barriers in PRH project construction. Finally, the sustainable principles in PRH projects were discussed in economics sustainability, environmental sustainability and social sustainability aspects. The research will help the government, design teams and construction teams to understand sustainable challenges in PRH projects and obtain a sustainable construction solution for PRH.

2. LITERATURE REVIEW

To achieve the sustainable development and find a sustainable construction solution for China's new Public Rent Housing projects, an extensive literatures review in related areas was conducted including the Indemnificatory housing in China, industrialized building (IB) utilization and sustainable principle adoption.

The indemnificatory housing in China is provided by government to improve the middle- and low-income families' living conditions. Ongoing housing reform fundamentally changed China's housing market, and meanwhile promoted the indemnificatory housing development in China. The indemnificatory housing issues were commonly discussed in previous literatures, which mainly focus on the policy reform, structure and practices(Zou, 2014; Huang, 2012; Logan et al.,2012; Lee & Zhu, 2006; Wang and Murie, 2000;) [5-9], investigating the financial strategies and financial gap of indemnificatory housing(Mao & Wang, 2012; Zhang & Zhang, 2013) [10-11] , and indemnificatory housing supplement analysis for low income families and housing policy(WANG Y.P.; MURIE A)[12]. However, there are limit researches focus on the indemnificatory housing construction in perspective of sustainability.

To understand new challenges for rental-oriented indemnificatory, it is necessary to review the history of indemnificatory housing programs in China. Over past thirty years, China has launched a series of indemnificatory housing programs, including the Comfortable Housing Project (CHP), the Economic and Comfortable Housing(ECH)program, the Cheap-Rent Housing (CRH) program, the Price-Cap Housing (PCH) program, the Public Rent Housing (PRH) program, and the Social Housing program as shown in Fig.1.

FIG. 1: INDEMNIFICATORY HOUSING HISTORY IN CHINA
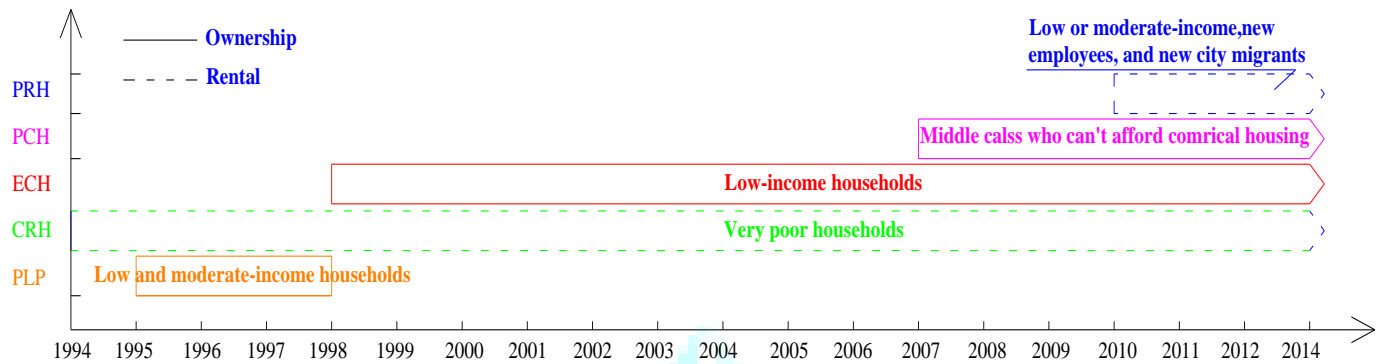
Source: Zou, 2014; Huang, 2012. Compiled by author

Fig.1 shows the major indemnificatory housing launched since 1994, the indemnificatory housing can be divided into two types, one is the ownership-type housing (CHP, ECH and PCH; Solid line), the other is the rental-type housing (CRH and PRH; dashed line). The ownership-type housings played an important role to support the housing reform, however, according to the new economic and social development requirements, the Ownership-type affordable housing will gradually withdraw from the stage of history, instead that the rental-type housing will become the main parts of indemnificatory housing (Shen et al., 2013)[4]. As shown in Fig.1, the PRH started in 2010, which will gradually merge with the CREH to form a new type rental-based indemnificatory housing system to enlarge the indemnify scope to new employee and new city migrants. The new rental-oriented indemnificatory housing system is more fit to China's rapid urbanization development needs, and meanwhile it presents a series of new challenges for construction industry, such as high quality control, high construction efficiency, build as move-in and environmental friendly etc.. Therefore, it is necessary to introduce the advanced construction mode into the indemnificatory housing construction.

Industrialized building can be defined as the introduction of industry manufacturing theory to building construction activities, which utilize the factory production, transportation and assembly on site (Dietz and Cutler, 1971) [13]. It also can be defined as a PPMOF (Prefabrication, Preassembly, Modularization, and Off-site Fabrication) construction mode. There is a burgeoning literature in this domain which examines the PPMOF utilization issues. Many researchers consider the PPMOF as an effective and efficient construction method to reduce the environmental impact, such as reducing construction wastage(Tam *et al.*, 2005; Tam *et al.*,2007;Lu & Yan,2012;Poon *et al.*,2011) [14-17], greenhouse gas emissions(Mao *et al.*,2013; Lu *et al.*, 2012) [18-19], and reduction energy and water consumption (Gibb and Isack, 2003; Blismas *et al.*, 2006) [20-21]. In reducing construction wastage aspects, Tam *et al.* (2005) pointed out that prefabrication can provide a better solution to the problem in huge waste generation on sit activities [14], and Tam *et al.* (2007) found that wastage generation can reduce up to 100% after adopting prefabrication, in which up to 84.7% can be saved on wastage reduction, and they also advised that early design stage should be considered for including the construction methods at the construction process for better implementation of prefabrication [15]. Lu and Yuan (2012) carried out a thorough investigation into the off-site CWS program in Hong Kong, and they found that since implementing CWS program in 2006, the off-site CWS program has contributed greatly to construction waste minimization by hitherto separating 5.11 million tons of construction waste in total[16]. In reducing greenhouse gas emissions (GHC) aspects, Mao *et al.* (2013) presented a method to examine greenhouse gas emission in semi-prefabrication projects in the construction stage. By comparing with the project under conventional construction, the project under semi-prefabrication can reduce about 1.1 tons per 100 m^2 in GHC emission [18]. Lu *et al.* (2012) carried out a comparative analysis of life cycle greenhouse gas emissions and energy between conventional concrete construction, prefabricated steel construction and prefabricated timber construction. Their study shown that the embodied energy of the initial steel building can be saved up to 81.3% by reusing the main steel structure of the prefabricated modules and other components in another new building[19]. Therefore, it is urgent for China to adopt the IB in indemnificatory housing construction to archiving sustainable development, and meanwhile promote the construction industrialization development in China. Begun as an international movement in 1993, sustainable construction can be defined as "creating a healthy built environment using resource-efficient, ecologically based principles". It looks at the entire life cycle of the built environment: planning, design, construction, operation, renovation, retrofit and the end-of-life fate of its materials (Kibert, 1994)[22]. Sustainable construction considers the resources of construction to be materials, land, energy, and water and has an established a set of principles to guide this new direction(Kibert, 2002) [23]. Sustainable construction can be examined in three different categories, economics sustainability, social sustainability and environmental sustainability(Shen *et al.*, 2007) [24]. Chen *et al.* (2010)investigate the sustainable performance criteria for construction method selection in economics, social and environmental aspects, the ranking analysis of their survey results shows that social awareness and environmental concerns are not as high as economic criteria, but they were considered as increasingly important in construction method to achieving the sustainable development [25].

3. RESEARCH METHODOLOGY

The literature reviews, comparison and Meta-analysis are used in the paper as the research methodology. Kenly (1998) contended that construction management should make sufficient use of existing research for Meta-analysis, and rigorous and proper meta-analysis can identify new trend and new relationship, and it also can avoid draw collusions from one single project study[26]. Due to the IB adoption in China's PRH project is still in initial stage, there are limit literature or projects data. But the common issues for IB adoption, indemnificatory housing construction, and sustainable construction have been widely studied. Therefore, it's valuable to adopt literature review, comparison and Meta-analysis method to investigate the sustainable construction solution for China's PRH projects based on existing literatures.

4. BARRIERS ANALYSIS OF IB ADOPTION IN CHINA'S PRH PROJECTS
4.1 COMPARISON BETWEEN OFF-SITE AND ON-SITE CONSTRUCTION

Currently, the indemnificatory or commercial housing constructions commonly use the traditional on-site wet construction method. Although the on-site construction was adopted widely by construction industry, but it still has many defects need to be improved, such as heavy labor-intensive, poor quality control, environmental impact and high material waste. Therefore, indemnificatory housing construction should select a more sustainable construction method to avoid these defects.

Off-site construction is featured by (1) controlled production environment, (2) elements module production，(3) avoiding wet construction on site, (4) saving labors and (5) High working efficiency. In this research, the Off-site construction was chosen as an alternative construction method to achieving sustainability in indemnificatory housing construction, so it is necessary to compare different influence when choosing off-site or on-site construction method.

The comparison between them was taken in perspective of influence of indemnificatory housing construction. The comparison was divided into five categories, as shown in table 1.

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TABLE 1: COMPARISON BETWEEN OFF-SITE AND ON-SITE CONSTRUCTION

Categories	Off-site/Prefabrication	On-site/Cast-in-Place
Quality control	Mechanized production in factory, high quality control.	Heavily depend on variable workers' proficiency, and hard to control the concrete quality due to on-site procedure
Cost control	*High initial cost and, need government support, integrate supply chain can reduce the cost.*	*Save 20% cost than off-site construction and can avoid the transportation fees.*
Construction time	High construction efficiency and saving the construction time, Limited impaction by the weather.	Should wait for the previous concrete work before the next step, and heavily depend on weather conditions.
Environmental impacts	All works taken in a factory environment and assembly on site. Greatly reduce the on-site environmental impacts.	On site construction generate great noise, dust and solid waste. Causing serious pollution to the surrounding environment
Resource Utilization	To maximize the reuse of the material, and save water and electricity consumption.	On site construction consume lots of water, electricity and materials due to wet construction

In table 1, there are four categories show that off-site construction has advanced performance potential than on-site construction, only the initial cost will be more than the on-site construction. For government lead project, the initial investment will be more guaranteed than the commercial projects. The real estate companies are more willing to consider the benefit and won't like promoting the new construction mode development. But for non-profit indemnificatory housing project, China government will be more willing to promote the new technology and new construction mode spreading, and promote the whole housing industry development. Therefore, off-site construction has great potential to be utilized in PRH construction.

4.2 CHARACTERISTICS ANALYSIS OF CHINA'S PRH

PRH is one kind of rental oriented indemnificatory housings, so it has significant characteristics different from the common indemnificatory housings, such as simple floor plan, policy and investment advantages, easy replacement, and basic renovation. All of these characteristics present new requirements for PRH construction.

The PRH should be oriented with green and low energy efficiency. China plan to built millions units of PRH, the PRH construction should consider the environmental friendship by using renewable materials and new type construction method. The prefabricated construction method can be used to reduce the environmental pollution and save energy consumption. Therefore, the prefabricated construction will be one kind of environmental friendly construction mode for PRH.

The PRH should have basic renovation. The PRH construction should avoid renovation in the traditional construction method. The basic non-structural elements should be produced in factory and assembly on site, such as prefabricate inner wall, prefabricate balcony, and prefabricate elevator.

The PRH should be built with flexible replacement element. For example, the government will choose the other qualified residents to rent the house after a period of rent, and then the non-structural element may need to be replaced for new residents. Therefore, the rental oriented PRH should be easier to replace the renovation or nonstructural elements.

The PRH always has simple floor plans which can be suited the basic residents requirements. The governmental will choose a series of mature and simple floor plans design to be used in the PRH construction. Therefore, it is easier to achieve the serialization and standardization in PRH design, which are foundation of prefabricated construction.

The PRH has policy and investment advantages. Most of real estate developers don't have motion to use new construction method, and put huge initial investment to implant new construction method. Therefore, PRH has incomparable policy and investment advantages as a government lead projects, the new construction method will be easier to be adopted than commercial projects.

4.3 BARRIERS ANALYSIS FOR IB ADOPTION IN CHINA'S PRH CONSTRUCTION

As an alternative to conventional building system, IB is featured by high quality control, low energy consumption and low environmental impact. However, IB is still not widely adopted in the building construction industry. There are lots of literatures analyzed the barriers for IB adoption [27-30]. The previous research investigated various barriers factors for IB adoption, which can be classified into four categories including the Policy & Structure, Economic, Technology and Market& Awareness, as shown in Tab.2.

TABLE 2: PRELIMINARY BARRIERS FOR IB ADOPTION

No.	Policy &Structure (P&S)	Economics(E)	Technology(T)	Market& Awareness (M&A)
1	Lack of government supporting policy	High Initial cost	Complex interfacing between systems	Uncertain market demand
2	Lack of manufacturers and suppliers	Difficulty of bidding price	Unable to freeze the design early on	Lack awareness of market and public
3	Lack of local R&D institutes and services	High cost pressure without economics scale	Lack of practices and experience from local project	Risk of adverse culture
4	Fragment of industry structure	High logistics costs	Lack of experienced worker, designer and contractors	Client skepticism
5			Lack of design code and standers for IB	Fear of historic failures

Source: Mao *et al.*, 2014; Arif and Egbu, 2010; Pan *et al.*, 2007

Most of previous studies investigated barriers based on question surveys, and ranking each barriers factors. Pan *et al.* (2007) point out the higher initial cost is the most significant barrier factor for IB adoption [28]. Mao *et al.* (2014) ranks 30 factors based on the their relative importance from the perspective of developer, their research results show that the greatest obstacle is lack of governmental regulations and incentives, followed by high initial cost and dependence on traditional construction method[26]. Although with different survey samples and different local circumstances, the research results show that high initial investment, lack of governmental supporting policy and uncertain market demand are recognized as the main barriers for IB adoption.

China's indemnificatory housing is also facing these barriers when adopting the IB as an alternative for traditional construction. PRH has incomparable advantages at urban plan, standers implementing, investment advantage than the commercial housing. So some existing common barriers in commercial housing projects can be overcome by the PRH due to its special characteristics. Therefore, it is worthwhile to analyze the barriers combine with indemnificatory housing characteristics. To analyze how barriers can be reduced in the PRH projects, the analysis of adoption IB in indemnificatory housing were carried out in positive aspects and negative aspects , as shown in Tab.3.

To compare with the common barriers in commercial buildings, the analysis was also classified into four categories. The analysis results show that PRH are able to overcome most of barriers, it has positive potential to promote the IB adoption. However, PRH projects are more conducive to the formation of industrial clusters, but it still lack of industrial scale, and it also need optimizing the whole supply chain to reduce the cost. The design code and experienced designer, worker, manager and contractors are still lack in the industry, and the government should deliver more IB project to enhance the market and public recognition, and then reduce the unsafe impression of public.

TABLE 3: IB ADOPTION ANALYSIS IN CHINA'S PRH

No.	Policy and Structure (P&S)	Economics(E)	Technology(T)	Market and Awareness (M&A)
Positive aspects	1.PRH projects are easier to adopt the unified planning 2.PRH projects can promote the Industry regulation and code development	1.Government provide initial investment 2.the land and tax supporting policy 3.PRH can improve the economic development indirectly	1.The guidance policy are conductive to promote the IB technology 2.The government support many large scale research project to solve critical technical issues 3.Demonstration project provide cumulative experience for the whole industry	1. PRH projects have determine market demand 2.PRH projects can reduce the client skepticism 3.Simple floor plan can reduce failure and enhance success confidence
Negative aspects	PRH is conducive to forming industrial clusters, but still lack of industrial scale	Optimization of the whole supply chain to reduce logistics cost are still need to be studied	Design code and experienced designer, worker, manager and contractors still need more training	Still need more projects to enhance market and public recognition, and reduce unsafe impression of public

Based on the analysis above, PHR projects are more conductive to adopt the IB than commercial building to adopt the IB. Meanwhile, IB can provide more flexible scheme for PRH, which make PRH achieving more sustainability development. Therefore, IB can be recognized as a sustainable solution for China's new rental-based indemnificatory housing, and large-scale indemnificatory housing construction can also promote the industrialization development in China.

5. SUSTAINABILITY PRINCIPLES FOR PRH BY IB ADOPTION
Sustainable development is a key target for PRH construction, IB adoption provide a feasible path to gain sustainable construction of PRH. Sustainable construction can be examined in three categories, economics sustainability, social sustainability and environmental sustainability(Shen *at al.*, 2007) [31]. Therefore, this study mainly investigate the sustainably principles meanings in indemnificatory housing construction in these three aspects, and then the recommendations for indemnificatory housing construction were proposed.

5.1 ECONOMIC SUSTAINABILITY PRINCIPLES
The economic sustainability principles for indemnificatory housing are mainly refers to two aspects, one is financial operation sustainability, the other is reducing the construction cost. The financial operation sustainability mainly refers to raise the construction investment to ensure the investment operation at each stage. Such as Urmi presented that the government should encourage the private sector to invest in the PRH project via PPP cooperation mode, and then enlarge the funds resource. The rent subsidies, tax subsidies and preferential land policy provide by government also can enhance the economics sustainability.

This study mainly focus on reducing the cost by IB adoption. As discussed previously in this paper, the initial cost is one of the main barriers for IB adoption, which belongs to the short term cost. For IB adoption in the construction industry, it needs a large initial investment to build the prefabricate element factory, and it also has inventory costs. All these cost will be part of product price, and the high initial cost will generate RMB 300-RMB 400 per m^2 greater than conventional buildings, approximately 20% higher than the total cost of conventional buildings (Mao et al., 2014). For indemnificatory housing, the government is developer, so it will provide more favorable policies and investment to promote industrialization housing development, and are easier to form economic scales. In China, government plays a key role in real east market, especially in the indemnificatory housing construction. The current large scale indemnificatory housing construction provides a good opportunity for industrialization development in China.

For economic sustainability, the government should provide a series of stage to promote the IB adoption in indemnificatory housing. (1) Present financial mechanisms, such tax rebate, land policy and low loan interest rates to encourage the developer participate in the prefabricate projects; (2) Make a specific plan which directly enforced the indemnificatory housing project to adopt the IB, guide the industrialization housing forming a scale to reduce the initial cost via indemnificatory housing projects; (3) optimize the industrialized supply chain to reduce the production cost, logics cost and assembly cost.

Although, the IB needs high initial cost, but when consider the life cycle cost, the long term cost can be reduced when prefabrication is used. Many professional believe that by adopting life cycle costing approach, the first cost of prefabrication can be largely offset by other factors such as potential reductions in construction time, on-site activities and labor requirements, waste and resources.(Chen et al.,2010). Therefore, the IB can be used in indemnificatory housing to gain the economics sustainability, the government need to help the developer overcome the initial cost barriers, and then the whole industry will gain long term benefit.

5.2 ENVIRONMENTAL SUSTAINABILITY PRINCIPLES
Comparing to the commercial building, PRH pays more attention on environmental sustainability. As a government lead project, the goal of PRH is to build a low carbon emission, high energy efficiency and renewable-material housing. Reducing the waste, decreasing the carbon emission, and avoiding the redecoration are the main advantages of the IB.

In China, construction waste is one of biggest challenges for environmental sustainability. Construction waste is defined as the by-product generated and removed from construction, renovation and demolition workplaces or sites of building and civil engineering structure. With China's high development of building industry, the new built building generate 40 million Ton construction waste per year, which accounts to 40% of the city solid waste. The construction waste seriously affects the environmental sustainability of building industry, especially for large scale Indemnificatory housing construction, the government facing a serious challenge.

The on-site and off-site environmental pollution can be effectively reduced by introducing the IB into PRH project. Parts of the structural elements can be produced in factory environment, and the element will be transport to be assembly on site. The on-site construction can be reduced effectively, and avoid the wet construction on site, and then reduce the environmental impact. IB also can achieve high energy efficiency as it produce the element in a factory and use high efficiency mechanized production. It save much labor and avoid rework which are common in the traditional construction method. Therefore, in perspective of project life cycle, the IB will be more efficiency than the traditional construction, although it will consume a little more energy to transport the element to the work site.

To achieving more environmental sustainability, China government should encourage the prefabricate element enterprise to participate in the indemnificatory housing project, and make specific plan for IB adoption in indemnificatory housing project. First, the government should present the explicit goal of environmental sustainability and specific indicators for indemnificatory housing. Second, set up an evaluation system, and evaluating the environmental sustainability based on the local green building rules. Third, improving the public and market recognition via demonstration housing project construction, and changing the unsafe awareness in the public mind. By adopting the IB in indemnificatory housing, the China housing construction industry not only achieves he sustainability, but also promotes the industrialization housing development in China.

5.3 SOCIAL SUSTAINABILITY PRINCIPLES
IB is a new type build system, which is still not widely used in China. Since the dependence on traditional building system, the safety and quality of industrialized housing is still not recognized clearly by society, lack social awareness of industrialized housing are one main barriers for IB application. In addition, as a labor intensive industry, the working environment, and safety are main aspects of social sustainability.

To achieving the social sustainability, the government can improve the recognition by promoting the IB adoption in indemnificatory housing, improving the management and construction level, and eliminate unsafe awareness of the IB. Meanwhile, the working environment and safety can be improved via high mechanical production adoption.

6. CONCLUSION

Sustainability has become the key challenge for China's indemnificatory housing construction. Meanwhile, the large scale indemnificatory housing construction provides a developing opportunity for China's building construction industry. PHR was delivered as a new kind of indemnificatory housing for renting which presents new requirements for industry housing construction. IB is defined as high efficiency, high quality control and green renewable. Therefore, the IB can be used as an alternative construction method for China's indemnificatory housing to achieve sustainable development.

However, there are many barriers for IB adoption in China. Based on the investigation of the common barriers for IB adoption, the high initial investment, lack of governmental supporting policy and uncertain market demand are recognized as the main barriers for IB adoption. These barriers are also main barriers for IB adoption in the PRH construction, but by investigation in this study , the results show that most of common barriers can be overcome by the indemnificatory housing's own characteristics, such as high initial investment, lack of support policy and the uncertain market. Therefore, the IB will be easier to be adopted in PRH projects than the commercial housing projects. By adopting the IB system, The economic sustainability, environmental sustainability and the social sustainability of PRH projects will be effectively improved.

7. ACKNOWLEDGEMENTS

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ROLE OF MEDIA: A STUDY ON IMPACT OF ATYPICAL MEDIA IN RURAL AREAS OF UTTAR PRADESH, INDIA

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ABSTRACT

The paper discusses the impact of atypical media on the buying behaviour of consumers belonging to rural areas. It also studies the problems and challenges faced by the rural communication in rural Uttar Pradesh and focuses on the relevance of atypical media in rural markets. Atypical media are effective tools for raising promotion of new products or for re-launching existing products. This is particularly true in the case of FMCG products, where the promoted products can propel sales volumes, provided the advertising campaign is appealing and is backed by a good distribution system. The paper elucidates the fall outs of atypical media by highlighting some national advertisement campaigns carried out by corporate giants to communicate with the target audience in rural markets. The authors take up the empirical views in highlighting the relevance of atypical media by analysing the national campaigns from secondary data sources.

KEYWORDS

Atypical Media Vehicle and Rural Consumer Buying Behaviour, FMCG Products, Rural Communication.

INTRODUCTION

Communicating the message to rural consumers has posed enormous challenges to rural marketers because of the large numbers of consumers scattered across the country. Rural communication meant for understanding the key challenges at hand- rural heterogeneity and spread, low literacy and varying comprehension abilities of rural folks, and differences in media reach and the habits of people. This problem is further compounded by the heterogeneous nature of consumers, in terms of their languages. Around two-fifths of the rural population is illiterate and literacy levels vary hugely among different states. To communicate effectively with the less educated, it becomes necessary that the focus be on creating a simple communication message. The limited reach of huge media in rural areas and its regional and state variations also pose limitations on a universal approach to communication for rural consumers. In the light of these challenges, a rural marketer should identify the most suitable medium to ensure the maximum spatial reach across the country, develop region specific consumer profiles to understand the characteristics of the target market, and design the most effective and persuasive communication and promotional strategies to induce the target audiences buy his product or service.

FEATURES OF RURAL MARKETS

As per the features, the existing rural markets are large and scattered, low standard of living, traditional outlook, diverse socio-economic backwardness and poor infrastructure facilities. The major problems faced in the rural areas of the state are underdeveloped people and under developed markets, ethnic problems facing people, many dialects, dispersed markets, low per capita income, low levels of literacy, prevalence of spurious brands and seasonal demand and a different way of thinking. These pose great challenge to rural markets.

FOCUS POINTS OF THE PROBLEMS IN RURAL COMMUNICATION

Low Literacy rate and Varying Comprehension Abilities: There are vast variations in the levels of literacy among rural citizens. Around two-fifths of the rural population is illiterate and only one fifth holds a matriculate and higher degree. To communicate effectively with the less educated, it becomes necessary to focus on creating a simple communication message using self-explanatory visuals comprising storyboards, role plays and flip charts, rather than text.

Different Media Reach and Habits: The limited reach of mass media in rural areas and its regional and state variations pose limitations on a universal approach to communication for rural consumers. As per the readership survey 2011, television has the maximum reach in rural India with 45.4%, cable and satellite with 32.6%, radio with 15.9%, press with 13.2%, cinema with 2% and internet with 8%.

Cultural and Linguistic Heterogeneity: Communicating the message to rural consumers has posed enormous challenges to the rural marketer because of the large numbers of consumers scattered across the country. Even the use of atypical media makes it almost enviable for the marketer to touch base with the widely scattered rural audience.

RURAL COMMUNICATION MEDIA

Rural media can be classified broadly into conventional mass media and atypical rural centric media. Conventional media consist of radio, television, print, cinema, outdoor media, wall painting, hoarding and personalized media, point of purchase and direct mailers etc. on the other hand atypical media includes rural centric media like video vans video raths, haats, melas, mandies, as the platforms for communication as well as the folk media Indias multilingual and multi-cultural identity limits the role of mass media activities, particularly in rural areas. This gap is filled to a great extent through atypical, rural centric media like video vans, haat / mela / mandi campaigns, folk media, puppet shows, folk theatre, contests, trolleys, hoardings, leaflets, animal parade and mobile display.

REVIEW OF LITERATURE

J. Thomas Russell and W Rolland Lane (1996) [1] have defined advertising in the following words Advertising is a message paid for by an identified sponsor and delivered through some medium of mass communication. Advertising is persuasive communication. It is not natural; it is not unbiased; it says; I am going to sell you a product or an idea.

Cooke (1997) [2] stated the concept of media synergy has been suggested as an effective means to improving communication and building brand equity (share, awareness, intention, etc.). In more simplistic terms, brands that utilize integrated marketing communication strategies may perform better in the marketplace. Research has shown that "when print and TV are used synergistically, print can lead people to see the TV commercial in new ways, encourage more response, reinforce the TV message, and create a more positive feeling towards the brand" .

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Speetzen (2001) [3] examined many practitioners call this "the multiplier effect," where mixed TV and magazine exposure opportunities can transfer credibility and can improve the learning effect.

Deepti Srivastava (2010) [4] evaluated that rural markets are rapidly growing in India but have often been ignored by marketers. 53% percent of Fast Moving Consumer Goods (FMCG) and 59 % of consumer durables have market in the rural belts.

Cindy J. Price, Michael R.Brown (2010) [5] examined that Most research about the economy and the effect of new media on business has focused on big companies.

KC Behura and JK Panda (2012) [6] have defined that an important tool to reach out to the rural audience is through effective communication. A rural consumer is brand loyal and understands symbols better. This also makes it easy to sell look - alike", says Mr. R.V Rajan,CMD, Anugrah Madison Advertising. The rural audience has matured enough to understand the communication developed for the urban markets, especially with reference to FMCG products. Television has been a major effective communication system for rural mass and, as a result, companies should identify themselves with their advertisements. Advertisements touching the emotions of the rural folks, it is argued, could drive a quantum jump in sales.

Rajiv Kaushik in Effective Media for Rural Communication: A Studyof Panipat, (September 2013) [7] Majority of the respondents (60%) preferred television rather than newspaper, radio and other means of communication. Most of the respondents, who were in favor of T.V. lie in younger age group and elder one preferred the radio. Among the print media, newspapers are the most preferred medium and few respondents (10 %) did not respond to the question due to their illiteracy.

Dr. Surinder Singh Kundu, (September 2013) [8] stated in Customers Perception towards the Fast Moving Consumer Goods in Rural Market, Rural buyers perceived that TV commercials followed by print advertisements and word of mouth plays a significant role for taking the decision to purchase FMCGs.

Pardeep Kumar(2013) [9] stated in Challenges and Opportunities of Indian Rural Market , The Indian growth story is now spreading itself to Indias hinterland, not just witnessing an increase in its income but also in consumption and production. The economy is vibrant, income is rising, and the habits, tastes, preferences, and attitudes are changing rapidly.

Avinash Pareek & Dr. Satyam Pincha (Jan. - Feb. 2013) [10] stated that the effective communication is an important tool to reach the rural audience. Among the mass media at some point of time in the late 50's and 60's radio was considered to be a potential medium for communication to the rural people. Another mass media is television and cinemas. But now a day the scenario has changed. Television, telephone, mobile, internet etc. reached to every house in the rural India.

Ultimately the winner would be the one with the required resources like time and money and also with the much needed innovative ideas to tap the rural markets. Thus looking at the opportunities which rural markets offer to the marketers it can be said that the future is very promising for those who can understand the dynamics of rural markets and exploit them to their best advantage.

Swati priya & Pooja Bhatia (Feb 2014) [10] examined that, it may be recommended that the producers or marketers should frame ethical advertising strategies keeping in mind that rural people are fond of electronic and print media advertisements. For communication and promotion to be effective, it is important that marketers understand the socio cultural, demographic, and economic make up of the rural sector, because majority of problems arise out of these element.

RESEARCH STATEMENT

The main aim of this research work is to study the impact of atypical media on the rural masses in rural Uttar Pradesh and highlight the relevance of atypical media in rural markets.

SAMPLE SIZE

The respondents for the study are the mixture of villagers and town dwellers as customers and shopkeepers in the town markets. 100 respondents in all were contacted from the four major markets.

FINDINGS BASED ON PRIMARY DATA SOURCES

TABLE 1: PROMOTIONAL SOURCE ATTRACTING THE CUSTOMERS

Factors/ Responses	Mobile Van Promotion		Painting on the walls		Commercial in Halls		Road Shows		Newspaper & Periodicals		Commercial Pasted on Public Transport	
	Responses	% Age	Responses	% Age	Responses	% Age	Responses	% Age	Responses	% Age	Responses	% Age
Not at all effective	5	5	8	8	35	35	48	48	15	15	13	13
Not very Effective	8	8	12	12	25	25	22	22	18	18	15	15
Somewhat Effective	20	20	15	15	20	20	15	15	17	17	17	17
Very Effective	27	27	20	20	7	7	12	12	37	37	18	18
Extremely Effective	40	40	45	45	13	13	3	3	13	13	37	37
Total	100	100	100	100	100	100	100	100	100	100	100	100

From the Table 1 of promotional sources attracting the customers, it is evident that mobile van promotion with 40. % response, paintings on the walls with a response of 45%, commercials pasted on public transport with a response of .13% and Newspapers and periodicals with 13% are the most effective promotional sources. The responses in these four categories are much higher than the mean score 25.16 of all the six factors in the category of extremely effective. Mobile van promotion, paintings on the walls, commercials pasted on public transport and Newspapers and periodicals are also high with their response score of 27%, 20%, 7% and 37% respectively in very effective category. These figures are much higher than the mean score 20.16 of all the six factors in the category of very effective. Commercials in the halls with a score of 35% and road shows with a score of 48% fall in the category of not at all effective. These figures are much higher than the mean score 20.16 of all the six factors in the category of not at all effective. This infers that mobile van promotion; paintings on the walls, commercials pasted on public transport and Newspapers and periodicals are most appropriate tools to attract the customers in rural markets of the state.

TABLE 2: EFFECTIVENESS OF DIFFERENT MEDIA SOURCES

Factors/ Responses	Periodicals		TV		Radio		News Paper		Cinema		Hoardings	
	Responses	% Age	Responses	% Age	Responses	% Age	Responses	% Age	Responses	% Age	Responses	% Age
Not at all effective	24	24	6	6	3	3	15	15	57	57	2	2
Not very Effective	34	34	11	11	9	9	24	24	25	25	7	7
Somewhat Effective	32	32	19	19	13	13	13	13	9	9	19	19
Very Effective	6	6	25	25	39	39	33	33	7	7	45	45
Extremely Effective	4	4	39	39	36	36	15	15	2	2	27	27
Total	100	100	100	100	100	100	100	100	100	100	100	100

From the Table 2 of effectiveness of different media sources, it is clear that TV with 39% response, radio with a response of 36%, and hoardings with a response of 27% are extremely effective media sources. The responses in TV, Radio and Hoardings are much higher than the mean response of 102 in the category of extremely effective. The responses of TV with 25%, Radio with 39%, Newspaper with 33% and Hoarding with 45% are much higher than their mean response of 129 in very effective category. As for as Periodicals and Cinema are concerned, they are not effective at all or not very effective with a combined response of 57% and 82% respectively. These values are higher than their mean responses.. This interprets that all the media sources under consideration as per table 2 are effective with respect to their responses. This infers that TV, Radio, News Paper and Hoardings are highly effective media sources in order to communicate with customers in the rural markets. From the analysis, it is also advised that companies should not rely on periodicals and cinema, as they are not effective at all.

CONCLUSIONS

This study helped to understand that if the goal of media is to provide more eco-friendly and healthy FMCG products in the rural markets, then it has to focus more on consumer's perspective in order to expand its operations. Communicating with the customers in rural areas is quite a challenging task. Marketers should carefully identify such challenges; devise appropriate strategies to counter them. For communication and promotion to be effective, it is important that marketers understand the socio cultural, demographic, and economic make up of the rural sector, because majority of problems arise out of these element. With a focused approach and commitment towards understanding the rural markets, marketers can devise appropriate strategies best suiting to the rural markets for meeting their unmet needs profitably.

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SPILL-OVER EFFECTS OF MORTGAGE CREDIT CRISIS IN USA ON EUROPE

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ABSTRACT

The banking industry in USA and Europe is, upto a great extent, connected to a global slowdown and to the world economy. Globalization and innovation, which used to be regarded as important factors for having contributing the global GDP increase, recently have showed us their downsides. Hazardous behavior of the US financial experts caused series of negative effects that soon after spread out all over the world thus made everyone feel the repercussions of their greedy undertaking. The economic instability and slowdown in developed countries, especially in US and Europe, may affect the economic stability and banking industry at global level to a great extent. The economic slowdown and declining banking industry in US and Europe in the last decade, left a bench-mark influence all over the world. The main point of this paper is the US subprime mortgage crisis and its impact on Europe. In the present paper, the roots of crisis are shortly represented as to help the reader understand why the effects of crisis have become worldwide.

KEYWORDS
mortgage credit crisis, global slowdown.

INTRODUCTION

Not even the most pessimistic economists could have expected that the European economy would be so badly affected by the negative impact of the mortgage credit crisis in the USA. The basis for their positive predictions experts found in the assumption that both the market and the investors were somewhat "conservative" by nature thus the new financial products wouldn`t be as attractive to the European financial markets as expected.

Mainly because of the business of the US companies themselves, but also because of the activities of the European financial institutions involving securities, the crisis almost immediately engulfed the two continents. Losses that were registered in almost all the companies in the financial industry accumulated, causing serious problems in their business. The loss in the world's financial sector was increasing continuously and reached its peak-1 trillion, in June 2009. Taking out loans was brought to a minimum and the severity of the whole situation seriously shook people's confidence in banks and other financial institutions. To such an inappropriate environment investors reacted by withdrawing funds from the financial markets and that complicated the situation even more. The increase in unemployment and poverty in the whole world contributed to the decline in the aggregate demand what, further more, dictated by the consistent economic trends, resulted in the drop of the GDP in almost all the countries (USA 2.3%, UK 5.2%, Germany 3.5%, etc. ...)[1].

The whole situation seemed bad, with great possibility to deteriorate even more. The necessity for the state intervention was obvious. Action plans, adopted by governments (TARP in the USA, FMStG in Germany, and others…), implied injecting large amounts of liquid assets thus enabling banks to continue with their operations. Contrary to the laws of the neoliberal theories, active state intervention to regulate the market and its mechanisms became a reality.

ROOTS OF THE CRISIS

After almost nine years of a continuous growth in share prices in the US financial markets, primarily due to the innovations in the field of the information technology, the value of shares started to decrease significantly, thus initiated slowing down of the economy. The burst of the "dot com" bubble and the terrorist attacks on 11th September contributed to the increase of uncertainty among investors, who responded to this situation accordingly by withdrawing considerable funds from the market. Such economic climate indicated that the situation could worsen even more if the major players' confidence in the financial market was lost. Bush's administration, together with the director of the Federal Reserves Alan Greenspan, advocated significant reduction in Central Bank interest rates that might have served as an invitation to the companies and the population to increase their investments and consumption. Starting from 2001. The reference interest rate kept being reduced by 0.5 percent every month, so that in January 2003. It reached its historic level of 1%. Offering significant amounts of money was accompanied by more liberal requirements, hence conditions for realizing loans. Namely, in desire to have the accessible money productively placed in the market, banks lowered their criteria, particularly with granting mortgage loans which put the credit history aside for the time being. This force of circumstances, especially under the influence of the high demand for real estates, initiated speedy increase in the prices of houses. The following graph represents quarterly increase in the prices of real estates for the period 1999-2005, as well as the decline that followed soon after, which will be thoroughly explained later on in this paper.

FIGURE 1: REAL ESTATE PRICES IN DIFFERENT COUNTRIES FROM 2001 TO 2007

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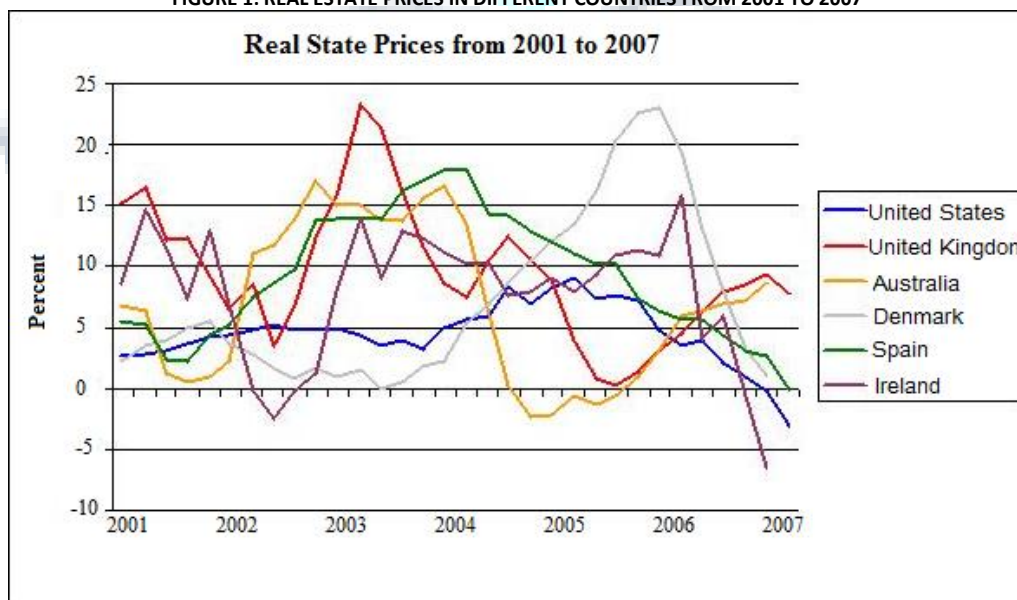
A remarkable problem from the very beginning was the fact that the subprime loans had the biggest share in the total issued credit mass. If this indicator was to be talked about in abstractions, then we had neglected the fact that these debtors were less desirable as such, there go the likelihood of them paying off their loans was very small. To such unfavorable attributes their debtors had displayed, the banks responded by offering them inconvenient conditions for granting loans. Namely, there was a hybrid interest rate which was fixed in a first few years and then, after that period, the banks were free to set the amounts the way they desired.

In order to accept such negative conditions, both sides needed very strong reasons. From the point of view of the debtor, that was the only possibility for fulfilling "The American Dream" because of the bad credit history or their current credit ability. On the other hand, the banks, having been encouraged by the increase in the prices of houses, did not question the possibility of expanding the number of delinquent debtors, and they considered that any presumptively bad scenario could be resolved by selling the houses that had been impounded, what would help them make a profit again.

In addition, banks were increasingly relying on the business with securities. By this action, banks transferred junk assets to a separate legal entity (SPV Special Purpose Vehicle) and thereby improved credit potential, with reducing risk to a minimum. This phenomenon led to the expansion of securities which had a base in subprime loans (MBS Mortgage-backed securities).Relatively new financial products were not only attractive to the financial markets in the USA, but the considerable volume of trade was also registered in stock exchanges throughout the world , especially in Western Europe, China and Japan [1].

The reflection on the economy was extremely positive and contributed to the increase in activity and to the significant growth in GDP during this period. And everything was moving in a positive direction until the banks, after the expiry of the fixed interest rates for hybrid loans, decided to change the interest rates and made numerous of debtors unable to pay off their debts practically over night. The rate of the delinquent debtors and the number of the houses impounded grew rapidly. Only in 2007. Nearly 2 million houses were impounded and most of the banks offered them in the market, thereby initiating the decrease in the prices of real estates. The negative impulse, initiated by the collapse of the mortgage market, spread at high speed and crept into every pore of the financial system.

The bankruptcies of banks, insurance firms and other companies which trade with the securities issued by the subprime loans, became an everyday life. Financial giants such as "Bear Stears", "Lehman Brothers", and similar companies collapsed under the blow of the first wave of the crisis, what resulted in numerous harmful consequences others could have felt, as well.

This was a clear signal to the US government to start dealing more seriously with the issue of illiquidity and the other difficulties financial companies were faced with. Uncertainty, the biggest enemy of any investment, again played a significant role in deepening the crisis and contributed to the more evasive depreciation of the value of shares in stock exchange markets around the world. Regardless of the fact that the crisis had actually started as a result of the hazardous behavior of the financial institutions in the US, the losses, having been initiated by the collapse of these very institutions, affected the world economy [2].

CRISIS OF MORTGAGE LOANS IN THE UK

The United States and Great Britain had the same structure and handled business in the financial sector in the same way for years. With the strong political support, and the motivation coming from the Central Bank of England the business with securities was getting ever more important, so that the number and the types of securities assets grew rapidly.

The most attractive activities related to the securities in "prime" and "subprime" mortgage loans were performed by many banks. What was typical of the US and Great Britain, but significantly different from the rest of the world, was the fact that in these two countries a large number of mortgage loans was approved by the brokers. In this way, active analysis of the number of debtors, as well as the concern about the prospects for debt repayments, was put aside and the quantity of the loans granted became a priority. The financial derivatives market in the UK was the largest one in the world and the whole financial industry produced 7% of GDP.

The decline in interest rates and the weakening of credit standards lately have resulted in the growing tendency of the population and the companies to borrow. The number of credit arrangements and the real estate prices kept rising (the price index of real estates in the UK has risen from 100 in year 2000. to 240 in year 2007).

However, the decrease in prices that occurred soon after that, as a result of the negative impulses coming from the US, contributed to the deterioration of the situation. The largest banks in the UK market, in a row, reported the liquidity problems and asked for help from the state. In its assets, these banks, like the US ones, reported numerous worthless securities issued on the basis of subprime mortgages. "Northern Rock", "HBOS", "Bradford and Bingley" were just some of the examples, depicting the problematic situations.

