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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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ONLINE RESOURCES

● Always indicate the date that the source was accessed, as online resources are frequently updated or removed.

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THE PERCEPTION OF EMPLOYEES TOWARDS ORGANIZATIONAL TRAINING IN A TYPICAL MANUFACTURING INDUSTRY

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ABSTRACT

Human Resource Development (HRD) plays a wider role in the accomplishment of a goal in any typical organization. To contend in a consistently evolving world, industries should realign themselves towards updating. Industrial advancement is an approach to enhance an organization through human knowledge, skill and ability transformation procedure. The purpose of the present research is to appraise the various dimensions of training offered for manufacturing professionals. The key objectives of the current research are to identify the contemporary training programs taught in manufacturing companies, the objectives and methods employed in and also to study the effectiveness of such training program on employee performance. The present research examines the perceptions and experiences employees in a major manufacturing industry at Mysore city, Karnataka state, India. The study is focused on analyzing perceptions of employees about the organization, Management, Leadership, work culture, Production & productivity. A Sample size of 53 employees was considered to this study. The outcome of the research is noted as perception levels of employees were uniformly distributed and there are no mean significant differences in the perception of the employees about the training program.

KEYWORDS
perception, training need, knowledge evaluation, performance appraisal.

JEL CODES
J00, C12, C83, D91, J11, J30, J50, J62, L25, L60, L62, M53, M54.

1. INTRODUCTION

Training is that process which advances the efficiency of employees. Training provides specialized knowledge that is required to perform a specific job. Training has been defined by different scholars of management.
Some important descriptions of training are mentioned below:
Training is an organized procedure by which people learn knowledge and Improve skill for a definite purpose and it is a process by which the aptitudes, skills and abilities of employees to perform specific jobs are increased. Training is the act of increasing the knowledge and skill of an employee for doing a particular job by which manpower is filled for the particular job it has to perform.
Formal education alone does not give employees an edge to being fully productive in the industry as formal education is focused on theories, mathematics, algorithm, principles etc. This can be in a small structure followed in text books and manuals. Informal education is attaining knowledge on job by experience and not by anyone teaching.
The top performing industry like GE has its presence across globe is concentrated in designing robust in house training programs to develop skills that provides long term benefits to employees. The foundation is on continual learning and development. The company has consistently invested more than 1 billion dollar annually in training and knowledge advancement.
The top performing steel industry like Tata Steel formerly called TISCO and Tata Iron and Steel Company Limited is standing in the seventh place across globe in competition, with production of crude steel numbering to 31 million tons. It supports with free medical care services to all employees and their family that continues after the employee retires from work too. Also the company helps employees with monetary benefits shows interest in pursuing higher education, new trainings and relative knowledge advancement activities.
Reskilling in industry towards automation has changed employee's perception to fear. But should employees really worry about the change is the question. But it is debatable that new change will not harm any worker in manufacturing industry as it is focusing on Robotics and automation towards quality and process improvement.
This trend has evolved in newer opportunities in industries, however in our country the trend seems to be slow but the phase needs to be quicker and fast. Training has been given more prominence in reskilling industry workers in learning new technology and soft and life skill development.
The invention of automaton has changed the style of industry functioning. New job opportunities have opened up for which new knowledge and skills have become very key and essential. Even though machines are incorporated into new tasks and roles, they still need to be manufactured, maintained and monitored. For these, we need people with specialized skills to focus on key areas including competitive advantage and user experience.
But with new government policies and taxation, most manufacturing companies showed flat or deteriorating training funds towards Management training program. This is because more emphasis is given to technical training programs.
Employees find it difficult to implement the training knowledge after the event because of their stressful work environment and pressure of job. Advance in technology and rapid implementation and switching of technology has put lot of pressure in manufacturing employees to learn new and advanced technical skills.

2. LITERATURE REVIEW

Times Job insight (2016)[1], mentions that to address the skill gap issue, TVS Motor Company is investing huge amount in training programs to formulate new workers in their factories and reskill existing workers. The company has joined hands with Technical education and Engineering for students for the skill development. They also have Singed MOU with vocational training institutes in order to provide training to reskill the existing staff.
Srivastava (2017)[2] has opinioned that main challenge in training in typical manufacturing industry is that most of companies are in hunt for multi talented workforce who can achieve different works.
Further, he states that to boost the manufacturer's productivity, decrease employee turnover and possibly solve the talent gap, training and re-skilling is really a core requirement. The adoption of a training and development strategy to unskilled employees help the organization and employees to move forward.

Connie Zheng and Paul Hyland (2007)[3] mentions that the content of training is always a complex parameter to select. Education level of the trainee is a vital issue for the selection of contents and also participants for a training program. Further, the studies have shown that the absorption of training programs are more in people with higher education level than workers with less education insight or exposure.

Punia and Teena Saharan (2011)[4] states that success of the training shall have direct impact on the production, Quality and profit of the organization. Management decision & invest in training is critical component on success of training. Further, he also mentions that for a training program to be effective it must be free from constraints and management should consider the training as one of the key activities of the organization. Also it may note that from their research that training failure can be directly associated with long term training, improper training facilities, high work pressure and improper work life balance.