FIGURE 2: CAPITAL STRUCTURE OF NORTHERN ROCK BANK
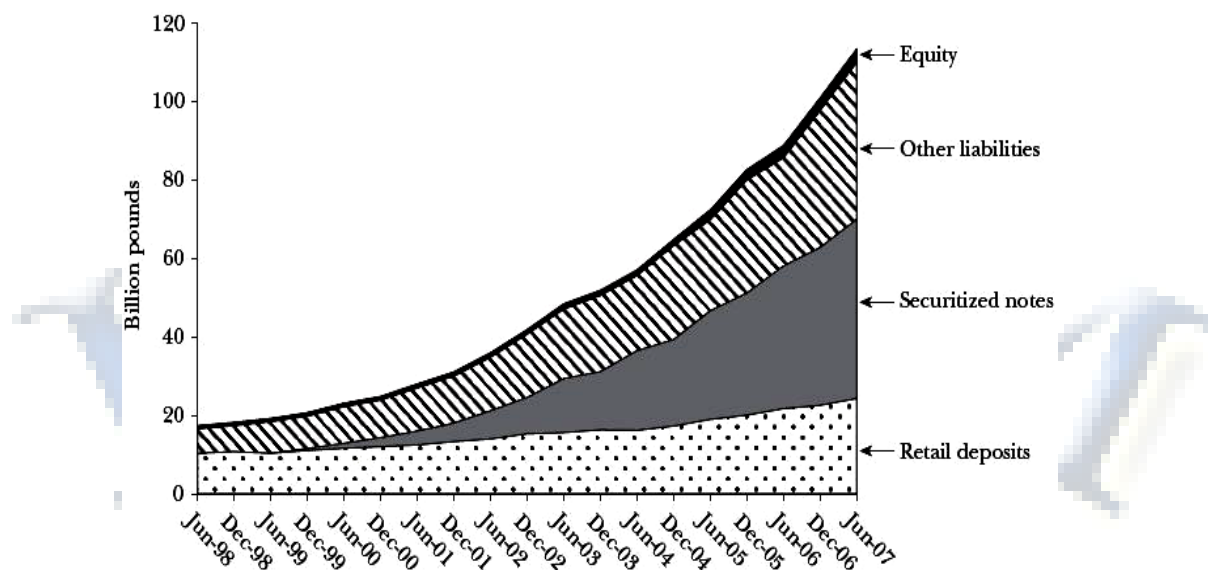
The "Northern Rock" Bank was the eleventh largest bank in the UK with a total capital of 113.5 billion pounds. It was extremely active in the mortgage loans market, what was obvious from the fact that in the mid-2007. The value of the approved mortgage loans was around 10.7 billion pounds or approximately 19% of the total value of loans granted in the UK that year. The following graph shows that from 2000. The shares of these securities have constantly grown. The first level represents the savings deposits, which are relatively stable source of funding, with the standard participation. The second level represents securities resulting from the securities business with loans, whose share, as previously mentioned, has increased dramatically since2000. The third and the fourth level represent other liabilities and assets whose participation was standard.

Such a fragile structure and active participation in international financial markets caused for the first effects of the crisis to be seen and experienced on 17th September 2007., when the bank sought the assistance of the Central Bank as to be able to continue with further operations. The analysis showed that the bank

was solvent and that attaining guarantees by the state would be the best solution so as to regain the trust of its clients. However, it did not show any results and on 21 February 2008. The Northern Rock Bank was nationalized.

Financial institutions, such as "HBOS" and "Loyds" had 36 that is 23 billion pounds respectively in these toxic loans. Such a structure threatened to create problems in the operations of these institutions. The first problems that "HBOS" reported on February 2008 were related to the loss based on the securities business worth 227 million pounds. Unfortunately, the loss did not stop at that figure, but increased instead, and in July that same year it reached the level of 1.09 billion pounds. After that, it was clear that the nationalization was the only solution, what eventually happened in October 2008, when the "Loyds TSB" took over the control package.

FIGURE 3: GDP FLOW IN UNITED KINGDOM
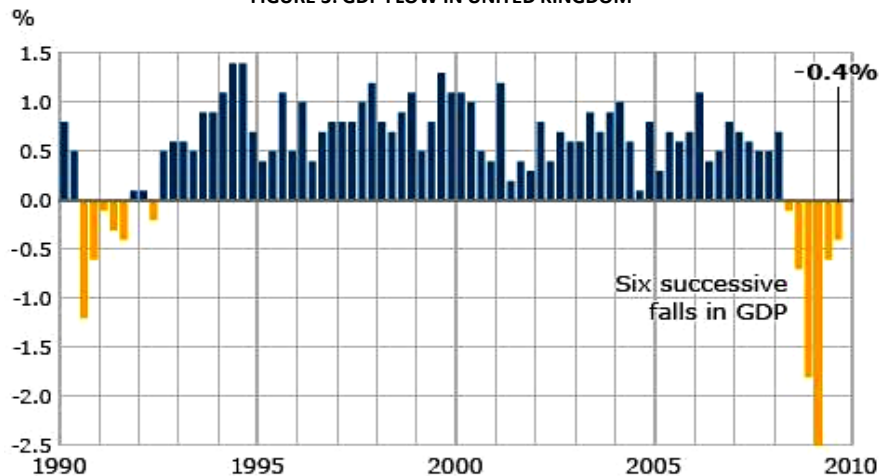
Repercussions, that the whole economy felt, were also very serious. Gross domestic product has been decreasing repeatedly for six quarters since the beginning of 2008. It is important to note that such a decline has not been remembered since 1955.

Besides manufacturing, these significant effects have reflected badly on unemployment too, which is currently at the level of 7.9% that being the highest level in the last eleven years. What is even worse is the fact that the continual growth in unemployment is expected in the upcoming period. In regards to the structure, the worst situation is in the financial and the construction sectors that have been recording a permanent market growth since 2008. In addition to that, the unskilled, young employees have paid the highest price of the global economic crisis.

It was clear to everyone that the situation was alarming. The necessity for some serious reaction at all levels was not questionable. In order to avoid blocking the operations in the financial sector, which was caused by liquidity problems in banks, permanent injections of money by the Central Bank of England were required. This would help banks to continue issuing credits and customers would be more confident in banks. In addition to motivate savings, the value of guarantees on savings deposits increased from 35,000 to 50,000 pounds.

Government plan and the plan of the committee for the economic crisis were to create an atmosphere for increased investment and consumption. By expansive monetary policy of lowering the Central Bank interest rates and expansive fiscal policy of lowering tax rates they created the climate for increased investment of business sector. The process of lowering interest rates in 2009 landed at an extremely low level of 0.5%.

The desired effects of any significant increase in investments weren't achieved at first, as evidenced by the fall in GDP. However, the reason for hope was the fact that in the last quarter it was only 0.4%. In addition, much more important reason for optimism was the increasing prices of real estates.

Economists believe that after each crisis, during which the depreciation of real estate prices occurs, this market experiences the slowest recovery since the speculators, as well as the population, tend to think that prices will fall even more and they wait for a moment when prices would come to a minimum. In this waiting period prices experience the "free-fall". The situation in the UK fully disproved this theory and in early 2009, a steady growth was recorded.

FIGURE 4: REAL ESTATE PRICES IN UK
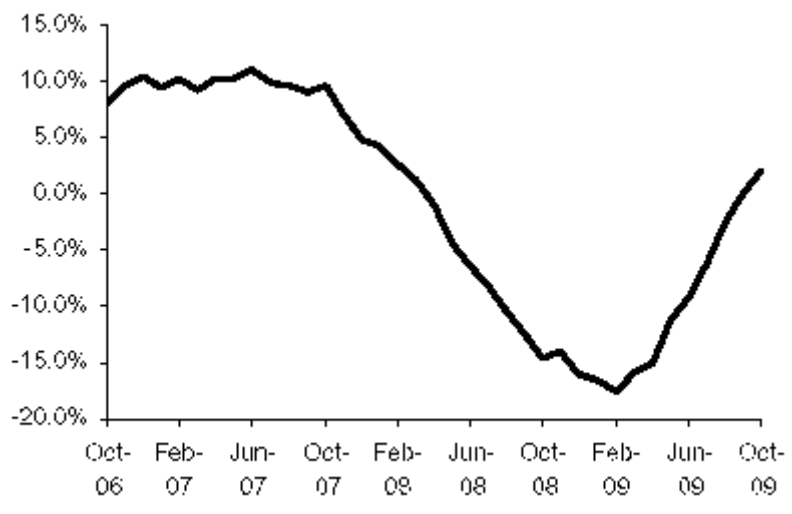
IMPACT OF THE CRISIS ON GERMANY

In the preceding years, the development of the financial sector in Germany did not follow the progress of the financial systems of the countries from the region. The mortgage market in Germany, which has been existing for about 200 years now, is significantly different from the Anglo-Saxon type of the mortgage market. In addition to that, since the 1990s German banks have been issuing bonds (Pfandbriefe) based on mortgages, but in contrast to the methodology of the USA and the UK, mortgages have not been transferred onto the legal entity, but the banks kept them instead. Those bonds are sold with the low interest rate, because of their high liquidity and safety, since their correctness is being constantly monitored by the bank.

Besides, for a bond issue, it is necessary to get a state's consent, which can only be received if all the legal rules are being followed and if it is allowed for the state to monitor the bonds all the time. Regardless of what has been previously mentioned, the financial sector does not play a significant role in the domestic

product of Germany, meaning that direct contribution of financial industry to the GDP of the country is not significantly big. Compared with other countries from the region and the world, it is clearly seen that its minor contribution to the added value of GDP is only 5%. The following graph confirms that empirically.

From what has been previously mentioned, it could be wrongly concluded that any positive and especially negative change in this sector would not have any negative effects on the real economy itself. On the contrary, since the beginning of the financial crisis, the financial sector has suffered the loss of about 38 billion Euros, which is, by some predictions, only 10% of the overall loss.

The real estate market stayed pretty much stabile, with the growth of only 5,9% in the period from 2003 to 2006, as opposed to the markets in other countries from the region, where the prices grew rapidly (Ireland 153%, Greece 148% and Spain 132%). That was one of the main reasons that enabled German economy to save itself from the first wave of the crisis caused by the rapid downfall of the real estate prices. However, the second wave, which was created as a consequence of the bankruptcy of big investment banks and the loss of the value of bonds, which were issued based on the mortgages, could not left Germany immune to the global crisis.

FIGURE 5: LOSSES OF BANKS IN GERMANY IN 2009
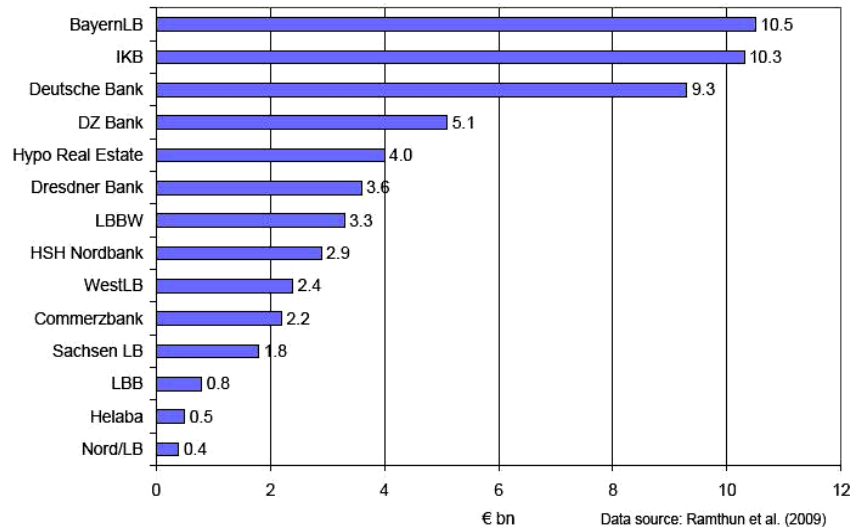
First serious problems were reported already in August 2008 by Sachsen LB and Deutsche Industriebank AG. Sachsen LB reported losses, which were the consequence of the trade with securities issued on the base of subprime mortgages, and they asked for the loan to keep its current liquidity. Later on, all the other banks, in a row, reported huge losses and the decrease in value of equity, amongst them first having been Bayern LB, then IKB, Deutsche Bank, and others. Next graph shows the list of German banks that reported the biggest losses in 2008.

It is also important to reflect on the distribution of the loss among three basic columns of banking that exist in the German financial sector. The first and the third level are commercial and cooperative banks that have significantly lowered losses in comparison to their market shares, which is the reflection of their managers' interests, who wanted to make lower, but more certain income. The second level is savings banks, which have had disproportionally huge losses when compared to their market shares. The reason for this is their active participation in the international financial market, as well as the extremely hazardous behavior of their management, which is up for discussions for a much longer period of time. The fourth level is specialized banks, which are the only ones to make lower loss in comparison to their market share.

The damage that entire economy has suffered directly as a consequence of the loss in the financial sector (about 0.4% of its total value or 1% of GDP) is minor when compared to the indirect effects of this crisis. The first step every bank takes the moment it becomes aware of its loss and possible liquidity problems is to tighten the conditions for lending and to increase the interest rate.

Such behavior results in the increase in savings (in period from 2007 to 2008 saving was increased for 14.6%), but also in the decrease in investments taken by firms, as well as those taken by the population. Moreover, what occurs is the decrease in inter-banking loans, which additionally complicates the situation and the liquidity problems. All together it makes the number of the allowed loans fall drastically, which has been the case with Germany, and that is proved by the following graph, which analyses the number of approved loans to small and medium firms. However, policy makers are aware of the possible consequences of the fall of total savings and therefore they have undertaken a serious of actions to help banks in order to enable them to do their business normally.

The action plan for the stabilization of the financial market was made incredibly fast and on October 18th it was made public and applied immediately. The basic idea of that plan was to balance the money market and banks' business. Modeled according to the American TARP, a huge amount of money was planned to be used for that purpose, about 400 billions of Euros. The first 400 billions were planned to serve as a guarantee for the assets of the banks, while the rest was to be used for the recapitalization of banks and for purchasing valueless assets. The nationalization of the banks was also one of the possible solutions for the liquidity problems, in what way the state would pump liquid assets into the banking system and rehabilitate it for normal business, and in return it would get a share in the ownership. First nationalization was done with Commerzbank, when the package of 25% of equity was overtaken.

CONCLUSION

The hazardous behavior of certain individuals in the US financial market caused that very sector to collapse completely, there go pull the entire economy into a recession. The bankruptcies of investment banks and other financial organizations, involved in businesses with new financial products, became an everyday life, while the value of the assets was depreciated over night. Under the influence of these negative effects, bad consequences spilt over thus were felt in the entire world. Banks in the UK and Germany kept reporting huge losses and asking for help from the central monetary institutions.

The existing economy sector was also badly affected. The stock indices reflected every vibration and displayed the current state of the economy. In November 2008, the industrial index Daw Jones fell down to the lowest level ever recorded in history, i.e. 7552. The decrease in the economic activity initiated a huge growth of unemployment, in the USA 10.2%, in Euro zone 9,7%, in the UK 7,8% and in the other countries of the world, respectively.

Since the issue in question is the worldwide economy crisis and not just a minor economic downturn, it has only attached even greater importance to the very moment at which further mutual steps for overcoming the newly arisen situation are taken and decided upon. On the other hand, the awareness of the policy makers that there is a big similarity between the crisis that has been happening these days and the one from 1929 has made them ever more confident that the only possible solution to the existing problem is active intervention of the government. Regardless of the great resistance of the tax payers, who are supposed to carry out the whole burden of the stabilization programs, TARP, FMStG and other similar programs have been accepted without any corrections whatsoever.

First, but fairly small positive effects of the programs mentioned above, were felt already by the mid of 2009. Banks that had received the funding from the TARP were able to make profit and repay the loan, and the stock indices in the USA and the EU recorded an increase. However, the entire economic picture is far from being ideal and it is unreal to expect any significant improvement any time soon.

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INDIAN REAL ESTATE INDUSTRY: ISSUES AND INITIATIVES

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ABSTRACT
The Present paper endeavoring the current situation of real estate industry in India in first part. The second part shows the key developments in FDI sector and market size in various cities. The third part provides investment in the real estate sector in the recent past and also describes the government initiatives and regulations to attract the new technologies in the real estate sector. The next part shows that challenges that are being faced by the real estate sector. Final part describes the future prospects of the industry.

KEYWORDS
Construction Sector, Foreign Capital, Foreign Direct Investment (FDI), Housing, Real Estate.

BACK DROP
The Indian real estate sector is one of the fastest growing and globally recognized sectors. It comprises four sub sectors-housing, retail, hospitality, and commercial. The real estate industry's growth is linked to developments in the retail, hospitality and entertainment (hotels, resorts, cinema theatres) industries, economic services (hospitals, schools) and information technology (IT)-enabled services (like call centers) and the like. The total realty market in the country is expected to touch US$ 180 billion by 2020. India ranks third for the most LEED (Leadership in Energy and Environmental Design)-certified space globally, with nearly 12 million sq m. The LEED system is the most widely used rating system guiding the design, construction, operations and maintenance of green buildings. Private Equity (PE) funding has picked up in the last one year due to attractive valuations and low level of bank funding to the sector. Delhi NCR alone has already attracted PE investments of Rs 80 crores in first quarter of 2014.Moreover, with the government trying to introduce developer and buyer friendly policies.

AIM OF THE RESEARCH PAPER
The present paper aims at endeavoring the core issues and initiatives concerning the Indian Real Estate Industry.

METHODOLOGY
The data for the present study is collected from the news papers, journals and online databases and the views of writers in the same discipline. The reference books, magazines, Government publications, Press notes and Internet are also used for the purpose.

STATUS OF THE REAL ESTATE SECTOR
The real estate sector is a critical sector of our economy. It has a huge multiplier effect on the economy and therefore, is a big driver of economic growth. It is the second-largest employment-generating sector after agriculture. Growing at a rate of about 20 percent per annum, this sector has been contributing about 5-6 percent to India's GDP. Not only does it generate a high level of direct employment, but also stimulates the demand in over 250 ancillary industries such as cement, steel, paint, brick, building materials, consumer durables and the like.

The Indian real estate industry has been on a roller coaster ride since 2005. Consequent the government's policy to allow Foreign Direct Investment (FDI) in this sector, there was a boom in investment and developmental activities. The sector not only witnessed the entry of many new domestic realty players but also the arrival of many foreign real estate investment companies including private equity funds, pension funds and development companies entered that were the sector lured by high returns on their investments. The real estate sector has been riding through many highs and lows since then. The industry achieved new heights during 2007 and early 2008, characterized by a growth in demand, substantial development and increased foreign investments. However, by mid 2008, the effects of the global economic slowdown were evident here too, and the industry took a 'U' turn. FDI inflow into real estate dropped significantly and what had emerged as one of the most promising markets for foreign investments experienced an unexpected downturn.

GROWTH IN COMMERCIAL REAL ESTATE SECTOR
The Indian real estate sector has grown in the recent past, especially the commercial real estate segment. According to a study by Knight Frank, Mumbai is the best city in India for commercial real estate investment, with returns of 12-19 per cent likely in the next five years. Bangalore and Delhi-National Capital Region (NCR) come second and third on the list, with returns of 10- 12 per cent and 8-11 per cent respectively. Delhi-NCR was the biggest office market in India with 110 million sq ft, out of which 88 million sq ft were occupied.

TABLE - 1: COMMERCIAL REAL ESTATE SECTOR GROWTH IN INDIA

Cites	Returns in percentage
Mumbai	12-19
Bangalore	10-12
Delhi	8-11

Source: Hand Book of Real Estate Released by Indian Industrial Association 2013-14

CHART - 1: COMMERCIAL REAL ESTATE SECTOR GROWTH IN INDIA
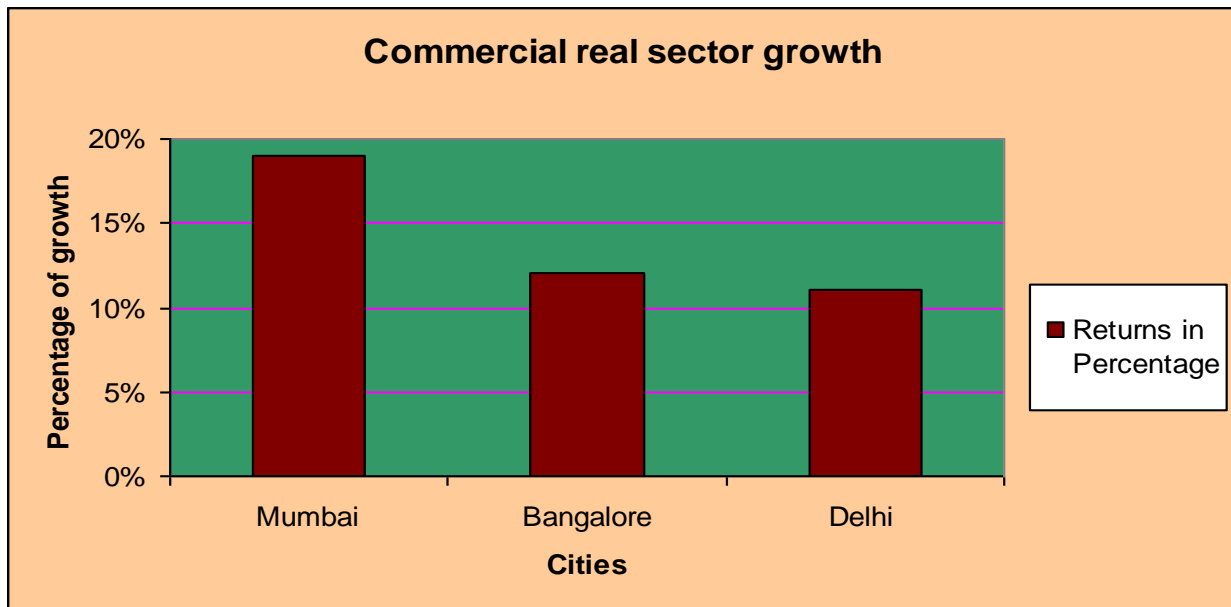
GROWTH IN RESIDENTIAL REAL ESTATE SECTOR

The residential segment of real estate has also seen tremendous growth in recent years owing to the continuous growth in population, migration towards urban areas, ample job opportunities in service sectors, growing income levels, rise in nuclear families and easy availability of finance.

TABLE - 2: RESIDENTIAL REAL ESTATE GROWTH-THE NUMBER OF NEW UNITS LAUNCHED IN DIFFERENT CITIES

Cities	Increased percentage	Units
Mumbai	22	16,838
Bangalore	93	10,698
Delhi	191	7,436

Source: Hand Book of Real Estate Released by Indian Industrial Association 2013-14

CHART - 2: RESIDENTIAL REAL ESTATE GROWTH-THE NUMBER OF NEW UNITS LAUNCHED IN NATIONAL LEVEL
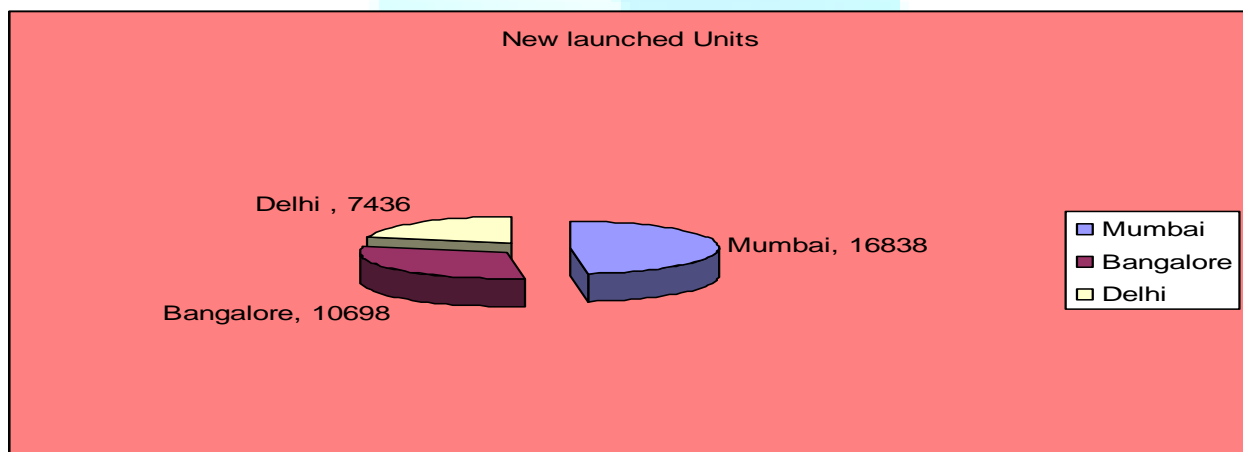
In the residential segment, the number of new units launched in the first quarter of 2014 has increased by 43 per cent at 55,000 units across eight major cities. Bangalore recorded the largest number of units launched with an increase of 22 per cent at 16,838 units, followed by Mumbai and Chennai with 10,698 units and 7,436 units with a growth rate of 93 per cent and 191 per cent respectively. With the government's proposal of allowing 100 percent foreign direct investment (FDI) in this sector, the number of foreign firms owning real estate projects in India has also increased. The construction development sector, including townships, housing, built-up infrastructure and construction-development projects garnered a total FDI worth US$ 23,587.25 million in the period April 2000-June 2014.

INVESTMENTS IN REAL ESTATE SECTOR

With the rise in demand for office as well as residential space, the Indian real estate sector has witnessed high growth in recent times. Some of the major investments in the real estate sector in the recent past are as follows.

TABLE - 3: INVESTMENTS IN INDIAN REAL ESTATE SECTOR BY SELECT COMPANIES

S.NO	Name of the company	Amount (in Rs.)(crore)
1	Piramal Fund Management	350
2	US-Based PE Company	1000
3	Panchshil Realty and Block Stone	870
4	Canada –Based Brook field Property	2000

Source: Hand Book of Real Estate Released by Indian Industrial Association 2013-14

CHART - 3: INVESTMENTS IN INDIAN REAL ESTATE SECTOR BY SELECT COMPANIES
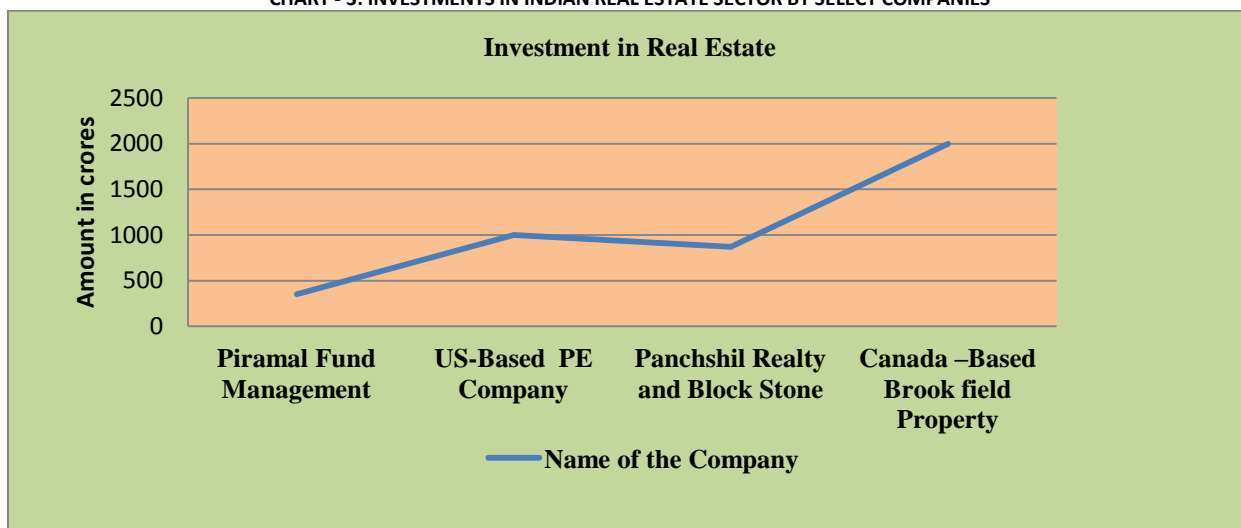
Piramal Fund Management has launched the Indiareit Apartment Fund which seeks to buy residential apartments in the Tier I market, and has kept aside a corpus of Rs 350 crore for the same.US-based PE company Blackstone plans to step up its presence in the residential segment and has lined up about Rs 1,000 crore to invest in residential projects across Indian metros. Its first investment in the residential sector was in the Chennai project of Bangalore-based Ozone Group. Panchshil Realty and Blackstone have bought a majority stake in Express Towers, for around Rs 870 crore.

Canada-based Brookfield Property has entered into an agreement to acquire Candor Investments, a subsidiary of Unitech Corporate Park (UCP), for about Rs 2,000 crore Mr. Donald Trump plans to extend his company, Trump Organization's global footprint into India and invest in two realty deals. Both the deals involve ultra-premium luxury projects, which will be owned, developed and promoted by local developers. Mahindra Group has entered affordable housing through its property development arm Mahindra Life spaces (MLDL). MLDL plans to launch two housing projects in Boisar near Mumbai and Avadi in Chennai with the newly created business vertical "Happiest".

INITIATIVES BY THE GOVERNMENT

The Government of India has announced a host of measures to spur the real estate sector, which include an allocation of Rs 7,060 crore for the development of 100 smart cities, a reduction in the size of projects eligible for FDI from 50,000 sq m to 20,000 sq m, and having the minimum investment limit for FDI to US$ 5 million. A committee on Streamlining Approval Procedure for Real Estate Projects (SAPREP) was constituted by the Ministry of Housing & Urban Poverty Alleviation (MHUPA) to streamline the process of seeking clearances for real estate projects. The governments of different states have also taken various measures to facilitate the growth of this sector. For instance, the Punjab government has proposed to exempt residents having houses with an area of up to 125 square yards from paying the levy and delink tax payment from collector rates.

FDIS IN INDIAN REAL ESTATE SECTOR

The Indian Green Building Council (IGBC) has joined hands with the US Green Building Council (USGBC) to strengthen their association for the next 10 years to focus on areas of knowledge exchange and work on the green building movement in India. The USGBC also plans to expand its support for LEED in India. In the Financial Years 2007-08, 2008-09 and 2009-10, the housing and real estate sector attracted FDIs of 8.9 percent,10.3 percent and 11percent respectively, of the total FDI in India. However, the financial year 2010-11 saw a mere 6 percent FDI in this sector. The year 2010 saw the Indian real estate sector spring back into action after the gloom and recessionary pressures experienced in the aftermath of the global downturn.

TABLE - 4: INDIAN REAL ESTATE SECTOR ATTRACTED FDIS

Years	FDIs in percentage
2007-08	8.9
2008-09	10.3
2009-10	11.0
2010-11	6.0

Source: Hand Book of Real Estate Released by Indian Industrial Association 2013-14

CHART - 4: FDIS IN INDIAN REAL ESTATE SECTOR
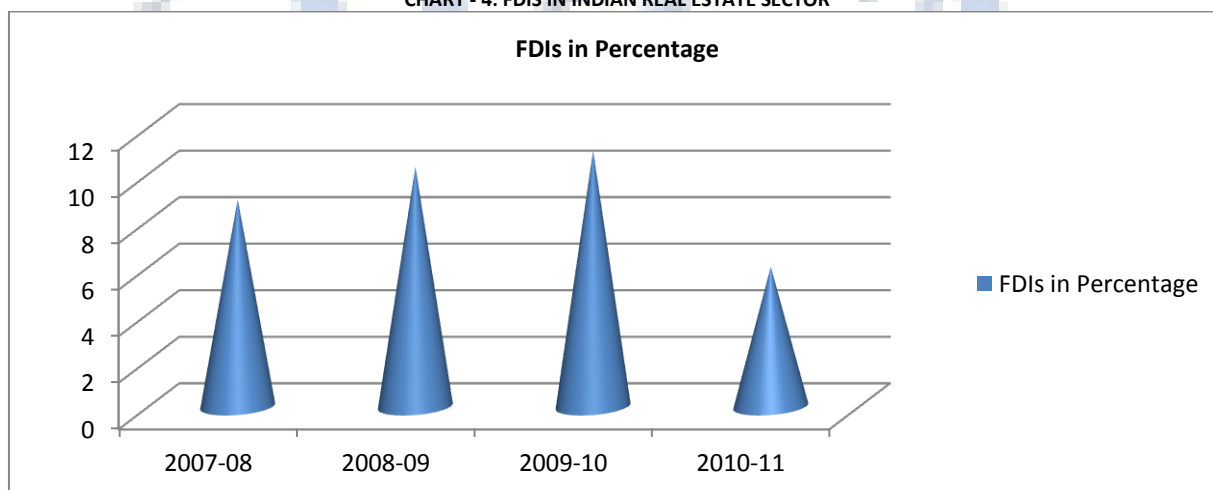
The focus on 'affordable housing' helped the sector tide over the financial crunch it had witnessed. There is no doubt that the sector holds huge potential to attract FDI in its various segments. However, progress is possible only with the joint effort of both the industry and the Government. On the one hand, the industry should work towards increased transparency, clear land titles, improved delivery and project execution while on the other hand the Government must provide fiscal incentives to developers to build low cost and affordable housing for the masses and also review the existing FDI guidelines for investment and development in Indian real estate in order to increase the flow of foreign capital into the sector.

THE CHALLENGES

The Indian real estate industry is confronting the listed challenges
- Shortage of labour
- Approvals and procedural difficulties
- Lack of clear land titles
- Absence of industry status
- Rising manpower and material costs
- Absence of title insurance
- Lack of adequate sources of finance

CONCLUSION

The Indian real estate sector continues to be a favoured sector for investments of international players as well as private investors. In the upcoming years, the residential as well as commercial segments of the real estate industry is set for major growth, aided in no small part by the government's plans and initiatives to boost this sector. Excise duty reduction on cement and steel will lower project costs and expansion of the interest subsidy on loans will boost developers' interest in this segment. Moreover, tax measures such as increasing the limit of interest deduction on home loans will provide necessary motivation to consumers to increase buying activity and revive demand in the value and affordable segment. Further, demand for space from sectors such as education and healthcare has opened up ample opportunities in the real estate sector.

India has huge potential to attract large foreign investments into real estate. With real estate reaching a point of saturation in developed countries and the demand and prices falling, global real estate players are looking at emerging economies such as India for tapping up of the opportunities in real estate sector. Indian real estate will stay attractive due to its strong economic fundamentals and demographic factors. Moreover, there is a high level of global uncertainty looming over the developed and developing nations of the world. While developed economies are still struggling to regain their growth momentum, developing countries including India and China are expected to grow at a reasonably high rate. Investments in Indian real estate will fetch higher returns for investors as compared to other global markets. In the coming years, the opportunities in the real estate sector will attract more global players to India and hence will help industry to mature, become more transparent, improve management and adopt advanced construction techniques.

PROFESSIONAL OPPORTUNITIES IN REAL ESTATE

- Advising the client in the Purchase or Sale of Land.
- Verification of Title Deed of the Property.
- Choice of Location for Business.
- Drafting of Documents.
- Advice on Registration and Stamp Duty on various documents.
- Advisory on developing Special Economic Zones.
- Investment in Real Estate by NRI.
- Investments in Real Estate in India.
- Internal Audit of Real Estate Company.
- Statutory Audit of Real Estate Company.
- Valuation of Real Estate.
- Brand Value of Real Estate Companies, Agents and Foreign Companies.
- Allocation and Investment Strategies.
- Assessment of Financial Viability of Real Estate Projects.

To conclude, the future of the Indian Real Estate Sector is very good with a tremendous growth in economy due to rapid urbanization, positive demographics and rising income levels. The Indian real estate sector has attracted significant investments over the past few years and also provides professional opportunities in the Sector that makes to India No. 1 country in the world.

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CUSTOMER SATISFACTION, LOYALTY AND COMMITMENT IN ORGANISED RETAIL OUTLETS IN CHENNAI - AN EMPIRICAL STUDY

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ABSTRACT

Shopping in India has witnessed a revolution with the change in the consumer buying behavior and the whole format of shopping also altering. Organized retail sector draws more attention in the current scenario and the retail industry faces huge competition in the recent years. In order to meet the changing customer expectation, the retail industry changes its strategies quite often and the study was conducted to analyze the customer satisfaction which in turn will lead to customer loyalty and commitment. Retail outlets, in the current scenario take special measures in delighting customers for which customer satisfaction is considered to be the base. Some retail outlets have even started resorting to the strategy of customer delight. These two attributes customer satisfaction and delight in turn will lead to loyalty and commitment of customers in the long run. It is in this competitive scenario the study focuses its attention on having an understanding of the influence of demographic factors in the retailing sector and to identify the effect of store image on consumer purchasing behavior. Special focus is also given to identify the factors contributing towards competitive advantage of retail outlets and in studying the influence of sales promotional activities on enhancing the frequency of visits. The research design that is used for the study is descriptive. A sample size of 140 respondents is taken for the study. About seven organized retail outlets are taken for the study. Convenience sampling which is a non-probability sampling method is used for the study. The study is based on the opinion of the retail customers in Chennai. Since Chennai is one of the main metros, the findings can be considered to be the reflection of the opinion of the customers in other major cities also. As per the study , out of all the influencing factors price is found to have a dominant role in attracting customers to retail outlets. Influence of sales promotional activities is also found to have a major impact. Scope for having tremendous growth in retail industry is also more and organized retail outlets may take more measures in enhancing their position as well as in attracting and retaining customers by developing loyalty and commitment.

KEYWORDS

organized retail, customer satisfaction, loyalty, commitment.

INTRODUCTION

Retailing is emerging as a sunrise industry in India and is presently the largest employer after agriculture.Industry of retail in India which has become modern can be seen from the fact that there are multi-stored malls, huge shopping centers, and sprawling complexes which offer food, shopping, and entertainment all under the same roof. India retail industry is expanding itself most aggressively .Indian Retail Industry is the largest industry in India, with an employment of around 8% and contributing to over 10% of the country's GDP. Retail industry in India is expected to rise 25% yearly being driven by string income growth, changing lifestyles, and favorable demographic patterns. It is expected that by 2016 modern retail industry in India will be worth US$ 175-200 billion. A further increase of 7-8% is expected in the industry of retail in India by growth in consumerism in urban areas, rising incomes, and a steep rise in rural consumption.

In this competitive scenario, retail industry is in a need to understand the customer satisfaction level in order to meet with the changing customer expectation.The study therefore has special attention in understanding the loyalty and commitment of customers towards the retail outlets and the reason for customer being loyal towards the retailers. As a result a great demand for real estate is being created. Indian retailers preferred means of expansion is to expand to other regions and to increase the number of their outlets in a city. Retailing in its present form started in the latter half of 20th Century in USA and Europe and today constitutes 20% of US GDP. It is the 3rd largest employer segment in USA.   The contribution of organized retail is expected to rise from 3% to 9% by the end of the decade. In India, it has been found out that the top 6 cities contribute for 66% of total organized retailing. With the metros already been exploited, the focus has now been shifted towards the tier-II cities. The 'retail boom', 85% of which has so far been concentrated in the metros is beginning to percolate down to these smaller cities and towns. The contribution of these tier-II cities to total organized retailing sales is expected to grow to 20-25%. In the year 2004, Rs 28,000 Crores organized retail industry had Clothing, Textiles & fashion accessories as the highest contributor (39%), whereas health & beauty had a contribution of 2%. Food & Grocery contributed to 18% whereas Pharma Retail had a contribution of 2%. Pantaloon Retail (India) Limited, is India's leading retailer that operates multiple retail formats, the company operates over 5 million square feet of retail space, has over 450 stores across 40 cities in India and employs over 18,000 people.

In such a big industry whose base mainly depends on customers, customer satisfaction draws special attention. Retail outlets, in the current scenario take special measures in delighting customers for which customer satisfaction is considered to be a base. Some retail outlets have even started resorting to the strategy of customer delight. These two attributes customer satisfaction and delight in turn will lead to loyalty and commitment of customers in the long run. This paper throws light on customer satisfaction in retail Industry and have chosen certain predominant players in the retail industry like Big Bazaar, Reliance Retail Ltd , Shopper's Stop, Spencer's, More, Nilgiris, Mega Mart etc.

Customer loyalty is all about attracting the right customer, getting them to buy, buy often, buy in higher quantities and bring you even more customers Customer loyalty is one of the most important factor or the issues faced by the business today. Unless the companies can retain the loyalty of their customer, they will lose their customer for repeat purchase and the long term future of that business will be uncertain. Customer loyalty has been defined as the strength of the relationship between the individual's relative attitude and repeat patronage. However in business, benefits associated with customer loyalty are widely recognized. These include capturing of low cost related existing customers rather than capturing the new customers especially within mature, competitive markets. It is known that increasing the long term relationship with the consumers is more beneficial so that the reward for this group of consumers will be long term and increasing.

RETAILING FORMATS IN INDIA

MALLS - The largestform of organized retailing today. Located mainly in metro cities, in proximity to urban outskirts. They lend an ideal shopping experience with an amalgamation of product, service and entertainment, all under a common roof. Examples include Shoppers Stop, Pyramid, Pantaloons Retail Ltd, The Shopper's Stop,

SPECIALITY STORES - Chains such as the Bangalore based Kids Kemp, the Mumbai books retailer Crossword, RPG's Music World and the Times Group's music chain Planet M, are focusing on specific market segment and have established themselves strongly in their sectors.

DISCOUNT STORES - the name suggests, discount stores or factory outlets, offer discounts on the MRP through selling in bulk reaching economies of scale or excess stock left over at the season. The product category can range from a variety of perishable/ non-perishable goods.

DEPARTMENT STORES - It classified into localized departments such as clothing, toys, home, groceries, etc.Departmental Stores are expected to take over the apparel business from exclusive brand showrooms.

HYPER MARTS/SUPER MARKETS - Large self-service outlets, catering to varied shopper needs are termed as Supermarkets. These are located in or near residential high streets. These stores today contribute to 30% of all food & grocery organized retail sales.

CONVENIENCE STORES - These are relatively small stores located near residential areas. They stock a limited range of high-turnover convenience products and are usually open for extended periods during the day, seven days a week. Prices are slightly higher due to the convenience premium.

REVIEW OF LITERATURE

❖ **SohailRana.S , Abdullah Osman (2014**) in their attempt to identify customer satisfaction of retail chain stores in Bangladesh determined through the results of the study that retail chain store owners and managers should focus on four major elements – responsiveness, product quality, physical design and pricing policies if customer satisfaction is to be treated as a strategic variable. Moreover the study also identified that responsiveness and product quality were most important to customers followed by price and physical design. Location didn't have a significant effect on customer satisfaction although the exploratory analysis and the secondary research supported it.

❖ **Leena Jenefa(2014)** inher study on customer satisfaction towards the service features and quality of goods in the textile showroom in Chennai made an unique and holistic assessment of the benefits and challenges by experiential innovation and found that customer satisfaction is vital for successful retaining of the existing customers. This in turn will lead to customer delight. Since it is very difficult to fulfill the customer expectations every organisationneed to delight the customer in order to retain them. Thus customer retention is directly influenced by customer satisfaction. This paper attempted to explore level of satisfaction towards service features and quality of goods and services in the textile show room.

❖ **Silvia Faria, VitorCarvalho, Pedro Ferreira, JaelAssunção (2013)** in theireffort to identify the satisfaction, commitment and loyalty in online and offline retail in Portugal found that good shopping experiences, both on and offline stores, lead to Satisfaction which, in turn, leads to Commitment and, therefore, increases the possibility for the client to become Loyal (and recommend the on and offline store to their closest friends). Thus, offering the two possibilities is, in fact, the best option; the actual crisis situation created a very rational consumer, totally aware of the need to save money because his/her income has been reduced due to politic and economic measures adopted.

❖ **Richard Chinomona , Maxwell Sandada (2013)** in their study on customer satisfaction, trust and loyalty in South African Retailing Industry identified that the relationship between customer satisfaction and their trust, customer satisfaction and their loyalty, customer trust and their loyalty, customer loyalty and their repurchase intention are positive in a significant way.

❖ **Manish Madan, SimaKumari (2012)** analysed the determinants of retail customer satisfaction examined the growing awareness and brand consciousness among people across different socio-economic classes in India, and how the urban and semi-urban retail markets are witnessing significant growth. The paper concluded with the likely impact of the entry of global players into the retail industry in India. It also highlights the challenges faced by the industry in near future.

❖ **SatnamKourUbeja and D.D. Bedia(2012**) in their study on customer satisfaction from organized retailing analyzed the customer satisfaction in shopping malls with respect to product, price, place and promotion in Indore city . The study also focused to identify the variations in customer satisfaction due to different demographic variables. The study will help the managers of shopping malls to understand the factors that are related to shopping malls and may help in a analyzing the customer satisfaction to the shoppers in the malls.

❖ **SeiedehNasrinDanesh, SaeidAhmadiNasab(2012)**examined the direct relationship of customer satisfaction, customer trust and switching barriers on customer retention as well as the relationship between customer satisfaction and trust. The descriptive research was conducted within the context of the hypermarkets in Kuala Lumpur, the capital city of Malaysia. The research confirmed the significant positive relationship of customer satisfaction, trust and switching barriers on overall customer retention in Malaysia hypermarkets. It is also confirmed that customer satisfaction has a direct relationship with customer trust in Malaysia hypermarkets.

❖ **Ajitabh Dash (2012)** in his empirical study on Online shopping and customer satisfaction identified the key factors influencing customers satisfaction through on line shopping. Multiple regression analysis is used to anticipate the impact of these independent variables, viz privacy, trust, complexity, product variety, risk, time utility and reliability. He concluded that there is a relation between customer satisfaction in online shopping and privacy, trust, complexity, product variety, risk and reliability except timefactor.

❖ **Tarsis Souza Silva, Janaina de MouraEngraciaGiraldi(2010)** in their effort to identify the influence of store image on customer satisfaction found out that Knowledge of customers' image of a store is an essential factor in the management of retail outlets. The results indicated that the factor that most affects customer satisfaction in the store studied is service, and that atmosphere and layout have no effect in this respect. The results provide a better understanding of the role store image plays in customer satisfaction and loyalty.

❖ **Robin T. Peterson(2004)** in their effort to identify the role of switching costs on customer perceived value, satisfaction and loyalty assessed the influence of perceived value on customer loyalty and the mediating role of satisfaction in the value–loyalty relationship. The study addressed the issue of the ambiguous effect of switching costs on loyalty suggested by previous work but also examined the moderating effect of switching costs on the satisfaction–loyalty and value–loyalty relationships. The overall moderating effects of switching costs upon customer loyalty have been found to be insignificant.

❖ **J. Joseph Cronin, Jr., Michael K. Brady, G. Tomas M. Hult (2000)** conceptualized the effects of quality, satisfaction, and value on consumers' behavioral intentions.A number of notable findings are reportedincluding the empirical verification that service quality, service value, and satisfaction mayall be directly related to behavioral intentions when all of these variables are considered collectively. The results further suggest that the indirect effects of the service quality andvalue constructs enhanced their impact on behavioral intentions.

NEED\IMPORTANCE OF THE STUDY

In a competitive environment, retail industry is in a need to understand the customer satisfaction level in order to meet with the changing customer expectation. Organized retail sector draws more attention in the current scenario and the retail industry faces huge competition in the recent years. In order to meet the changing customer expectation, the retail industry changes its strategies and the study was conducted to analyze the customer satisfaction. The study therefore has special attention in understanding the loyalty and commitment of customers towards the retail outlets and the reason for customer being loyal towards the retailers. In short the study focuses special attention on the loyalty and commitment of the customers towards the organized retail outlets which in turn largely depends on Customer Satisfaction.

OBJECTIVES OF THE STUDY

- To have an understanding of the influence of demographic factors in the retailng sector
- To study the effect of store image on consumer purchase behaviour.
- To identify the factors contributing towards competitive advantage of retail outlets.
- To study the influence of sales promotional activities and the sources that contributes towards enhancing the frequency of visits towards retail outlets

HYPOTHESES

H01:There is no significant relationship between the physical facilities and customer satisfaction level

H02: There is no significant difference in the customer's perception towards the store ambience of retail outlets

H03: Gender does not have a significant influence on the purpose of visit to retail outlets.

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H04:There is no significant difference in the promotional activities carried out by various retail outlets.

H05: There is no significant difference among the various sources in providing information about retail outlets

RESEARCH METHODOLOGY

Research design is an arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

TYPE OF RESEARCH DESIGN: The type of research design adopted in this study is Descriptive Research. Descriptive research includes surveys and fact finding enquiries of different kinds and it can report only what has happened. The purpose of the research is description of the state of affairs as it exists at present. Descriptive research, also known as statistical research, describes data and characteristics about the population or phenomenon being studied. Descriptive research answers the questions who, what, when, where and how.

SAMPLING METHOD: The sampling method used in this study is Convenience Sampling which is a non - probability Sampling method.

SAMPLE SIZE: Sample size determination is the act of choosing the number of observations or replicates to include in a statistical sample. The sample size is an important feature of any empirical study in which the goal is to make inferences about a population from a sample. The sample size for the study is 140 which is finalized through a pilot study.

DATA COLLECTION: Data collection is a systematic approach to gathering information from a variety of sources to get a complete and accurate picture of an area of interest. In this study responses are collected through two different sources. The sources of data collection are Primary data collection and Secondary data collection. Primary data are collected through a structured questionnaire and schedules. Secondary data are collected through journals, magazines etc.

ANALYSIS & INTERPRETATION

TABLE 1.1: DEMOGRAPHIC SEGMENTATION

	Demographic Variables	No.of Respondents	Percentage
AGE (in years)	< 25	6	4
	26-30	26	19
	31-35	36	26
	36-40	42	30
	<40	30	21
GENDER	Male	54	39
	Female	86	61
OCCUPATION	Salaried	27	19
	Business	12	9
	Professional	58	41
	Home Maker	36	26
	Retired	7	5
INCOME (per month)	10000-25000	32	23
	25000-50000	52	37
	50000-75000	38	27
	>75000	18	13
FREQUENCY OF VISITS	Once in a week	8	6
	Once in 15 days	27	19
	Once in a month	85	61
	Once in 2 or 3 months	15	11
	Once in 6 months	5	3

Findings based on demographic segmentation of respondents project the following facts:

✓ Majority of the respondents visiting hypermarket are found to be in the age group of 36-40 years.

✓ Women are found to be more influenced when compared to that of male respondents

✓ Professionals and home makers are found to be influenced much by hypermarkets

✓ Income Distribution of majority of the customers taken for study are found to be in the range of 25000 – 50000

✓ Majority of the customers are found to be visiting the outlet once in a month

TABLE 1.2: CORRELATION BETWEEN OCCUPATION OF CUSTOMERS AND FREQUENCY OF THEIR VISITS

Occupation(x)	27	12	58	36	7
Frequency of visit(y)	8	27	85	15	5

x	y	x^2	y^2	xy
27	8	729	64	216
12	27	144	729	324
58	85	3364	7225	4930
36	15	1296	225	540
7	5	49	25	35
140	140	5582	8268	6045

r = 0.79

It can therefore be inferred that there is a high degree of correlation between the occupation of the customers and the frequency of their visits as both the variables show a high degree of correlation which is implied from the fact that value of ' r' is positive and it is nearer to 1.

TABLE 1.3: CUSTOMER'S FREQUENCY OF VISITS TOWARDS VARIOUS RETAIL OUTLETS – WEIGHTED AVERAGE METHOD

Retail Outlets	R1	R2	R3	R4	R5	R6	R7	Total	Ranks
Big Bazaar	28	24	45	14	13	9	7	24.46	2
Reliance	46	39	18	13	11	7	6	26.82	1
Shoppers stop	16	28	34	39	13	4	6	23.53	3
Spencers	3	12	19	42	38	19	7	18.39	6
More	6	3	17	36	28	36	14	16.39	7
Nilgiris	8	12	22	27	41	17	13	18.42	5
Mega Mart	33	24	17	29	12	8	17	23.03	4

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It is identified from the above table that the frequency of visit of customers is more for Reliance since it is ranked I followed by Big Bazaar which is ranked II. Shopper's Stop , Mega Mart. Nilgiris are ranked III, IV and V respectively. Spencers and More are found to have a least preference.

Physical Facilities	Very Good	Good	Moderate	Poor	Very Poor
Observed Frequency	12	67	52	7	2
Expected Frequency	15	53	45	21	6

TABLE 2.1: TABLE SHOWING SATISFACTION LEVEL OF CUSTOMERS WITH RESPECT TO PHYSICAL FACILITIES

Observed Frequency	Cumulative Frequency	Relative Frequency(q)	Expected Frequency	Cumulative Frequency	Relative Frequency(p)	KS=|p-q|
12	15	12/140=0.085	15	15	15/140=0.107	0.022
67	79	79/140=0.564	53	68	68/140=0.485	0.079
52	131	131/140=0.935	45	113	113/140=0.807	0.128
7	138	138/140=0.985	21	134	134/140=0.957	0.028
2	140	140/140=1	6	140	140/140=1	0

H01: There is no significant relationship between the physical facilities and consumer purchasing behavior.

Test Statistic: KS = Max |p-q|

KS = 0.128 = Calculated Value

Level of Significance: α = 0.05

Table Value: n = 5

Table Value = 0.565

Conclusion: Calculated Value < Table Value

0.128 <   0.565

H0 is therefore accepted. Hence it can be concluded that there is no significant difference among the customer satisfaction level towards physical facilities.

The various factors that contributes towards store ambience are Music, Temperature, Lighting Cleanliness etc. Based on the data that is being obtained lighting is found to have a major influence on customer preference. In order to find out whether the other three factors (i.e) Music, Cleanliness, Temperature have a significant difference in influencing the purchasing behavior of consumers Kruskal Wallis or H test is applied.

H02: There is no significant difference on the perception of customers towards store ambience.

TABLE 2.2: TABLE SHOWING THE INFLUENCE OF STORE AMBIENCE ON CUSTOMER PREFERENCE

Music (A)	5	30	54	42	9
Temperature (B)	15	57	45	18	5
Cleanliness (C)	33	54	28	19	6

k = 3 n_1 = 5, n_2 = 5 , n_3 = 5

R_1= 41 , R_2 = 40.5, R_3 = 38.5

Null Hypothesis:

$H_0: \mu_1 = \mu_2 = \mu_3$

There is no significant difference among customer perception on store ambience.

$H_\chi^2 = 0.05 [336.2 + 328.05 + 296.45] - 48$

$H_\chi^2 = 0.035$ = Calculated Value

Table value:

Degree of freedom = K $-$ 1 = 2

Table Value = 5.991

Conclusion: Calculated Value < Table Value

0.035 < 5.991

H0 is therefore accepted . Hence it can be concluded that there is no significant difference among customer perception on store ambience.

TABLE 3.1: TABLE SHOWING FACTORS CONTRIBUTING TOWARDS THE COMPETITIVE ADVANTAGE OF RETAIL OUTLETS

Reason for Customer Visit	No. of Respondents	Percentage
Price	64	46
Product Variety	8	6
Product Quality	48	17
Convenience of Outlet	24	9
Service	32	23
Total	140	100

It is therefore evident from the table above that Price is one of the key factor that contributes towards the competitive advantage of retail outlets. Service and Product quality occupy the 2nd and 3rd position respectively. Product variety is supposed to have a least influence.

H03:Gender does not have a significant influence on the purpose of visit to retail outlets

TABLE 3.2: TABLE SHOWING THE RELATIONSHIP BETWEEN THE PURPOSE OF VISIT TO RETAIL OUTLETS AND GENDER

Gender\Influencing Factors	Price	Service	Variety	Quality	Convenience	Total(R_i)
Male	19	5	9	6	15	54
Female	45	3	15	6	17	86
C_j	64	8	24	12	32	140

Test Statistic: $\chi^2 = \sum (O_{ij} - E_{ij})^2 / E_{ij}$

χ^2 = 6.495 = Calculated Value

Level of Significance:α = 0.05

Table Value:Degree of freedom = (c$-$1) (r$-$1)   = 4

Table Value = 9.488

Conclusion:Calculated Value < Table Value

6.495 < 9.488

Accept H_0.Hence it can be concluded that gender does not have a significant influence on the purpose of visit to retail outlets.

H_{04}: There is no significant difference among the promotional activities attracting customers.

TABLE 4.1 : TABLE SHOWING THE INFLUENCE OF PROMOTIONAL ACTIVITIES TOWARDS ATTRACTING CUSTOMERS

	Discounts	Extra Offers	Bulk Offers	Advertisement	Membership Cards
Observed Frequency	57	22	17	7	37
Expected Frequency	45	32	24	15	24

Observed Frequency	Cumulative Frequency	Relative Frequency (q)	Expected Frequency	Cumulative Frequency	Relative Frequency(p)	KS=|p-q|
57	57	0.438	45	45	0.346	0.092
22	79	0.608	32	77	0.592	0.016
17	96	0.738	24	101	0.777	0.039
7	103	0.792	15	116	0.892	0.1
37	140	1	24	140	1	0

KS = Max | p − q |

KS = 0.1 = Calculated Value

Level of significance: α = 0.05

Table Value: n = 5

Table Value = 0.565

Conclusion: Calculate Value < Table Value

0.1 < 0.565

Accept H_o

There is no significant difference among the promotional activities carried out by the retail outlets in attracting customers.

TABLE 4.2: SOURCES PROVIDING INFORMATION ABOUT RETAIL OUTLETS

S NO	SOURCES OF INFORMATION	NO OF RESPONDENTS	PERCENTAGE
1	Magazine	2	1
2	Newspaper	5	4
3	Internet & TV	15	11
4	Word of Mouth	33	24
5	Sales Personnel	85	60
TOTAL		140	100

From the above table, it is found that 60% of customers say that they receive information from sales personnel, 24% say that they receive from word of mouth, 11% from Internet & TV, 1% and 4% get the information from magazine and newspaper respectively.

It is therefore interpreted that customers receive the information mostly from sales personnel.

Null Hypothesis:

H_o: There is no significant difference among the various sources that provide information to retail customers.

TABLE 4.3: KOLMOGOROV SMIRNOV TEST

	Magazine	Newspaper	Internet & TV	Word of Mouth	Sales personnel
Observed Frequency	2	5	15	33	85
Expected Frequency	15	23	32	38	32

Observed Frequency	Cumulative Frequency	Relative Frequency(q)	Expected Frequency	Cumulative Frequency	Relative Frequency(p)	KS=|p−q|
2	2	2/140=0.014	15	15	15/140=0.107	0.093
5	7	7/140=0.05	23	38	38/140=0.271	0.221
15	22	22/140=0.157	32	70	70/140=0.5	0.343
33	55	55/140=0.39	38	108	108/140=0.771	0.378
85	140	140/140=1	32	140	140/140=1	0

Test Statistic: KS = Max | p − q |

KS = 0.378 = Calculated Value

Level of significanc α = 0.05

Table Value = 0.565

Conclusion: Calculated Value < Table Value

0.378 < 0.56

Accept H_o. Hence there is no significant difference among the sources of information about loyalty card facilities

SUGGESTIONS

Retail business is successful only when they have a good customer services. Customer loyalty can only be gained by providing good and satisfied services to the customers.Most respondents take on a spot decision of buying difficult products because of various attractive product displays. So pretty combination with good services should be done to retain customers. Quality plays a major role because more respondents said that they want a quality product and that also the one of the reason for most of the respondents sticking to particular brand. Customer service may still more be enhanced in order to increase the level of highly satisfied customers. Highly satisfaction in the customer service will lead to loyal customers .Productive measures may also be taken to ensure that the salespersons are attending the customers in the right time. This will be helpful for attracting the customers who are moving for branded showrooms for their purchase

CONCLUSION

Customer satisfaction, loyalty and commitment have s serious impact on the growth and market potential of retail outlets. It is evident from the study that the customers are satisfied with the physical facilities, visual merchandising, and store ambience in various retail outlets. Price is also a factor that satisfies and retains the customers. Promotional activities are the strategy that attracts more customers towards the store. Service quality ofvarious outlets are not found to be satisfactory and this area needs to have special attention. Since there is a greater scope in the retail industry, many outlets have started to concentrate on the motivational factors to attract and retain customers, then it can overcome its competitors and obtain the premium rank in retail industry.

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A STUDY ON CONSUMER'S CO-OPERATIVE SOCIETIES AND ITS MOVEMENT IN INDIA

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ABSTRACT
Consumer co-operatives are more widely found in advanced countries, although their role in developing countries is more widespread and compelling. The consumer co-operative movement began in India in the year 1904. But the movement did not amount to much till the beginning of the First World War, and then it began to develop gradually. These societies formed by ordinary people obtaining essential commodities or day to day requirements of goods at cheaper prices for this purpose, consumer co-operative stores are organized by such societies these societies make their purchases in bulk from wholesalers at wholesale rate and sell the goods to members and non-members at market prices. The vision for the second century is to withstand the challenges of competitive business environment where excellence, efficiency and high productivity parameters will be given priority.

KEYWORDS
consumer co-operatives, business environment.

INTRODUCTION
The consumer co-operative movement started with the foundation of the Rockdale model in the first half of the nineteenth century in Britain. Later, it spread to other parts of the world to meet the challenges posed by technical changes and changes in the social policy. Consumer co-operatives are more widely found in advanced countries, although their role in developing countries is more widespread and compelling. The term consumer co-operative society refers to the economic institution, which is set up by the consumers themselves on a co-operative basis to protect their collective interests.

OBJECTIVES
The societies, irrespective of the country in which they function, operate with the following objectives:
➢ The most important objective of consumer co-operatives is to supply goods to consumers at reasonable prices.
➢ While purchasing any commodity, the rational consumer considers only two aspects, namely, the price and the quality.
➢ Retail traders try to maximize their sales without affecting their profit margin.
➢ Unscrupulous retail traders, wishing to maximize their profits at any cost, might offer adulterated goods to consumers.
➢ The broader objective of consumer co-operative societies is to eliminate the dishonest intermediaries in trade whose action benefit neither the producers nor the consumers.

CONDITIONS FOR SUCCESS OF CONSUMERS' CO-OPERATIVES
(i) Consumers' Involvement (ii) Size (iii) Location (iv) Purchasing Policy (v) Amalgamation (vi) Constant Supply (vii) Financial Strength (viii) Sales Policy.

CONSUMER'S CO-OPERATIVE MOVEMENT IN INDIA
The consumer co-operative movement began in India in the year 1904. But the movement did not amount to much till the beginning of the First World War, and then it began to develop gradually. The Second World War was mainly responsible for the momentum gained by the movement. When our country became independent, the Government took keen interest in popularizing the movement among the masses.
There is a great need for the development of customer co-operatives in India because of the following reasons. (i) The consumers in India are not organized as a class. (ii) There is great exploitation of consumers by retail traders in so far as price, quality, weighment, etc, are concerned. (iii) Retail trade is conducted on a non institutional basis. (iv) There is shortage of essential consumer goods because of the increased demand consequent on the increase in population. (v) The supply of goods in the agricultural sector has not expanded at a rapid rate because agriculture continues to depend heavily on rainfall. The supply of industrial goods is not large enough as a result of the scarcity of capital. (vi) Quit often, retailers and wholesalers in India create an artificial scarcity of essential goods (vii) India does not have enough foreign exchange reserves to import foodstuffs and other essential commodities, and that is why their prices are high.
These societies formed by ordinary people obtaining essential commodities or day to day requirements of goods at cheaper prices for this purpose, consumer co-operative stores are organized by such societies these societies make their purchases in bulk from wholesalers at wholesale rate and sell the goods to members and non-members at market prices. The difference is represented by surplus which's distributed among the purchasing members in the farm of bonus in the purchases. It is the oldest form of co-operative organization.

OBJECTIVES AND AIMS
➢ To strengthened the bargaining capacity of the members
➢ To secure the members, a better price for their products
➢ To eliminate middlemen
➢ To provide finance facilities to its members
➢ To stabilize the prices
➢ To develop fair-trading practices
➢ To provided the facility of grading and transportation
➢ To act as an agent between government and producers or members for procurement and implementation of price support policy
➢ To provide economic interest of its members
➢ To promote encouraging self help and thrift among members
➢ To act as a distribute centers for agricultural requisites.

CAUSES FOR POOR PERFORMANCE

(i) Poor result of official initiative (ii) Target Hunting (iii) Unplanned setup (iv) No integration of tiers (v) Weak organizational structure (vi) Competition from credit societies (vii) Poor Management (viii) Mal practices (ix) Unregulated Markets (x) Lack of supervision and audit (xi) Purchase through private person or traders.

SUGGESTIONS

➢ The promoters must thoroughly understand the principles and methods of consumer co-operation.
➢ The promoters should work out a detailed plan for setting up the store, taking into consideration the resources available and the local needs.
➢ To arrange adequate financial resources.
➢ To give suitable accommodation facilities.
➢ To supervise the members and working staff.

INDUSTRIAL CO-OPERATIVES

An Industrial co-operative is an undertaking of draft man or skilled workers engaged in the cottage or small scale industries to undertake production, purchase and supplied of raw materials, Marketing of products and supplying other services to the members.

OBJECTIVES

SOCIAL OBJECTIVES

(i)   Safeguarding of the interest of the poorer sections against exploitative trends.
(ii)   Disposal of wealth from rich to poor.

ECONOMICAL OBJECTIVES

(i)   To Create employment opportunities
(ii)   To provide machines and raw materials
(iii)   To increase in production.

ADVANTAGES

➢ It helps the workers to purchase raw materials, equipments and tools at cheaper rates.
➢ It help to the workers in marketing their products
➢ It provides the necessary mutual help and production for the members and both industries
➢ It increases the income of the members.

PROBLEMS OF INDUSTRIAL CO-OPERATIVES

(i) Poor result of official initiative (ii) Target Hunting (iii) Unplanned setup (iv) No integration of tiers (v) Weak organizational structure (vi) Competition from credit societies (vii) Poor Management (viii) Mal practices (ix) Lack of supervision and audit(x) Unregulated Markets.

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➢ To give suitable accommodation facilities
➢ To supervise the members and working staff.

CONCLUSION

The Cooperatives in the 21st Century must remain on vanguard in providing the required lead to the millions of our producers. This calls for well managed efficient cooperative sector and to keep them away from the fears to draconian laws and unwanted interference. The vision for the second century is to withstand the challenges of competitive business environment where excellence, efficiency and high productivity parameters will be given priority.

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A STUDY OF MICRO, SMALL AND MEDIUM ENTERPRISES IN BANKURA DISTRICT OF WEST BENGAL

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ABSTRACT
The Micro, Small and Medium Enterprises (MSMEs) sector is the backbone of the country's economy as it is the principal contributor to manufacturing, exports and employment generation.MSMEs have the advantages of generating gainful employment with low investment, expanding the industrial base, reducing regional disparities through dispersal of industries into rural, semi–urban and backward areas. The current paper is an attempt to investigate the ground reality of MSMEs at Bankura, a backward district in West Bengal. The study tries to find out the contribution of MSMEs in economic development and mention the problems and future prospects of MSMEs in Bankura district.

KEYWORDS
Employment generation, Exports, Micro Small and Medium Enterprises (MSMEs), Regional disparities.

1. INTRODUCTION
In the development of economics and industrial sector, small industrial sector have a major role to play. Even if a country moves from a traditional economy to a modern economy through the comprehensive phase of development and industrialization, small industrial sector continues to play an important role in its economy. Prior to 2006 these sectors were known as Small and Village Industries. In accordance with the provision of Micro, Small &Medium Enterprises Development (MSMED) Act, 2006 these sector known as Micro, Small and Medium Enterprise (MSME) and are classified into two categories manufacturing sector and service sector. The Manufacturing sector is defined in terms of investment in Plant & Machinery and the service sector is defined in terms of investment in equipment.

TABLE 1: DEFINITION OF MSMEs

Enterprises (Type)	Investment in Plant & Machinery (Manufacturing)	Investment in Equipment (Service)
Micro	Up to Rs. 25 lakh	Up to Rs. 10 lakh
Small	Above Rs. 25 lakh up to Rs. 5 crore	Above Rs. 10 lakh up to Rs. 2 crore
Medium	Above Rs. 5 crore up to Rs. 10 crore	Above Rs. 2 crore up to Rs. 5 crore

Source: Micro, Small and Medium Enterprises Development Act, 2006

As per available statistics (4[th]Census of MSME Sector), the number of enterprises is estimated to be about 26 million and these provide employment to an estimated 60 million persons. Of the 26 million MSMEs, only 1.5 million are in the registered segment while the remaining 24.5 million (94%) are in the unregistered segment. MSMEs contribute 8 per cent of the country's GDP, 45 per cent of the manufactured output and 40 per cent of our exports. The overall growths in the MSMEs are much higher than in the larger industries. The state-wise distribution of MSMEs show that more than 55% of these enterprises are in 6 States, namely, Uttar Pradesh, Maharashtra, Tamil Nadu, West Bengal, Andhra Pradesh and Karnataka.

West Bengal is a fastest growing, high populated state in eastern India. The state comprises of 19 districts and Kolkata serves as its capital. West Bengal is a prosperous state with more than two third of the population depending on agriculture. Of the important mineral resources, the state has huge deposit of coal and iron ore. Other important minerals of the state include dolomite, limestone, Rock Phosphate, granite and china clay. The services sector is the largest contributor to the GDP. The state registered significant higher GSDP growth of 10.48% at constant price for the year 2014-15, in comparison to National estimate 7.5% at constant price for the same year. West Bengal is well known for its place among one of the leading industrialized states of India.Directorate of MSME under the Department of Micro, Small & Medium Enterprise and Textiles (MSME&T), Government of West Bengal is the nodal agency for the growth and promotion of this sector. In the current year (2014-15), 7,647, MSME units have been already registered EM-II with an investment of Rs. 848.01 crore by providing employment to 86,986 persons (Economic Review 2014-15). In the previous year (2013-14), 11,380 enterprises filed EM-II after commencement of production which provided 1,02,802 number of employment with Rs. 869.83 crore investment. Bankura is one of the most backward districts of the state.Compare to 19 districts of WB, according to number of enterprises (reference year2013-14),Kolkata held the 1st position with 1578 no. of units, North 24 Parganas held 2nd with 1343 no.of units, Howrah held 3rd with 1117 no.of units, Burdwan held 4th with 951 no.of units and Bankura ranked 16th position with 235 no.of units (Entrepreneurs Memorandum Part-II). Though the district is rich in traditional talents but due to lack of marketing facilities, export promotion, exhibitions and fairs, MSME sector does not developed much.

2. REVIEW OF LITERATURE
MSME solve the problem of unemployment to a great amount in developing countries. It helps in balanced development of a country through setting up of small enterprises in backward regions making use of available local resources and thereby helps in achieving the goal of equitable distribution of national income and improving poverty. According to Mukherjee *et al.* (1997) small enterprises does not require extremely good knowledge and skill and it can easily developed in backward district.Dutta et al. (2002) argues that rural industries have not properly been promoted in West Bengal and small enterprises are mostly located in the urban areas. The Govt. must ensure infrastructure development to promote small industries in rural and backward areas. Banerjee *et al.* (2002) observed that the performance of West Bengal in industry and public finance is below par. As per their suggestions, for upliftment of SSIs, the Govt. must ensure public investment in infrastructure development, increase interaction between industry and university, ensure easy availability of credit, sophisticated technology and improved distribution channels.Chakrabarti and Bose (2009) argue that the industrial performance of West Bengal was almost at par compared with the industrially developed states (Maharashtra, Gujarat and Tamilnadu) during the preliberalization period. However, since the introduction of global measures in Indian economy, performance of West Bengal witnessed a downfall due to use of obsolete technology, bureaucratic formalities, political interference,

corruption, huge documentation, inability of the state to handle the challenges of globalization. Lahiri et al. (2014) analyses the ground reality of MSMEs and tries to find out the scenario of institutional credit support by the banks and rank the major problems faced by the MSMEs.

3. OBJECTIVE OF THE STUDY

- To understand the role of MSMEs in the economic development of Bankura district.
- To identify the operational problems and prospects of MSMEs.
- To suggest the policy measures for the exponential growth of MSMEs.

4. RESEARCH METHODOLOGY

Secondary data were collected from District Industries Centre, published annual report of MSMEs, journals, magazines, internet database, research papers, related books and thesis etc. The data for the study is also directly collected from DIC office of Bankura. The study is for eight years period starting from 2006-07 and ending to 2013-14.

5. ROLE OF MSMEs IN BANKURA

The district of Bankura is one of the most backward districts with population 3596292 of the State of West Bengal. The district is characterized by low industrialization with high dependence on agriculture. As such the State Government in its incentive scheme has located Bankura district in 'D' Category. The district is lacking of any large scale industries and the rate of growth of MSMEs are also not satisfactory. The enterprises are either based on the processing of local resources or are traditional in nature. However, the district is moderately rich in traditional skills, particularly in the fields of handloom and handicraft. The Damodar, the Dwarakeshwar, the Gandheshwari and the Kangsabati are the principal rivers flowing through the district. There are also other smaller rivers like Silabati, Gandheswar, Sali, and Jayponda which are mainly monsoon dependent. The district is moderately rich in forest resources. The total area under forest in Bankura district is 148930 hectares. However, large areas of forest exist in Sonamukhi,Joypur,Bishnupur, Motgoda and Ranibandh areas that are considered to be the major forest produces growing areas of the district. The key industries of Bankura are Food and Food-Processing Industries, Textile Product, Ply-Wood Industry and Veneer Mills, Paper Industry, Particle Board, Hand-Loom, Terakota etc.

6. YEAR WISE TREND OF REGISTERED ENTERPRISES IN BANKURA DISTRICT

TABLE 2: EM-II FILLED BY MSMEs IN BANKURA

Year	Micro	Small	Medium	Total No. of Registered Unit	Employment	Investment (Lakh Rs.)
2006-07	183	12	0	195	2114	1392.62
2007-08	521	19	0	540	4441	2753.32
2008-09	362	15	0	377	452	2253.33
2009-10	260	11	0	271	1806	1876.13
2010-11	170	15	0	185	1840	2788.71
2011-12	400	22	0	422	3651	3932.43
2012-13	401	14	0	415	2791	3965.23
2013-14	226	9	0	235	1720	2564.79
Total	2523	117	0	2640	18815	21526.56

Source: Progress Report of Bankura District Industries Centre,Bankura (2014-15).

From the above table it is clearly demonstrated that in district Bankura there exist mainly Micro enterprises, Small units are very low in number and no Medium enterprises were found.The above table also depicts that over past eight years, more number of Micro enterprise has gone for filling EM-II followed by Small enterprises. The year 2007-08 witnessed a maximum number of enterprises and employment generation and then decreases up to 2010-11after that increases though investment is highest in the year 2012-13. The sector is dominated by micro units of the total working enterprises, only 18,815people during the last eight years are employed in the sector that is very disappointing compare to total population of the district. Generally these type of micro-enterprises use very simple and traditional technology, serve a limited local market and mostly unregistered. Vast numbers of men and women are engaged in different forms of employment which include home-based work, self-employment, employment in household enterprises, small units on land as agricultural workers, labor on construction sites, domestic work and a myriad other forms of casual or temporary employment.

TABLE 3: ENTREPRENEUR MEMORANDUM PART-II ACCOUNT FOR EIGHT YEARS

Year	Units in WB	Avg. of 19 dist.	Units in Bankura	Empl. in WB	Avg. of 19 dist.	Empl. in Bankura	Invt. in WB	Avg. of 19 dist.	Invt. in Bankura
2006-07	8161	430	193	75151	3955	2114	68488.07	3604.64	1392.62
2007-08	17618	927	540	145316	7648	1114	116742.89	6144.36	2753.32
2008-09	13428	707	377	91370	4809	452	98056.35	5160.86	2253.33
2009-10	11684	615	271	131619	6927	1806	89564.77	4713.94	1876.13
2010-11	10109	532	185	121944	6418	1840	77348.35	4070.97	2788.71
2011-12	13470	709	422	120559	6345	3651	125547.51	6607.76	3932.43
2012-13	11184	589	415	----	----	2791	----	----	3965.23
2013-14	11380	599	235	102802	5411	1720	869.83	45.78	2564.79

Source: Data compiled from Entrepreneurs Memorandum (Part-II) Data on MSME Sector, Ministry of Micro, Small & Medium Enterprises, Directorate of Micro & Small Scale Enterprises, West Bengal.

It is clear from the Table 3 that number of units, employment and investment in Bankura District is much less than the state averages every year. In 2006-07 average number of units in West Bengal was 430 against only 193 units in the Bankura District. This pattern is seen in other years and accordingly in case of employment and investment also.

7. PROBLEMS OF MSMEs IN BANKURA DISTRICT

Bankura is tilted heavily on the agrarian side and industrial development is still on the darker side. Lack of availability of credit, lack of infrastructural facilities, lack of availability of raw materials, ignorance about technical know-how and progress, lack of dynamism in entrepreneurial ventures coupled with lack of skilled labor have resulted in slow and tardy industrial growth.

8. PROSPECTS AND SCHEMES OF MSMEs

Handloom, Terakota, Stone Chips, Rice Mills are the major industries of the district. On 17th August, 2013, Chief Minister of the new government declared tie up with **UNESCO** in preserving crafts, providing modern technology, marketing infrastructure and creating avenues for going to the international market for

marketing products of handicrafts industry from Bengal. Urban Haats and Rural Haats are being set up to give marketing support to the MSMEs; **'Urban Haat'** provides direct marketing facilities to artisans and weavers; **'Rural Haats'** are being set up under **Backward Region Grant Fund** to provide marketing assistance to the handicrafts and village industries artisans and MSEs at Alipurduar in Jalpaiguri, Bishnupur in Bankura, Purulia and Jhargram in Paschim Medinipur. The cost of each Haat is Rs. 3 crore. In 2014-15 the state government has launched **'Shilpa Abhijan'** with the call for **"Shilpa Korun, Bangla Gorun"**. To address the need of access to appropriate technology, **Technology Facilitation Centre (TFC)** has been set up. The State Government will open Sales outlet under the brand name **BENCRAFT** for the marketing support to the artisans of handicrafts, handloom weavers, silk and khadi weavers. For development of Micro & Small Enterprises, the government accords highest priority on **"Cluster Development Approach"**. Under the **"Natural Fibre Mission" (NFM)**, 5555 artisans/ weavers have been trained through skill development training programmes and 1949 artisans/ weavers have been provided with tool kits. Four **Common Production Centre(CPC)** (three at Murshidabad and one at Bankura) are under construction. Reimbursement of **TA/DA/Carrying Cost** is made to the handicrafts artisans for participation in different exhibitions and fairs in order to promote sale of handicrafts products of this state in and outside West Bengal. To encourage handicrafts artisans for creation of better and innovative design, district level and state level competition is organized in every year. **Payment of Old Age Artisan Pension** was started from 2013-14.

9. CONCLUSION

So many schemes are there. But, implementation part also should be given importance by removing difficulties in the way, such as, lack of information, campaigning, communication, inability to reach target section of people due to interiority and inaccessibility of the district. Thus, Bankura is set against an agrarian background with sloppy, industrial growth, not remarkable progress in the secondary and tertiary sectors. Government should give more attention on Bankura district where industrial growth is very slow and where more assistance is needed to boost its growth rate and reduce regional disparities.

10. SCOPE FOR FUTURE RESEARCH

There are vast scopes of future work in this context. It will be very supportive if the whole district could have been covered and primary data collection would have been satisfactory through the use of structured questionnaires for detail analysis. Other zones may also be covered like the output of MSMEs, sickness of MSMEs, role of banks on MSMEs, study on cluster development programme in Bankura district etc.

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GREEN MARKETING MIX AND SUSTAINABLE DEVELOPMENT

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ABSTRACT

The development that is going on in today's world, all the marketing strategies that are being followed by the top most companies, all finances which are being used in the research and development of the products so as to beat the competition will only be sustainable if the prime aim is futuristic and can be put to use by the coming generation. Nowadays, companies are trying to make everything sustainable from the very base level to the top management level. Companies are now struggling to grow and beat the competition on the basis of green or environmentally friendly products. Moreover, people are getting more attracted towards those products or brands which are following green marketing strategies as it assures them that they are going for something which is natural and favourable to environment with no chemical added, and therefore, they are ready to pay more for green products. Many top companies are grasping sustainability and green marketing like McDonalds, Nike, GE and many more. However, green marketing have not been completely successful. It may face problems as consumers may perceive that the product is of inferior quality as a result of being green or they may also feel that the product is not really that green to begin with. Successful green products have to overcome these hazards to persuade customers that they are working in their own and societies' long-run interest simultaneously.

KEYWORDS

green marketing mix, marketing strategies, sustainable development.

INTRODUCTION

Growing awareness about the environmental issues has led the market to produce more of environment friendly products and services. Today's generation is now more concerned for sustainable development rather than self development. Green marketing has become the primary objective of most manufacturers, retailers and brands. They manufacture those products which are environmentally preferable to others. The objective of sustainable development has created the jargon like "carbon footprint" and "offsetting". In India, environmentalists have started campaigning against industries causing pollution. For example, in Kerala, local community in Plachimada Village, have voiced against Coca-Cola as it was affecting the environment and resulting into the shortage of water in the vicinity of the plant. However, it is not always desirable to go for green production and marketing without government intervention as it is more easy and cheaper to produce conventional products than producing green products for the marketers. Thus, to resolve the sustainability issues, government has enacted many laws and these laws hit certain industries very badly. For example, steel companies have had to invest billions of dollars in pollution-control equipment and environmentally friendly fuel. Soap industries have also increased its product's biodegradability. In Delhi, it is now mandatory for the public transportation vehicle like buses and autorikshaws to use only Compressed Natural Gas (CNG) as fuel instead of diesel and petrol. Moreover, there is a recent ban over the vehicles which are ten years older on Delhi roads because of the heavy pollution cause by the engines.

OBJECTIVES OF THE RESEARCH

- To understand the concept of environment marketing mix.
- To know about sustainable development.
- To recognise about consumer perception for green products and the impact of using green products on their life and environment both.

RESEARCH METHODOLOGY

The research paper is based on secondary data and the information has been collected through internet, newspaper and magazines.

ENVIRONMETAL MARKETING MIX

Marketing mix is the combination of four Ps: product, place, promotion and price. Marketing mix construct a base for sustainable marketing mix. Manufacturers, retailers and marketers have to build innovative and qualitative strategies to adhere well with sustainability principles throughout the process of marketing mix. The purpose of sustainable marketing mix is to increase the brand identification, provide credibility and maintain honesty, trust and transparency with all its stakeholders besides the basic objectives marking mix such as high sales level, creating brand value, beating competition, earn profitability and high market share. Environment marketing mix which is also known as green marketing mix has become so crucial that organisations have to manage their marketing mix strategies in a way to generate sustainable development as people are increasingly aware of climatic changes.

GREEN PRODUCT STRATEGY

It is one of the marketing strategies where the marketers decide about the product ingredients and its packaging. The manufacturers generally produce those products which increase the sales level and earn profit, but they should not deviate from the fact that it should be sustainable too. There are many environmental issues which have their impact on the manufacturing of goods like impact of using raw materials and ingredients for the manufacturing of goods on the environment, objective of achieving minimum level of environment friendly packaging and supplier's practices. Thus proper attention has to be there to assure that the products are made up of all natural and organic materials which are sourced from fair trade suppliers using lean manufacturing and distribution methods which help them to achieve the objective to minimise the company's carbon footprint.

For example, LG electronics has set a strategy to produce goods that reduce the impact of environmental issues throughout its product life cycle. Its strategy is classified into three with green features:

CHART 1

HUMAN	ENERGY	RESOURCE
• Replace hazardous substances • Improve home environment	• Enhance energy efficiency • Reduce CO2	• Reduce resource use • Improve recyclability
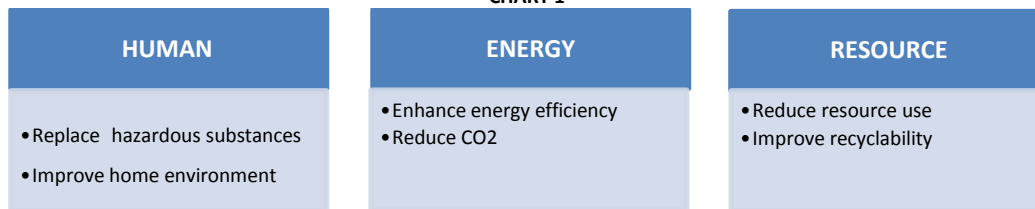
HUMAN: LG electronics has been working for replacing hazardous substances such as PVS and BFRs and phasing out the use of Phthalates, Antimony trioxide and Beryllium in product components. They add anti-bacterial features to its products such as washing machines, air-conditioners and vacuum cleaners and they are also into the process of reducing noise vibration produced by the products cleaners to improve home environment for its customers.

ENERGY: LG electronics completely acquiesce with international energy regulations and also in the process of reducing greenhouse gas emission during manufacturing period.

RESOURCE: For proper utilisation of resources LG Electronics has manufactured slim designed products. It consider environmental issues like product decomposition and recyclability during the manufacturing time and for this it uses evaluation and support toils as recycling check list.

PACKGING: In 2012, LG Electronics has introduced green packaging design for its products includes TVs, Refrigerators, Mobile Phones, A/C, PC, MNT, Range, and Vacuum cleaner. It uses pulp consisting of at least 50% of recycled paper for its packaging boxes and assess according to its 22 checklist.

Walmart is another example of green packaging initiative where it has committed to eliminate 20 million metric tons of green house gas emissions from its global supply chain by 2015 and for this it has planned to lessen its packaging globally by 5% versus its 2008 baseline. There are many more examples where Walmart has proved that now it is vouching for green packaging. Some of them are:

- Apple iPods' packaging has been changed to 100% renewable, recyclable, and more sustainable materials.
- Walmart has reduced the packaging size of its Kid Connection line of toys and claimed to have saved over $2.4 million in freight costs.
- All of Walmart's cut fruit and forty-ounce vegetable trays and some of the nine-ounce trays are packaged with Nature Works PLA, a biodegradable polymer. This has resulted in saving about eight hundred thousand gallons of gasoline and avoided more than eleven million pounds of GHG emissions in 2005.

GREEN PLACE STRATEGY

Under this strategy, marketers' main objective is to deliver the products and services to its target destination in time. However, some products like food products need to reach shortly after its production to retain its freshness. Thus, here the main focus is on "delivery time". And to achieve this objective, they most of the time apply some quick method of distribution that may affect the environment adversely. On the other side, environment friendly distribution method like canals may hamper the speed of delivery of goods and ultimately the quality of goods also. Method that can satisfy both "speed" and "environmentally friendliness" may results into high distribution cost as some are still under development for example electric vehicles. But as now the customers are more aware towards environment protection, they won't feel hesitate in paying little higher for the product which is environmentally favourable. Government policies also have its major role in elevating "environment friendly distribution" at the top of company's priority list. In fact, contravention of any of its policies may lead them to pay fines, sanctions and negative publicity.

The other way to go for sustainability is "sustainable storage". For example, Walmart uses more alternative fuels in its trucks and reduces packaging to build more energy-efficient stores. Moreover marketers should create demand for their products and services domestically rather than globally. This reduces carbon emissions from transporting goods over long distances. Consumers are also increasingly concerned about the sustainable development. According to the 2011 Nielson global online consumer survey, belief in the positive impact of local products is highest in North America, where 65% of consumers reported that local goods have positive impact on the environment.

For example, Whole Foods has set up" buy local strategy" where it has permanently committed to buy fruits and vegetables from local producers only and they also ensures whether they are meeting the high quality standards or not.

GREEN PRICE STRATEGY

Pricing is the most imperative tool of marketing mix as it is the only tool that generates revenue for the business. The other three Ps (product, place, and promotion) remains as variable cost for the organisation. Price reflects the demand and supply of the products in the market and thus it is difficult to set a relevant price that could meet the demand-supply condition. Price must be something that could at least cover up three Ps' cost, otherwise the organisation will reach up on its shut-down point. Now setting price for environmental friendly products is an arduous job. Raw materials which are required for green products are generally expensive and buying these raw materials for the production of green products increases the cost and ultimately the price of the product. Now marketers need to earn some profit too. Thus ultimately the burden of high payment passes on to the customers. This high price compels the customers to buy conventional products than green products. People are concerned about sustainable development and those who have the capacity to pay, buy and believe in the quality of green products too. However, there are many who are distressed about the sustainability but cannot afford to buy green products. For example, organic food grown with natural fertilisers is more expensive than those which are not grown with natural fertilisers. This results in the price gap between conventional products and green products which is also known as "green pricing gap". This implies to transportation cost also as using lower polluting renewable energy fuel for transportation contributes to high price.

Marketers need to reduce the green price gap by at least pulling it closer to its conventional counterparts or else by targeting those customers who are better off financially. Government can also play the major part in reducing this green price gap. Government should reduce the tax level levied on green or environment friendly products. This reduces the cost and thus the price of green products which indirectly attract more customers to buy or rely on green products.

GREEN PROMOTION STRATEGY

Promotion strategy is one of the marketing tactics that communicate about the products manufactured to the market or customers and attract them to buy them too. There are many ways to promote the products and services like advertising, personal selling, packaging, social media, public relation, mobile marketing and many more. Now to achieve the objective of sustainable development, it is important to focus on environmental promotion strategies rather than only on promotion of the products. Thus, whatever method of promotion marketers are going for, whether it is advertising or packaging or any other, it is important to assess their sustainability too. Factors which are considered during this phase are: marketing objectives, effective means to reach the target market, and budget. For example, Toyota has launched the first hybrid cars and endorse these through very persuasive eco-friendly organisations like United Nations, the Sierra Club, and the National Wildlife Federation. This helped them achieve Toyota's green brand image and credibility. In fact, in case of packaging, organisations can clearly mention the recycling properties for its packaging on the packaging.

CONCLUSION

In today's modern world, technology has shaped people's life as it has invented some wonders as penicillin, open heart surgery and birth control pills and some dread as hydrogen bomb, nerve gas and the submachine gun. Behind this, people have ignored about the natural environment which is getting deteriorated

with every passing second. There is a grave need to understand the affect of "green house gases" released in the atmosphere due to the continuous burning of fossil fuel, about the depletion of ozone layer, due to global warming and certain chemicals used during the production period. Thus, deterioration of the natural environment is a major global problem and we should all divert ourselves towards green products its sustainability. Marketers should shift themselves from "marketing mix" to "green marketing mix". They should design green products to perform better than other alternatives. They should go for product endorsement or eco-certification from trustworthy party and educate the customers about the reasons behind those endorsement or eco-certifications. Customers could be encouraged through social and internet networks. For examples, Tide's "coldwater challenge" website includes a map of United States where visitors could track and watch their personal influences spread when their friends request for free samples.

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REVIEW OF COMMODITY FUTURES MARKET EFFICIENCY AND RELATED ISSUES

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ABSTRACT

The study of market efficiency in commodity futures markets is important to both the government and the producers/marketers in India. In this paper, we review the available literature on commodity futures market efficiency and related issues viz. the effect of seasonality on commodity futures market efficiency, the inflationary impact of commodity futures trading and the impact of commodity futures trading on spot market volatility. The review shows that the results produced in available literature are often conflicting: the efficiency hypothesis is supported only for certain markets and only over some periods. Also there are very few studies on microstructure and macroeconomic issues in commodity futures market, and integration with other international markets. This forms further scope of research in this area.

KEYWORDS

Commodity futures, Efficient Market, Efficiency, Spot Market, Volatility.