Len Holden (2001)[5] referes that competence of the managers' plays vital role in analysing the training needs, effectiveness of the training and the monitoring of the training. A lot of attention and importance has been given to training and development over the years which reflects in the implementation of effective HRD and HRM

Donovan (2010)[6] shows in research that the employees having required skills, training would not be required to solve some problem. Hence before designing training a program the managers should analyze the need and requirement of such training program. Motivating the employees is a better solution than organizing unnecessary training.

3. STATEMENT OF THE PROBLEM

Various studies have been carried out about determining the perception of employees about the organization, Management, Leadership, work culture, Production & productivity and so on. In the present study an attempt has been made by the researcher to assess and determine the perception of employees about the Training that was provided in the organization to enhance the Knowledge, Skills and Abilities. Further, an attempt is also made to analyze the effectiveness through the level of perception of employees about the training conducted in the organization.

4. OBJECTIVES OF THE PRESENT RESEARCH

To assess perception levels of employees' towards training provided by the company with reference to some perception variables selected for the present research.

5. SCOPE OF THE STUDY

The research study was conducted to determine the perception of employees on the training program offered in the organization. The respondents selected for the study were those who underwent the training program and belonged to the supervisory level working at one of the leading manufacturing organization located at Mysore.

6. LIMITATIONS OF THE PRESENT RESEARCH

1. The study is confined only to the manufacturing firm at Mysore only and hence cannot be generalized.
2. Analysis of the perception is purely based on the responses provided by the sample.

7. RESEARCH METHODOLOGY

7.1 Research Design: To carry out the above research study, the researcher has employed descriptive research design.

7.2 Sampling Technique: To conduct the research, the researcher has used simple random sampling technique where the employees were randomly selected who underwent training program offered by the organization.

7.3 Sampling and Data Collection

Statistically, it is desired to have the standard error not more than 10 % and 95 % of confidence level is considered to determine the sample size. The sample size for the survey is determined as indicated below.

$n = Z^2 [\pi (1-\pi)] / E^2$

Where,

n = Sample size to be determined

π = the proportion of sample considered

Z = the confidence coefficient (1.96 for 95 % confidence level: Approximately 2)

Accordingly, $N = Z^2 [\pi (1-\pi)] / E^2 = (2)^2 [0.15 \times 0.85] / [0.1]^2 = 51$

However, 60 questionnaires were circulated and 53 responses were received and hence the sample size is considered to be 53.

The primary data is collected from the fieldwork. The objective of the study is briefed to all the respondents before taking their responses. The data, thus collected is classified based on homogeneous factors and tabulated to enable for the statistical analysis. Data was collected using Self-administered questionnaires from the employees working in manufacturing firms in Mysore city. Total of 53 completed questionnaires were used for analysis. Respondents were asked to state their level of preference for each item in the scale using a five point Likert scale from 'strongly agree ' to strongly disagree'.

7.4 Questionnaire

A well-structured questionnaire prepared in joint consultation with the subject matter expert comprised of two sections. Section A comprised of demographic details of the respondents and section B comprised of 19 questions relating to assess the perception of employees about the training program provided by the company.

The questions in section B were prepared by considering 5 latent variables Training Needs, Appraisal, Presentation of the Training material, Post training Knowledge enhancement and Training evaluation.

Thus, 19 questions with 5 latent variables were distributed as given below

3 questions were related to Training Needs.

3 questions were related to Appraisal.

5 questions were related to presentation of the training material.

4 questions were related to post training knowledge enhancement

3 questions were related to Training evaluation.

7.5 Data administration procedure

To conduct the research, a well structured questionnaire was prepared which were then distributed amongst the employees belonging to the supervisory level working at a well known manufacturing firm. The responses were collected back and were subjected to statistical analysis. The results of the analysis were then tabulated and presented.

7.6 Statistical tools: To carry out the research, descriptive statistics, one way ANOVA and chi-square tests were used.

8. DATA ANALYSIS AND INTERPRETATION

8.1 Statistical Hypothesis formulated and tested for the present research is mentioned below.

Null Hypothesis- 1

H1: There are no significant mean differences perception levels of employees' in terms of uniformly distribution.

Ha: There are significant mean differences perception levels of employees' in terms of uniformly distribution.

Null Hypothesis- 2

H2: There are no significant mean differences in the perception of the employees about the training program.

Ha: There are significant mean differences in the perception of the employees about the training program.

The perception of employees about the training program was tested against different **age groups.**

To **test H1**, it was customary to present the norm table of levels of perception of the employees on T & D program provided by the company and then chi- square test was used and inference was drawn thereafter and results are presented in Table 1 given below.

TABLE 1

sigma level	class	Perception Level	Frequency	Percentage
$\mu - 3\sigma, \mu - 2\sigma$	25 - 30	Poor	02	4
$\mu - 2\sigma, \mu - \sigma$	31 - 35	Below average	05	9
$\mu - \sigma, \mu + \sigma$	36 - 44	Average	39	74
$\mu + \sigma, \mu + 2\sigma$	45 - 49	Above average	07	13

Calculated chi-square value = 61.62 :: Table chi-square value = 7.815

Among 53 respondents 2 (4%) exhibited poor perception level, 5 (9%) exhibited below average level of perception, 39 (74%) exhibited average level of perception and the remaining respondents 7 (13%) exhibited above average level of perception. And the difference in the levels of perception of respondents was found to be statistically significant at 5% level.

Since, calculated chi-square value is greater than Table chi-square value at 5% levels, the null hypothesis thus formulated is rejected. Hence, the inference can be made as there are significant mean differences perception levels of employees' in terms of uniformly distribution.