INTRODUCTION

Commodity futures market is a place where farmers/producers and traders can reduce their price risk. India has long history of trade in commodity derivatives. Organized commodity derivatives in India started as early as 1875, barely about a decade after they started in Chicago. Since 2003, when commodity a future trading was permitted, commodity futures market in India has experienced an unprecedented boom in terms of the number of modern exchanges, number of commodities allowed for derivatives trading as well as the value of futures trading in commodities. There are 22 Commodity Exchanges (6 National and 16 Regional Exchanges) recognized by FMC in India where 113 commodities are traded. Six electronic multi-commodity national exchanges recognized by the Government of India are MCX Mumbai, NCDEX Mumbai, NMCE Ahmadabad, ICEX Mumbai, ACE Mumbai & UCX Navy Mumbai. National Multi-Commodity Exchange of India, Ahmadabad (NMCE), was the first to trade in futures from November 2002, Multi Commodity Exchange of Nadia Ltd, Mumbai (MCX) and National Commodity and Derivatives Exchange Ltd., Mumbai (NCDEX) started rading a year later. The national exchanges accounted for 99.7% of the turnover of commodity futures contracts traded in India during FY2014-15. MCX alone had a market share of 82.83% in 9M FY2014-15.

EFFICIENT MARKET

An efficient market is one in which prices always "fully reflect" available information and where no traders in the market can make a profit with monopolistically controlled information **(Fama, 1970)**. Another word, an efficient commodity futures market can provide effective signals for the spot market price and eliminates the possibility that profit can be guaranteed as part of the trading process. This price reflects the equilibrium value for suppliers and demanders in the market.

Efficient futures markets provide a mechanism for managing the risk associated with the uncertainty of future events. Out of the various aspects of these markets, futures market efficiency is one of the most extensively researched topics in the empirical literature. **Sewell (2011)** critically reviews literature available on EMH. The efficient market hypothesis (EMH) asserts that financial markets are efficient. Sewell says "On the one hand, the definitional 'fully' is an exacting requirement, suggesting that normal market could ever be efficient, implying that the EMH is almost certainly false. On the other hand, economics is a social science, and a hypothesis that is asymptotically true puts the EMH in contention for one of the strongest hypotheses in the whole of the social sciences. Strictly speaking the EMH is false, but in spirit is profoundly true. Besides, science concerns seeking the best hypothesis, and until a flawed hypothesis is replaced by a better hypothesis, criticism is of limited value".

Carter (1999) conducted a study on then available literature on different issues in commodity futures market. He pointed out some economic issues which should be addressed. In this research, we have focused on literature available on efficiency and related issues.

LITERATURE REVIEW

There are numerous empirical studies that analyze different aspects of futures markets in developed countries like the US. Out of the various aspects of these markets, futures market efficiency is one of the most extensively researched topics in the empirical literature. Most of the studies investigating the efficiency of commodity futures markets employ a conventional approach of regressing the cash price at maturity on a previous futures price. But, there are studies which used research techniques different from regression. **Samuelson (1965)** first analyzed the role of futures prices as predictor of future spot prices for a given contract and found that it follows a martingale; in other words, today's futures price sari the best unbiased predictor of tomorrow's futures prices. However, **Dentine (1978)** *and* **Lucas (1978)** have both shown theoretically that periodical failure of the martingale property to hold is not evidence of the market inefficiency. **Dentine (1978)** first criticized Samuelson's (1965) argument that spot commodity prices may not follow a sub-martingale if they vary with such factors as the weather, which may be serially correlated. He went on to develop possible reasons why the link between a martingale process and efficiency in commodity markets could be problematic.

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Rausser *and* **Carter (1983)** examined the efficiency of the soybean, soybean oil, and soybean meal futures markets using semi strong form test via structurally based ARIMA models. They emphasized that "unless the forecast information from the models is sufficient to provide profitable trades, then superior forecasting performance in a statistical sense has no economic significance".

To meek (1997) stressed that if the futures market is efficient, then it should be able to out-forecast an econometric model. The development of co-integration theory by **Engle and Granger (1987)** provided a new technique for testing market efficiency. Three different estimation methods, they confirmed the unbiasedness hypothesis. **Fama and French (1987)** examined **Crowder and Hamed (1993), Fortenberry and Zapata (1993), Chowdhury (1991), McKenzie and Holt (2002)** and many others accepted and used co integration theory for testing market efficiency. Later, Johansen co integration technique was developed. **Wang, H. Holly et al. (2005), Bhar and Hamori (2006), Sahi and Raizada (2006), Gupta and Ravi (2013)** and many others have used Johansen co integration to test commodity market efficiency.

However, **Neil Kellard et al. (1999)** investigated the claim whether the co integration existence between commodity spot and lagged futures rates should be accepted as long-run market efficiency. They studied the UK wheat futures contract traded at LIFFE. They concluded that "such tests are not wholly appropriate for evaluating commodity market efficiency".

Since the introduction of futures, there have been two way arguments about the efficiency of futures markets (both financial and commodity futures markets). So the literature has been presented separately on studies supporting efficiency and inefficiency.

LITERATURE ON EFFICIENCY

Goss (1981) examined the unbiasedness hypothesis of futures prices of copper, tin, lead and zinc. The results showed copper and zinc futures markets as efficient. **Goss (1985)** revised his paper by introducing joint tests for the same metals of the LME extending the sample period to 1966-1984. He found contrary results. EMH was not rejected for lead and tin.

Roll (1984) found that price movements in the orange juice futures market could predict freezing temperatures in Florida better than the US national weather service's could. However, *Roll* indicates that a 'puzzle' remains in the orange juices futures market because there is a large amount of inexplicable price volatility.

Canarella and Pollard (1986) tested the hypothesis that the futures price was an unbiased predictor of the future spot price using both overlapping and non-overlapping data for the contracts of copper, lead, tin and zinc covering the period 1975-1983. Using three different estimation methods, they confirmed the unbiasedness hypothesis. **Fama and French (1987)** examined whether the futures prices for copper and other metals contain evidence of forecast power or systematic risk premiums for the period 1967-1984. They showed that the copper futures price contains suggestive evidence of both systematic risk premiums and forecasting power.

MacDonald and Taylor (1988a) tested the EMH for four metals in the LME covering the period1976-1987. Copper and lead futures markets were found to be efficient. **Gross (1988)** examined unvaried LME prices for the period 1983-84. Based on the mean square error criterion, he provided evidence that the EMH is not rejected for the copper futures market. **Crowder and Hamed (1993)** examined the NYMEX crude oil contracts and concluded that accounting for the co integration between spot and futures, one cannot reject the speculative efficiency hypothesis during the period March 1983 – September 1990.

Furstenberg and Zapata (1993) evaluated the relationship of the North Carolina corn and soybean markets with respect to the CBOT. Co-integration existed between any air of these markets and no strong evidence was found to reject the efficiency hypothesis. **Moore and Callen (1995)** examined the Speculative Efficiency of the LME for six base metals between 1985 and 1989. They showed that the long-run speculative efficiency cannot be rejected for the copper and other three metals. **Aulton, Ennew,** *and* **Rayner (1997)** re-investigated the efficiency of UK agricultural commodity futures markets using the co-integration methodology. They found that the market is efficient for wheat. Using monthly data, and the Phillips and Loretan (1991) approach, **Peroni and McNown (1998)** supported the speculative efficiency hypothesis for the WTI for the 1984-1996 periods.

Gulen (2000) found that the futures price of light sweet crude oil traded at NYMEX plays a significant role in price discovery. i.e. the futures price is an unbiased predictor of the spot price. This observation was also supported by the widespread use of the futures price as a benchmark all over the world as well as by the decision of the U.S. Minerals Management Service to switch to the futures price from the posted price as the standard for calculating royalties. However, his paper explicitly dealt with the crash in 1986. **Murry and Zhu (2004)** investigated the impact of the introduction and exit of Enron Online (EOL) on the efficiency of the U.S. natural gas market. Using a conventional EGARCH model, he found little evidence that the introduction of EOL coincided with the reduction in the market price volatility. **Wang and Bingfan (2002)** studied the efficiency of the Chinese wheat and soybean futures markets using Johansen's co integration approach. The results suggest a long-term equilibrium relationship between the futures price and cash price for soybeans and weak short-term efficiency in the soybean futures market. **J B Singh (2004)** attempted to understand the price risk of agricultural and derived commodities for the period 1988-99 in India. He investigated the usefulness of futures market to discover prices, manage uncertainty and risk, and improve the performance of agricultural commodities. He found that among all commodities (pepper, custorseed, potato, gur, turmeric and Hessian), castor seed (Ahmadabad and Mumbai) and pepper futures markets are efficient and unbiased and also perform the role of risk management and hedging effectiveness.

Bhar and Hamori (2006) found that the prices of commodity futures traded on the Tokyo Grain Exchange (TGE) did not move together in the long run. They suggested that the co integrating relation exists among commodity futures contract from 2000 to 2003 but not earlier during the 1990s i.e. the price mechanism works better and the long run relationships among prices becomes more apparent as a market develops. **Bose (2006)** examined the efficiency of commodity futures market in India. He found that notional multi-commodity indices with higher exposure to metals and energy products behaved like the equity indices in terms of efficiency and flow of information. These futures and spot markets help in price discovery.

Lorne N. Switzer and Mario El-Khoury (2006) investigated the efficiency of the NYMEX Division light sweet crude oil futures contract market during recent periods of extreme conditional volatility. Crude oil futures contract prices were found to be co integrated with spot prices, including over the period prior the onset of the Iraqi war and until the formation of the new Iraqi government on April 2005. **Xin Yu, Chen Gongmeng and Firth Michael (2006)** investigated the efficiency of the Chinese metal futures (i.e. copper and aluminum) traded on China's Shanghai Futures Exchange. Using random walk and unbiasedness hypotheses, they concluded that China's copper and aluminum futures markets were efficient during 1999–2004.

Pete Locke (2006) examined the transparency, liquidity and efficiency of the wholesale natural gas market in the United States, both in absolute terms and compared to other commodity markets. He concluded that natural gas futures were efficient. He found that natural gas prices were quick to reflect changes in information, reflecting great efficiency. On the surface, the evolution to market prices might appear to increase volatility. **Lokare (2007)** found an evidence of co-integration in both spot and future prices, showing improved operational efficiency in pepper, mustard, gur, wheat, sugar (S),cotton, sesame seed, gold, copper, lead, tin and bent crude oil, rubber, sesame oil, aluminum, zinc, silver and furnace oil markets in India. **Sahoo and Kumar (2009)** examined the efficiency and futures trading-price nexus for gold, copper, petroleum crude, soya oil, and chana (chickpea) in commodity futures markets in India. They concluded that the commodity futures market is efficient for all five select commodities.

Kaur and Rao (2010) studied the weak form efficiency of guar seed, refined soya oil, chana and pepper futures markets in India. They used run test and autocorrelation analysis for testing weak form of efficiency. Using autocorrelation, they found that that all select commodities but refined soya oil futures markets were efficient. The results of run test showed that futures market for all the select commodities were efficient. **N P Singh (2010)** investigated efficiency of futures market of Guar Gum and Guar Seed in India using Error Correction Mechanism (ECM). He concluded that the futures markets for Guar Gum and Guar Seed were efficient in weak form.

Chakrabarty and Sarkar (2010) analyzed long term equilibrium relationship between the multi commodity spot market index (Comdex spot) and the futures market index (Comdex futures),agricultural commodity spot and futures index, & commodity spot index and Nifty 50. They also examined futures markets of potato, wheat, Masoor Grain and different types of rice at NCDEX. They concluded that commodity spot market indices are co integrated with the futures market indices as well as Nifty. The price of different qualities of rice was found to be dependent on the recent news and not on the old news.

Ali and Gupta (2011) tested the efficiency of the futures market for twelve agricultural commodities traded at NCDEX. They used Johansen's co integration analysis and Granger causality tests. They found that there was a long-term relationship between futures and spot prices for most of the select except for wheat and rice. Moreover, bi-directional relationships was found between spot and futures prices of some of the selected commodities in the short run. **Sehgal, Rajput and Dua (2012)** examined ten agricultural commodities futures market for a period from June 2003-March 2011 on NCDEX. They found that markets were efficient for all but one commodity (Turmeric). Also their results showed bi-directional Granger lead relationship for all select commodities except Turmaric.They concluded that Indian commodity market is still is not competitive for some commodities.

Kristoufek and Vosvrda (2012) examined the market efficiency of 25 commodity futures across various groups like metals, energies, soft's, grains and other agricultural commodities using a proposed efficiency Index. They found that the most efficient of all the analyzed commodities is heating oil, closely followed by WTI crude oil, cotton, wheat and coffee. They also inferred the efficiency for specific groups of commodities viz. energy commodities were found to be the most efficient and the other agricultural commodities the least efficient groups. **Murthy and Reddy (2012)** studied the relationship between the futures price and spot prices and the farmer's participation. For chili and turmeric, they found that futures prices affect spot prices. Also, they found that "majority of the farmers are not aware of the commodity futures trading and hence do not participate in futures trading". **Gupta and Ravi (2013)** explored the efficiency between commodity futures and spot markets at MCX, NMCE and NCDEX for chana, guar seed, wheat, and potato and cotton seed oil cake. They found evidences of efficiency in most of the sample commodities.

LITERATURE ON INEFFICIENCY

Elam (1978) developed a semi-strong test of efficiency. He estimated an econometric model of the US hog market and used it to generate price forecasts. These forecasts were in turn used in a fundamental trading strategy. His trading rule yielded profits over the period studied and led *Elam* to conclude that the hog futures market is not efficient. Similar results were found by **Leuthold and Hartmann (1979).**

They tested the efficiency of the same market by estimating a simple two-equation, demand-supply model to forecast hog prices.

Goss (1981) examined the hypothesis that futures prices were unbiased predictors of the subsequent spot prices for the markets of copper, tin, lead and zinc, using daily price data from the LME for the period 1971-1978. He rejected the unbiasedness of futures prices for lead and tin. **Goss (1985)** revised his paper by introducing joint tests for the same metals of the LME extending the sample period to1966-1984. His results showed that the Efficient Market Hypothesis (EMH) was rejected for copper and zinc. A simple linear regression model was used by **Bigman, Goldfarb, and Schechtman (1983)** to test the efficiency of wheat, corn and soybean trading at the CBOT. Based on F tests, they conclude that futures prices generally provide inefficient estimates of the spot price at maturity. Later, **Moberly (1985)**, **Elam and Dixon (1988)** *and* **Shen and Wang (1990)** pointed out the result is invalid based on such conventional F tests when the prices series are non-stationary.

MacDonald and Taylor (1988a) tested and rejected the EMH for tin and zinc. **Graciela Kaminskyand Manmohan S. Kumar (1989)** used excess returns as a measure of efficiency in seven different commodity markets over the 1976-1988 periods. Their results indicated that it is not possible to make any strong generalizations on the efficiency of the commodity futures market for short-term forecast horizons. For longer periods, however, it does appear that several of the markets may not be fully efficient.

Sephton and Cochrane (1990, 1991) examined the unbiasedness hypothesis in the LME with respect to six metals for the period 1976-1985. They concluded that the LME is not an efficient market.

Chowdhury (1991) pointed out the problems of hypothesis testing in the futures market literature and suggested how the co-integration approach can be used to circumvent some of these difficulties.

Moosa and Al-Loughani (1994) rejected futures market speculative efficiency for the West Tex as Intermediate (WTI) contracts for the period January 1986-July 1990. The same hypothesis was rejected for the copper futures contract traded on the LME by **Beck (1994)**. However, **Peroni and McNown (1998)** noted that the Moosa and Al-Loughani conclusion may be unwarranted, as a result of the short comings of the test statistics employed.**Aulton, Ennew**, *and* **Rayner (1997)** found that the market is not efficient for pigment and potatoes.

Kellard, et al. (1999) examined the efficiency of several widely traded commodities in different markets, including soybeans on the CBOT and live hogs and live cattle on the Chicago Mercantile Exchange. The results showed that the long run equilibrium condition holds, but there was evidence of short-run inefficiency for most of the markets studied. The degree of the inefficiency was measured based on the forecast error variances.

Mckenzie and Holt (2002) tested market efficiency and unbiasedness in four agricultural commodity futures markets – live cattle, hogs, corn, and soybean meal – using co integration and error correction models with GQARCH-in-mean processes. They found that each market is unbiased in the long run, although cattle, hogs and corn futures markets exhibit short-run inefficiencies and pricing biases. Models for cattle and corn outperform futures prices in out-of-sample forecasting.

Wang and Bingfan (2002) found that the futures market for wheat is inefficient in China, which may be caused by over speculation and government intervention.

Ahmed El H. Mazighi (2003) checked the efficiency of futures markets for natural gas. He found that efficiency is almost completely rejected on the both the International Petroleum Exchange (IPE) in London (UK Market) and the New York Mercantile Exchange (NYMEX) the US market. **Kenourgiosand Samitas (2004)** showed that the copper futures contract market on the LME is inefficient and did not provide unbiased estimates of future copper spot prices. They tested for both long-run and short run efficiency using co integration and error correction model.

J B Singh (2004) found that turmeric markets were inefficient and biased in India for the period 1988-99. **Wang, H. Holly et al. (2005)** studied the efficiency of the Chinese wheat and soybean futures markets. The results of Johansen's co integration approach suggested a long-term equilibrium relationship between the futures price and cash price for soybeans and weak short-term efficiency in the soybean futures market. The over-speculation and government intervention were suggested reasons for wheat futures market inefficiency. **Qingfeng Wilson Liu (2005)** examined the relations among hog, corn, and soybean meal futures price series using the Perron (1997) unit root test and autoregressive multivariate co integration models. Accounting for the significant seasonal factors and time trends, they found that inefficiency exists in these three commodity futures markets.

Easwaran and Ramasundaram (2008) analyzed the efficiency and price volatility of select four commodities (castor, cotton, pepper and soya) on MCX and NCDEX. These markets were found to be in efficient. They explained that the inefficiency was due to several factors like thin volume and

Soni and Singla (2012) analyzed the market efficiency of Guar gum futures market NCDEX using an error correction model and GARCH-M-ECM. They found Guar gum futures market was inefficient.

They suggested over-speculation or market manipulation as the probable reason for inefficiency.

Inoue and Hamori (2012) tested for weak form efficiency using MCX's spot and futures index Comdex for a period from Jan 2006 to March 2011. They used the dynamic OLS (DOLS) and the fully modified OLS (FMOLS) methods. They found that the commodity futures market was not efficient for the entire sample period but for the sub period July 2009 to March 2011. They concluded that commodity futures market exhibits weak form efficiency as the market size expands. From above presented literature we can say that the results of these studies have been mixed and the efficiency hypothesis is supported only for certain markets and only over some periods. The findings of studies show that some commodity futures markets are efficient while others are inefficient.

LITERATURE ON RELATED ISSUES

There are various issues related to efficiency of commodity futures market. The one of such issues is the effect of seasonality on efficiency. **Newbold et.al. (1999)** investigated the effects of seasonality in testing efficiency over a range of commodities. Using quasi-ECM model, at both short and long forecast horizons they found evidence that the seasonal terms were significant i.e. the market was inefficient. The information about the seasonal pattern was not embodied in the basis and could be used by agents to predict future spot prices movements. **Sorenson** provided a framework for estimating model parameters, and especially seasonal parameters, using both the time-series characteristics and cross-sectional characteristics of agricultural commodity futures prices for the period 1972 to 1997. Estimation results were provided in the case of corn, soybeans, and wheat using weekly panel-data observations of futures prices from CBOT. He found that normal backwardation for soybeans and wheat while the situation for corn was mixed besides the estimated seasonal features. Also, he suggested normal backwardation to be the case for long contract maturities while contango be the case for short contract maturities. The second related issue is inflationary impact of commodity futures.

Sahi and Raizada (2006) investigated the efficiency of wheat futures market at NCDEX and analyzed its effect on social welfare and inflation in the economy. They used Johnson's Co integration approach for different futures forecasting horizons ranging from one week to three months. Wheat futures market was found to be inefficient in short run and social loss statistic also indicated poor price discovery. The growth of commodity futures volume was found to have significant impact on the inflation in the economy.

Sahoo and Kumar (2009) examined the impact of futures trading on inflation. They did not find sufficient evidence for inflationary impact of futures market.

Gupta and Ravi (2013) explored the efficiency between commodity futures and spot markets at MCX, NMCE and NCDEX for chana, guar seed, wheat, potato and cotton seed oil cake. They found evidences of efficiency in most of the sample commodities. Further they examined the association between the spot price of commodities like Chana, Guar seed, Refsoyaoil, Gold and Silver, and WPI. Spot prices of commodities were found to be responsible for rise in WPI inflation. The effect of commodity futures trading on volatility of commodity spot market is the third issue that has been discussed here.

Weaver and Banerjee (1990) found that that futures trading for cattle and other related commodities did not lead to dynamic instability of cattle price despite the external information's role in determining cattle price. **Antoniou and Foster (1992)** analyzed the effect of futures trading on spot price volatility for Brent crude oil in UK. Using GARCH method they found that there was no volatility spillover from futures to spot market.

J B Singh (2004) examined the hessian spot market price variability before and after (over the period 1988-97) the introduction of futures trading. He investigated the impact of futures market on inter-seasonal and intra-seasonal price volatility. He found that the cash market volatility, mainly inter-seasonal volatility, was has reduced after the introduction of hessian futures market. **Karande (2006)** in his doctoral thesis found that the introduction of castor seed futures market at Mumbai and Ahmadabad has had a beneficial effect on the castor seed spot price volatility. **Bose (2008)** used notional price indices of commodity markets covering metals, energy and agricultural products. Energy and metal indices exhibit informational efficiency of commodity futures market with stabilizing effect on volatility of underlying market.

Nath and Ligareddy (2008) found that futures trading had a destabilizing effect on spot market.

Results of regression, correlation and Granger Causality indicated that introduction of futures trading led to increase in price of urad significantly. Spot prices of these commodities declined after the ban on futures trading was introduced. Price volatility was also increased during the period, when trading in futures was allowed. Wheat price increased in post futures period but the same was also coincided by steep fall in supply. **Dey, Maitra and Roy (2011)** studied co integration and volatility spillover in Indian pepper futures market. They found a unidirectional causality from futures to spot prices of pepper. They concluded that the volatility of one market leads to another market. They found a bidirectional spillover effect under GARCH model but unidirectional under EGARCH i.e. from futures to spot.

SCOPE FOR FURTHER STUDY IN COMMODITY FUTURES MARKET

In view of literature reviewed, various concerns are raised in commodity markets that need to be addressed and investigated through research. Some of the research gaps that have been identified relate to integration with international markets, macroeconomic issues, microstructure issues of commodity futures market etc. These have been discussed below.

- No other market seems to have such extensive international macroeconomic linkages as does the commodity market. When commodities are emerging as an asset class-*earning superior risk adjusted returns* compared to stock markets or bond markets (*Doman ski and Heath (2007)and Mishra (2008)*), there is dearth of studies on important issues like integration of Indian commodity market with foreign markets.
- In a developing market like Indian Commodity market, Market Microstructure has been ignored. Some studies were conducted on commodity market microstructure in India in the'60s and '70s. But these studies lacked the analytical quantitative rigor. Out of a few research papers on microstructure, Bhanumurthy (2004) is an important study on Indian foreign exchange market microstructure. Naes and Skjeltorp (2006) studied stock market microstructure. These studies are either in stock market or foreign exchange market. So microstructure research in commodity market in India has great scope.
- Futures market efficiency is one of the most extensively researched topics in the empirical literature. From the government policy point of view, an efficient market means a better alternative to market interventions such as imposing price stabilization policies *(Sahadevan (2002), Thomas (2003), (Pavaskar and Ghosh, 2008), Chakrabarti and Ghosh (2009))*. The results produced are often conflicting: the efficiency hypothesis is supported only for certain markets and only over some periods. Although some of the conclusions reached in the literature reflect genuine efficiency or inefficiency, some of them may reflect the lack of attention paid to the institutional aspects governing the functioning of futures markets.
- The most relevant aspect for agro-commodities, although not yet extensively investigated, is seasonality. (Wang and Bingfan (2002), J B Singh (2004), Wang, H. Holly et al. (2005),(New bold et al., 1999)). The study of the effect of seasonality on the efficiency of agro commodities futures market becomes even more important in agriculture denominated country like India.
- In a country like India, where there have been allegations of inflation on commodity futures trading, an empirical investigation is utmost important and hence required. For instance, Govt.of India decided to suspend the futures trading in urad, tur and wheat in early 2007 due to the same reason. Moreover, the Expert Committee to study the impact of futures trading on agricultural commodity prices, chaired by *Abhijit Sen (2008)*, failed to arrive at any unanimous conclusion.

CONCLUSION

The study of market efficiency in commodity futures markets is important to both the government and the producers/marketers in India. Moreover there are some other important issues related to market efficiency viz. effect of seasonality in agro-commodities, inflationary impact of commodity futures and volatility

spillover between spot and futures market. So in this paper, we have reviewed the available literature on commodity futures market efficiency and related issues mentioned above. The review showed that the results produced in available literature are often conflicting: the efficiency hypothesis is supported only for certain markets and only over some periods. Also from literature review, some areas have been identified that need attention of researchers. These are commodity market microstructure, macroeconomic issues in commodity futures market, inflationary impact of commodity futures market and integration with other international markets and effect of sub-prime crisis. This forms further scope of research in this area.

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MARKET CONCENTRATION AND EMPLOYMENT ORGANIZED MANUFACTURING INDUSTRIES 1999-2013

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ABSTRACT

The effect of Market structure upon the worker has been variously studied in the literature of Labour Economics. Structure of Market is explained in the SCP paradigm (Bain 1959) as being perfect and imperfect. Imperfect markets are the more realistic markets and it is very important to know what happens to employment in imperfect markets. Imperfect markets are characterised by concentration, contractualisation as is due to monopoly power in the supply side of the economy and the control over price setting driven by profit maximisation. In this study we have found concentration in the market to be moving through a pattern of increase and decrease. On the other hand, Haworth and Reuther (1975, 1977) used a cross section (1958 -1967) data for the manufacturing sector (Census for Manufactures U.S) and showed that in the two years the wage rate has increased and the employment has decreased. Another study by Fedderke and Szalontai (2005) On South African manufacturing sector 1972-1996 and have found a negative relationship between Employment and Market Concentration. The study that I am interested to do is 'Concentration of Manufacturing Industries, and its impact on Employment' and wants to see what has happened to the nature of labour supply. Has the labour benefitted with concentration, but has lost in terms of 23 major Manufacturing Industries group (ASI and CMIE) absolute number of employees and workers from the Organized Manufacturing Industry. The level of Concentration has indeed been on a rise as what is expected of any developing market.

KEYWORDS

Labour economics, Market concentration.

1. INTRODUCTION

At least a score of studies since 1960s have tested the hypothesis that concentrated industries pay more wages to workers, but very few studies have focussed on the impact of Industrial concentration on Employment[1]. The rate of growth of workers can be used to estimate cyclical employment (Lustgarten and Mendelowitz 1979). The study done in the previous chapter was on the same line testing the hypothesis of impact of concentration on wages and the results were supporting the hypothesis that concentration leads to wage growth.. From the workers point of view then a higher concentration would always be beneficial, but it needs to be understood, would all the workers benefit from concentration? Put another way. Is market concentration going to increase, or decrease the level of employment in the organised manufacturing sector? This study will be enough to sum up the purpose of study. Whether market concentration as a trend, 'Is actually beneficial for the workers from an absolute point of view - wages and the number of workers both rising or does it lead to increasing wages but decreasing employment which in widely discussed in economic literature'. This study is important to understand the impact of Market concentration in the labour market while devising labour market policies, in formulating the Anti-trust policies and designing restrictive trade practices of monopolies, Also because Workers are both producers and consumers; their significance for Industrial development can't neglected when deciding the level of output and devising Industrial policy The share of manufacturing employment in the industrial sector has grown since, 11% - 1999 it grew up to 12.2% in 2004-05 and decreased to 11.4% in 2009-2010.. An estimated number of 149130 factories were under operation in 2010 with 114.09 lakh persons engaged. It is worth understanding why in a growing market concentration situation the contribution of employment by the manufacturing sector employment has stabilised from 11% to 11.4% in 1999-2012, (Economic Survey 2012).

2. LITERATURE REVIEW

A study on South African manufacturing firms by Fedderke and Szalontai (2005) has shown a negative relationship between market concentration and employment. Using the Gini coefficient and the Rosenbluth index this study has shown that inequality in the firm's market shares has a negative impact on the employment in the manufacturing industry. Their study has confirmed a positive and significant association between output growth and employment. Secondly the ratio of capital to labour cost has a statistically significant impact on manufacturing employment. The ratio of skilled workers to unskilled workers enters negatively and significantly into the labour usage equation, it suggests that sectors where skill intensity has increased have employment growth more slow. Thus according to their study Industrial concentration is unambiguously undesirable for the purpose of employment creation in South African Manufacturing. The increasing trend of manufacturing concentration in India has proved to be suitable to the workers in terms of wage rate, but if we find a negative association between concentration and employment, the composite effect of concentration would be reduced to analysing whether the loss in employment is equal to the rise in wages which is very debatable. For ex. The first worker A might get a pay hike because of market concentration and the other worker B might lose job because of the same concentration, suppose the pay hike of the first worker is equal to the pay loss of B, as far as the industry is concerned it is still in equilibrium[1] but with respect to workers it has created a clear divide. .The idea behind a negative association between market concentration and employment also stems from the Marxian perspective of capital intensification and labour substitution policies. A firm in order to compete in the market has to continuously innovate, transform and find avenues for new production methods[2] (Bain 1959). In order to compete in the market firms have to alter production methods and input combinations in order to minimise cost and maximise profits. Research and development has been widely accepted to be the key force behind the alteration of production techniques, R&D working on all spheres of production and both the inputs. A study by Belman and Heywood (1990) to see for the quality of employment in the concentrated industries have found those workers with greater tenure and education continue to be disproportionately represented in more concentrated industries. Concentrated industries seem to be biased towards skilled workers, the probable explanation for this is, Major firms in concentrated markets use intensive capital and the labour has to be skilled to use those machines. 1. Equilibrium in the industry, explained in terms of profits and employment. Sweezy.P (1942), Schumpeter.J (1950), Baran.P (1966)

Lustgarten and Mendelowitz (1979) has put forward the theory that Industrial concentration is independent of cyclical employment, at best cyclical employment is more stable in concentrated industries. The argument that prices and wages are less responsive to unanticipated fluctuations in demand in oligopolistic industries, the fluctuations in demand unable to affect prices would be absorbed by fluctuations in output and employment. The original idea is called 'Administered price theory' Means (1936). The Lerner's index shows the tendency of oligopolies to keep the price over marginal cost with informal collusive agreements and otherwise. This arrangement is difficult to sustain in a competitive and legal environment, this competitiveness in the market does not allow firms to change prices[2]. Inability to change prices in a volatile market leads to fluctuations in output and employment.

An alternative to this theory is presented in the preceding chapter where we saw the price cost margin flexibility is positively associated with seller concentration, using CR4 and Mark up we saw there is a positive correlation between concentration and Mark up that is the coordination to exercise monopoly power is most effective in concentrated industries. The existence of a small number of firms fosters mutual trust and provides the fullest intra firm interim information flows, Qualls (1977). Interim coordination is difficult where the concentration level is low and there are a number of firms with small market shares.

3. EMPIRICAL ANALYSIS

Direct tests on the relationship between employment and concentration has not been worked out as of yet for the Manufacturing sector in India. These experiments were done by Scherer (1970) and Smith (1971). Scherer (1970) based his study on the 4 digit SIC industry data collected for the census of manufacturing in the years 1947, 1954, 1958, and 1963. He tested the hypothesis that the 'administered-price argument'[2] implied that the share of total employment in concentrated industries would fall during recessions and increase during expansions, the conclusion was, There is no significant indication that concentration makes a systematic difference one way or the other in the cyclical behaviour of employment (Scherer 1970. Pg- 313)

Smith's study is comprehensive in a lot of respects as compared to earlier investigations; this study comprises of 73 four digit industries with monthly employment data for 1958-66. The source of data by Smith and Scherer are the same but the formulations differ in many important respects viz, Smith has used covariance rather than variance measure of employment fluctuations, the use of continuous rather than dummy variable to measure cyclical demand differences across industries, the use of total employment rather than production worker and non production worker man hours, Large number of Industries and a longer time period. While creating explanatory variables Smith has included the ratio of production workers over total employees as an explanatory variable, and has explained that as the ratio of production workers to total employees' rises, total employment will exhibit greater volatility. Production workers are usually the first segment of labour force subjected to Layoffs (Smith 1971).

4. TRENDS IN LABOUR EMPLOYMENT 1999-2012

Source ASI. 1999-2012. 23, 3 digit Industries.

The below table shows the mean of worker employment for each industry, according to the number of observations. Standard deviation shows the deviation from the mean value of the number of workers. Note: Numbers in absolute values.

TABLE 4.1: NUMBER OF WORKERS MANUFACTURING SECTOR 1999-2013

Industry	Mean	Standard Deviation	Min	Max
151	138378.3	32022.82	76439	194317
152	107702	129115.9	51376	543333
153	264569.2	26062.2	225272	307380
155	79844	19360.24	54111	116706
160	403735.5	114020.4	34031	464009
171	926525.2	61957.45	827579	1027578
172	123413.2	59233.4	64959	255793
181	401654.3	150148.5	101754	607181
192	106525.8	41991.32	50112	176658
202	52610.43	58162.1	29159	253236
241	181465.6	101760	130832	527119
242	396238.5	114800.5	82056	568085
243	30874.07	42438.7	13084	178049
269	405687.2	88659.7	306790	589755
271	357402.8	113394.5	153075	535213
272	69336.1	31725.7	37325	172455
273	97764.7	34513.9	64173	172455
289	188317.4	49729.99	130338	271068
291	157340.9	39858.6	110273	224720
292	144804.4	41248.9	41973	207395
293	57407.6	109881	21638	438703
341	68924.7	19381	46687	111191
359	112743.5	34180.07	35453	170535

Source: ASI

Table 4.1 shows a high degree of dissimilarity in the mean value of employment across all industries, there are some industries with more than 900,000 employees and some industries with only 69,000 employees, Textile and Precious and non ferrous material respectively. This difference in the mean value is obvious given the contribution of textiles to manufacturing GDP as compared to the contribution of precious and non ferrous which contributes very less as compared to textiles in the manufacturing GDP. But if we look at the satndard deviation of employment, the 1/10 ratio in terms of mean is deduced down to less than 1/3 ratio in terms of level of employment, implying the volatility of employment in Beverages to be high as compared to Textiles. There is a marked difference in the standard deviation of all industries , and it is not subject to the level of employment. 16 Industries have a lower level of employment than the others yet they have a higher deviation in terms of the number of workers employed. For ex. Wearing apparel the mean value is 400,000 and the standard deviation is around 500,00 . While for textiles the mean value being 900,000 has the standard deviation less as compared to wearing apparel. The degree of difference in the min-max number of workers employed in the firms gives us how much increase has happened in the firm in a span of 14 years. The Min-Max figure from the table gives us an idea of the difference in percentage of workers employed in the Industry. there has been a 2.5X increase in number of workers in the Food Products Industry in a span of 14 years while in Dairy Products industry the increase in the number of worker has been 10.40X times. No Industry has the number of employees been less than 2X. Employment has increased in the Manufacturing sector. Although the deviations across industries has been inconsistent.

TABLE 4.2: TRENDS IN TOTAL EMPLOYMENT IN 23, 3 MANUFACTRUING INDUSTRIES NUMBERS IN ABSOLUTE VALUES

Industry	Mean	Standard Deviation	Min	Max
151	175398.5	41415.38	91406	246382
152	102797.1	32275.72	78935	193987
153	345693.2	36857.42	296009	410962
155	104352.1	23190.6	72334	147482
160	426882.9	117230.8	48321	493267
171	1081344	73152.51	967671	1198802
172	171233.3	100507.8	81789	408397
181	472795.8	168952.7	166588	707877
192	125232.3	45780.32	69850	202070
202	68848	76873.37	38554	334108
241	261979	124814.5	197639	684794
242	583610.7	173256.9	106953	854696
243	39349.86	54943.18	16250	229894
269	507797.3	100496.2	393155	721237
271	472945.6	142443.7	219281	714307
272	85553.93	18996.67	48058	122512
273	131170.8	43007.8	85569	223655
289	242904.5	61025.77	171975	342527
291	243570.7	71114.08	148523	415869
292	218774.4	67044.43	54587	329558
293	75058.14	139908.8	29524	560528
341	95664.23	25805.23	66675	152737
359	149391.2	28973.95	120308	211152

Source: ASI 1999-2013

As we can see from the two tables above there has been an increase in the number of workers as well as all the employees in the manufacturing sector, it is very obvious to accept this phenomena given the fact that output in all the industries have increased overtime, industries have expanded and production has increased manifolds. Interesting to see here is, in all the industries the population of workers far exceeds the population of other employees which makes it even more important to study the economic development of workers in terms of absolute level and growth rate of employment. The standard deviation of workers employment is higher than the standard deviation of overall employment, if we look at number of workers and their deviation and total number of employees and their deviation we can infer that the volatility of job security hampers the workers more than the other employees. The min max value of workers is also higher than that of total employees because of the nature of work associated with workers which is inclined more towards a contractual type, off season and on season, or prone to business cycles more than other workers.

TABLE 4.3: MEAN STANDARD DEVIATION AND MIN-MAX VALUES OF 1. GROWTH RATE OF WORKERS, 2. GROWTH RATE OF OTHER EMPLOYEES

indusrty	Mean, wkr other	Sd wkr other	Min Max
151	-.0048645 .0244838	.1915991 .2524151	-.6066273 .145406 -.3173486 .7125324
152	.1198851 .0224988	.1670037 .1690712	-.0715018 .5538466 -.2494543 .3733337
153	.0200789 -.0398211	.0574999 .0415718	-.090016 .1471599 -.0945211 .0495149
155	.0680716 -.0483506	.0674635 .0934934	-.0380812 .1907319 -.2488613 .0904297
160	.8790958 -.0035375	3.276292 .2116412	-.913817 10.72372 -.453184 .307655
171	.0045364 -.0022068	.0450295 .0503746	-.082937 .079527 -.0982763 .0887793
172	.1160506 -.8806065	.2889341 3.032117	-.2752343 .9273567 -10.44433 .8899045
181	.0091078 -.0419458	.263115 .1617537	-.8324157 .1982026 -.2854593 .3561413
192	-.0286159 -.0193609	.318735 .1987636	-.8414249 .2875893 -.4148234 .2873888
202	.3812327 -.4136643	1.248707 1.319612	-.0808921 4.527119 -4.79686 .1217102
241	.1390485 -.0658292	.4145637 .2413337	-.0997472 1.491087 -.8432682 .1275171
242	-.0311638 .0290673	.2526316 .2714608	-.8555568 .0944673 -.158043 .9131331
243	.6660392 -.7453422	2.373387 2.653154	-.3384234 8.533572 -9.537601 .3544046
269	.0437592 -.0425939	.2244274 .1233014	-.4278913 .416692 -.2889173 .1848618
271	-.0137043 -.0017116	.2280104 .209551	-.7139924 .2108522 -.2920768 .6303282
272	.045588 .2642275	.3758242 .7908932	-.7835667 .9381322 -.7835667 .9381322
273	.082231 -.1406305	.5009308 .754945	-.6156446 1.259034 -2.343667 .6491501
289	.0685148 -.0536079	.1079022 .1272349	-.2073129 .1749299 -.2124758 .1976103
291	.0077804 -.0353911	.1808885 .4966891	-.504696 .2486955 -1.483904 .6057067
292	-.0337851 -.0008471	.2538461 .3390949	-.7560518 .2655374 -.6438375 .9199116
293	.8398343 -.5914855	2.936048 2.059857	-.1665191 10.60252 -7.434298 .1817934
341	.0633684 -.0434132	.095736 .0960821	-.1192619 .2156007 -.1802057 .1410557
359	.141627 -.1322422	.5417603 .6328671	-.6163801 1.594505 -1.917485 .690569

Source: ASI Numbers in %.

TABLE 4.4: CORRELATION, GROWTH RATE OF WORKERS AND GROWTH RATE OF OTHER EMPLOYEES

	growt~rs	growt~es
growthrat~rs	1.0000	
growthrat~es	0.5869	1.0000

The sign of correlation being positive indicates there is correlation between the variables. We can infer about the movement of growth of workers by analysing the growth of other employees data. If the growth rate of non workers is increasing the groth rate of workers will also be increasing. Employment in both labour and non labour move in the same direction and the degree of correlation is substantial.

STATEMENT OF PROBLEM

Firms behave inconsistently across a period of time in terms of output, employment, but not prices (Means 1936) it is clear that the Industries which represent the cluster of firms will behave inconsistently in terms of output and hence employment. We can see the deviation of employment from its mean value, and if we compare this deviation from the mean value with the level of concentration in the industry, we have an idea of how employment behaves when markets get concentrated.

Before we see the relationship between the level of employment[3] and concentration, it is also important to know the relatioship between the deviation of employment from the mean and the deviation of wages from their actual value.

TABLE 4.5: CHANGE IN THE SHARE OF WORKERS OUT OF TOTAL COMPENSATION TO EMPLOYEES 1999-2012

Industry	Δ Workers share (1999-2012)	Industry	Δ (1999-2012)
preservation of meat and fish	19%	Man Made Filaments and Fibres	-19.70%
Dairy Products	46%	Textiles	-19.80%
Grain Mill and Starch	-24%	Other Textiles	-14.60%
Beverages	-13.60%	Basic Chemicals	13.80%
Tobacco	-24.30%	Other Chemicals	25.60%
Footwear	-28.40%	Basic Iron and Steel	-36.50%
Domestic Applainces	-10.70%	Precious and Non Ferrous Metals	-19.80%
Non Metallic Minerals	-10.70%	Casting of Metals	-26%
Wood cork and Painting Materials	-41.20%	Fabricated Material	-21.30%
Special Purpose Machinery	-4%	Motor Vehicles	-30.50%
General Purpose Machinery	-2.70%	Transport Equipments	-14.40%
Wearing Apparel	-44.50%		

Source: ASI

Table 4.5 shows the deviation that has happened from 1999 till 2012, a majority of Industry does not seem to show an increase in the workers share in the total compensation to employees. 19 out of the 23 industries show a decrease in the share of workers in the total payout over the years. For Dairy products where the increase in number of workers was 10.50X times the workers share in the compensation of employees also increased by 46%. But for all the other industries except Other Chemicals where the increase is 2X – 3X, the workers share in compensation is growing at a negative rate implying they are loosing out on their actual share of the compensation.

Two important points to notice here are

1. Employment is growing in absolute terms in all the Industries, but the rate of growth across the Industries are different. Some industries have shown a higher rate of growth in employment while others have shown a lower rate of growth. The deviation is also high in terms of volatility of employment.

2. Wage share of the Industries are declining. Despite growth in the level of employment the share of workers in the total compensation is declining

Now the important thing to see here is wat is happening to wage rate vis-a vis wage share and employment growth. Wage rate = Wages/Number of workers, Wage share = Wages/Total compensation to employees.

WAGE RATE AND WAGE SHARE IN EMPLOYMENT

Wage share has fallen in the manufacturing industry despite the increase in the number of employed workers in the industry over the period of time. Let us see what has happened to the wage rate from 1999-2012.

TABLE 4.6: SUMMARY STATISTIC, WAGE RATE, MANUFACTURING SECTOR 1999-2012

Industry	Mean	Standard deviation	Min	Max
151	42938.07	17692.28	24436.9	80507.35
152	74841.62	26800.78	55625.1	114197.4
153	31441.9	12657.19	20319.3	61280.5
155	59611.4	16276.66	39145.46	93939.47
160	40737.89	73257.75	14355	287341
171	52504.39	12029.6	40058.8	80041.3
172	46950.91	15773.6	31836.36	84094.02
181	48879.5	27216.1	26198.38	131315.7
192	64693.55	86437.6	28893.3	361875.4
202	42945.5	19610.8	25964.5	97479.03
241	186821.6	260819.5	81061.25	1087522
242	69248.17	42047.4	40014.5	199941.5
243	129233.1	26277.66	93902.02	174539.5
269	48147.67	20178.19	32039.53	91566.61
271	110022.8	26592.33	75736.76	184039.2
272	119597	37381.96	67585.61	178960
273	74191.36	37444.95	41439.8	178960
289	55656.53	15323.73	39550.78	87785.72
291	105979.8	56443.97	63557.24	281536.7
292	89359.61	30787.86	59245.54	162048.6
293	68162.55	18488.16	53547.83	122931.2
341	166211.6	37769.47	116885.8	233245.5
359	86817.62	26855.88	56374.91	148461.3

Source: ASI data.

It is very evident from the above table that the wage rate has increased over the years. This is the nominal wage that we have taken into consideration, if we look at the real wage rate in the manufacturing sector.

MARKET CONCENTRATION AND EMPLOYMENT

The general theory behind market concentration and employment relationship from a Neo Marxist perspective can be put as – Markets concentrate because firms fight out other firms in the market, this is done by huge capital investment and mechanisation. With more machines and capital input, there is a scope to increase labour productivity. Labour productivity increase implies 1 man can do more than what 1 man could do earlier and this leads to a decrease in the number of workers demanded (Baran 1964). As Baran puts it, Competition in monopolies is in for technology and research. When monopolies face competition they have to either decrease price or increase output. When output is contracted it leads to lower level of employment, in other words it leads to decline in the growth rate of employment. In case of this study, we have found a growing concentration level in the market and also a growing employment.