To **test H2** one way ANOVA was used and the computations made were tabulated and tested and results are presented in Table -2 given below:

TABLE 2: ANOVA

THE PERCEPTION OF EMPLOYEES ABOUT THE TRAINING PROGRAM WAS TESTED AGAINST DIFFERENT AGE GROUPS						
Perception variables	AGE	Sum of Squares	df	Mean Square	F	Sig.
Training Need	Between Groups	18.378	3	6.126	1.203	.318
	Within Groups	249.434	49	5.090		
	Total	267.811	52			
Appraisal	Between Groups	10.261	3	3.420	.813	.493
	Within Groups	206.040	49	4.205		
	Total	216.302	52			
Presentation of the training material	Between Groups	35.795	3	11.932	1.064	.373
	Within Groups	549.677	49	11.218		
	Total	585.472	52			
Knowledge enhancement	Between Groups	6.756	3	2.252	.230	.875
	Within Groups	480.376	49	9.804		
	Total	487.132	52			
Training Evaluation	Between Groups	26.616	3	8.872	1.734	.172
	Within Groups	250.704	49	5.116		
	Total	277.321	52			
Overall	Between Groups	331.840	3	110.613	.841	.478
	Within Groups	6445.971	49	131.550		
	Total	6777.811	52			

From the above table the following inferences were drawn.

a) Since P = 0.318>0.05 the test was not significant at 5% levels, which means there is no significant mean difference in the perception of employees towards training needs among different age groups of the employees.

b) Since P = 0.493>0.05 the test was not significant at 5% levels and hence it indicates that there is no significant mean difference in the perception of employees towards appraisal among different age groups of the employees

c) Since P = 0.373>0.05 the test was not significant at 5% levels. This means there is no significant mean difference in the perception of employees towards presentation of the training material among different age groups of the employees

d) Since P = 0.875>0.05 the test was not significant at 5% levels. This means there is no significant mean difference in the perception of employees towards knowledge enhancement among different age groups of the employees

e) Since P = 0.172>0.05 the test was not significant at 5% levels which means there is no significant mean difference in the perception of employees towards evaluating training program among different age groups of the employees.

9. FINDINGS AND CONCLUSIONS

There was no significant mean difference in the perception towards training need, appraisal, presentation, towards knowledge evaluation, evaluating training program among different age groups of the employees. Further, it can be concluded that there is differences in the age group of employees did not manifest any variations in their perception towards the latent variables of training considered in this research. In other words, the perception of employees towards this training program offered by the organization exhibited uniformity without displaying dis similarity.

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AN EMPIRICAL STUDY ON CUSTOMERS' PERCEPTION TOWARDS E-BANKING OF RURAL BANKS IN SELECTED DISTRICTS OF ODISHA

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ABSTRACT
e-business can be an important source of competitive advantage for banking sector across the globe. The development in IT enabled services has brought a paradigm shift in the operations of banking business. With the e-banking facilities, now the customers are transacting online sitting in their homes and offices. To know the customers perception towards e-banking services, the present research paper has attempted to examine the e-banking facilities offered by the rural/gramya banks of selected districts of Odisha. For this purpose, a survey was conducted during October, 2016 to December, 2016. In the survey, 57 rural banks (Gramya Banks) having e-banking facilities and 375 customers of these banks have participated. The study reveals that majority of the customers of rural banks are satisfied with the e-banking facilities particularly with regard to the security and privacy. The study further reveals that customer satisfaction depends very much on the quality of service provided in e-banking.

KEYWORDS
customer satisfaction, e-banking, rural banks, security & privacy.

JEL CODE
G21

INTRODUCTION
F-Banking refers to the use of the internet as a remote delivery channel for banking services which includes viewing and verifying transactions on account, checking balances, printing statements, monitoring noncredit and unpaid cheques, and many more. The service provided by banks through internet has evolved around from simple consultation of accounts to a full range of banking services. e-banking also allows customers to interact more intensively than before with the front office of the bank and at the same time allow banks to centralize back office operations and increase their efficiency. The day and night availability of such services make it more convenient for the clients of banks. After liberalization, privatization and globalization of the Indian economy, the need to upgrade services to an internationally accepted level has prompted many of our banks to offer internet banking services and facilities. With e-banking, customers are transacting from the comfort of their homes and offices and are able to do most of the transactions which would have been done in the banking halls. Using a personal computer with an internet connection, they are able to transact on their traditional accounts such as cash withdrawals, transfer from one account to the other, make payments of utility bills, viewing and printing of statements, request for cheque books etc. Now, most of the countries in the world consider tremendously on e-banking and formulate it as a drive for the development of the economy. Even they consider e-banking as more important than the industrial revolution. Thus, it is getting more attention from all types of business houses and clients, both at national and international level. The highly successful operations of some well known names on the internet, such as eBay, Yahoo, Dell and Amazon, have attracted the banking institutions to go with this network for their business activities.