HYPOTHESIS

Following the hypothesis given Lustgarten and Mendelowitz (1979) and Fedderke and Szalontai (2005) we take the hypothesis, just a change in the level of employment can be expressed as the rate of growth of workers, the question that arises is. What is happening to the rate of growth of workers when market is becoming increasingly competitive and when firms are exercising their monopoly over the labour supply?

The intention in this study is to see the relationship between the rate of employment growth and concentration in the Industry and also the relationship between the rate of employment growth and the degree of monopoly power in the industry.

H_0: Market concentration and monopoly power has a negative impact on rate of growth of workers

H_1: Market concentration and monopoly power does have a negative impact on rate of growth of workers

SIGNIFICANCE OF HYPOTHESES

The first hypothesis seeks to find the relationship between the level of competition in the market and employment growth. It will show whether a decrease[1] in the number of firms in the market is good for employment growth or not. Market concentration does not in any way imply the lack of competition in the market. In fact it can imply even more intense form of monopolistic competition.

The second hypothesis seeks to find the relationship between the employment growth rate and the degree of monopoly power exercised by the firms. Degree of monopoly power can be exercised by the firms in two major ways viz. Decreasing the output and increasing the price as shown by the Lerner's Index $(P - MC)/P = -1/e$. Firms faced with a situation of increasing elasticity of substitution can either increase prices or decrease its marginal cost[2], increasing the price is not a suitable option in monopolistic framework as discussed earlier hence firms tend to decrease their marginal cost by wage cuts or by firing. Thus it is important to see the how firms behave in cyclical fluctuations in demand by exercising their monopoly power over employment.

VARIABLES

The dependent variable here is the rate of growth of labour employment. The reason for choosing the rate of growth of employment and not employment in absolute sense is evident from the table1 above, there has been an increase in the number of workers in all the industries and it is bound to increase as well because of the number of firms in the industry which is increasing in absolute sense[3] and the size of the market. Important is to see the growth of employment in such a market structure. The dependent variable is GRW (Employment growth rate worker) The independent variables are the concentration Ratio CR4, Mark Up and Growth rate of non workers(GRNW). We have

EGR = f (CR4, Mark Up, GRNW)

CR4 as defined in the previous chapters is the same, squared sum of sales of top 4 industries divided by the total sales of the industry

Mark up = (Sales – Variable cost)/ Sales * weights.

$CR4_{jt} = \sum Msh_{it}$ (where i and t are firm and year)

$i \varepsilon C_4$

$Mark\ Up = Y_{it}\ - (RM_{it} - PF_{it} - SW_{it}) \div Yit$

RM – Raw material

PF- Power and Fuel

SW – Salaries and Wages

Y – Sales of firm

I is Industry and t is the time period.

EGR = present employment – last year employment divided by last year employment

EGR = $E_t - E_{t-1}/E_t$

The primary explanatory variable that is added to this panel regression is 'Employment growth rate of other employees', this explanatory variable captures the skill intensity, capital intensity aspect of the firm, which as discussed in the literature is a primary factor determining the number of labour to be hired or fired in a given period of time, the higher the growth rate of non workers the higher would be the growth rate of workers as is given by the correlation table.

DATA SOURCES AND MODEL

Panel regression is conducted; Dependent variable regressed upon the set of Independent variable after testing for correlation. Dependent variable Growth rate of workers GRW, and independent Variables Growth rate of non workers GRNW, Concentration Ratio CR4, Degree of monopoly index Mark Up.

Data sources are CMIE Prowess and ASI. CMIE provides Firm level data and ASI provides Industry level data. Firm level data from CMIE is aggregated to 3 Digit NIC codes 2004. Since the data is from 1999-2013, concordance according to 3 digit NIC codes[1] is done. Backward concordance from NIC 2008 to NIC 2004. NIC 1998 is similar to NIC 2004 hence no concordance required.

TABLE 4.7: DATA SOURCES AND UNITS

CMIE	ASI
CR4, Mark Up,	GRW, GRNW, AP
CR4 - %	GRW - %
Mark Up - %	GRNW -%

Source CMIE and ASI

All these variables are in percentages hence the absolute values that differ across the ASI and CMIE sample would not make a difference to our analysis also the fact that we have taken only those industries for the analysis wherein the data from CMIE is in +- 10-15% with the data of ASI[4]

1. Decrease in the number of firm here implies a decrease in the share of firms in the output of the industry. Firms with declining level of output will have a lower demand for labour.

2. Variable cost is also used in the lerner's index instead of Marginal cost to derive the Mark up Index (Calciago and Rossi 2002)

3. See Philips curve, Inflation and Unemployment Relationship. Wage and Employment theory J,Keyne's 1936

4. See chapter 1, data sources and methodology for proportionality of CMIE and AS.

Model

We have the dependent variable from ASI dataset that is GRW and one independent vaiable GRNW. The other three independent variables are from CMIE.

GRW = f(GRNW, CR4, Mark Up)

We have the ASI data on growth rate of workers and growth rate of other employess calculated as

GRW = (Number of workers$_t$ – Number of workers$_{t-1}$)/ Number of workers$_{t-1}$

GRNW = (Number of employees not workers$_t$ –Number of employees not workers$_{t-1}$)/ Number of employees not workers$_{t-1}$

This study is based on data for 14 years 1999-2012 due to data insufficiency issues of ASI, ASI data is unavailable for GRW, GRNW for 2013.

RANDOM EFFECT MODEL

The original equation for the panel data model is given below. This equation can be estimated using Random effect model also:

$Y_{it} = \alpha + x_{it}\beta + v_i + \varepsilon_{it}$

However, in a random effects model, the individual specific effect is not fixed rather it is considered to be random i.e. it is drawn from a distribution. In this model, it is believed that the certain number of units is randomly selected from a larger population which can give an inference about the population. So here, v_i is considered to be random. There are certain assumptions that hold, such as

v_i and ε_{it} are independently and identically distributed with mean zero for both and variance σ^2_v and σ^2_ε respectively and v_i is independent of ε_{it}.

X_{it} are not correlated to v_i and ε_{it} for all i and t.

The specification of the random effects model is similar to the fixed effects model except for the stochastic nature of the unit specific error term, which makes it possible to infer about the larger population from the selected panel.

Further, with the help of Hausman test, it may be decided that which model is more appropriate (Fixed or Random) for capturing the impact of the variables on the dependent variable for the given data set.

In this case the Random effects model is used based on the

TABLE 4.8: HAUSMAN TEST FOR RE, FE, RATE OF GROWTH OF WORKERS AS DEPENDENT VARIABLE

	(b) fixed	(B) random	(b-B) Difference	S.E.
growthrat~es	-.6138683	-.6166435	.0027752	.0173428
cr4	.6813798	.5141526	.1672272	.7679148
markup	-.8840898	.2981613	-1.182251	1.161285

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg Test: Ho: difference in coefficients not systematic. Prob>chi2 = 0.7886 (hence random effects)

RESULTS

We run a Random effects model with GRW as Dependent variable. GRNW, CR4, Mark Up and. Th table below shows the relationship between the dependent and the independent variables.

TABLE 4.9: RESULTS OF PANEL REGRESSION, USING RANDOM EFFECTS MODEL

R-sq: within = 0.3604

between = 0.8934　　　　　　　　overall = 0.4582　　　　　　　　Wald chi2(4) = 166.70

corr(u_i, X) = 0 (assumed)　　　Prob > chi2 = 0.0000

growthrateofworkers	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
growthrateofother empl	0.6166435	.0492501	12.48	0.000	.5131719	.7201151
cr4	.654152	.28761	2.49	0.013	.1395526	1.16077
markup	(-).37489	.4184601	0.91	0.363	-.4320054	1.18832
_cons	(-).381124	.1914972	-2.12	0.034	-.734516	-.029207

INTERPRETATION

With respect to growth rate of workers the coefficient of the Concentration is positive and significant at 5% level of confidence. It implies that there is a positive relationship between the level of concentration and the growth rate of workers. A one unit change in the level of concentration would lead to a 0.65% change in the growth rate of workers, is a considerable figure given the rate of concentration in the economy. As concentration increases the growth rate of labour also increases at 2/3rd the rate. This result is in contradiction to the South African Study by Fedderke and Szalontai. They found a negative association between concentration and employment. This study is a little different in the sense we have found a positive association between the two variables, Hence we reject the null hypothesis and accept the alternative hypothesis.

When we look at the relationship between the growth rate of workers via a vis the growth rate of other workers, there is a positive relationship between these variables, with a strong value of coefficient β. The coefficient 0.61 suggests a strong positive relationship between the growth rate of workers and the growth rate of other employees. If the growth rate of other employees increases by 1% then the growth rate of workers increase by 0.61%. Although the same does not imply to all the industries, as there are industries 172, 243, where the association between the two variables is negative but the overall trend is that of a positive one as given by the correlation table above. The standard deviation value of 0.049 indicates a very low level of deviation between these two variables across all industry groups. The 'z' value is 12.48 implying a strong symmetrical relationship

Mark up has turned out to be insignificant for this analysis implying the relationship of degree of monopoly power with the GRW as undetermined. The reason for this lies in the formulation of the Price cost index which does not have to do anything with the level of employment. Although price cost index has a direct impact upon the level of wages it seems to have no impact on the level of employment. As in chapter 3 we saw a negative impact of the degree of monopoly power on the wage rate, the coefficient β is small hence it is understandable for the Mark Up to have no significant impact on the employment growth. The sign of the coefficient is negative indicating a negative relationship between the degree of monopoly power asserted and employment for workers

The model is a good fit when we look at the R-squared value 0.36 which is a considerable value as explained in chapter 3. The deviation from of GRW with respect to the concentration level is significant at 26% which implies the relationship between CR4 and EGR differs substantially across industry groups. The deviation of GRW and GRNW is very small at 5% implying the across industry group deviation is low for these variable.

5. CONCLUSION

Employment in the manufacturing sector has been stable and so is the contribution of manufacturing to GDP. It is evident that the concentration level in the manufacturing is on the rise and hence the results of the study seem logical and supportive to the performance of manufacturing sector in the recent past. This study finds concentration being positively related to the growth rate of workers leads us to the theory posited by Mendelowitz and Lustgarten (1979) where they found concentration as the after effect of competition to be positively related to output and employment. A new finding in this study is the positive relationship between the GRW and GRNW.

Labour productivity has increased in the manufacturing sector as indicated in chapter 3, hence the question of GRW and GRNW boils down to understanding the concept of labour. Labour adds value to the production process directly and so is required for the process of production whilst the non labour employees at the supervisory and lower executive level in manufacturing seems to be supporting the growth rate of workers in the sense of an expansion in the firm. It also implies firms the positive relationship between the economies of size and scope in the firm. With more non workers in the manufacturing firms more workers are required and with more concentration in the market more workers are required

To say that concentration reduces the growth of workers is not plausible in case of Indian Manufacturing sector based on the sample driven for analysis. In fact it can very well be said that fewer the number of players in the market for manufacturing output better it is from the workers point of view both in terms of employment and wage.

6. NOTES

1. Positive association between wages and concentration – Weiss (1966). Dalton and Ford (1977), Kwoka (1983), Heywood (1989). Negative relationship Pugel (1980) and Freeman and Medoff (1981)
2. See Industrial Economics, M.A Beg (2010) 5th edition page 43-52 Chapter 5. and R.R Barthwal (2002) 'Innovation and Patents' Page 123-14. 2.For Administered Price theory see Sweezy 'Kinked Demand' model (Economic theory and applications Schaum Series 8th edition)
3. Market for Wages also meaning the labour supply market for equilibrium wage rate.

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GST IN INDIA CHALLENGES AND PROSPECTUS

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ABSTRACT

Lok Sabha passing a historic bill no subsume all existing central and state taxes under a single goods and services tax with a Potential to reduce corruption and boost trade as on 6 May 2015. The dual GST proposed to be introduced is expected to expand the tax. Bases and simplify and harmonies the conception tax system presently levied at both central VAT lived at present has a narrow base and multiple rates. It is levied on gods at the production stage, and value added in subsequent stages is not included in the base. In the proposed central GST the base will be expanded by merging the service tax with the cenvat, extended to wholesale and retail levels and simplified to have only one or two rates. The important gains from the GST reform are that it is expected to broaden the tax, base reduce distortions in the economy through a more.

KEYWORDS
GST, VAT.

INTRODUCTION TO GST REFORMS IN INDIA

While the desirability of the reform is not in doubt making a transition to GST involves not only considerable work but also formidable challenges, unlike in many other countries. Where GST is a centralized tax, in India it is leviable by both central and state governments, according to the proposals. This implies that both the structure and administration of the of the levy will have to emerge after detailed negotiations and barging between the centre, 29 states and the two union territories with legislatures.

HOW GST PROVED TO BE HELPFUL FOR INDIAN ECONOMY?

There will be very beneficial aspects will be seen by applied or implemented GST in India by the following ways:-

1. **Simpler tax structure:-** As multiple taxes on a product or service are eliminated and a single tax comes into place, the tax structure is expected to be much simpler and easier to understand paperwork will become simpler and there will be a reduction in accounting complexities for businesses. A simple taxation regime can make the manufacturing sector more competitive and save both money and time experts opine that the implementation of GST would push up GDP by 1% to 2%.
2. **Increased tax revenues:-** A simpler tax structure can bring about greater compliance, thus increasing the number of tax payers and in turn tax revenues for the government. The current state of the Indian economy demands fiscal deficit. A recent reports by CRISIL states that GST is the best country's bet to achieve fiscal consolidation.
3. **Competitive pricing:-** GST will eliminate all other firms of indirect taxing. This will effectively mean that the tax paid by the final consumer will come down in most cases. Lower prices will help in boosting consumption, which is again beneficial to companies. The biggest positive of GST is that goods and services will be taxed on a common basis.
4. **Boost to exports:-** when the cost of production falls in the domestic market, Indian goods and services will be more price competitive in foreign markets. This can be well for exporters, who complete with manufactures abroad facing a lower cost structure.

CRISIL INSIGHT REGARDING GST REFOCUSES REPORT

India's fiscal deficit has however over 4.5% of GDP in the last 3 years a glaring deviation from the target of 3% envisioned in the fiscal responsibility and budget management act failing revenues in the post crisis years have made it harder for the government to lower fiscal deficit despite restraining expenditure.
Source:- RBI, CSO CRISIL RESEARCH FISCAL DEFICIT NAGGING HEADACHE
DECLINING REVENUES MUST BE REVERSED

Revenues (as 9% of GDP)

Revenues (as 9% of GDP)

2005-06 to 2007-08	2008-09 to 2010-11	2011-12 to 2013-14
13.9	15.6	14.1
13.9	13.9	13.9

SOURCE: BUDGET DOCUMENTS (CRISIL RESEARCH)
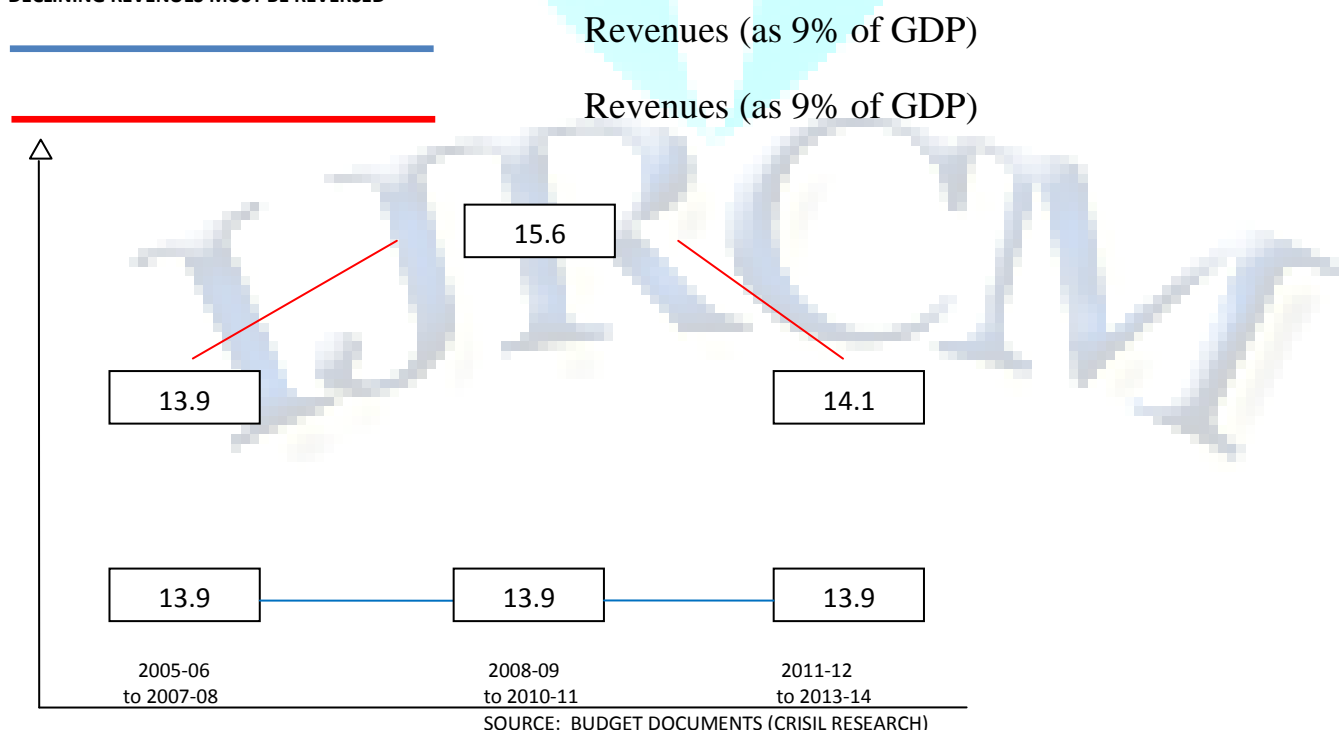
HOW GST CAN HELP?

The Impact of GST on tax collections will be two fold.

First, GST will lift GDP growth and increase the tax revenues, by eliminating the cascading effect of multiple central and states taxes. GST will help reduce taxation and filling costs and boost business profitability in turn attracting investments and filling GDP growth.

WHAT ARE VARIOUS PROBLEMS THAT GOVERNMENT FACE?

Not just yet fiscal deficit to stay high this year. A full scale implementation of GST as early as this year is unlikely, in addition any boost to tax collections from an increase in tax rates or even a one time tax surcharge like last fiscal, would not be not recommended as it could heart an already forgive recovery under these circumstances. The immediate upside to growth in tax revenues in fiscal 2015 will be limited.

Given these limitation, the government will have to rely on raising higher non-tax revenues and disinvestments as compared to last fiscal even after factoring these in we forecast fiscal deficit to stay high at 4.3% of GDP in fiscal 2015

A PARTIAL GST IN MOST LIKELY

TABLE 1: BASE CASE FORECAST WITH A PARTIAL GST BY 2015

	2013-14 Actual	2014-15 F Base case	2015-16 F Base case	2016-17 F Base case
GDP growth revenue	4.7	6.0	6.3	6.5
	9.3	9.4	9.7	10.1
(as a % of GDP)				
Expenditure (as a % of GDP)	13.8	13.7	13.5	13.4
Fiscal deficit (as a % of GDP)	4.5	4.3	3.8	3.3
Revenue deficit (as a % of GDP)	3.2	2.9	1.9	0.9

Our base-case forecast is based on the following assumptions:-

1.   Implementation of a partial GST to begin by the beginning of 2015
2.   Continued recovery in GDP growth to average 6.4% over the next two year (fiscals 2016-2017)
3.   Efforts by the new government to improve tax compliance and widen coverage.
4.   Disinvestments and non-tax revenues to remain consistent with fast 5 years trends.

WITH AND WITHOUT GST IN NEXT TWO YEARS

TABLE 2

2015-16 to 2016-17	Average GDP growth (%)	Average tax buoyancy	Average fiscal deficit (% of GDP)
Full GST	7.0	1.6	3.0-3.3
Base case partial GST	6.4	1.4	3.5-3.6
No GST	5.7	1.0	4.0-4.2
Impact of GST	1.3	0.6	0.7-1.2

CONCLUSION

The taxation of goods and services in India has, higher to been characterized as a cascading and distortionary tax or production resulting in mis-allocation of resources and lower productivity and economic growth it also inhibits voluntary compliance it is well recognized that this problem can be effectively addressed by shifting the tax burden from production and trade to final consumption.

A flawless GST in the context of the federal structure which would optimize efficiency equity and effectiveness.

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WEBSITES
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4.   www.livemint.com

CHANGES IN CONSUMER PREFERENCES

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ABSTRACT

"Catching hold of the pulse of the consumer's taste" is the mantra which every industry follows to be successful in today's market. As consumer behaviour is a complex, dynamic, multidimensional process, and all marketing decisions are based on assumptions about consumer behaviour. Consumer preference is a variable factor which has been changing since trading system had been introduced in the human society. Historically, Industrial revolution was the first milestone in the history of mankind, which helped the consumers to get a competitive market (i.e. varieties of products and services at cheaper rates). Since then, the world has progressed a lot in terms of modernisation, due to the world adopting the principles of Globalisation, Privatisation and Liberalisation. It helped the industries to grow, innovate and compete in the world market, which made the products and services far more efficient and cheaper. Presently, Study of Consumer preference has become one of the main pillars of the marketing strategy for any industry thriving in any country or region.

KEYWORDS

Consumer preferences, marketing strategy, modernisation, variable factor.

INTRODUCTION

In Indian context, the change in consumer preference has been influenced from norms, religion, region, westernisation and socio-cultural factors. The increase in income levels, priority given toward education, and rapid industrialisation coupled with liberalisation policies pursued relentlessly by the Indian government has transformed the Indian economy. The Indian consumer today wants to lead a life full of luxury and comfort and for that he/she does not mind paying extra (for better facilities and ambience). Westernisation has become a catalyst in bringing a change in the mindset of Indian consumers. The Indian consumer has come a long way from Khadi to printed garments, from Chole-Bhature and Chole-Kulche to Burgers and Pizza, from clothes sewed from tailor to branded brands, etc. These changes are a part of the Indian society and industries will have to keep a vigil eye to capture these changes to make it profitable for them.

Shopping Malls have recently replaced the conventional markets (i.e. agglomeration of stores) in popularity because a mall provides diversity, arousal and propensity to shop, entertainment, a place to dine, refreshing and relaxing environment (due to centralised air-conditioning system) under one roof. Consumers are also being motivated by various promotions and discounts offered by malls or specific brands. Shopping mall is an agglomeration of branded products (i.e. Lifestyle, Diesel, Shopper Stop, L' Oreal, Lakme, Pantaloons, Domino's, Peter England, KFC, Mc Donalds, etc.) which enables the consumers to express their self-identity, status and aspirations. Shopping mall is quickly attaining the heights of popularity in the Indian markets, so much that it may be considered a culture i.e. Mall Culture. In the near future, it is possible that malls will totally replace the conventional stores in metropolitan or big cities.

OBJECTIVES OF THE RESEACH PAPER

1. To understand how consumers' preference changes.
2. To know about the factors which affect the behaviour of consumers.
3. To know about the impact of changes in consumer preferences on production and marketing of products or services.

RESEARCH METHODOLOGY

This research paper is based on secondary data and the information is collected through internet, books, and newspaper.

CONSUMER PREFERENCES

It basically means to choose an option amongst all the alternatives available in the market by the consumer to give maximum satisfaction to his/her wants or needs. The choice or the preference that the consumer shows towards a particular product is due to his nature that he/she exposes during search, purchase and dispose of the products. Consumer preference emerges from consumers' satisfaction from the past product he/she consumed. Customers' satisfaction is achieved when actual performance of the products or services exceeds customers' perceived desire. The more the gap between the actual and perceived performance, the more the satisfaction will be and more the customer will prefer that product or service. Consumption pattern of Indian consumers has been undergoing a drastic transformation over the years due several factors such as improvement in economic conditions, urbanisation, education, international media etc. For example, it is observed that in urban cities, there is a decline in the demand for scooters due to change in the lifestyle. Consumer shopping bag has also undergone a gradual change over these years as in 1999, the proportion of expenditure consisted of grocery (44%), savings and investment(14%), eating out (8%), personal care items(6%), clothing (5%), books and music(5%), and remaining for home appliances, movies and theatre, footwear and home textiles. In 2003, grocery (41.1%), savings and investments (4.1%), eating out (10.8%), personal care items (7.6%), clothing (6.9%), books and music (7.6%). From this, it is concluded that the philosophy of "earn now and spend later" is being changed to "earn now and spend now".

Another case is of Lingerie market, where the marketers have followed the changes in consumer perception and come out with their innovative to satisfy customers' demand. The lingerie market has seen significant growth in India in 2012 and it is worth Rs 17,470 crores. This, itself shows the popularity of global dressing and style, and it is anticipated to evolve by a massive 54% by 2017. In the past few months, lingerie sales has jumped by a third as the consumers persist to search for different more innovative choices like everyday normal underwear, innovative lingerie solutions, shape-wear or attractive silk and pieces. This increasing appeal is the prime reason, for which India was the first chosen option to launch brand new Marks & Spencer's Beauty department & Lingerie at Bandra, Mumbai store.

In present context, 'Time' is a constraint, due to the hectic lifestyle of consumers mainly because of work schedule and family responsibilities. Hence, consumers are going for options which are time saving, efficient and handy like e-commerce. Internet is becoming a part and parcel of everyday activity for an individual.

Internet is a vast and diverse field providing a consumer with information, feedback, products and services. Online sites like Amazon, Flipkart, Snapdeal, Myntra, etc. has revolutionised the marketing experience. Due to technological advancement, consumers have the option to pay online through ATM card, credit card and internet banking facility. Now, the consumers are not needed to visit any shop, stores, malls, etc. but can leisurely choose and order varieties of products and services from online sites. Internet has become a platform for the companies to advertise, sell and take feedback for their products and services so as to compete in the market with cut throat competition. Consumers are the main critics of the products and services provided by any company and internet is providing them a platform in the form of social networking sites like Facebook, twitter, etc. to express their feedbacks that may be positive or negative. Critical analysis are becoming such an important element in determining the popularity of a product and service given by any industry, that it is forcing the industries to regularly check, inspect and make the necessary changes according to the feedbacks given by the critics, as negative feedback can result in huge losses or in worst case scenario closure of the business. The technological advancement has already made shopping or availing of services as easier as a click on the mouse or a touch on your smart-phone, as advancement is a nature of human society and it is more correct in respect for technology, hence it would be correct to assume that more novel ways will be available to consumers in respect to shop or avail services and more challenges for industries to tackle the changes in the pattern of consumer preference.

Organisations now have to adapt quickly according to dynamic consumer preference to survive in the global market. There are many brands which are compelled to shut down their business and are out of the market because of its failure to adapt the changes. For example, in 2014, it was mandatory to shut down meat processing facility in Minnesota by the U.S. Department of Agriculture against the makers of vitamin supplement. Shifting dynamics in consumer preferences in U.S. is noticed gradually due to increased amount of natural food line extension products, such as Whole Foods and Trader Joe's.

There is no doubt that the marketers require to adapt themselves to change in consumer preferences, but simultaneously they also need to assess whether the product (according to the consumer preference) is qualitatively acceptable and safe for the consumers or not, because ultimately the priorities in consumers mind is their "health". Nowadays, consumers are knowledgeable and well equipped to understand which product is good for their health and consumption of which product can deteriorate their health. There are numerous NGO's who are repeatedly running health awareness and life style programmes in order to spread awareness. Going out and eating is not the only purpose of the consumer but they are also concerned whether the product has any negative impact on their health, because there are many diseases which are life style oriented rather than genetic or acquired. So the marketers now have to compete not only the basis of consumers preference but also whether the quality is maintained or not, for e.g.; the recent Maggi controversy was an eye opener for the world. Nobody was ever concerned about the high level of lead that was present in the famous snack dangerously above the prescribed limits. Consumption of metallic lead by any means through any source can raise the blood lead levels and can be fatal. Ingestion of lead-contained food items is also dangerous. On May 2015, Indian Food Regulators form Uttar Pradesh exposed that Maggi noodles contained 17 times higher percentage of lead , which is way beyond the permissible limits. As a result of which in June 2015, Government of New Delhi banned the sale of 2-minute Maggi in all-over Delhi stores for 15 days. FDA of the Gujrat banned the sale of Maggi for 30 days all-over Gujarat after 27 out of 39 failed the test, and objectionable levels of metallic lead, among other harmful substances. Retail giants like Future Group's, Big Bazar, Niligris, and Big Bazar have put a ban on nationwide on the sale of Maggi. Many other states have followed the same.

The famous Coca-Cola controversy raised many fingers at the working style of these soft-drinks giants. Coca-Cola controversy arose from different groups, touching array of issues including consumer preferences, consequences of consumption on health, and business practices. The Coca-Cola Company, its subsidiaries and various products have been the epicentre of continued criticism by both the buyer/consumer groups, health activists and the policy makers since the year 2000. There has been a connection been exposed between the regular long-term cola consumption and osteoporosis in older women (but not in men). This was then logically interpreted due to the presence of phosphoric acid, and it was found that the risk was same in regular consumption of caffeinated and non-caffeinated colas, and similarly for diet and sugared colas.

CONCLUSION

Business has to anticipate the changing trend and customer demands and then simultaneously be able to respond in a timely manner. However, anticipation is not possible with certainty. Thus if the business miscalculate either customers' buying habits or the market, sales may decline gradually and then organisation may be required to low down the price below the retail price to sell excess inventory which would have negative impact on business operating profit. Change is the norm governing our world principles from time memorial. As the saying says, "Survival of the fittest", the one who adapts and works incorporating the change will survive. Business' priority must be to create and maintain the trust factor in consumers' mind by providing safe and durable products. In this cut-throat competitive world, industries will have to follow this saying to survive and to make profit.

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THE ANTECEDENTS OF COGNITIVE–AFFECTIVE–CONATIVE MODEL OF RESTAURANT IMAGE

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ABSTRACT

The purpose of this study is to develop a conceptual framework which explores the relationship between the antecedents and the formation of restaurant image. Based on a literature review, the factors influence the formation of restaurant image include restaurant controllable service marketing mix factors, uncontrollable word of mouth and publicity, and customer's personal experience. To clarify the formation of restaurant image, this study attempts to incorporate the "image formation process" proposed by Gartner (1993) into the framework of restaurant image. Restaurant image is formed by cognitive, affective, and conative elements which are three separate hierarchical variables. The proposed framework provides a conceptual model to understand how restaurant image can be created and managed.

KEYWORDS
Restaurant Image, Service Marketing Mix, Cognitive–Affective–Conative Model.

1. INTRODUCTION

Restaurant image is the sum of emotional perceptions, ideas, or symbolic attitudes when customers associate to a restaurant (Ryu et al., 2012), and therefore restaurant image is an important factor that influences customer attitude, restaurant and product quality inferences, and customer intentions on a restaurant (Ryu et al., 2008; Chen & Tsai, 2007). A restaurant manager explores and creates a unique restaurant image that can help communicate the major advantages of the restaurant and position it in the target market. In this regard, restaurant image building is worth investigating for academics and practitioners.

Studies on restaurant image are few, and researchers apply the customer's perceptions of a store's image to evaluate restaurant image (Prendergast & Man, 2002; Ryu et al., 2008). Store image is "the way in which the store is defined in the shopper's mind, partly by its functional qualities and partly by an aura of psychological attributes" (Martineau, 1958:47). Therefore, store image comprises functional and psychological attributes (Martineau, 1958; Lindquist, 1974; Berman & Evans, 1995; Prendergast & Man, 2002; Ting & Chen, 2002), the customers use and organize these two attributes to form the store image; most studies evaluate store image either through the combination of these two attributes (Prendergast & Man, 2002; Ryu et al., 2012) or through functional attributes alone (Ryu et al., 2008; Theodoridis & Chatzipanagiotou, 2009). The functional attributes refer to the tangible features that can be assessed by the customers, such as physical environment and product of the store; the psychological attributes are related to the intangible and emotional dimensions that are revealed by feelings and attitudes towards the store (Zhang & Mao, 2012). Some authors consider factors such as product quality, store environment, and employee service and other factors as the components of store image functional attributes (Martineau, 1958; Lindquist, 1974; Berman & Evans, 1995; Prendergast & Man, 2002; Ting & Chen, 2002; Theodoridis & Chatzipanagiotou, 2009), but Baker et al. (1994) and Ryu et al. (2012) propose that these components are the antecedents of store/restaurant image. Because of the complex nature of the image, we find that there are different ways of exploring the antecedents and essence of store image. Despite store image is important for a restaurant, there has been little research focusing on the antecedents and essence of restaurant image. We therefore seek to fill this gap in this study. We extend and introduce the concept of brand image into the image drivers of a restaurant, because studies related to the antecedents and consequences of store or restaurant image are few (Ryu et al., 2012). Besides, we explore the essence or formation of restaurant image according to the concept of image formation proposed by Gartner (1993), cognitive, affective, and conative elements are the three separate hierarchical factors that form an image. Finally, we develop a conceptual framework to help manager understand how restaurant image can be created and managed.

2. LITERATURE REVIEW

2.1 FROM THE IMAGE CONCEPT TO THE RESTAURANT IMAGE

Image is customer's thoughts, feelings and past experiences with a service organization stored in customer's memory. The concept of image has been used in studies focusing on diverse service situations, such as retailing store (Thang & Tan, 2003), tourism destination (Agapito et al., 2013; Martin & Bosque, 2008), and restaurant (Prendergast & Man, 2002; Ryu et al., 2008).

In store image studies, Martineau (1958) firstly applies the image concept to research on store image and then defines store image as customers' evaluation of the integrative efforts of a retailer in terms of the retailer's integrated attributes, such as the physical environment of the store, the various processes that customers need to follow (waiting, paying, or carting), contact with employees, core efforts of the retailer (variety and quality of products), and pricing policy to determine customers' satisfaction with the store. Moreover, the following researchers claim that a customer-perceived store image should include both functional and psychological attributes (Martineau, 1958; Lindquist, 1974; Berman & Evans, 1995; Prendergast & Man, 2002; Ting & Chen, 2002). Functional attributes pertain to the product assortment, product quality of a store, the waiting time of customers to complete a purchase, store location, price, general service, and the services that employees offer. Psychological attributes encompass the feelings of warmth, friendliness, excitement, or interest created by a store (Prendergast & Man, 2002).

Related studies show that customers' perceptions of the functional attributes of store image are related to marketing mix or activities. For example, Beristain and Zorrilla (2011) view customers' evaluation of store attributes as the store image, and they consider store attributes to include intangible services and tangible dimensions, such as product quality and variety, price, and the physical facilities of the store. Jinfeng and Zhilong (2009) convince that store image is customers' perceived amalgam of different store attributes and that customers have different images for every retail store they encounter. Therefore, the dimensions of store image pertain to different store attributes, and store image is customers' perceptions of the major marketing mix or activities of the store such as perceived price, convenience, institutional factors, physical facilities, and employee services as the individual dimensions of store image. Although evaluating store image should include functional and psychological attributes, most researchers only use customer evaluation or perceptions of functional attributes as the store image dimensions, and customers' perceptions of the functional attributes of a store are associated with the perceptions of store marketing mix or activities.

To further research restaurant image, Prendergast and Man (2002) present 11 functional attributes in the fast food industry: food assortment, food taste, food price, store location, advertisements and sales promotions, employee service, store environment, waiting time to be seated, waiting time for food to be served, friends' recommendations, and store reputation. The authors also present eight psychological attributes of fast food restaurant image: happy, satisfied, pleased, hopeful, free, excited, rare, and un-crowded. However, researchers usually focus more on the functional attributes of restaurant image, such as Ryu et al. (2008) who have evaluated quick-casual restaurant image only according to customers' perceptions of the functional attributes of the restaurant, which are the

restaurant location, waiting time for food to be served, decoration and interior design, food quality, menu variety, and restaurant cleanliness. In conclusion, restaurant image includes both functional and psychological attributes, and perceptions of functional attributes are related to customers' evaluation of the marketing mix or activities in the restaurant service industry.

Image concept is also applied in studies on tourism destination; destination image is the sum of people's beliefs, ideas, and impressions about a place or tourism destination (Baloglu & Brinberg, 1997). Gartner (1993) proposes the concept of image formation in his study, where he argues that tourism destination image is formed by cognitive, affective, and conative elements, which are separate hierarchical variables. Cognitive evaluation pertains to an individual's knowledge and beliefs toward the features of an object, affective appraisals refer to an individual's feelings about an object, and cognitive image is the antecedent of affective image (Beerli & Martin, 2004a, 2004b; Martin & Bosque, 2008). As the outcome variable of image, the conative element represents the actions and behavior (e.g., loyalty) of an individual with the use of information from the cognitive and affective evaluation stages (Gartner, 1993). An object could be a tourism destination, a product, a brand, or a store/restaurant. Comparing the functional attributes of store image with cognitive image and psychological attributes of store image with affective image, because functional attributes pertain to the tangible features of the store that can be evaluated by the customers; the psychological attributes refer to the intangible and emotional dimensions that are revealed by feelings and attitudes towards the store (Zhang & Mao, 2012). Therefore, this study concludes that the perceptions of the functional attributes of store/restaurant image are equal to the cognitive image in Gartner's image formation process, whereas the perceptions of psychological attributes refer to the affective image. Finally, conative variables, such as loyalty, result from the image formation process.

To clarify the complexity of image, researchers claim that image dimensions can be studied separately (Kim & Yoon, 2003; Agapito et al., 2013). Scholars claim that three dimensions help form an integrative image that is viewed to be superior to the sum of the parts of an image and that customers employ a three dimensional image to simplify decision making (Baloglu & McCleary, 1999; Beerli & Martin, 2004a, 2004b; Agapito et al., 2013). Therefore, this study proposes the restaurant image model formed by three distinct and hierarchically interrelated dimensions. For cognitive image, we find in previous studies on store or restaurant image that customers consider the functional attributes or features of a store or a restaurant as their perceptions of the marketing mix or activities of the store or restaurant. Jinfeng and Zhilong (2009) also regard that the store image dimensions of different store attributes or characteristics are customers' perceptions of the marketing activities of the store. Basing on the aforementioned discussion, we propose that the cognitive image of a restaurant is an individual's beliefs and knowledge of restaurant attributes as customers' perceptions of the marketing mix of the restaurant. Furthermore, we propose that affective image is an individual's feelings about a restaurant and that the conative dimension is an individual's actual actions or intentions to patronize and recommend a restaurant or communicate a positive WOM about the restaurant to others.

2.2 FACTORS THAT INFLUENCE THE FORMATION OF RESTAURANT IMAGE

What are the influential factors of restaurant image? Because few studies are relevant to the antecedents and consequences of store or restaurant image (Ryu et al., 2012), this study extends and introduces the concept of brand image into restaurant image to determine the factors that drive restaurant image formation. Brand image is ''a set of brand association that are anything linked in memory to a brand, usually in some meaningful way'' (Aaker, 1991:109) and can be defined as a set of beliefs held related to a particular brand (Kotler & Armstrong, 1996). In the service context, the company name is considered the brand name (Berry, 2000), such as Hilton and TGI Friday's; therefore, the restaurant image is the restaurant brand image. Some previous studies explored the factors that influence brand image. Keller (1993) has proposed that the marketing activities of a company can influence brand image. Al-Dmour et al. (2013) have explored the relationship of service marketing mix elements and customer-based brand equity, and they examined how the service marketing mix can influence brand image. Berry (2000) addresses a service-branding model in which the controllable and uncontrollable communication factors of a company, along with customer experience, can affect customers' service brand awareness and brand meaning (i.e., brand image). Among the three antecedents of brand awareness and brand image, experience with the service provider is the primary influential factor for customers. Controllable communication factors include advertising, service facilities, and appearance of service providers which refer to service marketing mix, whereas uncontrollable communication factors include WOM and publicity (Berry, 2000). In the framework of spectator-based brand equity proposed by Ross (2006), the author uses Berry's (2000) service-branding model and goes one step further to present the controllable communication factors directly managed by an organization. These controlled variables are the service marketing mix (7Ps), which contributes to customer brand association (i.e., brand image). The uncontrollable factors that are not offered by an organization itself include customers' WOM and media publicity, which could develop brand image; customer experience can influence the brand image held by customers (Ross, 2006). However, customers who have experiences in a store or restaurant may form perceptions about it that may differ from the perceptions of customers who are exposed to store information through friends and relatives or to the promotional activities of the store, such as advertisements, publicity, and TV programs. Berry (2000) and Beerli and Martin (2004b) state that image formation becomes more realistic, complex, and different after individuals actually visit the place than if the image is formed through other people or a place promotion mix which serve as informational sources.

Basing on these previous studies, we conclude that service marketing mix, WOM and publicity, and actual customer experience are the influential factors of brand image. Therefore, this study proposes that the controllable factors (service marketing mix), uncontrollable factors (WOM and publicity), and personal factors (actual customer experience) of a restaurant are all essential in forming a restaurant image.

3. PROPOSED FRAMEWORK

Figure 1 shows the proposed conceptual framework for restaurant image in this study. This framework presents the controllable service marketing mix of a restaurant, uncontrollable WOM and publicity, and personal experience as the factors that contribute to the creation of a restaurant image. The restaurant image here comprises the hierarchical cognitive–affective–conative model.

3.1 ANTECEDENTS OF RESTAURANT IMAGE

Store image refers to customers evaluate the offer of a retailer in their minds (Martineau, 1958; Theodoridis & Chatzipanagiotou, 2009). An organization directly offers and produces service marketing mix, so these elements are controllable through the management and can directly influence customers (Ross, 2006). In the service context, marketing mix is defined as "the controllable variables that an organization can coordinate to satisfy its target market" (Bitner, 1990). The service marketing mix differs from the traditional tangible goods marketing mix, which includes the service participants, the physical environment, and the service process in the traditional marketing mix elements of product, price, place and promotion. The marketing activities of a company can influence brand image (Keller, 1993; Berry, 2000; Al-Dmour et al., 2013), and the service provider or the service company is considered the major brand; therefore, the company image is referred to as the brand image of the company. Moreover, according to the perspective involving brand identity and brand image (Qu et al., 2011), the sender (i.e., company marketer) creates brand identity through all the features and activities that distinguish the store from other competitors, whereas the store image is formed and stored in the mind of the receiver (i.e., a customer). Specifically, store image is created in the minds of customers on the basis of the brand identity established by the marketers of the store. Therefore, a restaurant objectively implements service marketing activities to create a brand identity that contributes to the restaurant image evaluated by customers, that is, customers develop images about a restaurant from the service marketing mix offered by the restaurant. More service marketing activities implemented by the restaurant would drive customers to develop stronger restaurant image.

Uncontrollable factor is the source that offers the customers information about a brand or a store, and the factor is not controlled and paid for by the company. Uncontrollable factor is similar to Berry's (2000) external brand communication, which includes WOM communication and publicity (Berry, 2000; Ross, 2006). These two communication tools are related to both positive and negative perceptions and information, so they are a double-edged sword. Favorable and unfavorable WOM and publicity both influence brand evaluation and purchase probability. WOM communication and publicity belong to referral marketing and convey information about a brand or a store. WOM communication and publicity are not perceived as marketing activities of a company, so these two are considered reliable. WOM most often comes from the close relatives or friends of the receivers of information. Publicity is the presentation of a report or article through television programs, magazines, or newspapers, which can persuade the receivers of the information. We believe that WOM communication and publicity influence customers in developing a brand image (Berry, 2000; Ross, 2006; So & King, 2010) or restaurant image, that is, the restaurant with high level of WOM communication and publicity would facilitate customers to evaluate the restaurant image.

Previous experience is "the actual service experience encountered by the customer" (Ross, 2006); customer experience results from customers' interaction with the product, physical evidence of the retailer's store, the service provider and so on. In restaurant setting, customers interact with the marketing efforts of a restaurant to form a consumption experience. Balaji (2011) states that "brand image formation is a subjective learning process and is the result of past total experience." And some authors discuss the relationship between customer experience and image, such as Cobb–Walgren et al. (1995) who suggest that customer perceptions of a brand result from various information sources, including objective and subjective sources. Objective sources include consumer reports, which are a form of publicity, whereas subjective sources are based on advertising or personal experiences. Romaniuk and Sharp (2003) also state that consumer experience is one of the ways through which brand image is produced. However, an image formed through customer experiences may differ from that formed through WOM, publicity, and advertisement because the former forms a primary image, whereas the latter forms a secondary image (Beerli & Martin, 2004b). In the tourism destination context, customer experience is related to the familiarity acquired from the number of visits to a place or the extent of customer contacts with a place. A tourist who is less familiar with a destination perceives images that are associated with attributes, functional, and common features, whereas someone who is much familiar with the destination perceives images that are holistic, psychological, and unique (Echtner & Ritchie, 1993; Beerli & Martin, 2004b). Therefore, the concept of familiarity can be introduced to store/restaurant image. In this study, customer experience is the degree of familiarity and the number of patronages of a customer or the extent of customer contact with a restaurant during the consumption process. Customers' cumulative consumption experiences are likely to influence their own perceptions of the restaurant image (Ryu et al., 2012), including cognitive and affective images. Repeated exposure to a restaurant will raise consumption experiences with the restaurant and therefore increase the ability of the customer to develop the cognitive or affective image toward the restaurant.