STATEMENT OF THE PROBLEM
e-banking is the latest development that has added a new dimension to banking transactions and thereby making it more convenient and user friendly. No doubt, it reduces the long queues in banking halls, still there are some problems which do not encourage banking through internet and causes many customers to be physically present in the bank premises instead of taking advantage of e-banking. The problems like low broadband internet penetration, customers' preference for traditional banking transaction, fear of online threats/scams, lack of basic knowledge on computers and the high cost of internet accessibility are some of the major stumbling blocks threatening the growth of e-banking particularly in case of Rural/Gramya Banks. However, this is a new way of doing business and the customers should not remain a mere spectator to the changing scenario. In any business to customer (B2C) type of environment, satisfying a customer is the ultimate objective of business entities. Moreover, the concept of customer satisfaction is vital for service organizations, such as banks, as many of them subscribe to the fact that higher customer satisfaction will lead to greater customer loyalty which in turn, leads to future revenue. Customer satisfaction not only means a happy customer but rather more than that. With the growing adoption of information technology in banking sector, customers prefer to deal online with their banks because of the user friendly technology, enhancement in quality of service, timely availability of required information and of course, satisfaction. Further, from banking side, online banking facilitates cost-effective decision on e-banking operations and enhances customer service quality; develop trust in customers and boost market share in this expanding but increasingly competitive business environment. On the whole, it generates customer satisfaction and customer commitment in one hand and a fair rate of return to the banks on the other hand. In this connection, how online banking facilities benefit the customers of rural banks is the thrust area of present research study.

REVIEW OF LITERATURE
The explosion of internet and electronic banking has evoked extensive research efforts aimed at understanding service satisfaction in relation to virtual business environment. The unique characteristic of internet based service is the extensive human- computer interactions. Quite a large number of research studies have been conducted in the area of internet banking from different aspects highlighting the prospects and challenges of internet banking. The important studies include the studies conducted by Rawani and Gupta (2002), Bhasin (2003), Rao et al. (2005), Shah and Siddiqui (2006), Srivastava (2007), Uppal (2008) and Seranma and Saravana (2012). Most of the studies focused on modern banking services provided through the adoption of e-banking for effective delivery system of banking services to the customers. Further, with regard to customer satisfaction on e-banking, the notable research work conducted by the researchers include the studies

of Sahrawat (2003), Costanzo et al. (2003), Lee et al. (2005), Raja et al (2008), Siddik (2012) and Das et al. (2012). These studies pointed out how e-banking facilities had increased the customer satisfaction to a great extent.

SIGNIFICANCE OF THE STUDY
The banking sector is basically a service industry which is vital for the growth of the economy of any region/country. In this regard, Balasore, Bhadrak & Mayurbhanj districts of Odisha are not an exception. Moreover, these areas are primarily the agrarian one and largely dominated by tribal people. The development of these districts not only depends on agriculture and allied activities but also on the industrial activities. Hence, sufficient capital is required for this purpose. In this context, the banking industry can play a key role and the role of the rural/gramya bank cannot be undermined. Thus, the present research paper explores the customers' perception towards e-Banking services offered by the Gramya Banks and their satisfaction on e-banking. The study further aims at how customers perceive internet banking useful as compared to traditional banking services, its role in shaping/developing rural economy and assisting rural people for their timely financial requirements.

OBJECTIVES OF THE STUDY
The main objective of the study is to examine the e-banking adoption among Gramya Banks in Balasore, Bhadrak and Mayurbhanj districts to offer e- banking facilities and to find out the level of satisfaction of customers of such banks. The detail objectives are as follows.
1. To study whether e-banking facilities provided by Gramya banks to its customers has any effect on security and privacy.
2. To examine whether e-banking services provided by Gramya banks to its customers is more reliable than the old pattern (manual system).
3. To examine the impact of e-banking services of Gramya banks on customers' satisfaction.

SCOPE OF THE STUDY
The present study is both descriptive and evaluative in nature and examines the impact of various factors that lead to customer satisfaction/dissatisfaction on e-banking. The study measures the impact of internet banking on performance of Gramya banks operating in three districts namely Balasore, Bhadrak & Mayurbhanj of Odisha. The scope of the study is limited to Gramya Banks having internet banking facilities operating in the districts of Balasore, Bhadrak and Mayurbhanj only. Hence, commercial banks / nationalized banks having net banking facilities operating in the above districts are not included in the present study.

RESEARCH DESIGN
For the present research work, data have been collected from the primary and secondary sources. Primary data was collected from respondents through a survey. In the present research work, a structured questionnaire was prepared and administered among the customers of Gramya banks of above mentioned districts. Secondary data was collected from various published documents such as research reports, annual reports, books, Journals and periodicals etc. The primary data was collected by the researchers from October 2016 to December 2016. Since this is a survey method of research work, data for long period is not necessary. Only a particular time period data is enough to conduct the research work.
SAMPLE DESIGN
The sample design followed in the present study is outlined below.
TARGET POPULATION
To address the research problem of the study, the present research work covers three districts namely Balasore, Bhadrak and Mayurbhanj of Odisha. These districts are chosen purposefully keeping in view the special characteristics of such districts. They are agriculturally rich, tribal dominance and high literacy. A total of 152 branches of Odisha Gramya Bank are functioning in these three districts and out of which 120 branches have e-banking facilities.
SAMPLING TECHNIQUE
For the present research work proportionate stratified random sampling technique is used where the sample size is drawn from each strata i.e. the total number of customers in the branches of each strata having net banking facilities divided by the total number of customers of these three districts having the net banking facility and then multiplied by the number of sample size collected and included in the study. From each strata, using proportional allocation, sub sample size for each strata is calculated and included in the sample list.
SAMPLE SIZE
In the present study, 57 Gramya banks from three districts have participated in the survey with the consent of the branch managers of Gramya banks having the net banking facilities. 450 questionnaires were circulated among the clients of these banks. However, finally the researchers got 375 valid questionnaires having all the required information for carrying out the research work.
STATISTICAL TOOLS AND TECHNIQUES USED
Finally, the collected data were analyzed and interpreted by using the statistical tools namely percentage, average, scaling technique, regression analysis etc.

ANALYSIS AND INTERPRETATION OF DATA
The analysis and interpretation of data are presented in two sections. The first section presents the analysis of data relating the demographic variables and the second section presents the customers' views on the usefulness of e-banking services offered by the Gramya banks.

TABLE 1: GENDER-WISE CLASSIFICATION OF RESPONDENTS

.Gender	Frequency	Percentage	Cumulative percentage
Male	322	86	86
Female	53	14	100
Total	375	100	

Source: Primary data collected through survey

The table-1 shows that 86 % respondents are male customers and only 14 % are female customers. In other words, mostly male customers are going to the gramya bank for banking transaction.

TABLE 2: AGE-WISE CLASSIFICATION OF RESPONDENTS

Age group	Frequency	Percentage	Cumulative percentage
15-25 year	214	56.80	56.80
26-40 year	113	30.40	87.20
Above 40 years	48	12.80	100
Total	375	100	

Source: Primary data collected through survey

From the table-2, it is noticed that respondents comprising of 56.80% belong to the age group of 15 to 25 years, followed by 30.40% customers belonging to the age group of 26-40 years. However, customers having age above 40 years comprise only 12.80%. It can be inferred that young people mostly go to the rural banks for banking transaction.

TABLE 3: OCCUPATION-WISE CLASSIFICATION OF RESPONDENTS

Occupation	Frequency	Percentage	Cumulative percentage
Agriculture	48	12.80	12.80
Govt. service	89	23.73	36.53
Private service	104	27.73	64.26
Business	116	30.94	95.20
Others	18	4.80	100
Total	375	100	

Source: Primary data collected through survey

The table-3 reveals that 30.94% respondents belong to business category followed by private services and government service with 27.73% and 23.73% respectively. Agriculturists and others constitute 12.80% and 4.80% respectively. Looking at the above table, it can be said that business class and private service holders are the major customer groups of the rural banks.

TABLE 4: EDUCATIONAL QUALIFICATION OF RESPONDENTS

Education	Frequency	Percentage	Cumulative percentage
Illiterate	24	6.40	6.40
Up to 7th	38	10.00	16.40
10th	72	19.20	35.60
12th	93	24.80	60.40
Degree	117	31.20	91.60
Others	31	8.40	100
Total	375	100	

Source: Primary data collected through survey

It is revealed from the table-4 that respondents with degree qualification constitute 31.20% which is followed by 12th pass and 10th pass whose composition in the total sample respondents are 24.80% and 19.20% respectively. It is interesting to note that illiterate respondents constitute only 6.40%.

TABLE 5: PERIOD OF USE OF E-BANKING FACILITIES BY THE RESPONDENTS

Period of use	Frequency	Percentage	Cumulative Percentage
1 to 6 months	96	25.60	25.60
7 to 12 months	131	34.80	60.40
More than 1 year	148	39.60	100
Total	375	100	

Source: Primary data collected through survey

To know how old the customers are in using the e-banking facilities, it is found from the table-5 that 39.60% respondents have used the e-banking facilities for more than one year. On the other hand, about 25.60% respondents have used the same for less than 6 months and rest 34.80% respondents have used it for more than six months but less than one year. From the above information, it can be inferred that majority of the respondents have experience in e-banking transaction.

TABLE 6: FREQUENCY OF USE OF THE E-BANKING BY THE RESPONDENTS

Frequency of use	Frequency	Percentage	Cumulative Percentage
Daily	96	25.60	25.60
Once a week	117	31.20	56.80
Once a Month	162	43.20	100
Total	375	100	

Source: Primary data collected through survey

In order to know the frequency of use of e-banking facilities by the respondents, it is found from the table-6 that almost all the customers avail and use the facilities. However, 56.80 percent customers use the facilities either daily or once in a week. The rest respondents (43.20%) are doing transaction through e-banking once in a month.

TABLE 7: REASONS FOR OPTING E-BANKING BY THE RESPONDENTS

Reasons for Opting	Frequency	Percentage	Cumulative percentage
Convenience (24 hours service, anywhere connectivity)	59	15.60	15.60
Curiosity	43	11.60	27.20
Better rates	63	16.80	44.00
Safe and secure	44	11.60	55.60
Low service charge	69	18.40	74.00
Easy to track my banking transaction activity	97	26.00	100
Total	375	100	

Source: Primary data collected through survey

With regard to opting for e- banking transaction, the table-7 shows that 26 % respondents use the facility because it is easy to track banking transaction followed by low service charge and better rates. On the other hand, 11.60 % respondents each use the facility either for curiosity or safe and secure.