3.2 THE COGNITIVE–AFFECTIVE–CONATIVE MODEL OF RESTAURANT IMAGE

Customers reasonably and emotionally interpret an object to form a store image; the outcomes are two components, the cognitive image of the functional perception or cognitive evaluation of the object and the affective image of the affective appraisal of the object (Gartner, 1993; Beerli & Martin, 2004a).

The cognitive image is customers' personal knowledge and beliefs toward an object (Beerli & Martin, 2004a), which could be a company, brand, or product. Based on the cognitive perspective, the store image is the evaluation of customers of a set of attributes of store resources or attractions. In a restaurant setting, these attractions include the food, the physical environment, the service employees, and the memorable experiences that correspond to the service marketing mix elements. The customer cognitive image thus results from the evaluative response of individuals to the service marketing mix elements of restaurant objective implementation. These attributes or service marketing mix elements are subjectively organized, perceived, and evaluated by customers. Besides, WOM, publicity, and customer experience are the information resources that comprise customers' subjective knowledge of a restaurant. Controllable marketing mix, uncontrollable WOM and publicity, and personal experience with a restaurant therefore influence customers' subjective cognitive image. The cognitive image refers to individuals' beliefs and knowledge about the attributes of a restaurant, and these functional attributes are the 7Ps.

The affective image is customers' feelings toward an object, these feelings result from their interaction with the business, brand, or product, as well as from their information processing of the attribute indicators of image formation (Zhang & Mao, 2012). The marketing activities of restaurant implementation which customers receive are related to these customers' contact with the business. Therefore, we consider that the 7Ps influence the affective image. In addition, the customer information processing of the functional indicators of an image influences the feelings of customers toward the company. We propose that the cognitive image influences the affective image because the literatures also present cognitive components as antecedents of affective components (Baloglu, 1999; Baloglu & McCleary, 1999; Beerli & Martin, 2004, 2004b; Zhang & Mao, 2012; Agapito et al., 2013), that is, affective evaluation is a function of the cognitive evaluation of objects. Moreover, people's interpretation of information can generate an emotional situation and not the information itself (Kim & Richardson, 2003). Information sources include the consumption experience, WOM communication as well as publicity. Zhang and Mao (2012) claim that customers' feelings toward a business result from many experiences. Grace and O'Cass (2004) have also found that consumption experience significantly impacts the aroused feelings. In the study of Chew and Jahari (2014) on destination image, the authors present that previous travel experience, length of stay, and amount of information are the factors that influence both cognitive and affective images. Therefore, we propose that consumption experience, WOM as well as publicity influence the affective image. The affective image is the feelings that individuals associate with the restaurant.

Conative is the last image formation process and it is viewed as loyalty (Cai et al., 2004; Agapito et al., 2013). Because store image influences customers' store preference and patronage times (Thang & Tan, 2003) and it is related to store loyalty and customers' patronage behavior (Lessif, 1973; Jinfenf & Zhilong, 2009). Conative is an action stage that pertains to individuals' practical conduct or intention to re-patronize, as well as their willingness to recommend or spread positive WOM to others about the restaurant. According to the cognitive–affective–conative conceptualization of image formation proposed by Gartner (1993), as well as the effect of cognitive and affective images on the conative construct, as examined by Agapito et al. (2013), we infer that the cognitive and the affective image of restaurant influence the conative construct and conative is customer loyalty.

This study separately investigates the three hierarchical constructs of restaurant image to help academics and practitioners understand well the complicated process of image formation, which is considered more significant than the integration of a part of an image (Agapito et al., 2013). In addition, customers simplify their decision making through these three hierarchical elements (Baloglu & McCleary, 1999). The conceptual framework of restaurant image formation is presented in Figure 1:

FIG. 1: CONCEPTUAL FRAMEWORK
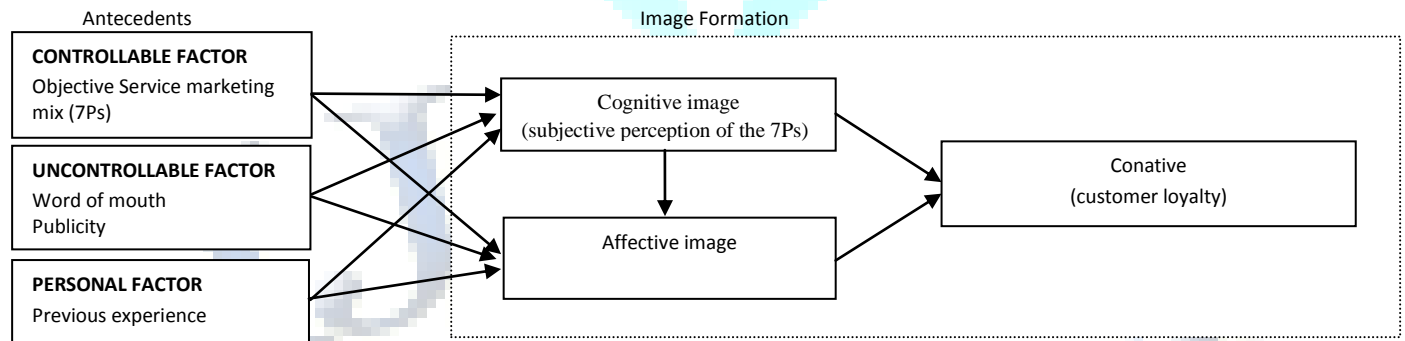
4. CONCLUSIONS, IMPLICATIONS AND FUTURE RESEARCH

This study contributes to the future research by linking the three hierarchical models of image formation and the antecedents of image to customers' decision making. The proposed framework provides a conceptual model to understand how restaurant image can be created and managed. This framework departs from traditional store image conceptualizations and claims that the development process of restaurant image separately includes cognitive and affective images. This process differs from evaluating restaurant image on the basis of cognitive images alone or the combination of both cognitive and affective images. The hierarchical process of image formation is an important and actual experience process for customers who evaluate restaurant image. Moreover, the framework proposes that restaurant controllable marketing mix factors (7Ps), uncontrollable WOM and publicity, and personal experience are the antecedents of restaurant image. These influential factors, cognitive and affective images all are vital in the formation of restaurant image and customer loyalty. The framework helps in understanding how managers can best manipulate marketing mix elements to create a restaurant image and influence customer loyalty. Although restaurants cannot absolutely manipulate WOM and publicity, as well as the extent of customer experience when customers visit a restaurant, these factors that influence restaurant image cannot be disregarded by managers.

The proposed restaurant image model can be used as a framework for structural models in examining the causal relationships among the constructs. By examining the relationships through structural models, restaurant managers can understand the direct and indirect effects of the service marketing mix, WOM and publicity, and personal experience on restaurant image. In addition, future research can explore restaurant cognitive or affective images in terms of which influence restaurant image formation and customer loyalty more.

Future research can also identify various levels of importance among service marketing mix elements, WOM and publicity, and personal experience that influence the development of restaurant image. This information can serve as a powerful decision-making tool for restaurant managers. For example, if a restaurant identifies the service marketing mix as the key factor that influence restaurant image, then restaurant resources can be focused on improving the service marketing mix. Similarly, if WOM and publicity are found to influence restaurant image considerably, then restaurants can cultivate loyal customers to deliver positive, relevant messages about the company. Restaurants can also provide electronic platforms (virtual communities or chat rooms) for customers to exchange experiences and restaurant perceptions, as well as maintain positive relationships with the media (TV shows, newspapers, or magazines) to communicate favorable comments. Examining the extent to which the proposed antecedents influence restaurant image can help managers effectively allocate company resources to these antecedents.

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CONSUMERS AWARENESS WITH REGARD TO ONLINE SHOPPING: A COMPARATIVE STUDY OF MYSURU (MYSORE) AND RAICHUR DISTRICTS

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ABSTRACT
In the recent years online shopping i.e., E-commerce is playing a very crucial role in the economy. Many people are attracted towards online shopping due to the attributes like price, time saving etc., how far this form of buying has caught the attention of consumers is a relevant question having important business implications. The main purpose of the study is to know the awareness of consumers about online shopping and to make a comparison between 2 districts i.e., Mysuru (Mysore) and Raichur. The general perception in Mysuru (Mysore) district is a comparatively developed region in Karnataka whereas Raichur is relatively underdeveloped. How far this is true with regard to online shopping is an interesting issue that needs to be examined in this E-commerce perspective. In order to carry out the study, a suitable questionnaire will be prepared and administrated to select consumers in both the districts. The data so collected will be tabulated; analysed and suitable inferences are drawn.

KEYWORDS
e-commerce, online shopping, developed region, under developed region.

INTRODUCTION
In recent years, internet usage has grown rapidly. Internet is considered as networking media, which is used to connect a number of computers. In the current world, internet is used for many transactions like purchasing, selling, banking; business etc., in the same way E-commerce has also occupied the large portion in the area of marketing. E-commerce is one of the innovations by internet. Especially, in the area of E-commerce, on-line shopping has grown tremendously in the recent years.

On-line shopping is one of the forms of E-commerce in which the consumers are able to purchase the goods and services through internet via different types of shopping websites. This process of buying through internet is called Business to Consumer (B2C) on-line shopping. Now a day's people choose this on-line shopping because of their busy schedule and its accessibility is easy and convenient to use. Its attributes like time saving, price comparison etc., are the main reasons for choosing online shopping.

The topic chosen for my research study is consumers awareness towards online shopping and to compare such awareness between two Districts of Karnataka i.e., between developed and underdeveloped area. The two districts chosen for the study are Mysuru (Mysore) and Raichur. I have chosen this topic because I found that it is very interesting and new because very hardly any such comparative study has been carried in this area, especially Raichur. As a person from this backward area, I noticed that people are less aware of online shopping due to lack of technology like internet, Wi-Fi, shopping centres etc. It is my desire to examine the veracity of my assumption through a case study.   Online shopping has widened its target of audience. In the backward area, the more youngsters and professionals are aware of online shopping. But now the trend is changing which will increase the awareness level in all the people of different occupations.

REVIEW OF LITERATURE
Sajid nazir wani and sheeba malik(2013) investigated the role of perceived risk and benefits influencing the consumers purchase decision process during online shopping in UK and India. The study revealed support for the significant relationship for both India and British consumers between perceived risk and benefits and attitude towards online shopping. Significant differences in perceived risk and benefits associated with internet shopping between India and British consumers were also observed. While Indian consumers perceived more risk than the British consumers the benefit of internet shopping perceived by Indians were found to be significantly less.

Dr. Pankaj Bijalwam, Anupam Sirswal (2013) investigated the growth of information technology in India, which has provided the multiple benefits to Indian consumers in which e-tailing is one of them. How e-tailing has satisfied the consumers in metro and non-metro towns. The study revealed that consumers living in small towns can have access to quality products at reasonable prices.

Cao shuyang and sun meng (2014) has made a comparative study between China and South Korea online shopping and the differences of online shopping's history, sales, gender distribution, payment term, collective buying between China and South Korea .

Mrs. S. Saranya (2014) has investigated on the present status of online shopping. The study revealed that measured variables like Payments can be made on Delivery (PMT), Defective or wrong products can be returned back or Exchanged in online shopping (DWR), Holiday Booking (HLB) and Internet Banking (INB) shows positive influence for measuring the consumers awareness to online shopping.

THEORETICAL BACKGROUND
E-COMMERCE
E-commerce which is also known as electronic commerce refers to on-line business to business transactions and online business to consumer transactions. It includes delivery of products and services digitally.
There are 3 forms in E-commerce:
- Business to consumers (B2C) E-commerce.
- Business to Business (B2B) E-commerce.
- Consumer to consumer (C2C) E-commerce.

MYSURU (MYSORE) DISTRICT (DEVELOPED AREA)

Mysuru (Mysore) district is a developed area and it gets its name from the city of Mysuru (Mysore) which is the headquarters of the district. There are many tourist places in Mysuru (Mysore) district which attracts visitors from faraway places. Mysuru (Mysore) has a huge labour force, migration of workers in the district was 25.67% in 1961, many industries have come up like agarbathi industries, beedi rolling industry, Mysore silk industry, and plywood industry etc., establishment of these industries shows the economic development in the district. According to the survey conducted in the district in May 1972 the study revealed that the main cause of backwardness in the district is due to lack of entrepreneurship and further proper steps were taken to improve the district.

RAICHUR DISTRICT (UNDERDEVELOPED AREA)

Raichur district is an underdeveloped area and now it is developing. Raichur is one of those districts which have been subject to scarcity conditions. Raichur is considered as agricultural district, majority of people livelihood is agriculture. There is less number of skilled labours and women of such group do not go out for work. The standard of living of people is also poor in the raichur district. Many people are illiterates and low income shows slower rate of economic growth. Increasing establishment of schools and colleges increases the literacy rate and many industrial developments are providing employment opportunities and at the same time unemployment is also increasing.

OBJECTIVES

1. To compare the awareness in consumers about online shopping between 2 districts.
2. To know the frequency of shopping in consumers.
3. To examine the attributes which are attracting the consumers towards online shopping.

METHODOLOGY

The following methodologies are used in the study:

AREA OF STUDY

The study on consumers awareness towards online shopping has been limited to the consumers located in Mysuru (Mysore) and Raichur districts.

SAMPLING TECHNIQUE

- Random sampling.
- Questionnaire.
- Sample size: 179
- Analysis: After collecting the questionnaire the analysis is done using various quantitative techniques like pie charts, etc.

PROFILE OF THE RESPONDENTS

Gender of respondents: The gender of respondents is divided in to 2 categories i.e. Male & Female.

The table showing the gender wise distribution sample respondents of Mysuru (Mysore) and Raichur districts.

TABLE 1

Particulars	Mysuru		Raichur	
	No. of Respondents	% of Respondents	No. of Respondents	% of Respondents
Male	43	49	24	26
Female	45	51	67	74
Total	88	100	91	100

The above table shows that:

- Out of 88 respondents in Mysuru district 49% of respondents are Male and 51% of Respondents are female.
- Out of 91 respondents in Raichur district 26% of respondents are male and 74% of respondents are female

INFERENCE

From the above table it can be inferred that majority of respondents are female in both the districts.

Age group (in years) of respondents: The Age of respondents is divided into following 4 categories:

- 20-30
- 31-40
- 41-50
- 50 and above

The table showing the Age wise distribution sample respondents of Mysuru and Raichur districts.

TABLE 2

Particulars	Mysuru		Raichur	
	No. of Respondents	% of Respondents	No. of Respondents	% of Respondents
20-30	56	64	72	79
31-40	12	14	11	12
41-50	13	15	7	8
50 and above	7	8	1	1
Total	88	100	91	100

The above table shows that:

- Out of 88 respondents in Mysuru district:
- ✓ 64% of respondents come under the age group of 20-30.
- ✓ 14% of respondents come under the age group of 31-40.
- ✓ 15% of respondents come under the age group of 41-50.
- ✓ 8% of respondents come under the age group of 50 and above.
- Out of 91 respondents in Raichur district:
- ✓ 79% of respondents come under the age group of 20-30.
- ✓ 12% of respondents come under the age group of 31-40.
- ✓ 8% of respondents come under the age group of 41-50.
- ✓ 1% of respondents come under the age group of 50 and above.

INFERENCE

From the above table it can be inferred that Majority of respondents comes under the age group of 20-30 and followed by others.

INCOME LEVEL OF RESPONDENTS: The Income level of respondents is divided into following 4 categories:

- Rs 3 lakhs & below
- Rs 3 lakhs-6 lakhs
- Rs 6 lakhs-10lakhs

- Rs 10lakh and above

The table showing the income wise distribution of sample respondents of Mysuru and Raichur districts.

TABLE 3

Particulars	Mysuru		Raichur	
	No. of Respondents	% of Respondents	No. of Respondents	% of Respondents
Rs 3 lakh & below	13	37	19	61
Rs 3 lakh-6 lakh	7	20	7	23
Rs 6 lakh-10lakh	10	29	2	6
Rs 10lakh and above	5	14	3	10
Total	35	100	31	100

The above table shows that:
- Out of 88 respondents in Mysuru district 35 respondents has income:
  - ✓ 37% of respondents have the income between Rs 3 lakh & below.
  - ✓ 20% of respondents have the income between Rs 3 lakh-6 lakh.
  - ✓ 29% of respondents have the income between Rs 6 lakh-10lakh.
  - ✓ 14% of respondents have the income between Rs 10lakh and above.
- Remaining 53 do not have income because they are students and housewives.
- Out of 91 respondents in Raichur district 31 respondents has income:
  - ✓ 61% of respondents have the income between Rs 3 lakh & below.
  - ✓ 23% of respondents have the income between Rs 3 lakh-6 lakhs.
  - ✓ 6% of respondents have the income between Rs 6 lakh-10lakhs.
    - ✓ 10% of respondents have the income between Rs 10lakh and above.
- Remaining 60 do not have income because they are students and housewive

INFERENCE

From the above table it can be inferred that Majority of respondents Have the income of Rs 3 lakh & below and followed by Rs 3 lakh-6 lakh.

EDUCATIONAL LEVEL OF RESPONDENTS: The educational level of respondents is divided in to 4 categories:
- Primary
- Secondary
- University and above
- No formal education

The table showing the Educational level of sample respondents of Mysuru and Raichur districts.

TABLE 4

Particulars	Mysuru		Raichur	
	No. of Respondents	% of Respondents	No. of Respondents	% of Respondents
Primary	2	2	3	3
Secondary	11	13	8	9
University and above	75	85	79	87
No formal education	0	0	1	1
Total	88	100	91	100

The above table shows that:
- Out of 88 respondents in Mysuru district:
  - ✓ 2% of respondents have primary level education.
  - ✓ 11% of respondents have secondary level education.
  - ✓ 75% of respondents have university level education.
- Out of 91 respondents in Raichur district:
  - ✓ 3% of respondents have primary level education.
  - ✓ 9% of respondents have secondary level education.
  - ✓ 87% of respondents have university level education.
  - ✓ 1% of respondents has no formal education

INFERENCE

From the above table it can be inferred that Majority of respondents have university level education. And less number of respondents has primary and secondary level of education.

OCCUPATION OF RESPONDENTS: The Occupation of respondents is divided into following 6 categories:
- Agriculture
- Business
- Professional
- Student
- Housewife
- Others

The table showing the Occupation of sample respondents of Mysuru and Raichur districts.

TABLE 5

Particulars	Mysuru		Raichur	
	No. of Respondents	% of Respondents	No. of Respondents	% of Respondents
Agriculture	2	2	5	6
Business	14	16	4	4
Professional	17	19	20	22
Student	47	54	55	60
Housewife	6	7	5	6
Others	2	2	2	2
Total	88	100	91	100

The above table shows that:
- Out of 88 respondents in Mysuru district:
  - ✓ 2% of respondents Occupation are Agriculture.
  - ✓ 16% of respondents Occupation are Business.
  - ✓ 19% of respondents Occupation are Professional.
  - ✓ 54% of respondents Occupation are Student.
  - ✓ 7% of respondents Occupation are Housewife.
  - ✓ 2% of respondents are employees.
- Out of 91 respondents in Raichur district:
  - ✓ 6% of respondents Occupation are Agriculture.
  - ✓ 4% of respondents Occupation are Business.
  - ✓ 22% of respondents Occupation are Professional.
  - ✓ 60% of respondents Occupation are Student.
  - ✓ 6% of respondents Occupation are Housewife.
  - ✓ 2% of respondents are employees.

INFERENCE

From the above table it can be inferred that Majority of respondents Occupation are students and then followed by professionals in both the districts.

ANALYSIS AND INTERPRETATION
RESPONDENTS FREQUENCY OF PURCHASING ONLINE

TABLE NO. 6

Particulars	Mysuru		Raichur	
	No. of Respondents	% of Respondents	No. of Respondents	% of Respondents
Frequently	23	26	9	10
Between 1 and 6 months	40	45	16	17
Once in a year	20	23	17	19
Never bought online	5	6	49	54
Total	88	100	91	100

The above table shows that:
- Out of 88 respondents in Mysuru district:
  - ✓ 26% of respondents frequency of purchasing online is frequently.
  - ✓ 45% of respondents frequency of purchasing online is Between 1 and 6 months.
  - ✓ 23% of respondents frequency of purchasing online is Once in a year.
  - ✓ 6% of respondents have never bought online.
- Out of 91 respondents in Raichur district:
  - ✓ 10% of respondents frequency of purchasing online is frequently.
  - ✓ 17% of respondents frequency of purchasing online is Between 1 and 6 months.
  - ✓ 19% of respondents frequency of purchasing online is Once in a year.
  - ✓ 54% of respondents have never bought online.

INFERENCE

From the above table it can be inferred that
- In Mysuru district except 6% of respondents remaining 94% of respondents Shop online and majority of the Respondents frequency of shopping is Between 1 and 6 months.
- In Raichur district 54% of Respondents has never bought online and only 46% of respondents shop online. Majority of respondents frequency of shopping is Once in a year and then followed by Between 1 and 6 months.

KIND OF PRODUCTS THAT RESPONDENTS PREFER TO BUY ONLINE

TABLE NO.7

Particulars	Mysuru		Raichur	
	No. of Respondents	% of Respondents	No. of Respondents	% of Respondents
Books	8	10	9	21
Electronic goods	35	42	15	36
Clothes	35	42	14	33
Others	5	6	4	10
Total	83	100	42	100

The above table shows that:
- Out of 88 respondents in Mysuru district 83 of them shop online in that:
- ✓ 10% of respondents prefer to buy books online.
- ✓ 42% of respondents prefer to buy Electronic goods in online.
- ✓ 42% of respondents prefer to buy Clothes online.
- ✓ 6% of respondents prefer to buy others like jewellery, kids ware etc.,
- Out of 91 respondents in Raichur district 42 respondents prefer online shopping:
- ✓ 21% of respondents prefer to buy books online
- ✓ 36% of respondents prefer to buy Electronic goods in online.
- ✓ 33% of respondents prefer to buy Clothes online.
- ✓ 10% of respondents prefer to buy others like jewellery, kids ware etc.,

INFERENCE

From the above table it can be inferred that
- In Mysuru district Majority of respondents prefer to buy clothes and electronic goods in online.
- In Raichur district Majority of respondents prefer to buy clothes and electronic goods in online.

RESPONDENTS REASON FOR CHOOSING ONLINE SHOPPING

TABLE NO. 8

Particulars	Mysuru		Raichur	
	No. of Respondents	% of Respondents	No. of Respondents	% of Respondents
Convenience, accessibility, and time saving	38	46	16	38
Not available in the local stores	10	12	7	17
Price comparison available	16	19	7	17
Wide variety of brand choices	19	23	12	28
Total	83	100	42	100

The above table shows that:
- Out of 88 respondents in Mysuru district 83 of them shop online in that:
  - ✓ 46% choose online shopping because it is Convenient, Easily accessible and time saving.
  - ✓ 12% choose online shopping because the preferred products are not available in the local stores.
  - ✓ 19% choose online shopping because of price comparison available.
  - ✓ 23% choose online shopping because they are able to choose from Wide variety of brands.
- Out of 91 respondents in Raichur district 42 respondents prefer online shopping:
  - ✓ 38% choose online shopping because it is Convenient, Easily accessible and time saving.
  - ✓ 17% choose online shopping because the preferred products are not available in the local stores.
  - ✓ 17% choose online shopping because of price comparison available.
  - ✓ 28% choose online shopping because they are able to choose from Wide variety of brands.

INFERENCE

From the above table it can be inferred that
- In Mysuru district Majority of respondents prefer to buy online because it is convenient, Easy to access, time saving and they can choose from wide variety of Brand choices.
- In Raichur district Majority of respondents prefer to buy online because it is convenient, Easy to access, time saving and they can choose from wide variety of Brand choices.

BARRIERS WHICH KEEP THE RESPONDENTS AWAY FROM ONLINE SHOPPING

TABLE NO.9

Particulars	Mysuru		Raichur	
	No. of Respondents	% of Respondents	No. of Respondents	% of Respondents
Not aware of online shopping	2	40	29	59
Low trust level of online stores	2	40	10	20
High shipping cost/ slow delivery	0	0	2	5
Safety of payment	1	20	8	16
Total	5	100	49	100

The above table shows that:
- Out of 88 respondents in Mysuru district 5 of them has never bought online the main barriers which keep them away from online shopping are:
  - ✓ 40% of respondents are not aware of online shopping.
  - ✓ 40% of respondents have low trust on online shopping.
  - ✓ 20% of respondents feel that there is no safety for their payments.
- Out of 91 respondents in Raichur district 49 of them has never bought online the main barriers which keep them away from online shopping are:
  - ✓ 59% of respondents are not aware of online shopping.
  - ✓ 20% of respondents have low trust on online shopping.
  - ✓ 5% of respondents feel that the shippin costs are high.
  - ✓ 16% of respondents feel that there is no safety for their payments.

INFERENCE

From the above table it can be inferred that
- In Mysuru district majority of respondents are aware of online shopping and few are not aware of it.
- In Raichur districts majority of respondents are not aware of online shopping.

CONCLUSION

The study was accomplished to compare the awareness in consumers about online shopping in two areas i.e., between developed area and underdeveloped area. In my study it is observed that many people in the underdeveloped area i.e., Raichur have never bought online due to their unawareness towards online shopping and many people in developed area i.e., Mysuru shop online due to its advantages like time saving, convenience, accessibility etc., people prefer to shop online because they can choose from wide variety of brand choices and availability of price comparison.

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A COMPARATIVE ANALYSIS OF PRODUCTION OF CLOTH IN INDIAN TEXTILES INDUSTRY BETWEEN THE PRE AND POST MFA PHASE-OUT PERIOD

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ABSTRACT

Manufacturing of textiles has always remained an indispensable part of the history of Indian Civilization. Now, India has proved itself as the world's third largest producer of cotton and second largest producer of cotton yarn and textiles. The complete removal of quotas under Multi-fibre Agreement on 31st December 2004, has had a very energetic impact on production and export of textiles in India. In order to trace the increase in production of cloth in Indian Textiles Industry (ITI), the researcher tried to measure the significant changes in cloth production in ITI between the Pre and the Post MFA phase-out period. For this, Paired Samples T-Test is used in order to test the formulated hypotheses and to reach to the conclusion. The results suggest that production of cloth in ITI has significantly increased after the removal of quotas under MFA.

KEYWORDS
MFA, Cloth Production, Indian Textiles Industry.

INTRODUCTION

The history of textiles in India dates back to the use of mordant dyes and printing block around 3000 BC (Chandra P, 2005). Indian textile is a vital part of her cultural heritage and it dates back to the Indus valley Civilization where people used to manufacture cloth at their homes.. Rig-Veda gives the literary information about textiles in India and it refers to weaving (History of Textiles, n.d.). Ramayana and Mahabharata the two great ancient epics of Hinduism depict the use of fine and stylized garment by the aristocrats and simple clothes by the commoners. In pre-industrial period, spices and textiles were the main commodities and their trade was made on barter. India was known for her quality textiles and always remained in trade with Far and South East Asia.
The Dutch East India Company chartered in 1597 and British East India Company in 1600 exchanged Indian textiles for spices grown in Malay Islands. (Sardar, 2003) Because of exclusive design, color and texture Indian textiles became highly popular and exported directly to European countries. In a short span of time Indian textiles became a symbol of fashion in International market.The universality of Indian textiles is evidenced in the number of words that have made their way into English: Calico, pajama, gingham, dungaree, chintz, and khaki (Sardar, 2003).
Developing countries have faced restrictive blocks called quotas for the export of textiles and clothing products. For more than forty years, this sector has been controlled by the number of agreements namely: Short term cotton agreement in 1961 and the Long term cotton agreement from 1962 to 1973. This Long Term Cotton Agreement took the place of one-year Short Term Cotton Agreement. LTA renewed several times and was finally replaced by the Multifibre Agreement (MFA) in 1974, which was lengthened to cover the exports of synthetic fibres and woolen products, besides cotton [Liu & Sun,2003].
Under MFA there was a set of bilateral agreements between developed country importers such as U.S. and exporters from developing countries such as India, China, and Bangladesh. The MFA did not apply the trade between rich industrialized countries themselves. Under this agreement the developed countries like EU and US imposed quotas on export of textile and apparel products by developing countries.

TABLE 1: SCHEDULE OF PHASING OUT OF QUOTAS UNDER THE ATC

Stage	Date of Implementation	%age of products to be integrated with GATT rules (based on 1990 trade)
1	1 Jan 1995-31 Dec 1997	16% minimum
2	1 Jan 1998-31 Dec 2001	17% minimum
3	1 Jan 2002- 31 Dec 2004	18% minimum
4	1 Jan 2005 (Full integration into GATT, final elimination of quotas, termination of ATC)	49% Full elimination

Source: WTO

Stages I and II called for the removal of no less than 16% & 17% respectively of the importing country's textiles and clothing quotas (based on 1990 level). These initial changes did not have much impact, because they generally applied to those products whose imports were already below quotas levels. The last two phases had a strong impact, since they applied to the products that were more strongly bounded by the use of quotas. Phase III which began on January 1, 2002, and was completed on December 31, 2004, called for the elimination of no less than an additional 18 percent of quotas. The remaining 49 percent of quotas were eliminated in 2005.(Appelbaum,2004)

OBJECTIVES OF THE STUDY
The present study has the following specific objectives:
➢ To understand the importance of textile industry in India.
➢ To study the strength and weakness of Indian Textiles Industry.
➢ To study the structure of Indian Textiles Industry.
➢ To measure the changes in production of cloth in Indian Textiles Industry before and after the phase-out of MFA.

RESEARCH METHODOLOGY
The present study is exploratory and descriptive in nature. The entire data has been collected from reliable secondary sources. In order to perform this study the Secondary Data has been extracted from Annual reports, Newsletters, Survey reports, Websites, Publications and other available resources. Data has also been collected from Ministry of Textiles, Govt. of India in order to ensure complete reliability. With a view to compare the performance of production of cloth in ITI between Pre and Post MFA Phase-out Paired Samples T-Test has been applied. The whole data set has been divided into two periods. Period from 1996-97 to 2004-05 has been taken as Pre MFA Phase-out period and from 2005-06 to 2013-14 as Post MFA Phase-out period.

LIMITATIONS OF RESEARCH
➢ The study is limited to the production of cloth in ITI.
➢ The study carried out comprises secondary data from 1996-97 to 2013-14.

LITERATURE REVIEW

A brief review of the existing relevant to the present has been given below.

Diao Xinshen and Somwaru Agapi, (2001), in their joint publication captioned, "Impact of the MFA Phase-out on the World Economy-An intertemporal, Global General Equilibrium Analysis" tried to measure the possible impact of the MFA phase-out on the world economy. **Chaudhary, Dr. Asiya (2004),** in her paper "Indian Textile industry beyond 2005", focused upon what will be the face of Indian textile industry after MFA phase-out. **Rangarajan, (2005) in his article "**International Trade in Textile and Clothing: Post- MFA challenges and strategies considerations for India" examined the post- MFA challenges for the textiles and clothing industry in general and India in particular. **Dr. KarthiReyan, G.B. & Dr. Ramachandran, A. (2009)** in their study "Marketing Strategies to be adopted by the Garment Exporters after the Quota Removal in the Tirupur" analyzed the marketing strategies, brand name establishment and driving factors to be adopted by the Tirupur exporters after the quota removal.

HYPOTHESIS OF THE STUDY

H_0: There is no significant difference in production of cloth in ITI between Pre and Post MFA phase-out period.
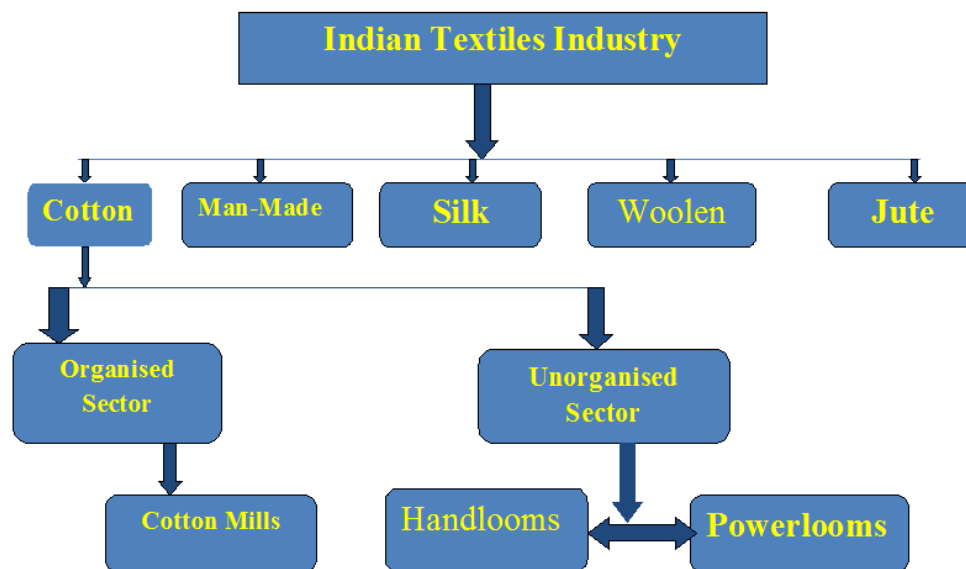H_1: There is a significant difference in production of cloth in ITI between Pre and Post MFA phase-out period.

INDIAN TEXTILE INDUSTRY TREND AND COMPOSITION

Indian textiles industry contributes nearly 4% to GDP, 14% to Industrial production and 10.5% to total exports of goods. It is the second largest employer in the country just after agriculture. Nearly 35 million of Indian population gets employment through this sector. Directly or indirectly Indian textile industry has strong linkage with both Rural and Urban India.

The Indian textiles industry is divided into two types of sectors i.e. Organized Sector and Unorganized Sector. Organized sector comprises of spinning mills and composite mills whereas unorganized sector embraces handlooms, powerlooms, hosiery and knitting, readymade garments, khadi and carpet manufacturing units. Spinning mills (Non SSI) organized sector involve only in spinning activities whereas composite mills consists of spinning, weaving and processing activities. As per the data released by Ministry of Textiles, Government of India in 2014, production of Man-made fibre increased by 2% and filament yarn production decreased by about 4% during the year April- Dec. 2014. Cotton yarn, Blended and100% non-cotton yarn production increased by 3% and 2% respectively during the year April- Dec.2014. Cloth production by mill sector decreased by 1% during April- Dec. 2014 whereas Cloth production by powerloom and hosiery sectors increased by 2% and 5% and handloom production decreased by 1%. The total cloth production during April- Dec. 2014 increased by 2%.

FIG. 1

SWOT ANALYSIS OF INDIAN TEXTILES INDUSTRY

Strength	Weakness
• Independent and Self-Reliant industry.	• Technology Obsolescence.
• Strong Raw Material base.	• Highly fragmented industry.
• Vast pool of skilled and semi-skilled labour force.	• Highly dependent on cotton.
• Presence across the value chain.	• Down trend in Mill Segment.
• Growing domestic and international market.	• Lack of infrastructural facilities.
• Strong entrepreneurship base.	• High rate of interest and taxes.
• Third largest cotton producer in the world.	• High rate of power.
• One of the best garment industry in the world.	• Unfavorable working conditions.
• One of the largest exporters of yarn.	• Unfavorable labour laws.
• Manufacturing flexibility.	• Unable to generate Economies of Scale because of small level of operation.
Opportunities	**Threats**
• Large potential and untapped domestic and international market.	• Competition from fast emerging economies, particularly China.
• Huge demand for Indian textiles in international market.	• Removal of quantitative restrictions under MFA leads to fluctuations in Export Demand.
• Increased purchasing power of Indian customers.	• Dumping of foreign goods in domestic market.
• Phase-out of MFA leads to greater market development.	• Threat for handloom products.
• Research & Product development.	• Geographical disadvantages.
• Minimal import duties.	• International labour and Environmental Laws.
• Opportunities for foreign investors.	• Rupee appreciation.

DATA ANALYSIS AND INTERPRETATION

TABLE 2: PRODUCTION OF CLOTH IN DIFFERENT SECTORS IN INDIAN TEXTILES INDUSTRY (in mn. Sq.mtrs)

Years	Mill	% Growth	Handloom	% Growth	Decentralised Powerlom	% Growth	Decentralised Hosiery	% Growth	TOTAL
1996-97	1957	Nil	7457	Nil	19351	Nil	5533	Nil	34298
1997-98	1948	-0.46	7604	1.971	20951	8.26	6393	15.5	36896
1998-99	1785	-8.37	6792	-10.7	20689	-1.25	6276	-1.83	35542
1999-00	1714	-3.98	7353	8.26	23187	12.07	6373	1.55	38627
2000-01	1670	-2.57	7506	2.081	23803	2.65	6696	5.07	39675
2001-02	1546	-7.43	7585	1.05	25192	5.83	7067	5.54	41390
2002-03	1496	-3.23	5980	-21.2	25954	3.02	7881	11.5	41311
2003-04	1434	-4.14	5493	-8.14	26947	3.82	7847	-0.43	41721
2004-05	1503	4.81	5722	4.16	28325	5.11	9112	16.1	44662
2005-06	1656	10.18	6263	9.45	30537	7.80	10393	14.1	48849
2006-07	1746	5.43	6536	4.35	32879	7.66	11504	10.7	52665
2007-08	1744	-0.11	7074	8.23	35304	7.37	12645	9.92	56767
2008-09	1796	2.98	6677	-5.61	33648	-4.69	12077	-4.49	54198
2009-10	1961	9.18	3942	-41	21867	-35	7779	-35.6	35549
2010-11	2205	12.44	6949	76.28	37929	73.45	14646	88.3	61729
2011-12	2313	4.89	6901	-0.69	37445	-1.28	12946	-11.6	59605
2012-13	2418	4.54	6953	0.75	38054	1.62	14541	12.3	61966
2013-14	2560	5.873	7116	2.34	37712	-0.9	15931	9.56	63319

Source: Ministry of Textiles, GOI

Note: % growth is calculated on the basis of immediate previous year.

PAIRED-SAMPLES T TEST

TABLE 3: PAIRED SAMPLES STATISTICS

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre MFA Production of Cloth in ITI	39346.8889	9	3326.41054	1108.80351
	Post MFA Production of Cloth in ITI	54960.7778	9	8729.23577	2909.74526

Interpretation

In the above Paired Samples Statistics table, the mean for the production of cloth in ITI before the phase-out of MFA is 39346.8889. The mean for the production of cloth in ITI after the phase-out of MFA is 54960.7778. By comparing the two means, it can be concluded that the production of cloth in ITI increased after the phase-out of MFA as the mean value of production of cloth in ITI after the phase-out of MFA is greater than the mean value of production of cloth in ITI before the phase-out of MFA.

TABLE 4: PAIRED SAMPLES TEST

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre MFA Production of Cloth in ITI- Post MFA Production of Cloth in ITI	-15613.88889	7766.27967	2588.75989	-21583.57990	-9644.19788	-6.031	8	.000

Interpretation

In the above Paired Sample Test table t-value is -6.031 with 8 degrees of freedom. P-value Sig. (2 tailed) is 0.000

As the calculated p-value is less than the significance level (0.05) it imply that the difference in production of cloth in ITI between Pre and Post MFA phase-out period is highly consiquential. Based on the above results it can be concluded that the alternative hypothesis that **there is a significant difference in production of cloth in ITI between Pre and Post MFA phase-out period** stands accepted and null hypothesis is rejected.

FINDINGS

To find out the significant variations in production of cloth in ITI between pre and post MFA phase-out, Paired Samples T-test has been used. A significant change is noticed in production of cloth in ITI after the phase-out MFA. This indicates that the removal of quotas stimulated this labour-intensive sector to increase its productivity in India. Moreover this lead to the allocation of productive resources more efficiently as compared to the pre-MFA period.

CONCLUSION

It may be concluded that no doubt India has benefited from the phase-out of MFA. Production of cloth has been increased after the removal of quotas in different segments of ITI. But at the same time some sector of ITI particularly handloom sector is showing a decline in production. As India possesses the largest number of looms to weave fabrics, comprising 64% of the world's installed looms. But most of the looms are dominated by handloom sector, which largely use old equipments and outdated technologies thus resulting in low productivity. Moreover workers engaged in ITI are not professionally trained that is why they are not able to produce as per their capacity. Power supply which is one of the main ingredients of textiles industry is another important hurdle. The supply of power to most cotton textile mills is irregular and inadequate which negatively affects the production. Labour strikes and lockouts are common not only in the industrial sector but allover the country, cotton textile industry suffers a lot due to frequent strikes by labour force.

SUGGESTIONS AND RECOMMENDATIONS

In order to improve the productivity of cloth in ITI, certain suggestions discussed below may prove to be instrumental:

➢ **Adoption of New Technology**

Indian textile industries are still running on outdated and obsolete methods and machines. Though modernization has taken place, we still lag behind. International market is full of strong players with latest technologies and if we want to stand in the market and face competition we have to update ourselves. Thus, it makes necessary to transfer and adopt latest and selective technology in order to increase the productivity in Indian Textiles Industry.

➢ **Technical Skills**

Indian textiles industry lags behind in technically skilled manpower as compared to other countries. There are very little numbers of technical programmes to bring technological changes in the textile sector. Moreover Indian textile firms invest very little to provide training and guidance to their employees and ultimately this gives birth to unskilled and semiskilled labours. So initiatives should be taken to provide technical courses at graduate level. Moreover Indian

textile firms should offer enough training and development programmes to sharpen the skills of the labour. India should focus on the development of human capital. This will lead to increased production.

➢ **Incentive Packages**

With a view to motivate Indian textiles manufacturers, incentives packages in the form of concessions in taxes, capital, interest subsidies, land at concessional rate should be offered. This will encourage them to invest in different projects under textiles sector. this will positively affect the production of textiles in Indian Textiles Industry.

➢ **Business Environment**

If we talk in terms of business environment, India is not healthy, which is discouraging for doing business. Labour market rigidity, lack of facilities at ports and airports, excessive bureaucracy, lengthy legal procedures, corruption, many such factors that discourage manufactures to invest in new projects under Indian Textiles Industry. Making these barriers easy will increase the production in ITI.

INITIATIVES TAKEN BY GOVERNMENT OF INDIA

In last few years, Ministry of Textiles of Government of India has taken various attractive policy initiatives with the objective of accelerating the growth and enhancing the competitiveness of Indian Textiles Industry. The schemes launched by GOI are discussed below:

- Technology Up gradation Fund Scheme (TUFS)
- Scheme for Integrated Textiles Park (SITP)
- Integrated Processing Development Scheme (IPDS)
- Textile Workers' Rehabilitation Fund Scheme (TWRFS)
- Technology Mission on Technical Textiles (TMTT)
- Integrated Skill Development Scheme (ISDS)
- Export Promotion Councils (EPC)

CONCLUSION

It can be concluded that manufacturing of textiles has always remained an indispensable part of the history of Indian Civilization. Now, India has proved itself as the world's third largest producer of cotton and second largest producer of cotton yarn and textiles. The complete removal of quotas under Multi-fibre Agreement on 31st December 2004, has had a very energetic impact on production and export of textiles in India. In order to trace the increase in production of cloth in Indian Textiles Industry (ITI), the researcher tried to measure the significant changes in cloth production in ITI between the Pre and the Post MFA phase-out period. For this, Paired Samples T-Test is used in order to test the formulated hypotheses and to reach to the conclusion. The results suggest that production of cloth in ITI has significantly increased after the removal of quotas under MFA.

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PERFORMANCE OF SUGAR INDUSTRY IN INDIA WITH SPECIAL REFERENCE TO HARYANA STATE

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ABSTRACT

Sugar industry is the biggest agricultural based industry in India after textile industry. The agricultural sector occupied 43% of India's total geographical area and is contributing about 16% of India GDP. Hence, the sugar industry and sugarcane cultivation in India plays an important role towards development of rural population. Through this paper, an attempt has been made to examine the status of sugar industry in India with special reference to state Haryana.

KEYWORDS

sugar industry, sugarcane cultivation, Haryana.

INTRODUCTION

Sugar industry occupies an important place among agriculture based industries. Sugar industry is the second largest industry after cotton textile industry among agriculture based industries in India. This industry provides not only employment to a substantial number of persons but also holds the potentialities of developing other industries related to by- products.

India is the largest consumer of sugar and the second largest producer of sugar. Sugar industry is the second largest agro based industry in India after textiles. Sugar and sugarcane are essential commodities under the Essential Commodities Act, 1955.