TABLE 8: RELIABILITY OF E-BANKING SERVICE BY THE RESPONDENTS

Reliability	Frequency	Percentage	Cumulative percentage
Very Reliable	96	25.60	25.60
Reliable	119	31.60	57.20
Somewhat Reliable	77	20.40	77.60
Unreliable	46	12.40	90.00
Very unreliable	37	10.00	100
Total	375	100	

Source: Primary data collected through survey

To ascertain the reliability of e-banking transaction of Gramya bank by the customers, the table-8 depicts that about 57.20% respondents have viewed it reliable/very reliable. However, 22.40% customers have said that it is unreliable /very unreliable. Further, it is seen from the table that about 20.40% or 77 respondents expressed that the e-banking facilities provided by the Gramya banks are somewhat reliable.

TABLE 9: LEVEL OF SATISFACTION OF RESPONDENTS WITH E-BANKING FACILITY

Item/Variable	Frequency	Percentage	Cumulative percentage
Very Satisfied	123	32.80	32.80
Satisfied	111	29.60	62.40
Somewhat Satisfied	72	19.20	81.60
Unsatisfied	44	11.60	93.20
Very unsatisfied	25	6.80	100
Total	375	100	

Source: Primary data collected through survey

From the table-9, it is evident that out of total respondents, 32.80% respondents are very satisfied, 29.60% respondents are satisfied and 19.20% respondents are somewhat satisfied. About 18.40% respondents are either unsatisfied or very unsatisfied on e-Banking service provided by the Gramya Banks.

TABLE 10: RESPONDENTS VIEW ON SECURITY AND PRIVACY OF E-BANKING

Item/Variable	Frequency	Percentage	Cumulative percentage
Very Good	110	29.20	29.20
Good	93	24.80	54.00
Average	76	20.40	74.40
Poor	63	16.80	91.20
Very Poor	33	8.80	100
Total	375	100	

Source: Primary data collected through survey

When the respondents are asked to give their views on e-banking service on a scale with regard to security and privacy, it is found from the table-10 that about 54 % respondents have expressed it as good/very good. However, 25.60% respondents have viewed it as either poor or very poor.

MEASUREMENT OF CUSTOMER SATISFACTION

Customer satisfaction on e-banking provided by Gramya banks have been measured by the regression analysis. The regression analysis attempts to study the relationship between a dependent variable and a set of independent variables. The purpose of using regression analysis is to find out the weights of the independent variables: service quality, profitability and performance of technology on the dependent variable i.e. customer satisfaction.

The linear equation used for a regression analysis is

$Y = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 + ... B_n X_n$

Where Y= customer satisfaction, X_1= service quality, X_2 = profitability, X_3 = performance of technology.

B_0 is a constant and treated as an error in the analysis. B_1, B_2, B_3 are the regression coefficients and these coefficients give the estimated change in the dependent variable associated with a unit change in the corresponding independent variable, with the condition that other independent variables remain constant. The multiple regression analysis has been carried out by SPSS.

TABLE 11: VARIABLES ENTERED/REMOVED

Model	Variables entered	Variables removed	Method
1	X_1= service quality, X_2 = profitability of banks, X_3 = performance of technology	.	Enter

a All requested variables entered.

b Dependent Variable: customer satisfaction.

The above table tells about the predictor variables and the method used. Here we can see that all predictor variables were entered simultaneously (because we selected the Enter method).

TABLE 12: MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of estimate
1	.962	.944	**.831**	2.1356

a Predictors: (Constant)service quality, profitability of banks and performance of technology

The multiple correlation coefficient R = 0.802 indicates that there is a strong correlation between the customer satisfaction and the variables predicted by the regression model. The Adjusted R square value tells us that our model accounts for 83.1% variance which can be considered as good predictive model.

TABLE 13: ANOVA SUMMARY

Model		Sum of squares	Df	Mean Square	F	Sig.
1	Regression	876.548	5	175.30	27.60	.000
	Residual	57.19	9	6.35		
	Total	933.733	14			

a Predictors: (Constant), customer satisfaction, profitability of banks, performance of technology

b Dependent Variable: Customer satisfaction

ANOVA table provides the F-test for the null hypothesis that none of the predictor variable is related to customer satisfaction. Here we can clearly reject this null hypothesis (F (5, 9) = 27.60, P < 0.05). Hence, it is concluded that at least one of the independent variables is related to the dependent variable.

TABLE 14: COEFFICIENTS OF PREDICTOR VARIABLES

Model		Un-standardized Coefficients		Standardized Coefficients	T	Sig.
		Beta	Std. Error	Beta		
1	(Constant)	6.513	2.153		1.910	.004
	Service quality	2.631	.523	.307	2.132	.014
	profitability of banks	1.338	.769	.018	1.217	.031
	performance of technology	1.971	.366	.243	1.403	.019

a Dependent Variable: Customer satisfaction

The t and Sig (p) values give a rough indication of the impact of each predictor variable – a big absolute t value and small p value suggest that the predictor variable has a large impact on the criterion variable.

The un-standardized Beta Coefficients give a measure of the contribution of each variable to the regression model. A large value indicates that a unit change in this predictor variable has a large effect on the criterion variable while other predictors remain constant.

Un-standardized regression coefficients are used to estimate the regression line which is as follows.

$Y = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3$

⇨$Y = 6.513 + 2.631 X_1 + 1.338 X_2 + 1.971 X_3$

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It is clear from the regression equation that all the variables are positively correlated with customer satisfaction. The variables namely service quality (2.631), profitability of banks (1.958), and performance of technology (1.971) significantly influences the variable Y (customer satisfaction). This is also evident from lower 'p' values and higher 't' values. The most significant independent variable is service quality.

FINDINGS OF THE STUDY
Major findings of the study are presented below:
- Majority of the customer respondents in the study are male members whose percentage is 86.
- Majority of the customer respondents (56.80 %) belong to the age group of 15-25 years.
- Business class customers are highest i.e. 30.80 % of the total sample under study.
- From among the customer respondents, 31.20 % are degree holders.
- With regard to e- banking transaction, 39.60% of sample customer respondents have more than one year experience.
- About 25.60 % customer respondents use the e- banking daily.
- With regard to reliability of e-banking service, about 57.20 % expressed either reliable or very reliable.
- Regarding the reason for opting e-banking by customer respondents, that they use it mainly to track banking transaction activities easily.
- With regard to level of satisfaction of the customers on e-banking, 62.40 % feel either satisfied or very satisfied.
- With regard to customers' view on security and privacy on e-banking services, the study noticed that the majority of the customers viewed it as either very good or good.

CONCLUSION
On the whole the present research work is a fact finding one conducted on a limited scale. In the era of IT revolution and use of more IT enabled services, the banks particularly the rural /Gramya banks can adopt e-banking to a larger extent for customer satisfaction. As the study reveals that majority of the customers of the rural banks are satisfied with e-banking, there is a need to include more branches of rural banks under the e-banking system. This will bring the rural customers as well as the banks to a win-win position. Ultimately, this will boost the various activities of the rural sector which is the need of the hour.

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A STUDY OF MARKET POTENTIAL OF INDIAN ORGANIC PRODUCTS

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ABSTRACT
Organic agriculture offers trade opportunities for farmers in the developing and developed countries. The market of organic products is expected to grow globally in the coming years and high growth rates over the medium term (from 10-15% to 20-25%) are expected (Yussefi and Willer, 2002). The organic market expansion makes it possible for farmers to reap the benefits of a trade relatively with a high price premium (Yussefi and Willer, 2002). However, this market is not well known by most farmers, especially those living in the developing countries. Furthermore, information about it is not readily available to farmers in the developing countries. The absence of sufficient technical and market information and financial support also mean that few farmers will risk changing their method of production. In developing countries, it is therefore essential for major key players (NGOs, farmer organizations, traders, exporters etc.) that promote organic farming to have up-to-date information on the available opportunities and trends of organic market. The research paper explains the potential of Indian organic products in domestic and international market. The research paper also reveals the strategies for development of market for organic products at both domestic and international level.

KEYWORDS
organic, product, domestic, international, strategies.

JEL CODES
M3, M30.

INTRODUCTION
Organic agriculture produces products using methods that preserve the environment and abstain from the usage of synthetic materials, such as pesticides and antibiotics. Organic farmers and food processors follow a defined set of standards to produce organic foods and fibres. These organic standards cover the product from farm to table, inclusive of soil and water quality, pest control, livestock practices as well as regulations for utilizing food additives and technologies, such as irradiation. International Federation of Organic Agriculture Movement (IFOAM), the worldwide umbrella organization for the organic agri-culture movement through its IFOAM Basic Standards for Organic Production and Processing (IBS) sets the standards for organic agriculture, production and processing based on four main principles; Principle of Health, Principle of Ecology, Principle of Fairness, and Principle of Care.

According to the latest FIBL-IFOAM survey, approximately 43.1 million ha of land in the world was organically managed in the year 2013. There has been a consid-erable rise in the area undergoing organic management surging from 11 million ha in 1999 to 43.1 million ha in 2013.

OBJECTIVES OF THE STUDY
1. To analyze the potential of organic products in Indian domestic market.
2. To assess the demand of organic products in international market.
3. To identify the strategies for development of market for organic products at both domestic and international level.

METHODOLOGY
To meet the objectives of the study both primary and secondary data was collected. Primary data was collected by directly interacting with the respondents and secondary data was collected through various sources of publications.

GLOBAL PRODUCTION AND TRADE OF ORGANIC FOODS
Globally, Oceania has been leading in terms of land under organic agriculture and contributed approximately 40 percent of total organic agricultural land. Europe held a share of 27 per cent and accounted for the second largest area under organic agriculture, globally, during 2013.The Latin American region held a share of 15 percent in the worldwide land under organic agriculture and managed nearly 6.6 million hectare of land organically in the year 2013.The organically managed area in North America represented nearly 7 percent of the global area under organic cultivation in 2013. Asia had 3.4 million hectare of land under organic agriculture and this constituted about 8 percent of the aggregate organically cultivated land, globally. Africa, with 1.2 million hectare of agricultural land under organic cultivation constituted 3 per cent of the global land under organic agriculture.

Australia, in the Oceania region, had the largest land under, organic management. This was followed by Argentina, in Latin America, which had approximately 3.2 million hectare of organically managed land. Other countries with significant organic land area, globally, are the USA, China, Spain, Italy, France, Germany, Uruguay and Canada.

According to Organic Monitor, the international sales of organic foods and drinks were approximately US$ 72 billion in 2013. The major demand for organic products has been mainly in the North American and European regions. Other significant market is Japan in the Asian region.