Sugar is one of the oldest commodities in the world and traces its origin in 4th century AD in India and China. In those days sugar was manufactured only from sugarcane. But both countries last their initiatives to the European, American and Oceanic Countries, as the eighteenth century witnessed the development of new technology to manufacture sugar from sugar beet. However, India is presently a dominant player in the global sugar industry along with Brazil in terms of production. India has been known as the original home of sugarcane and sugar. India is the largest producer and consumer of sugar in the world, with Maharashtra contributing over one third of country's sugar output. Indians knew the art of making sugar since the fourth century. Kautilya also mentioned about sugarcane cultivation and sugar production in his Arthashastra during third century B.C. It clears that sugar industry is not new for India. However, the advent of modern sugar industry in India dates back to mid 1930's when a few vacuum pan units were established in the subtropical belts of Uttar Pradesh and Bihar, Until the mid 50s, the sugar industry was almost wholly confined to the states of Uttar Pradesh and Bihar. After late fifties or early sixties the industry dispersed into southern India, Western India and other parts of Northern India. The sufficient and well distributed monsoon rains, rapid population growth and substantial increase in sugar production capacity have combined to make India the largest consumer and second largest procedure of sugar in the world.

Indian sugar industry is highly fragmented with organized and unorganized players. The unorganized players mainly produce Gur and Khandsari, the less refined forms of sugar. The government had a controlling grip over the industry, which has slowly yet steadily given way to liberalization. Dual pricing system is adopted in the Indian sugar industry, which includes sugar prices in public distribution system and the free sale sugar price. As the industry is a fragmented one, even leading players do not control more than 4 percent market in India. However, the situation is changing and players of late are striving to increase their market share either by acquiring smaller mills or by going for green field capacity additions. Another notable trend is the shift from Gur and Khandsari to sugar in the rural areas. This should further increase the per capita consumption of sugar in India besides the Indian urban market is slowly moving towards branded sugar.

REVIEW OF LITERATURE

Ghuman and Monga conducted a study entitled 'Financial performance, physical performance & Management of Nine Cooperative sugar Mills in Punjab'. The study analyzed financial statement of the mills and it was found that possible factor responsible for losses were non availability of sugarcane around the mills, low price of molasses, low sugar recovery, heavy interest charges and excessive inventories. The finding of the study was too much interference of the state government in the functioning of these mills, lack of material, management technique and non availability of improved varieties of sugarcane, it was suggested in the study mills must be increased.

Jagadeswaran in his article analyzed the export's problems of sugar industry with remedies. An important reason for the lower sugar export has been the uneconomic cost structure in the sugar industry, due to the higher cost of production. Indian sugar could not compete in the world market. Indian sugar exports in most of years have been possible only at a less. While sugar exports were limited, the entire lesses were met by the sugar industry. He suggested the policy has to be production oriented. Government should adopt a rational and long term cane price policy and fix an enumerative can price for the farmers to ensure sufficient cane supplies to the sugar factories. Incidentally the Govt. should also fix remunerative levy sugar price from time to time.

Ramchandram in his article told about the total contribution of the co-operative sugar mills. He observed sugar co-operatives have created a suitable environment for economic development in the region and enabled the farmers not only to receive a higher price for their sugarcane thereby improving standard of living, but also to contribute more to the development of sugar industry in India. The co-operative sugar industries alone responsible for transforming India from a deficit sugar producing country to a surplus sugar producing country.

N. Chandrasekaran (1999) in his study 'Financial Performance of Indian Sugar Industry' concluded that industry's financial performance is found moderate to poor during the study period i.e. 1990-91 to 1995-96 except in 1993-94. Financial structure of the industry is unfavorable due to high gearing. Further, both business risk and financial risk are also higher, serving the debt becomes difficult. The researcher suggested that firms must focus on enhancing earnings steadily by controlling and reducing the cost of production. He further suggested that share of external as well as internal equity should also be increased in the financial structure of mills.

OBJECTIVES OF THE STUDY

The main objectives of the present study are as follows:
- To examine the status of sugar industry in India.
- To analyses the status of sugar industry in Haryana.

SUGAR INDUSTRY IN INDIA

There are 509 sugar mills in India in which 14 mills are located in Haryana. The Indian sugar industry is a key factor of rural development supporting India's economic growth. The importance of sugar industry in India can be judged from the fact that about 45 million sugarcane cultivators depend on sugarcane and sugar industry for their livelihood. Thus it supports a large number of farmers and their families. The list of sugar mills in India is given in the following table:

TABLE 1: NO. OF SUGAR FACTORIES IN OPERATION IN INDIA

Year	No. of Factories in Operation
2008-09	488
2009-10	490
2010-11	507
2011-12	529
2012-13	526
2013-14	509

Source: List of Sugar Factories in Operation in India 2013-14.

Above table shows that in India these number of factories in operation were 488 in 2008-09 and in 2013-14 the number of sugar factories in India were 509 approximately. Hence this table shows the increasing trend during this time period. The sugar industry and sugarcane cultivation in India plays an important role towards socio-economic development in the rural population. Thus, this table also shows the economic development through the increased number of sugar factories in India.

The agricultural sector occupied 43% of India's geographical area and is contributing about 16% of India's GDP. Following table is prepared to show the sugarcane production (million tons) in India during the period 2008-09.

TABLE 2: SUGARCANE PRODUCTION IN INDIA

Year	Sugarcane Production (million tons)
2004-05	237.09
2005-06	281.17
2006-07	255.52
2007-08	348.19
2008-09	285.03
2009-10	292.30
2010-11	342.38
2011-12	361.04
2012-13	341.20
2013-14	350.02

Source: RBI, Handbook of Statistics on the Indian Economy, 2013-14

Above table shows that the sugarcane production in 2004-05 is 237.09 million tons and in 2013-14 it is 350.02 million tons. During this period, there is almost increasing trend in sugarcane production expect mainly two years. Thus, sugarcane production has great importance in agricultural development of India.

In India about 45% geographical area is under agricultural sector. Following table shows the area under sugarcane cultivation in India.

TABLE 3: AREA UNDER SUGARCANE CULTIVATION IN INDIA

Year	Cane acerage (million hectares)
2004-05	3.66
2005-06	4.20
2006-07	5.15
2007-08	5.06
2008-09	4.42
2009-10	4.18
2010-11	4.88
2011-12	5.04
2012-13	5.06
2013-14	5.01

Source: RBI, Handbook of Statistics on the Indian Economy, 2013-14

Above table shows the India's sugarcane cultivation area during the time period of 10 years i.e. 2004-05 to 2013-14. During this time period, India's sugarcane area under cultivation is increased continuously expect two years. Hence, this table shows the sound performance of sugar industry in India which is a sign of economic development of India.

The major sugarcane crop growing States are:
1. Uttar Pradesh
2. Bihar
3. Haryana
4. Gujarat
5. Maharashtra
6. Karnataka
7. Andhra Pradesh
8. Tamil Nadu
9. Uttarakhand
10. Punjab

TABLE 4: TOP TEN SUGARCANE PRODUCING STATES IN INDIA

Rank	STATE	PRODUCTION (THOUSAND TONNES)
1	Uttar Pradesh	135161.6
2	Maharastra	76554.8
3	Karnataka	35910.0
4	Tamilnadu	31760.0
5	Andhra Pradesh	15360.0
6	Bihar	13476.6
7	Gujrat	12550.0
8	Haryana	7446.0
9	Uattrakhand	6432.0
10	Punjab	6311.7

Source: RBI, Handbook of Statistics on the Indian Economy, 2013-14

The production of sugarcane is spread across the country. In above States, they are classified into three groups according to its production capacity. The high sugar producing States are Maharashtra and Uttar Pradesh. The second category was the medium sugar producing States. They are Gujarat, Andhra Pradesh, Bihar, Tamil Nadu, and Karnataka. The remaining States are low sugar producing States. They were Punjab, Uattrakhand and Haryana.

SUGAR INDUSTRY IN HARYANA

There are 509 sugar mills in India in which 14 mills are located in Haryana, 3 mills are in private sector and 11 mills are in cooperative sector. The list of sugar mills in Haryana is given in the following table:

TABLE 5: SUGAR MILLS IN HARYANA

District	Sector	Capacity (TCD)
Yamuna Nagar	Private	13000
Panipat	Co-operative	1800
Karnal	Co-operative	1250
Rohtak	Co-operative	1750
Meham	Co-operative	2500
Sonipat	Co-operative	1250
Jind	Co-operative	1250
Palwal	Co-operative	1250
Shahabad	Co-operative	3500
Kaithal	Co-operative	2500
Naraingarh	Private	2500
Gohana	Co-operative	2500
Sirsa	Co-operative	1750
Picadly	Private	1750

Source: List of Sugar Mills in India, 2007-08

Haryana occupies an important place in the sugarcane map of northern India. In terms of area under sugarcane it has third position, Uttar Pradesh and Maharashtra having first and second position.

SUGARCANE CULTIVATION IN HARYANA

TABLE 6: DISTRICT WISE AREA UNDER SUGARCANE CULTIVATION DURING 2014-15

S. No.	Districts	Area (00 hectares)
1	Hisar	11
2	Fatehabad	2
3	Sirsa	1
4	Bhiwani	22
5	Rohtak	81
6	Jajjar	27
7	Sonepat	71
8	Mawet	2
9	Fridabad	5
10	Palwal	20
11	Panipat	64
12	Karnal	111
13	Kurukshetra	107
14	Kaithal	34
15	Ambala	102
16	Panchkula	5
17	Yamunanagar	265
18	Jind	35
19	Mahendragarh	0
20	Rewari	0
21	Gudgaon	0

Source: Block-wise area under Principal crop Kharif for the year 2014-15

This table shows the block wise area under sugarcane cultivation in Haryana which is high in district Yamunangar such as 26,500 hectares. The area under sugarcane cultivation in the district Karnal, Panipat and Kurukshetra is also greater than other district of Haryana. In Gudgaon, there is nothing area under sugarcane cultivation because of the industries development in this city. Mahendragarh and Rewari district also not preferred to sugarcane cultivation.

TABLE 7: SUGAR PRODUCTION IN HARYANA

Year	Sugar Production (M. Tons)
1966-67	59586
1970-71	83459
1975-76	106961
1980-81	200497
1985-86	138782
1990-91	668290
1995-96	403891
2000-01	465060
2005-06	2773446
2010-11	517336
2012-13	418872
2013-14	238952

Source: Statistical Abstract of Haryana 2013-14

Above table show that the sugar production from 1966-67 to 2013 is increased continuously throughout this time period. It means that the farmers in Haryana are giving preference to sugarcane cultivation than other crops. It leads to improve the performance of sugar industry in Haryana. Hence, sugar industry plays an important role in progress of any country or state.

CONCLUSION AND POLICY IMPLICATIONS

The number of sugar industry in India with respect to year 2008 to 2014 is given in Table-1. There are 488 in 2008 and in 2013-14 about 509 factories are in operation. It is to be noted that increasing number of factories show the development of sugar industry in India. Sugarcane production in India is given in Table-2 and the area under sugarcane cultivation in India is given in Table-3. These tables show that as long as the area under sugarcane cultivation is increased, the production is also increased. Table-4 highlights the top 10 sugarcane producing states in India. It is clear from the table that Uttar Pradesh and Maharashtra take place in high sugar producing states and Gujarat, Andhra Pradesh, Bihar and Tamil Nadu are take place in medium sugar producing states. Haryana, Punjab and Uttrakhand are the low sugarcane producing states in India.

In India, 509 mills are in operation, in which 14 are located in Haryana, 3 mills are in private sector and 11 mills are in cooperative sector. Yamuna Nagar, Naraingarh and Picadily are the sugar mills located in private sector. Total daily cane crushing capacity of 14 Haryana Sugar mills is more than 38 thousands tones but they are in position to crush about 63 lakh tonnes more than this limit of sugarcane annually during average crushing season of six month. It is interesting to note that in India the SSM is the biggest sugar mill in Asia and in Haryana. The TCD of Yamuna Nagar is 13000 tons which is more than of other sugar mills in Haryana. The cooperative sugar mill Gohana and Panipat installed capacities of 2500 and 1800 ton daily crushing cane respectively could produce 9200 and 8593 ton sugar. It is prove that no sincere efforts have been made by these two mills. District wise area under sugarcane cultivation in Haryana is given in Table-6. It is clear from the table that maximum area of sugarcane is in Yamuna Nagar district. Sugar production in Haryana is given in Table-7. This table highlight the sugar production from 1966-67 to 2013-14. The sugar production is 59586 M. tons and 238952 M. tons respectively in these two years. Thus, it is clear from the table that the sugar production is increasing continuously during this time period.

Sugar industry is the biggest industry in India after textile industry. It provides employment, improve BOP through export, meeting the domestic requirement etc. The performance of sugar industry is not only to be maintained, there is wide scope of further improvement in the raw material i.e. the growth of sugar cane cultivation and improving the working condition of sugar mills. Scientific research should be done for the improvement of sugar industry. Proper sugar cane marketing is to be done. Better quality of sugar should be packed properly for export. The sick units of the sugar mill should be revived by modernization. Credit facilities should be provided by banks to this industry. The most important thing is that the government should fix the sugarcane price by considering the benefits both of the cane cultivators and manufacturer of sugar.

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MARKET MICROSTRUCTURE OF STOCK MARKETS: A REVIEW OF LITERATURE

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ABSTRACT

Last few decades have seen a drastic spree of developments in the way capital markets operated. Across the globe, markets have moved from floor-based open outcry system to electronic platforms, from call auctions to continuous trading, from periodic settlements to rolling settlements, from simple financial products to exotic products like derivatives, ETFs, etc. The price adjustment time has decreased to milliseconds, tick size has reduced, volume of trades has skyrocketed and gone beyond humanly control and computations, a wide array of investors participate in markets today and all these, inter alia, have increased the complexities of capital markets. Technology is changing the relationship among investors, brokers and dealers and the facility through which they interact. All these have made the understanding of intricacies of capital markets all the more important for every stakeholder. Adequate knowledge of price discovery process, market architecture and design, information disclosure and dissemination, behavior of market makers and determination of bid-ask spread, etc will be significant to frame trading protocols, formulate trading strategies, enhancing transparency and liquidity in the markets. Though there has been enough research into the microstructure of stock markets of developed nations, the developing nations have been unable to attract attention from the academia and researchers. This paper aims to study the conceptual framework of market microstructure in the light of literature available from past studies. This shall also provide a ground work for future empirical research.

KEYWORDS

Market microstructure, Stock market, Market architecture, Efficient Market Hypothesis [EMH], Asset pricing.

JEL CODES

G12, G14

INTRODUCTION

The term "market microstructure" was first coined by "**Mark Garman**" (**1976**) in an article titled the same. Garman talked about the existence of market makers and inventory costs. We will shortly see how it became an umbrella term for study of structure of markets.

In common parlance, market microstructure means the study of trading mechanisms involved in the exchange of assets. Maureen 'O Hara (1995) defines market microstructure as the "the study of the process and outcomes of exchanging assets under a specific set of rules." As per the Efficient Market Hypothesis [EMH], in the presence of rational investors who have free and equal access to all the available information, the share prices will at all levels and at all the times reflect all available information. Such a market is regarded as an efficient market. But, do we really witness fully efficient markets? As per studies [Tripathi and Aggarwal (2009)], Indian markets are not even weak form efficient.

The basic tenet of market microstructure theory is that the asset prices may not reflect full information and thus trade away from their true intrinsic value. This happens due to the presence of frictions like transaction costs, asymmetric information, etc. in the market. Demsetz (1968) defines friction as the price of immediacy. Stoll (1978) in a paper "Friction" described study of friction as the study of how markets operate. Therefore, the study of market structure acquired a distinct identity as a field of study in finance. One of the applications of market microstructure theory is to question or test the market efficiency. Microstructure study deals with issues of market design and trading mechanisms, price formation and price discovery, transaction costs, information and disclosure, and market maker and investor behavior. All these aspects influence the efficiency, liquidity and volatility in the market.

The first few studies came from Garman (1976), Demsetz(1968), Bagehot, (pseudonym for Treynor) (1971). Later as the field acquired importance, enriching literature flowed in from Maureen O'Hara and Easley, Hans Stoll, Ananth Madhavan, Avanidhar Subramanyam, Amihud and Mendelson, Joel Hasbrouck, Biais, Glosten, Milgrom and Spatt, among others.

CONCEPTUAL FRAMEWORK OF MARKET MICROSTRUCTURE

According to **Naes and Skjeltorp (200**6), themes in market microstructure can be classified as:
- Actual transaction process
- Effects of market microstructure on transaction process
- Transaction process's implications on economic decisions

The study of microstructure of a capital market spans across the following **(Madhavan 2000)**:
1. Price formation and price discovery, including both static issues such as the determinants of trading costs, bid-ask spread and dynamic issues such the process by which prices comes to impound information over time.
2. Market structure and design issues, including the relation between price formation and trading protocols. Essentially, this topic focuses on how different rules affect the black box and hence liquidity and market quality.
3. Information and disclosure, especially market transparency, i.e., the ability of market participants to observe information about the trading process. This topic deals with how revealing the operating methods of capital market affects the behavior of traders and their strategies.
4. Informational issues arising from the interface of market microstructure with other areas of finance including corporate finance, asset pricing, and international finance. It will allow deeper investigations of traditional issues such as IPO under pricing as well as opening up new avenues for research.

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TABLE: 1 CONCEPTUAL FRAMEWORK OF MARKET MICROSTRUCTURE

1. Price formation and discovery	• Asset pricing and information • Market makers and transaction costs • Liquidity and pricing
2. Market structure and design issues	• Market type • Trading systems • Orders • Prices • Trading priority rules • Trading protocols • Consolidation and fragmentation • Non-synchronous trading • High frequency trading • Algorithm trading
3. Information and disclosure	• Knowledge of prices, quotes, volumes, order flows, identity of market participants, etc • Insider trading • Asymmetric information and bid-ask spread
4. Interface with other areas of finance	• Bid-ask spread and cost of capital for firms • Comparisons of international stock markets for fund raising or investment

We shall now do a detailed study of above broad areas of market microstructure.

I.   PRICE DISCOVERY AND PRICE FORMATION

The term "price discovery" is used to describe the process through which new information is incorporated in security prices. Price discovery process is crucial for any market. The opening prices face a long non-trading period and thus have to inculcate all the unabsorbed information which flowed overnight. On the other hand, closing prices are very significant for traders because they are used for closing day's position and doing mark-to-market settlements. Closing prices also act as an estimating base for next day's opening price.

The traditional Walrasian model of price discovery focused on finding a single market clearing price. But, somehow it ignored issue of inter temporal aggregation of demand and supply and here we had the beginning of market microstructure as an area of research. **Garman (1976)** addressed the aggregation issues through market maker's role and transaction costs.

O' Hara (2003) says liquidity provision and price discovery are two most important functions of markets. Asset prices evolve in market, based on the nature of participants. On the basis of information possessed, traders are classified into – informed and uninformed or noise traders. Prices are a reflection of information related to the asset. Information is revealed to the market through the trading activities of informed traders. (Barclay and Warner (1993)) To utilize their informational advantage to the fullest, informed traders use medium and small trade orders rather than large trades to reduce their market impact.
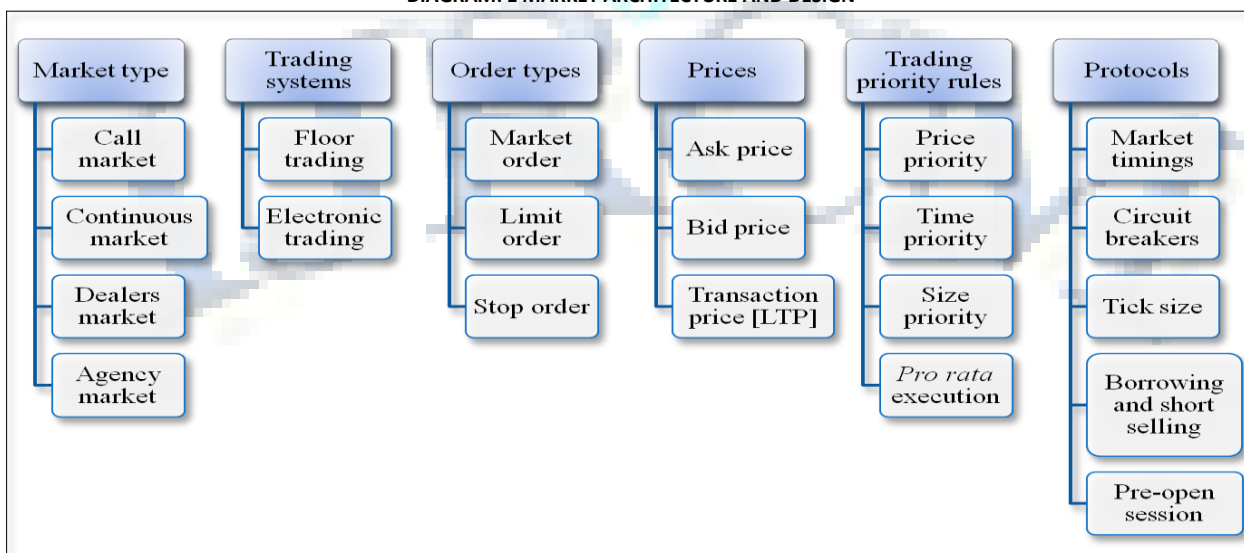
Amihud and Mendelson (1986) empirically showed an increase in the value of stocks of the companies which were moved to a more liquid trading environment, i.e., from call to continuous markets. Benefits from enhanced liquidity reduced the spread which in turn led to a rise in their stock prices. Amihud and Mendelson (1997) - an event study on Tel Aviv Stock Exchange and Muscarella and Piwowar (2001) results from the Paris bourse support the initial study. This shows that there is a direct link between the market microstructure and firm's value. These studies justify the liquidity enhancement measures as an objective of stock exchanges and they being high on the regulators' reform agenda.

Barclay and Hendershott (2008) discovered the effect of trading and non-trading mechanisms on price discovery using the 1999 data from NASDAQ when pre-open trading was introduced on NASDAQ. As the NASDAQ pre-open trading volume increased during the 1990s the noisiness of the opening price declined over time, suggesting that pre-open trading improved the efficiency of the opening price.

II.   MARKET ARCHITECTURE AND DESIGN

A sea of changes in regulation and technology used by stock exchanges has created the need to better understand the impact of trading protocols and regulations on the trading process. In the last few decades, research fraternity and academia have been quick enough to come up with contemporary studies which have enriched the market microstructure literature. Market architecture can be studied under following heads:

DIAGRAM: 1 MARKET ARCHITECTURE AND DESIGN

PERIODIC VERSUS CONTINUOUS MARKET

Amihud and Mendelson (1987) conducted an empirical study to analyze the effect of trading mechanisms on security returns. They used NYSE stocks and compared the open-to-open returns to close-to-close returns. Opening prices were determined much like the clearing house trading procedure. Closing prices were, on the other hand, determined by trading with the market makers and thus represented dealership market procedures. The results found a significant effect of trading procedures on the returns earned. Secondly, open-to-open returns were having a greater variance and were more fat-tailed than the close-to-close returns. So, traders faced greater return variance at the opening than at the close. This depicts the effect of difference in trading mechanisms only because the other factors were controlled. Carole Comerton-Forde (1999) also arrived at similar results. Adoption of call auction at the open improved the market's pricing efficiency and more so for the illiquid stocks.

Amihud and Mendelson (1997) list the issues related to call auction method like - the traders have to put orders without knowing an indicative clearing price and even after placing an order they can't make any adjustment once the price is discovered, making them reluctant to place large orders, both to minimize their price impact and also to reduce the uncertainty involved.

Literature review, overall, considers periodic markets as more efficient in information aggregation and price discovery and thus useful in uncertain situations like open, close, and reopen after a trading halt. But, continuous markets overcome the various limitations of call markets like long pauses, no option for order modification on real time basis and more uncertainty due to delays and inventory risks.

FLOOR-BASED VERSUS SCREEN-BASED ELECTRONIC TRADING

On a more realistic note, adoption of screen-based electronic trading is more a result of huge trading volumes becoming unmanageable for human hands, and less of an informational efficiency enhancement step. Ultimate decisions regarding market structure and design are decided by marketplace specific factors rather than a general rule that succeeded elsewhere in enhancing market performance.

Pankaj K. Jain (2005) has done an extensive research covering 120 countries. He has analyzed the impact of electronic trading on market efficiency. Using international CAPM and dividend growth models, he obtained a positive short term return from the stocks which were moved from floor to electronic platform. Also, these firms faced a decline in their cost of equity due to reduced premium on shares after enhanced liquidity. So, electronic markets improve the liquidity, informativeness, and valuation of listed stocks, all of which help reduce the cost of equity.

Chang, Hsu, Huang and Rhee (1998) examined the effect of trading methods on Taiwan stock market liquidity and volatility. The results showed that price volatility on continuous market was twice that on the call markets. They also found that call markets were more efficient in reducing volatility for heavily traded stocks than for thinly traded stocks. This result was contrary to general belief. Also, price discovery was found to be more efficient in call markets. So, according to them, continuous markets not necessarily eliminate errors in price discovery process.

ORDER SIZE

Joel Hasbrouck (1988) empirically examined the relation between trades and quote changes to ascertain inventory and information costs. He found strong positive impact of trades on quote changes for all stocks. This shows the information impact of trades. A persistent order size impact was found for high volume stocks. This showed that large orders carry more information than small trades.

TRADING RULES

Cumming, Johan and Li (2011) studied the effect of trading rules on stock market liquidity for 42 exchanges across the world using the explicitness and preciseness of the trading rules laid down regarding market manipulation, insider trading and broker-agent conflicts. The results showed that the trading rules have a significant impact on the liquidity of a market. Also, the study brought about a greater significance of market manipulation, insider trading rules, etc for liquidity than the broker agency conflict guidelines. The reasoning put forth is that the former has a direct and endogenous impact whereas the latter are extraneous and subject to clarification by government, CFA institute, etc. the authors conclude that trading rules are a source of information in explaining the differences in the markets. They inferred a close relation between the Volume Manipulation Rules Index and trading velocity, the Price Manipulation Rules Index and volatility, and the Insider Trading Rules Index and bid-ask spreads.

TICK SIZE

Harris (1991) has shown the adverse effects of tick size. When the tick size is small, it is easier for the traders to revise quotes and move to next price. This lets them trade by using fewer limit orders. As we know that limit orders are the liquidity providers in a continuous market, fewer limit orders will dampen the liquidity in the market. Secondly, a mandated tick size will promote arbitrarily large spreads being charged by the dealers.

TRADING VOLUME AND PRICE VOLATILITY

Stoll and Whaley (1990) talked about the effect of market structure on price volatility using all common stocks listed on NYSE during 1982-86. They found the variance ratio (or F-statistic) of open-to-open returns to close-close returns was greater than one for all stocks. The authors attributed this higher price volatility on open to the private information revealed in trading. Second finding was a negative serial correlation between overnight returns and daytime returns meaning that prices tend to reverse on opening. There was also an evidence of greater spread, if measured on opening returns than on close-to-close returns, which has been justified by the higher tendency of price reversal on open than on close. Thirdly, day time volatility was found to be greater than overnight volatility due to presence of more public information during day as opposed to night. Finally, relation between price reversal and trading volumes was found to be significant. Opening prices are more likely to change the price change sign of the preceding day, if volume on preceding day was above normal and opening volumes are below normal. High volume are associated with price continuations i.e., a higher than normal volume will lead to a perpetuation of price change direction.

III.   INFORMATION

Information is a central concept in market microstructure studies. All other components like price discovery, liquidity and market architecture are a manifestation of information in one form or another. In fact, literature has sub-classified market microstructure from an informational perspective only.

O' Hara (1995) defines transparency as the ability of participants to observe information regarding prices, quotes, order flows, identity and motives of traders, etc. Different markets have different disclosure norms which influences the level of transparency and price discovery process. For e.g. delayed reporting of large trades.

Pre trade transparency refers to the wide dissemination of current bid and ask quotations, depths, and possibly also information about limit orders away from the best prices, as well as other pertinent trade related information such as the existence of large order imbalances.

Post trade transparency refers to the public and timely transmission of information on past trades, including execution time, volume, price, and possibly information about buyer and seller identifications.

A related debate is the floor versus electronic trading mechanism. Under floor trading, a trader can see other trader's limit order only if it is the best quote. Whereas, in limit order book built in electronic trading interface provides information about orders (five best quotes) away from the best quote. Thus adoption of electronic trading improves transparency levels.

ASYMMETRIC INFORMATION MODELS

Most of the popular asset pricing models till date were based on the assumption of symmetric information with all the stakeholders. However, events like insider trading and price rigging have shattered the myth of equal access to information by all. Accordingly, modern economists have also incorporated this in the pricing models.

Asymmetric information models solve the problem of an uninformed dealer trading with informed traders and thus incurring losses. So, when a dealer receives a large order he perceives it to be originating from an informed trader and thus revises his bid-ask quotes in the light of information supplied by the inflowing order. Various asymmetric information models of bid-ask spread have been developed.

Bagehot (1971) says that a market maker is faced by two types of traders – liquidity motivated or uninformed traders and informed traders or insiders. He says that the dealer wins over former but loses to the latter. And this trade-off determines his bid-ask spread. So, he says that spread arises due to non-symmetry of information.

Glosten and milgrom (1984) showed how a dealer revises his quotes in the light of order execution prices due to a lurking threat of insider trading on the other side of the contract. After fulfilling a sell (buy) order, a dealer revises his quotes downward (upward) due to a probability of insider trading.

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Easley and O' Hara (1987) also studied the impact of information on price-trade size relationship. They showed how the behavior of informed trader, their order flows, etc influence the pricing behavior of the market makers due to a probability of an adverse selection losses incurring to them. It has been discussed in detail in next section.

INFORMATION DISCLOSURE, MARKET TRANSPARENCY AND LIQUIDITY

There is a growing consensus that increased transparency leads to better price discovery. However, too much disclosure will also discourage informed traders from trading and thereby reduce liquidity in the markets. Thus, some disclosure is better than no disclosure but absolute information sharing will eliminate the information advantage. So, we can conclude that informed traders will prefer anonymous system rather than the non-anonymous systems.

But we also witness a study which says disclosure enhances liquidity by reducing transaction costs. **Admati and Pfeiderer (1991)** gave us a model which shows that traders who disclose their order size in advance of trade execution face lower transaction costs because market believes that such traders are uninformed and have genuine intentions of trading. Forster and George (1992) framed a model where increased disclosure related to direction and motivation of trades leads to reduction in trading costs. Conceptually, trading costs are the costs of adverse selection which may happen because some traders have private information.

Easley, Kiefer, O' Hara and Paperman (1996) investigated a set of NYSE stocks to determine if spread differences across active and infrequently traded stocks can be explained by information based trading. They found that chances of information-based trading are low for high volume stocks. The authors propounded – Inventory or liquidity effect, Market power and Information-based reasons.

Easley and O' Hara (1987) developed a model to show the effect of information on price-trade size relationship. According to the authors, large trade orders carry an information perspective which influences the price process. As there is a higher probability that the large order is coming from an informed trader, the market maker will also change his pricing strategy to minimize the adverse selection losses. This explains why block trades are executed at unfavorable prices. Also, the sequence of block trades contains more information than a single block order.

SPEED OF INFORMATION ADJUSTMENT IN STOCK PRICES

Another interesting aspect is the speed with which the information gets assimilated in the stock prices in a market. EMH says that efficient stock markets are those in which any new information is almost instantaneously reflected in the share prices. So, the speed of adjustment of prices to new information will determine the efficiency of the markets. **Prasanna and Menon (2013)** computed the speed of information adjustment in Indian stock indices during 2005 to 2010 period using four alternative speed estimators viz., the AR (1) model, the ARMA (1, 1) model, the ARMA (1, X) model, and the cross-covariance estimator. They observed an increase in the speed coefficients during 2005-09 period, including the global financial crisis duration. However, the speed coefficients declined for bank index, Bankex. This clearly reflects the sectoral impact of the financial crisis on Indian stock market. Such an increase in market indices shows the improved efficiency of Indian stock markets in the wake of reforms initiated in the last decade or so.

IV.   LIQUIDITY

Liquidity refers to the ease with which an asset can be converted into cash without any significant loss of value. It can be measured either by the time taken to trade an asset or the cost born to immediately trade the asset.

Market microstructure pays more attention to the cost of immediacy than the time for immediate execution of trade. So most of the theoretical and empirical studies focus on measuring the cost of immediacy and its influence on trade volume, market efficiency, asset pricing, etc. Immediacy cost can be explicit costs like brokerages, commission, transaction tax, etc or implicit costs like bid-ask spread, rounding off of prices, market impact costs, etc.

Kyle (1985) describes liquidity under three aspects of transaction costs:

a)   Tightness - refers to the cost of turning over a position in a short period of time. In the continuous auction equilibrium, the market is infinitely tight because it is costless to turn over a position very quickly.

b)   Depth - refers to the ability of the market to absorb quantities without having a large effect on price. In the continuous auction equilibrium, the depth of the market is constant.

c)   Resiliency - refers to the speed with which prices tend to converge towards their fundamental values. Resiliency also measures the rate at which prices bounce back from an uninformative shock. In both call and continuous market, the resiliency of prices is determined by the trading of the insider.

MARKET MAKING AND TRANSACTION COSTS

Liquidity is an inter-temporal concept in terms of market microstructure. Buy and sell orders may not arrive in the market at the same time. So, it may even hamper price discovery process. Here enters the role of intermediaries in the market. The dealers or market makers are always ready to take the other side of the transaction and this provides liquidity to the investors. However, the dealers need to be compensated for bearing the inventory risk and for this they charge a bid-ask spread. This liquidity based spread becomes a transaction cost for the traders/ investors (O' Hara 2003). Hara proposes that asset prices are influenced by the transactions costs of liquidity and the risks of price discovery.

INVENTORY CONTROL MODELS

The Dealer's model by Garman (1976) provided a base to all the inventory control models due to its inherent fallacy. The dealer model says that dealers will set one market clearing price where demand equates supply. But, the dealer will quickly run into bankruptcy due to random buy and supply order flows because he maintained a static price. However, the reality doesn't support this. It means that dealers revise their bid-ask quotes in light of inventory imbalances created due to trading. Such price adjustments are aimed at controlling inventory levels near the optimal levels. Stoll (1978) explained that dealers have a preferred inventory level and whenever their realized inventory deviates from that level, they buy/sell inventory and also adjust their bid-ask quotes. This is the dynamic price-inventory adjustment model. **Amihud and Mendelson (1980)** in their study showed that bid-ask prices are dependent on the inventory positions of the dealer or market maker. They predict that inventories revert back to the desired inventory position after bid-ask adjustments are made by the dealer.

Moving beyond bid-ask spread as the measure of liquidity, **Brennan and Subrahmanyam (1996)** used a different measure of illiquidity to study the relation between illiquidity and stock returns. They have used the transactions data from stock market and adjusted it for risk using Fama-French three factor model. They have covered both variable and fixed cost component of transaction cost and thus shed more light on adverse selection as a cause of illiquidity and higher transaction costs. Their results show a significant relation between illiquidity and stock returns.

TRADING RULES AND LIQUIDITY

Cumming, Johan and Li (2011), as discussed in an earlier section, showed that the trading rules have a significant impact on the liquidity of a market. Also, the study brought about a greater significance of market manipulation, insider trading rules, etc for liquidity than the broker agency conflict guidelines.

▪   SIGNIFICANCE OF MARKET MICROSTRUCTURE

Naes and Skjeltorp (2006) in a paper titled "Is the market microstructure of stock markets important?" touched upon the concept, important themes and relevance of market microstructure as a field of finance. They reiterate the fact that microstructure study challenges the age old efficient markets assumption in the theoretical construct of all financial models. Microstructure focuses on the two most significant functions of markets, namely, price discovery and liquidity. So, all other functions flow from - how prices reveal the information available and the information risk arising due to asymmetric information. It states that even if all the investors in a market are rational, asymmetry of information will cause prices to deviate from their true values.

As already stated in earlier sections, the structure of financial markets is changing these days. So, the very base of all concepts in finance is bound to undergo change and their conclusions can go haywire if not molded into current context. So from academic, research and policy perspective; study of microstructure of stock markets is all the more important. We have to look for its repercussions on portfolio decisions of investors, both in short term and long term. Recent trends like non-synchronous trading, high frequency trading, changing circuit breakers, etc need to be dug deeper and broader across markets, nations and products. Also, there is a need to develop new empirical methods to measure liquidity, transparency and informational risk, etc.

▪   APPLICATION TO OTHER AREAS OF FINANCE

Market microstructure has important learning and implications for other areas of finance like corporate finance, personal finance and international finance. Amihud and Mendelson (1986) studied the relationship between bid-ask spread and stock returns. It was observed that higher spread stocks shall yield higher returns to compensate the investor for higher transaction costs. It was so because risk can be diversified away but the cost of illiquidity cannot be diversified.

It also gave an important result for portfolio decisions. It said that low liquidity in the markets for a particular asset means a higher spread on it. This creates a need for a longer investment horizon to spread the high spread thinly across the holding period. Therefore, less liquid assets like real estate and small firms' shares will be held for longer periods. This means short term investors will prefer low spread stocks.

Amihud and Mendelson (1986) also empirically showed an increase in the value of stocks of the companies which moved to a more liquid trading environment. Benefits from enhanced liquidity reduced the spread which in turn led to a rise in their stock prices. This has an important implication in corporate finance because a higher value of firm's shares means a lower cost of capital and a greater total value for the firm. This way microstructure study is relevant for investment management and corporate finance too.

Lastly, with growing globalization and inter-country investments in fray, microstructure of global markets is also of interest to practitioners. So, market microstructure is not an isolated field of study, it is well-integrated with other areas too. Comparative studies across nations can help investors take global investment decisions and help regulators formulate reform policies and operating guidelines. Stock exchanges can also make necessary improvements in the trading mechanisms to enhance the market efficiency.

▪ **MARKET MICROSTRUCTURE RESEARCH IN INDIAN CONTEXT**

Market microstructure of capital markets has not been the cynosure of Indian researchers. However, off late it has picked up pace as a distinguished field of research. Most of microstructure studies have originated in the west, even those having Indian or developing markets as the sample. But, this also is a result of western markets maturing earlier than ours. So, now with a spurt in the stock market reforms, wide spread penetration of stock market investing habit (though still lower as compared to advanced nations) and the emerging nature of Indian markets make in-depth study and analysis of our markets a hot topic of research in finance. Some of the prominent studies reviewed by the author are given below.

A SEBI initiated project came out with a paper "Trade execution cost of equity shares in India" by **M.T. Raju, Kiran Kirande and Shikha Taneja (2002)**. It measured quoted and effective bid-ask spread and also studied its relation with market microstructure. Indian stock markets follow electronic limit order book. Spreads were found to be highest on opening time and gradually declined to their minimum near the day's end. Spread were seen to have an inverse relation with the trading volumes and market capitalization whereas a positive relation with volatility and number of trades. Overall, it was concluded that spreads depend upon market structure. The study also gives a brief overview of stock market design in India.

NSE India Limited has been supporting research initiatives. One such **NSE working paper 128**, titled "understanding the microstructure of Indian markets" has thrown light upon the microstructure of Indian financial markets. The authors have measured the spread for all NSE stocks using limit order books and Roll estimator. Absolute spreads were found to be rising with price and return volatility and declining with market capitalization, trading volume and number of trades. A U-shaped pattern for intra-day spread has been observed.

Nilanjan Ghosh (2009) provides a comment on status of market microstructure issues being highly neglected in India from both policy perspective and research purpose. It also talks about various landmark studies conducted in the past and already discussed in this paper. He particularly talks in context of Indian commodity markets, however the same holds true for our financial markets as a whole. Future researchers can take some motivation an insight from his article.

An interesting aspect is the speed with which the information gets assimilated in the stock prices in a market. EMH says that efficient stock markets are those in which any new information is almost instantaneously reflected in the share prices. As discussed earlier, Prasanna and Menon (2013) computed the speed of information adjustment in Indian stock indices during 2005 to 2010 period.

Acharya and Gaikwad (2014) conducted an event study to observe the effect of introduction of call auctions in pre-open session. Call auctions in pre-open session were introduced by SEBI on BSE and NSE on 18th October 2010. They conducted a study on a sample of 100 stocks, 50 on NIFTY and 50 on NIFTY JUNIOR over a period of 16 months (8 months each in pre call and post call period). Results show that there has been no significant improvement in price discovery process. One contrast being witnessed from Indian literature is that we introduced call auctions for highly liquid large stocks which are in market index, BSE SENSEX and NSE NIFTY, whereas other nations in the past have introduced them for infrequently traded stocks. Past literature also found call auctions more efficient for infrequently traded stocks. So there exists scope for further empirical testing in this area. Secondly, the sample size is too small as compared to whole exchange. A more inclusive introduction of call auctions on an exchange may bring about the desired results.

Various other studies have also been done on Indian markets but they are either too few in numbers or are concentrating on limited issues like call versus continuous markets, estimation of spread, informed trading or efficiency of electronic markets. There is a need to conduct more extensive studies and also study the integrated effect of various variables on stock market efficiency, price discovery, transparency and liquidity.

CONCLUSION

Market microstructure research has being severely neglected, especially in Indian context, despite its high significance for policy makers, investors, exchanges and corporate. No proper policy for regulation and development of markets can be devised without in-depth knowledge and understanding of market structure, investor behavior, and their interplay. Moreover, in Indian context, where we are trying to attract more and more investment into our capital markets and increase its soundness and depth, it is highly unlikely that we will succeed in big way unless some long due and warranted steps are taken to enhance investor protection, hassle-free trading and smooth settlement, etc

The four tenets of microstructure touched upon in this paper provide the author and readers with a ground work to delve into empirical studies. Literature review spanning over decades and nations provide useful insights. Price discovery and liquidity functions of the markets have been quite well-researched. Secondly, asymmetric information models have been successful in explaining informed trading and bid-ask spreads. However, market architecture debates have been restricted largely to call versus continuous markets and alternative order mechanisms. There is a lot of scope for diving into trading protocols, priority rules of trade execution, non-synchronous trading, high frequency trading, algorithm trading, etc. High frequency data availability will facilitate study of non-synchronicity and its effects more elaborately, even for individual stocks.

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REVIEW OF LITERATURE FOR SCALE DEVELOPMENT: E-SERVICE QUALITY

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ABSTRACT

The purpose of this paper is to present a literature review of the e-service quality scales that would enable in the adaptation of a scale is that is specific to internet banking in India. This paper reviews the dimensions of a few scales considered for the purpose of this study that could be considered further for the impact of e-service quality on customer satisfaction and all the other dimensions of relationship marketing, such as commitment, trust and loyalty. It is important that banks, with the advancement of technology and availability of highly advanced and strategically placed competitors, identify what is it that motivates customers to stay with a commercial bank in the long run. This paper has attempted to put forth all the common factors that influence the customer perception of e-service quality. The paper attempts to define all the relevant dimensions of e-service quality that have been considered for questionnaire replication. The industry to which the study is limited is online banking.

KEYWORDS

online banking, e-service, e-service quality, dimensions of e-eservice quality.

1.   INTRODUCTION

ervices are deeds, processes and performances. Services "include all economic activities whose output is not a physical product or construction, is generally consumed at the time it is produced, and provides added value in forms (such as convenience, amusement, timeliness, comfort, or health) that are essentially intangible concerns of its first purchaser." Valerie A. Zeithaml and Mary Jo Bitner.

Customer service is the service provided in support of a company's core products. It includes answering questions, taking orders, dealing with billing issues, handling complaints and scheduling maintenance or repairs. Customer service can occur on site or it can occur over the phone or via the internet. There is usually no charge for customer service. Quality customer service is essential for building customer relationships.

In case of online commercial transactions, customers can compare suppliers in real time, at any time, making it imperative that service providers do everything possible to upgrade and maintain service quality so as to ensure that customers not only remain loyal but are also retained in the long run. Building superior customer loyalty on-line is now the key to businesses success.

E-service, which is also known as web-based self-service, has further magnified the importance of the service sector and its role in the development and sustenance of modern economies. Though record-free, it provides ways to track the needs of customers, gauge their preferences, and measure the extent of their purchase intentions, much easier and faster than traditional brick and mortar service settings. The internet helps in storing and quick accessing of information related to customers and their buying behavior. This facilitates service providers to identify customer groups and target them with advertisements, products and services that cater to their individual needs.

This advent of information technology has also made its impact felt in a major service sector, namely that of banking. Web-based or internet banking has been slowly replacing the traditional brick and mortar banks.

WEB-BASED BANKING IN INDIA

In the Indian banking system too, the IT revolution has had a great impact. The 1990s saw a thrust by the Indian banking sector towards technology. Computerization of banking activities had led to introduction of online banking in India. With economic liberalization taking place in 1991 and the exposure of the Indian banking sector to the international market, the use of modern innovation and computerization has increased manifold. With international exposure came the realization that Indian banks could not compete with the international banks in terms of customer service without the use of information technology and computers. Indian banks were left with no option, but to integrate information technology into its activities, if it were to survive.

The RBI in 1984 formed a Committee on Mechanization in the Banking Industry, chaired by Dr C Rangaraj. The major recommendation of this committee was that of introducing MICR Technology in all the banks in the Indian metropolises. This provided for the use of standardized cheque forms and encoders. In 1988, the RBI set up a Committee on Computerization in Banks (1988) headed by Dr. C.R. Rangarajan which emphasized that settlement operation must be computerized in the clearing houses of RBI in Bhubaneshwar, Guwahati, Jaipur, Patna and Thiruvananthapuram. It further stated that there should be National Clearing of inter-city cheques at Kolkata, Mumbai, Delhi, Chennai and MICR should be made operational. It also focused on computerization of branches and increasing connectivity among branches through computers. It also suggested modalities for implementing on-line banking. The Committee submitted its reports in 1989 and computerization began from 1993 with the settlement between IBA and bank employees' association.

In 1994, the Committee on Technology Issues relating to Payments System, Cheque Clearing and Securities Settlement in the Banking Industry (1994) was set up with chairman Shri WS Saraf, Executive Director, Reserve Bank of India. It emphasized on Electronic Funds Transfer (EFT) system, with the BANKNET communications network as its carrier. It also said that MICR clearing should be set up in all branches of all banks with more than 100 branches. The Committee for proposing Legislation on Electronic Funds Transfer and other Electronic Payments (1995) emphasized on EFT system. Electronic banking refers to DOING BANKING by using technologies like computers, internet and networking, MICR and EFT so as to increase efficiency, quick service, productivity and transparency in the transaction.

In a highly service-oriented industry like retail banking, customers expect organizations to deliver service quality to their satisfaction. Therefore, to meet the growing service quality expectations of their customers, retail banks have spent huge proportion of their budgets on service performance related expenditures.

2.   REVIEW OF LITERATURE

2.1   E-SERVICE

Rowley (2006) gives a definition in conclusion of many scholars' opinions, "e-service, based on information technology, includes the information provision and system support, the logistic transportation of service and the trace and exchange of information". Rowley (2006) defines e-services as: "…deeds, efforts or performances whose delivery is mediated by information technology. Such e-service includes the service element of e-tailing, customer support, and service delivery". This definition reflects three main components- service provider, service receiver and the channels of service delivery (i.e., technology).

Lu (2001) identifies a number of benefits to be obtained from e-services, some of which are:

- Accessing a greater customer base;
- Broadening market reach;
- Lowering of entry barrier to new markets and cost of acquiring new customers;
- Alternative communication channel to customers;
- Increasing services to customers;
- Enhancing perceived company image;
- Gaining competitive advantages;

- Potential for increasing customer knowledge.

According to (Berthon et al. 1996), web sites play a significant role in the overall marketing communication mix. They complement direct selling activities, present supplemental material to consumers, project a corporate image, and provide basic company information to customers.

Web-based services allow different applications from different sources to communicate with each other without time-consuming custom coding. It can upload a user's information from the user's software to a secure website. Web-based services can either update a customer's financial information with the click of a mouse, or they can operate at automatic intervals set by the customer to download the information in the background while he/ she works in the financial software. Web-based services in financial software consist of automatic account updates and transaction downloads from financial institutions as well as content such as financial news and stock quotes generated online but presented in the software on the user's desktop. Web-based services are used primarily as a means for businesses to communicate with each other and with clients. Web services allow organizations to communicate data without intimate knowledge of each other's Information Technology systems behind the firewall. Web services are sometimes also called *application services*.

2.2 E-SERVICE QUALITY

E-Service Quality can be defined as the extent, to which a Web site facilitates efficient and effective shopping, purchasing, and delivery of products and services (Zeithaml, et al. 2000). Web-based service quality is a method for measuring the quality of services provided based on the web technology such as online communication, purchase and delivery of products/services (Cronin & Taylor, 1992). There is no virtual value in a product or service until it is delivered to satisfied customer. Customer service is determined by the interaction of all those factors affecting the process of making products/services available to the customer (Christopher, 1998).

According to Parasuraman, et al (1985) "the most common definition is the traditional notion that views quality as the customer's perception of services excellence, i.e. quality is the customer's impression of the services provided". Customer perception about product/service is based on quality of service or product. (Zeithaml, 1988). It is the customer's perception that rates the service quality of an entity (Anderson and Sullivan, 1993). Service quality has been described as a form of attitude, a long runs overall evaluation, and the two constructs (service quality and attitude) are viewed as similar (Zeithaml, 1988; Bitner and Hubert, 1994).

Parasuraman, et al. (2005) defined e-service quality as referring to the effectiveness and efficiency of online browsing, online purchase, and delivery of goods and services. Zeithaml et al. (2001, 2002 and 2005) developed the e-SERVQUAL measure of e-service quality to study how customers judge e-service quality. It contains seven dimensions: efficiency, reliability, fulfillment, privacy, responsiveness, compensation and contact. The first four dimensions are classified as the core service scale, and the latter three dimensions are regarded as a recovery scale, since they are only salient when online customers have questions or problems. The contents of the core e-SERVQUAL Scale are efficiency, which has been defined as the ease and speed of accessing and using the site; fulfilment was defined as the extent to which the site's promises about order delivery and item availability are fulfilled; reliability has been defined as the technical function of the site, particularly the extent to which it is available and properly functioning, and privacy was defined as the assurance that shopping behavior data are not open and that credit card information is secured. The recovery service scale in e-SERVQUAL, consisted of the dimensions of responsiveness defined as the capability of e-retailers to give appropriate data to customers when a problem happens, having mechanisms for handling returns, and giving online guarantees; compensation defined as giving money back and returning shipping and handling expenditures to customers and contact has been defined as the provision available to customers to speak to a living customer service agent online or on the phone.

Yoo and Donthu (2001) developed the SITEQUAL scale to measure customer perception of website quality of internet shopping sites. They considered website quality to consist the dimensions of Ease of use, Aesthetic Design, Processing Speed and Security. They defined the variable ease of use as the ease of use and the ability to search for information; aesthetic design as the creativity of a site with excellent multimedia and colour graphics; processing speed as the promptness of online processing and interactive responsiveness to a customer's requests and security as the security of personal and financial information. Their scale focused on site quality rather than on site efficiency. However, Yoo and Donthu's scale did not measure customer service or delivery issues.

A customer's online buying experience consist of everything from information search, product evaluation, decision making, making the transaction, delivery, returns and customer service (Wolfinbarger and Gilly, 2003). The eTailQ (Wolfinbarger and Gilly, 2003) incorporate the attributes that contribute to consumers having a satisfying, high quality online shopping experience. They constructs of the scale comprised of Website design, Fulfilment/ reliability, Security/ privacy and Customer service. Website design was defined as all elements of the consumer's experience at the website (except for customer service), including navigation, information search, order processing, appropriate personalization and product selection. Fulfilment/ reliability was defined as (a) the accurate display and description of a product so that what customers receive is what they thought they ordered, and (b) delivery of the right product within the time frame promised. Security/ privacy was defined as the security of credit card payments and privacy of shared information. Customer service was defined as the responsive, helpful, willing service that responds to customer inquiries quickly.

Barnes and Vidgen (WEBQUAL 4.0, 2003) identified three major dimensions of Web service quality, i.e., Usability, Information quality and Service interaction. Usability was defined as everything that has to do with man-computer interaction and how customers perceive and interact with the website, qualities that are associated with design and usability. This dimension consisted of appearance, ease of use, ease of browsing, appropriate design and the image put forth by the website. Information was defined as relating to the quality of website content, which comprised of adequate information for the user in question, precision, format and relevance. Quality of the interaction with the service was defined as consisting of concerns and features associated to reliability and empathy. It had to do with the experience the user had with the website, including the depth of browsing, and this is expressed through Reliability and Empathy, allowing for the smooth functioning of the website, its accuracy and its capacity to offer services that satisfy users' profile.

According to Collier and Bienstock (2006), e-service quality relates to customers' perceptions of the outcome of the service along with recovery perceptions if a problem should occur. They proposed e-service quality to comprise of process/ interactive quality, outcome quality and recovery. Process quality comprised of the dimensions - ease of use, privacy, design, information accuracy and functionality. The component outcome quality was deemed to comprise of timeliness, order condition, order accuracy. The component recovery was defined to comprise of outcome fairness, procedural fairness, and interactive fairness.

Bressolles (2006) proposed the NetQual scale. The NetQual scale considered internet service quality to comprise of quality and quantity of information available, ease of site use, design or aesthetic aspect of the site, reliability or respect for commitment and security or privacy of personal and financial data of the customer.

Loonam and Loughlin (2008) proposed a e-service quality scale that combined traditional service quality dimensions and e-service quality dimensions. According to them, e-service quality comprised of the following dimensions: Web usability, Security, Information quality, Access, Trust, Reliability, Flexibility, Responsiveness, Service recovery and Personalisation/ customization.

3. NEED FOR THE STUDY

Attracting and retaining customers is the key to retailing. Customers are more comfortable carrying out transactions in the comforts of their personal spaces and during times that are more convenient to them. This has been made possible for the customer with the identification of the internet as a device that builds communities, creates networks and as a caterer to instant needs of the customer. Retail outlets, even though a bit late, once they identified the benefits of e-retailing, have been quick to compete with one another when it comes to targeting customers and ensuring that they are retained. This necessity has become even more pronounced now that the customer is more educated, aware of options and would not pause before switching over to another retailer.

According to (Spreng and Mackoy, 1996) "service quality and customer satisfaction are the two core concepts at the crux of the marketing theory and practice". Service quality affects customer satisfaction and loyalty which have strong influences on customer behavior. Since service quality is one of the antecedents of customer satisfaction (Parasuraman et al., 1988; Cronin and Taylor, 1992; Athanassopoulos, 2000) and there are many relations among service quality, satisfaction, loyalty and customer retention (Cronin and Taylor, 1992; Gummesson, 1998; Silvestro and Cross, 2000), the measurement of service quality is a valuable concept that should be analyzed. E-service quality has also positive impacts on customer satisfaction (Chang and Wang, 2008; Barutcu, 2010; Liang, 2012). It was shown that e-service quality has a positive effect on satisfaction and satisfaction has a positive effect on loyalty (Chang et al., 2009).

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India, as a global player is no less prominent when it comes to e-retailing. The need of the hour is in identifying the antecedents of e-service quality in the Indian context. Many studies have been conducted all across the world and each researcher has come up with a set of scales and measures conducive to the place where the study has been carried out.

Since the study is conducted in the city of Bangalore, which is the IT capital of India, it would prove to be more relevant and a source of information to bank managers, that would enable them to identify factors that that have a direct impact on electronic service quality.

The purpose of this study is to explore the emergence of self-service banking technology and investigate self-service within the Indian financial services sector. This quantitative study of the Indian retail banking sector will try and assess the dimensions critical to e-banking service quality.

The study will contribute to previous research by adding to existing knowledge regarding what constitutes e-banking service and the determinants critical to e-service quality of net banking.

4. STATEMENT OF THE PROBLEM

In the year 2011-12 India had 87 scheduled commercial banks, i.e., 26 public sector, 20 private sector and 41 foreign sector banks. They have a combined network of over 53,000 branches and 17,000 ATMs. Bangalore alone has a total of 54 commercial banks, i.e., 26 public sector, 18 private sector, and 10 foreign sector banks. (*CTS, National Payments Corporation of India, Bangalore, June, 2012*). According to the RBI, Bangalore is ranked 3rd from across all the banks in India, based on the size of aggregate deposits / gross bank credit (March, 2012). Bangalore has 1,534 reporting offices, with an aggregate deposit of Rs. 26, 97,113 million, with a growth rate of 18.2% per annum.

The total population of the city of Bangalore in 2012, when this study started, was 8,973,658. Currently, in the year 2014, the population of Bangalore stands at 10,178,146. Bangalore has a literacy rate of 89%. With a gross domestic product (GDP) of US$35 billion in 2012, Bangalore is ranked fifth among the top cities contributing to India's overall GDP. It is ranked 59th among global economies, based on a report by "The World According to GaWC; Classification of Cities 2010," September, 14, 2011.

In 2011, Bangalore was the recipient of the eighth-highest number of foreign investment projects in the world, because of its leading role as an information technology (IT) and now biotechnology center.11 It is consistently rated the leading IT outsourcing city globally, ahead of Mumbai, Delhi, and Manila, because of its experienced firms and large high-tech talent pool. The city ranks 156th in an ECA International study of Asian professionals, just ahead of Chennai (167th) and Mumbai (172nd).

In a city like Bangalore, where most people lead busy lives, spending a major part of their weekdays at the workplace, internet banking is the only medium they would resort to for comfortable banking transactions.

With such a huge banking population, banks are unwittingly sitting on a storehouse of customers, who could be major contributors to long term banking profits and key players for a reason to create new banking products. However, there is no standardized tool available to Indian banks that will enable them to identify which are the key factors that customers perceive as contributing to e-service quality of banking websites.

5. OBJECTIVES

1. The objective of this paper is to present the concepts and definitions related to the area of E-service quality, based on literature review.
2. To identify the relevant e-service quality scales from which an e-servqual scale may be adapted

6. RESEARCH METHODOLOGY

The methodology of research employed was literature review. Articles were reviewed relating to e-service quality and scale development. 55 articles which focused on scale development of e-service quality alone were reviewed, for the purposes of this article. The article review gave a list of common antecedents of e-service quality, across scales.

7. RESULTS AND DISCUSSIONS

7.1 BANKS

THEORETICAL DEFINITION

Banks are financial institution licensed to carry out the function of accepting deposits, charge interest, make loans, clear cheques, act as intermediary in financial transactions and provide other financial services to their customers. There are two types of banks: commercial/retail banks and investment banks.

OPERATIONAL DEFINITION

Commercial banks are those banks which are concerned with managing withdrawals and deposits as well as supplying short-term loans to individuals and small businesses. Consumers primarily use these banks for basic checking and savings accounts, certificates of deposit and sometimes for home mortgages.

7.2 TYPES OF BANKS IN INDIA

In India, there are Public Sector Banks, Private Sector Banks and Foreign Branch Banks. Public Sector Banks (PSBs) are banks where a majority stake (i.e. more than 50%) is held by a government. The shares of these banks are listed on stock exchanges. There are a total of 27 PSBs in India (19 Nationalised banks + 6 State bank group (SBI + 5 associates) + 1 IDBI bank (Other Public Sector-Indian Bank) = 26 PSBs + 1 Bhartiya Mahila Bank).

The private-sector banks in India represent part of the Indian banking sector that is made up of both private and public sector banks. The "private-sector banks" are banks where greater parts of stake or equity are held by the private shareholders and not by the government. The private sector banks are split into two groups by financial regulators in India, old and new. The old private sector banks existed prior to the nationalisation in 1969 and kept their independence because they were either too small or much too specialised to be included in nationalisation.

Foreign branch banks are a type of foreign bank that is obligated to follow the regulations of both the home and host countries. Here, a foreign bank opens its branch in India and the branch bank is governed by rules and regulations existing in both India as well as its country of origin.

For the purposes of this study only those public, private and foreign banks have been considered, which provide internet banking facilities to their customers.

7.3 ONLINE BANKING

Online banking, which can be defined as the provision of information or services by a bank to its customers over the Internet (Daniel, 1999), has been one of the major developments in the financial service sector in recent years. With an increasing number of customers being online, the importance of Web sites for influencing purchasing decisions is rising steadily. Measuring the quality of Web sites from a user's perspective enables companies to take corrective actions, develop an appropriate e-business strategy, and improve their operations (Ganapathy, et al. 2004, Seethamraju, 2004). Online banking (or Internet banking or E-banking or Web-based banking) allows customers of a financial institution to conduct financial transactions on a secure website operated by the institution, which can be a retail or virtual bank.

7.4 E-SERVICE

E-Service (or 'eService') refers to, 'the provision of services via the Internet. It focuses on the use of Information and Communication Technology (ICT) in different areas. Providing an exact definition of e-service may be difficult as researchers have been using different definitions to describe e-service. Despite these different definitions, it can be argued that they all agree about the role of technology in facilitating the delivery of services which make them more of electronic services. Thus, e-Service may also include e-Commerce, although it may also include non-commercial online services which are usually provided by the government.' (Irma Buntantan & G. David Garson, 2004; Muhammad Rais & Nazariah, 2003).

7.5 E-SERVICE QUALITY

Theoretical definition

Zeithaml, Parasuraman, and Malhotra (2000) suggest that a customer's assessment of a web site's quality includes not only experiences during their interactions with that site but also post-interaction service aspects (i.e., fulfillment and returns).

Operational definition

E-Service Quality is defined broadly to encompass all phases of a customer's interactions with a bank's web site. It consists of the following key indicators: information, ease of use, efficiency, fulfillment, contact, website design, reliability and security. For the purposes of this study *information* is defined as the bank website's ability to provide timely, relevant, accurate, in-depth and comparative information, presentation of information in an appropriate format and structure which is concise, useful, effective and tailored to the specific needs of the customer. *Ease of use* is defined as the provisions made by the bank's website that facilitate easy operation and navigation of the website, clarity of interaction, textual matter, legibility and layout for facilitating search for information. *Efficiency* is defined as the ability of the bank's website to load pages quickly, enable quick access, processing and completion of transactions, continuity of transactions without technical delays and continuous availability. *Fulfillment* is defined as the ability of the bank's website to deliver orders within a suitable time frame, as and when promised, without delay. It also is defined as the website being truthful about the products and services on offer, stock of products and keeping promises. *Contact* is defined as having the following attributes namely the 24/7 availability of online customer service representatives, contact numbers, the sense of community and interactive features that enable accomplishment of tasks. *Website design* is defined as having the attributes of a visually pleasing design that is innovative, creative, competitive and appropriate to the type of site and the image of the bank. *Reliability* has been defined as the availability of 24/7 net banking service, accurate and detailed information and excellent net banking support. *Security* has been defined as the customer's confidence in the security and privacy of customer's personal information on the bank's website, as well as the availability of firewalls and security systems as privacy features.

The E-service quality indicators will be measured on a 7 point Likert scale, with 1 being strongly disagree and 7 being strongly agree.

8. FINDINGS

Table 1 below shows the variables under study and the e-service quality scales considered for adaptation.

TABLE 1: REFERENCES FOR E-SERVICE QUALITY SCALE ADAPTATION

Variables	References
Information	NetQual Bressolles (2006); WEBQUAL 4.0 Barnes and Vidgen (2003); Loonam and Loughlin (2008)
Ease of use	NetQual Bressolles (2006); WEBQUAL 4.0 Barnes and Vidgen (2003); WebQual[TM] Loiacono, Watson and Goodhue (2000); Loonam and Loughlin (2008)
Efficiency	E-S-QUAL Parasuraman, Zeithaml and Malhotra (2005); SITEQUAL Yoo and Donthu (2001); WebQual[TM] Loiacono, Watson and Goodhue (2000); Loonam and Loughlin (2008)
Fulfillment	E-S-QUAL Parasuraman, Zeithaml and Malhotra (2005)
Contact	E-RecS-QUAL Parasuraman, Zeithaml and Malhotra (2005); NetQual Bressolles (2006), WebQual[TM] Loiacono, Watson and Goodhue (2000); WEBQUAL 4.0; Barnes and Vidgen (2003); Loonam and Loughlin (2008)
Website design	WebQual[TM] Loiacono, Watson and Goodhue (2000); WEBQUAL 4.0 Barnes and Vidgen (2003)
Reliability	NetQual Bressolles (2006); Loonam and Loughlin (2008)
Security	NetQual: Bressolles (2006); eTailQ: Wolfinbarger and Gilly (2003); Loonam and Loughlin (2008)

Source: Author's own work

9. RECOMMENDATIONS/ SUGGESTIONS

Theoretically, this paper has extended and merged the traditional service quality dimensions with the e-service quality dimensions. It has, at the same time, put forth the available literature on e-service quality, including validated scales, which may be adapted and used in the Indian context.

The paper has attempted at providing a bird's eye-view of the common measures of e-service quality that internet banking websites need to focus on to ensure that they provide good quality web based services to their customers that will initiate a feeling of satisfaction and commitment to the bank's website, in spite of rising competition and attractive products by competing banks. This is in addition to the requirement that they need to keep a track of their websites to ensure that complaints are redressed and 24/7 real time services are provided to their customers to ensure that they are satisfied, at the same time ensuring that the degree of quality of services provided to their customers do not lack in any manner and quality is not comprised with.

It is the customer's perception of e-service quality that rates the service quality of an entity (Anderson and Sullivan, 1993).

10. CONCLUSIONS

On the basis of literature review, a questionnaire will be prepared for testing customer perception of e-service quality of select retail banks in the city of Bangalore. The design of the questionnaire will be done keeping in mind the variables under study. The key areas to be measured have been identified and grouped under each heading.

11. LIMITATIONS

The scale has to be tested on a sample population to determine whether it is valid. Since banking is the area of research and that too internet banking there may be a possibility that banking customers may be a bit vary about revealing information. This study would prove better if not only the antecedents of e-service quality are identified, but also the consequences of e-service quality such as satisfaction, loyalty, etc.

12. SCOPE FOR FURTHER RESEARCH

According to (Spreng and Mackoy, 1996, p.175) "service quality and customer satisfaction are the two core concepts at the crux of the marketing theory and practice". Simply ensuring that the quality of internet services is attractive or efficient, without ensuring good relationship marketing by focusing on the key areas of satisfaction, commitment and trust, long term retention of the net banking customer cannot be ensured. An extension of this paper will be to prove that in the Indian context, the dimensions of e-service quality, such as web site design, and information (Barnes and Vidgen, 2002), ease of use, reliability, security and efficiency (Santos, 2003; Wolfinbarger and Gilly, 2003), fulfillment (Wolfinbarger and Gilly, 2003), ease of use (Ribbnink et al, 2004), and contact (Loiacono et al, 2000); Barnes and Vidgen, 2003); Loonam and Loughlin, 2008) have a significant influence in determining e-service quality of internet banking.

Future research could make several extensions to the current study. Firstly, future research inquiries could employ the model and the questionnaire across various forms of online businesses, and diverse international customer environments. Secondly, it could also be used to study whether there are differences in customer responses, when compared between countries. Thirdly, consumer-specific characteristics such as customer orientation, time pressure, technological education, balanced gender, etc. could affect how customers perceive service quality.

Next, the topic under study was online banking, an area where a large number of banking customers have unique perceptions regarding online security and efficiency. Most individuals primarily use the internet to obtain information or simply for recreational purposes. It would be better that future research focuses on a generalized scale that can be used across various online service providers, such as online auctions, online investing, and online travel services, where e-service quality is also difficult to inspect on face value. Again, future research could study the influence of e-service quality on e-satisfaction and e-loyalty.

13. ACKNOWLEDGEMENT

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FOREIGN DIRECT INVESTMENT IN INDIA; TRENDS AND POLICY: APRIL, 2000 TO MARCH, 2015

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ABSTRACT

Foreign Direct investment plays a crucial role in the development of the nation and growth of economy. Domestically available capital is inadequate for the purpose of overall development of the country. Foreign capital is seen as a way of filling in gaps between domestic savings and investment. The present study has focused on the trends of FDI Flow in India during 2000-15 (up to March, 2015). The study also highlights country wise approvals of FDI inflows to India and the FDI inflows in different sector for the period April 2000 to March 2015.This paper also discuss about the major policy changes done recently and launch of The Make in India programme to boost FDI. The study based on Secondary data The study concludes that Mauritius emerged as the most dominant source of FDI contributing because of the Double Taxation Avoidance Agreement and service sector is a recipient of major FDI inflow.

KEYWORDS
Foreign direct investment (FDI), Foreign capital inflow, Sectors, Investment, Countries inflow trend.

1. INTRODUCTION
A country's economic growth much depends upon its capital formation. Domestic investments adds to the capital stock in an economy while foreign direct investment plays a complementary role in overall capital formation. Need of FDI depends on saving and investment rate in any country. FDI is an investment from one country into another country/countries (mainly privately owned enterprises rather than governments) that involves establishing operations or acquiring tangible assets, including stakes in other businesses. Purchase or establishments of income-generating assets in a foreign country that entails the control of operation or organisation. It is not just transfer of ownership as it usually involves the transfer of factors complementary to capital, including management, technology and organisational skills.

India has already marked itself as one of the fastest growing economies of the world. It has been ranked among the top 3 attractive destinations for inbound investments. In 2015, UNCTAD survey(based on responses 159 companies) projected India as third most attractive FDI destination after China and United states for transnational corporation during 2013-2015. Trade and foreign direct investment policy was not in the top of the agenda in India's development strategy until the early eighties. However , since 1991(year of economic liberalization in India), the regulatory environment in terms of foreign investment has been consistently eased to make it investor friendly.

2. OBJECTIVE
- To study and analyses trends of FDI flow in India during 2000-01 to 2014-15.
- To analyze country wise FDI trends.
- To analyze sector wise FDI trends
- To study FDI policy & Make in India programme

3. FDI POLICY
FDI in India can be done through two routes-
- Automatic Route: No prior approval of either government or the Reserve of bank of India (in all sectors/activities as specified in the FDI policy, issued by the Government of India from time to time) is required.
- Government Route: Activities which are not covered under automatic route requires prior approval of government which also considered by the Foreign Investment Promotion Board (FIPB), Dept. of economic affairs, Ministry of finance.

Foreign investor can be
- Individual: FVCI, Pension/Provident fund, Financial Institution.
- Company: Foreign trust, Sovereign wealth funds, NRIs/PIOs.
- Foreign institutional investors: Private equity funds, Partnership/ Proprietorship firms, others.

(Citizen or entity from Pakistan cannot invest in defence, space, atomic energy and sectors prohibited for foreign investment. Also citizen/entity from Pakistan and Bangladesh can only invest under the government route.)
In order to give a push to the slow moving economy, government has introduced a major policy reform.
Recent policy measures in FDI are:
- FDI in commodity, stock exchanges and depositories, petroleum refining by PSUs, power exchanges, courier services which were under government route has now been brought under the automatic route.
- Removal of restriction in tree plantation sector.
- 100% FDI is allowed in medical devices, telecom sector and in single brand retailing, asset reconstruction companies.
- Construction, operation and maintenance of specified activities of Railway sector opened to 100% FDI under automatic route.
- FDI cap increased in insurance & sub activities from 26% to 49%.
- FDI limit in defence sector raised from 26% to 49% under government approval route.
- Foreign Portfolio Investment raised to 24% under automatic route.
- FDI beyond 49% is also allowed on a case to case basis with the approval of Cabinet Committee on Security.

These policy measure aims giving greater flexibility to Indian companies to seek foreign investments, the composite foreign investment cap policy move is taken to attract larger foreign investments as they eliminate ambiguity on application of sectoral foreign investment caps, though in some cases this will result in FIIs getting greater play immediately. However, a government approval would be required if there is a transfer of ownership or control of Indian companies from resident Indian citizens to non-resident entities. Currently, in investment data, only FDI is taken into account and not FII/FPI.

3.1. MAKE IN INDIA
Make in India is an initiative by Government of India and is launched by Prime Minister Narendra Modi on 25 September 2014, to encourage companies to manufacture their products in India and transform India into a global manufacturing hub. The initiative hopes to attract capital and technological investment in India. The major objective behind the initiative is to focus on 25 thrust sectors of the economy for job creation and skill enhancement where India can become world leader. These sectors include automobiles, chemical, IT, pharma , textiles, ports, aviation, leather, tourism and hospitality, wellness, railways, auto

component, design manufacturing, renewable energy, mining, bio-technology and electronics. 100%FDI is allowed in all these sector except Space (74%), Defence (49%) and News Media (26%).

RESPONSE OF MAKE IN INDIA

✓ Memorandum of understanding signed between Spice Group and the Government of Uttar Pradesh. Spice group said it would start a mob9ile manufacturing unit in Uttar Pradesh with an investment of 500 crore.
✓ HyunChil Hong, The President & CEO of Samsung South west Asia announced, with Kalraj Mishra, Union Minister for Micro, Small and Medium Enterprises, to discuss a joint initiative under which 10"MSME-Samsung Technical Schools" will be established in India. Samsung also announced to manufacture the Samsung Z1 in its plant in Noida.
✓ Hitachi announced to increase its employees in India from 10000 to 13000 and would also try to increase its revenues from India. It also announced to setup an auto-component plant in Chennai in 2016.
✓ In February 2015, Huawei opened a new research and development (R&D) campus in Bengaluru by investing US$170 million.
✓ Also in February, Marine Products Export Development Authority said that it was interested in supplying shrimp eggs to shrimp farmers in India under the initiative.
✓ iPhone manufacturer Foxconn in talks with sub to build first Apple plant in India. However, Foxconn had yet to make firm commitment.
✓ Ford working on plans to ship India-made EcoSport to US, request for quotation put out by Ford is for as many as 90000 units a year which is more than a number of vehicles it sell in India etc

As a result FDI inflow in India has moved suddenly by 56% in five months since the Make in India has launched. Manufacturing sector alone accounts jump of 45% at $6.9 billion from $4.8 billion in a corresponding period a year ago. India during five-month period received $21.2 billion inflows overall.

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4. SECTOR WISE TRENDS OF FDI

TABLE 1: SECTOR-WISE FOREIGN DIRECT INVESTMENT INFLOWS INTO INDIA-1991 TO 2015 (US $million)

Sectors	FDI inflow 1991-1999	Sectors	FDI inflow 2000-2015 (till march)
Electrical equipment	1393.13	Service Sector	42712.67
Service sector	1213.66	Construction development: Townships ,Housing, Built-up infrastructure & Construction- Development Projects	24064.13
Telecommunications	1211.64	Telecommunications	17058.03
Chemical other than fertilizers	1196.17	Computer Software & Hardware	15017.32
Power	1093.32	Drugs & Pharmaceuticals	13120.87
Food processing industries	710.51	Automobile industry	12382.49
Paper & Pulp	259.85	Chemicals (Other than Fertilizers)	10336.98
Mechanical & engineering industry	255.41	Power	9557.33
Textiles (including dyed& printing)	248.88	Miscellaneous Industries	9242.95
Drug & Pharmaceuticals	246.71	Metallurgical Industries	8546.73
Trading	201.48	Trading	8060.37
Metallurgical industry	255.41	Hotel & Tourism	7916.40
Industrial machinery	108.88	Petroleum & Natural Gas	6569.13
Hotel & Tourism	91.33	Food Processing Industries	6310.67
Ceramics	51.6	Mechanical & engineering industries	3978.22
Cement & gypsum product	49.92		
Fermentation industry	24.15	Information & Broadcasting (including print media)	3969.36
Consultancy services	6.61		
Computer Software & Hardware	0	Electrical equipments	3874.91
Housing & real estate	0	Industrial machinery	3631.58
Construction activities	0	Non- Conventional energy	3616.79
Automobiles industry	0	Construction (infrastructure) activities	3434.39
Petroleum & natural gas	0		
Information Broadcasting	0	Cement & gypsum products	3089.33
others	2401.36	Hospital & diagnostic centre	2945.12
		Consultancy services	2809.33
		Fermentation industries	2192.28
		Rubber goods	1757.62
		Agriculture services	1757.58
		Mining	1669.65
		Ports	1637.30
		Textiles (including dyed,	1587.83

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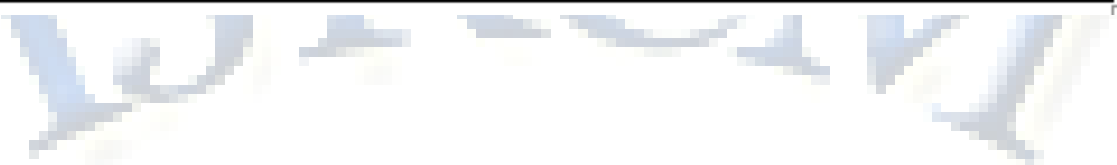
printed)	
Sea transport	1545.87
Electronics	1429.77
Prime mover (other than electrical generator)	1290.97
Education	1089.73
Medical & surgical appliances	932.45
Paper & Pulp (including paper products)	920.29
Soaps, cosmetics & toilet preparations	916.37
Machine tools	716.16
Ceramics	705.26
Diamond, gold ornaments	696.48
Railway related components	636.99
Air transport (including air freight)	569.80
Vegetable oils & vanaspati	550.30
Fertilizers	543.25
Glass	461.19
Printing of book (including litho printing industry)	448.63
Agricultural machinery	417.83
Commercial, office & household equipments	309.34
Retail trading(single brand)	275.38
Earth-moving machinery	234.85
Scientific instrument	172.34
Leather, leather goods & pickers	150.07
Tea & coffee(processing & warehousing coffee & rubber)	108.50
Timber products	105.74
Sugar	81.29
Dye-stuffs	74.38
Industrial instruments	67.91
Photographic raw film & paper	67.29
Boilers & steam generating plants	63.33
Glue 7 gelatin	37.88
Coal production	27.73
Mathematical, surveying & drawing instruments	7.98
Defence industries	5.02
Coir	4.07

Total	10954.66	Total	248511.80

Source: Reserve bank of India (fact sheet of FDI)

On the basis of sectoral analysis, FDI is mainly flowed from service sector including financial and non financial services, information technology, telecommunication, hotel and tourism, pharmaceutical & drugs.

Since 1991, after liberalization , service sector has remained main sector attracting FDI. Service sector received FDI inflows of US$ 42712.67 million during period 2000-2015. This sector has tremendous growth potential and is among the main drivers of sustained economic growth and development by contributing significant share in GDP. Mauritius is the top nation to invest in service sector.

FDI in telecommunication sector is rising at astonishing pace. It has also remained one of the top 10 sector to attract foreign direct investment since 1991. Two main reason behind the huge FDI inflow in this sector are private sector participation and growing demand in India. The government of India is also showing increasingly participation in ensuring pro-active and positive policies to boost FDI to this sector. It added US$17058.03 million in 2000-15 .

Computer hardware& software was constitute under head 'electrical' till 2003. It has been taken as a separate industry since the year 2004. It accounted US $ 15017.32 million in year 2000-15. This sector enjoys 100% FDI permission under automatic route.

The Indian Pharmaceutical industry has been experiencing a vast inflow of FDI because of the various functions such as contract research and manufacturing, clinical research, research & development pertaining to vaccines. Multinational Pharmaceutical Corporation outsources these activities and helps the growth of the sector. It accounts for US$ 13120.87 million share in FDI inflow in year 2000-2015.

The FDI in Automobile has experienced huge growth since 2000 and adds to US$ 12382.49 million in FDI share. Advantages that India has in this sector are advanced technology, cost effectiveness, efficient manpower and most importantly growing demand to the automobile.

Construction is another leading sector attracting FDI inflow and has ranked 2nd in year 2000-15 by contributing US$ 25064.13 million in FDI share. It includes housing, commercial premises, hotels, resort hospitals, educational institutions, recreational facilities and city & regional level infrastructure. FDI to this sector is 100% permissible under automatic route.

The huge size of market and high return on investment has managed to boost FDI inflow in power sector since 1991. In year 2000-15 it accounted US$ million FDI inflow. 100 % FDI is allowed under automatic route in almost all kind of power generation except atomic energy.

Other than above mentioned sector FDI is also coming from other sectors including chemicals, metallurgical industries, hotel and tourism, trading, petroleum and natural gases, consultancy services, fermentation, electrical equipment and others. The value of total FDI in year 2000-15(till March) is US$ 248511.80 million which is way better than that of year 1991-1999.

5. COUNTRY WISE TRENDS OF FDI

Table 2: STATEMENT ON COUNTRY-WISE FDI EQUITY INFLOWS (In US$ million)

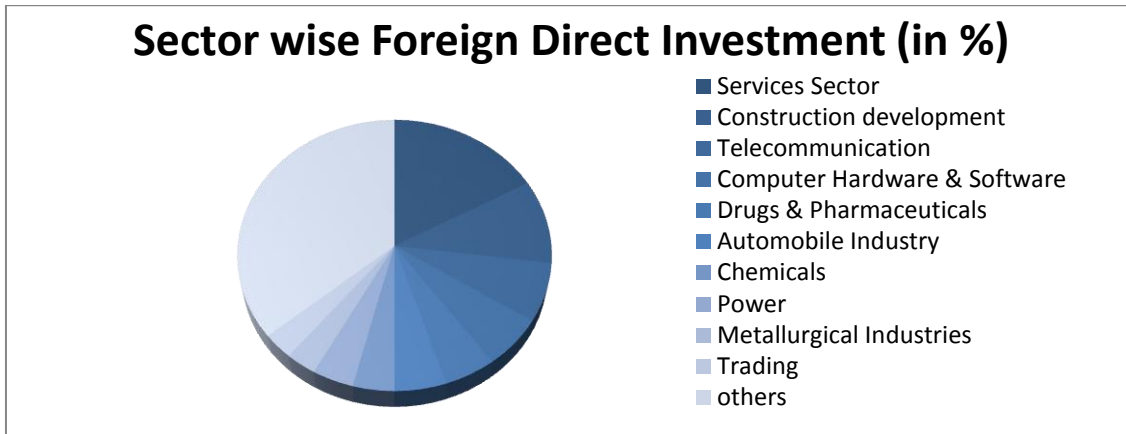| College	FDI inflow 1991-1999	Countries	FDI inflow 2000-2015 (till march)
USA	7212.96	Mauritius	87554.99
Mauritius	3466.87	Singapore	32187.73
UK	2495.20	United kingdom	22210.30
South Korea	1513.37		
Japan	1422.40	Japan	18352.28
Germany	1234.2	Netherlands	14671.10
Australia	1023.78	U.S.A	13751.06
Malaysia	868.44	Cyprus	8044.02
France	786.42	Germany	7643.58
Netherland	733.28	France	4513.00
Other countries	5701.63		
		UAE	3044.75
		Switzerland	3044.55
		Spain	2052.95
		Italy	1585.46
		South Korea	1551.94
		Hong Kong	1540.89
		Luxembourg	1245.15
		Sweden	1092.15
		Caymen island	1074.25
		Russia	1054.09
		China	897.06
		British Virginia	837.65
		Belgium	804.56
		Malaysia	734.31
		Australia	651.12
		Indonesia	622.97
		Poland	619.56
		Canada	528.08
		Denmark	414.54
		Oman	369.93
		Finland	346.55
		Ireland	330.00
		South Africa	289.62
		Austria	247.82
		Thailand	202.93
		Norway	181.28
		Chile	176.41
		Other countries	14043.2
Total	29213.86	Total	248,511.80

Source: Reserve bank of India (fact sheet of FDI),

If we look country wise trends of FDI, we finds that most of the FDI comes from Mauritius i.e. US$ 87554.95 million and has ranked 1st among the top ten country making investment in India. Mauritius alone contributes US$ 87554.95 million. It is because the India has Double Taxation Avoidance Agreement (DTAA) with Mauritius. This (DTAA) type of taxation treaty has been made out with Singapore also and so Singapore is second largest Investor of FDI inflow in India. Singapore accounts for US$ 32187.73 million of FDI in India. Other major contributor of FDI are U.K, Japan, Netherlands, U.S.A, Cyprus, Germany, France, UAE, Switzerland, Spain, Italy, South Korea, Hong Kong, Luxembourg.

Other countries have very minimal share of FDI. To contrary USA was the major contributor to FDI in 1991-1999 followed by Mauritius, UK, south Korea, Japan, Germany, Australia, Malaysia, France , Netherlands. Singapore was not there in top ten has now ranked 2nd in 2000-2015.

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6. FINDINGS

Sector wise Foreign Direct Investment (in %)

- Services Sector
- Construction development
- Telecommunication
- Computer Hardware & Software
- Drugs & Pharmaceuticals
- Automobile Industry
- Chemicals
- Power
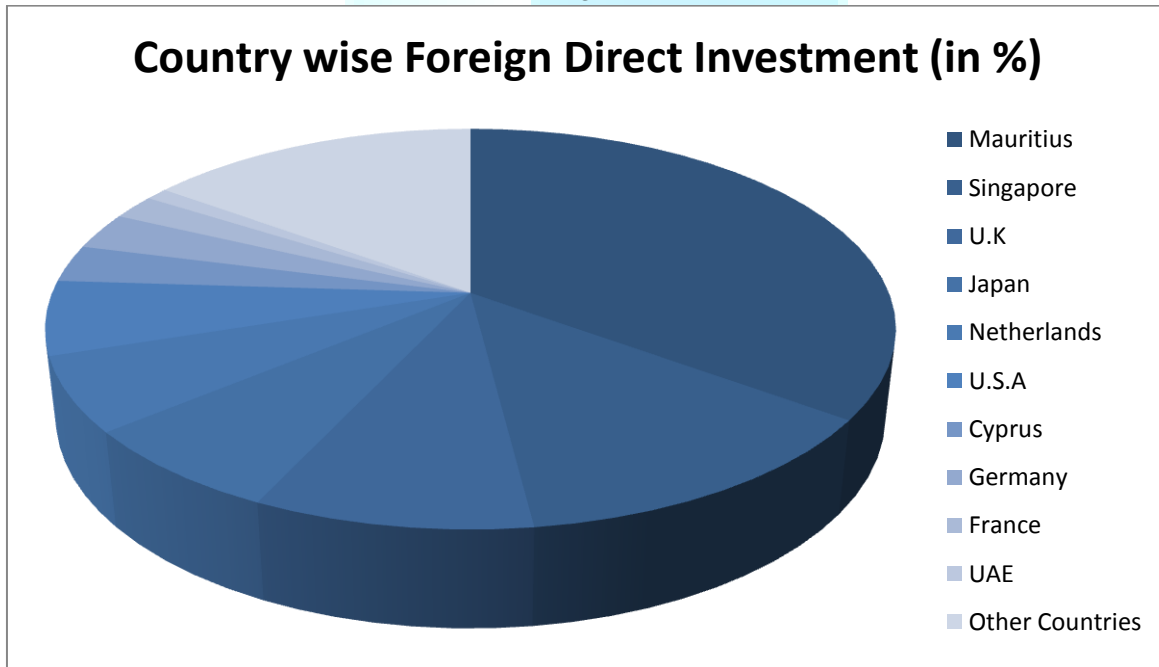- Metallurgical Industries
- Trading
- others

Note:

1. Services sector includes Financial, Banking, Insurance, Non-Financial / Business, Outsourcing, R&D, Courier, Tech. Testing and Analysis
2. FDI Sectoral data has been revalidated / reconciled in line with the RBI, which reflects minor changes in the FDI figures (increase/decrease) as compared to the earlier published sectoral data.

Study of sectoral trend reveals that service sector has remained important FDI destination since 1991-1999 and has major share of 17% in total FDI. Second major sector is construction development (township, housing and built-up infrastructure) with the share of 10% in total FDI followed by Telecommunication with 7% share, Computer software & hardware with 6% share, Drug & Pharmaceutical with 5% share, Automobile Industry with 5% share, Chemicals with 4% share, Metallurgical industries with 4% and Trading with 3% share in FDI. These are the top 10 sectors attracting FDI. Other sectors constitute 36% of the overall FDI.

Sectors with restrictions are lottery business, gambling & betting, chit fund, Nidhi company(borrowing from & lending to members only), Trading in Transferable Development Rights, Real estate business(other than construction development) or construction of farm house, services like legal, book keeping, accounting & audit and activities and sector not open to private sector investment e.g. Atomic energy and Railway transport(other than construction , operation and maintenance of (a) high speed train project ,(b) dedicated fright lines, (c)railway electrification, (d) signaling system, (e) freight terminals, (f) passenger terminals, (g) mass rapid transport system, (h)infrastructure in industrial park pertaining to railway line/sidings including electrified railway lines and connectivities to main railway lines ,(i) sub-urban corridors projects through PPP and, (j) rolling stock including train sets, and locomotives/ coaches manufacturing and maintenance facilities.

Country wise Foreign Direct Investment (in %)

- Mauritius
- Singapore
- U.K
- Japan
- Netherlands
- U.S.A
- Cyprus
- Germany
- France
- UAE
- Other Countries

Note:

1. *Includes inflows under NRI Schemes of RBI.
2. %age worked out in US$ terms & FDI inflows received through FIPB/SIA+ RBI's Automatic Route + acquisition of existing shares only.

Country wise study of trends reveals 35% of total FDI inflow comes from Mauritius making it top the list of top ten major countries responsible for FDI inflow in India. Second most important country is Singapore with the 13% of the total investment followed by U.K with 9% share, Japan with 7%, Netherlands 6%, U.S.A with 6%, Cyprus, Germany both with 3%, France with 2%, UAE with 1% and remaining share of 15% FDI inflow come from other countries. 85% of total FDI inflow comes from these ten countries. More than half of the inflow comes from tax havens and offshore financial centres Mauritius, Singapore & U.K.

7. CONCLUSION

FDI has helped the Indian economy to grow and prosper. India emerges as the largest recipient of foreign direct investment across the world. Present study found that the total FDI inflow in India from April 2000- March 2015 is US $ 248511.80 million. Mauritius emerged as the most dominant source of FDI contributing US$ 87554.99 million, which is 35% share of the total FDI inflow in India from rest of the world. Similarly, service sector has emerged as the most important sector attracting FDI inflow followed by construction development, telecommunication, computer software & hardware, drugs & pharmaceutical and automobile industry. These six sectors contribute to 50% of the FDI inflow. Since India has high potential for growth, attracting foreign direct investment has

become an integral part of the economic development strategies for India. While there are signs of stabilisation in net FDI inflows. India still has a long way to go to return to pre-global financial crisis peak. In this light, Modi government has reiterated that the country's FDI regime is highly open and conducive for attracting such flows of foreign capital. Make in India is one the important programme in this regard, FDI inflow showed a sudden growth by 56% in five months since The Make in India has launched.

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