ORGANIC MARKETS
THE UNITED STATES
Consumption of organic foods has been rising significantly in the United States, primarily driven by the concerns for health and environment. Organic foods, which was earlier considered a niche product, is presently being sold through a wide variety of channels in the United States, including farmers market, natural product supermarkets and conventional supermarkets. According to the Nutrition Business Journal, the organic foods sales in the United States have escalated from US$ 15.6 billion in 2006 to an estimated value of US$ 34.8 billion, in 2014. Sales of organic products in the United States, in 2012, were estimated at US$ 28.4 billion, which accounted for over 4 per cent of the total United States' food sales. The organic foods sales are anticipated to have increased at a compound annual growth rate (CAGR) of 10.5 per cent, during the period 2006 to 2014.

Organic fruits and vegetables are the major items of sales among the various organic foods categories in the United States. The sales of organic fruits and vegetables is expected to increase at a CAGR of 12 per cent, as the value of sales is anticipated to have risen from US$ 5.37 billion in 2005 to US$ 15.06 billion in 2014.Organic dairy is the second largest segment in the organic food grouping, in terms of value, totalling 6 per cent of total dairy production in the United States. The sales of organic dairy is expected to have increased at a CAGR of 10.4 per cent from US$ 2.1 billion in 2005 to US$ 5.1 billion in 2014.The sales of organic beverages in the United States was anticipated to have risen at a CAGR of 9.3 per cent as the value of sales are expected to have risen from US$ 1.7 billion in 2005 to US$ 3.8 billion

in 2014.The value of sales of organic packages/prepared foods is estimated to have risen at a CAGR of 9.8 per cent during the period 2005 to 2014, from US$ 1.6 billion in 2005 to US$ 3.7 billion in 2014.

EUROPE

According to FiBL and IFOAM, in 2013, the second largest market for organic products globally, after the United States, is European Union, with a share of 40 per cent of the organic market worldwide. The organic market in Europe, in 2013 was worth Euro 24.3 billion while the organic market in the European Union was worth Euro 22.2 billion during the same year.

Germany is the largest market for organic products in Europe accounting for 31.3 per cent of the share in the European market in 2013. According to a report by USDA, Germany is the second largest organic foods market globally and ranks second only to the United States. The value of sales of organic products in Germany, in 2013, stood at Euro 7.55 billion, and this accounted for 4 per cent of the total foods sales in Germany. The organic market in France has been steadily rising over the years and a similar trend is expected in the future.

The organic market in France, in 2013, was valued at Euro 4.4 billion, representing an increase of approximately 10 per cent over the previous year. The French organic market has expanded at a compound annual growth rate of 13.5 percent during the period 2005 to 2013, as the value of sales increased from Euro 1.6 billion to Euro 4.4 billion.

As per World of Organic Agriculture 2015, the United Kingdom is the third largest organic market in Europe, and represented 8.6 percent of the aggregate organic sales in Europe during the year 2013. The organic market in the United Kingdom was valued at Euro 2.1 billion during the year 2013, and it grew at a year-on-year growth rate of 7.7 per cent during this period. During the period 2007 to 2013, the organic products sales in the United Kingdom has declined at a compound annual rate of 3.2 percent, down from Euro 2.56 billion in 2007 to Euro 2.1 billion in 2013 due to the economic recession and decreased organic production. Switzerland had the highest per capita consumption of organic foods globally, which amounted to approximately Euro 210 per capita during the year 2013. The Swiss organic market size was nearly Euro 1.69 billion in 2013, and registered a year-on-year growth rate of 11 per cent. According to the study by FiBL and IFOAM, Switzerland ranked fifth in the category of market size in Europe.

JAPAN

The organic market in Japan is still in a maturing stage, as there is restricted supply of organic foods in Japan. The country depends on imports for around 60 per cent of its organic foods demand, which indicates that the growth potential of the organic market is significant. According to the Organic Market Research Project (OMRP) survey conducted by IFOAM, Japan, the organic foods sales constituted 1 per cent of the Japanese foods market, and were valued at approximately US$ 1.3 billion to US$ 1.4 billion in 2010.

ORGANIC FARMING IN INDIA

The cultivated area under organic certification has increased at a CAGR of 33.5 per cent, as it increased from 0.04 million hectare in 2003-04 to nearly 0.72 million hectare in 2013-14. The cultivated area under organic certification rose during the years 2006-07 to 2008-09; however it fell in 2009-10 and declined further in the subsequent years. The area under wild harvest rose from 2.43 million hectare in 2006-07 to 4.00 million hectare in 2013-14. Consequently, the total area under organic farming increased from 2.97 million hectare in 2006-07 to 4.72 million hectare in 2013-14.

The production of certified organic produce in India declined at a compounded annual rate of 7.5 percent during the period 2009-10 to 2013-14 as the quantity of produce reduced from 1.7 million tonnes in 2009-10 to approximately 1.24 million tonnes in 2013-14.

Madhya Pradesh has been the leading State in terms of production of organic foods during the year 2012-13, and its share in the aggregate organic foods production was nearly 32 percent. The area under organic certification in Madhya Pradesh declined at a compounded annual rate of 2.4 per cent from 2.8 million hectare to 2.6 million hectare during the period 2009-10 and 2012-13. Himachal Pradesh was the second largest State in terms of area under organic farming in India, in 2012-13, although the quantity of production has been meagre as compared to other States.

The area under organic farming increased at a CAGR of 26 per cent from 0.7 million hectare to 1.4 million hectare during the period 2009-10 to 2012-13. The area under organic farming in Rajasthan increased at a CAGR of 22.8 per cent during the period 2009-10 and 2012-13, from 260.8 thousand hectare to 483.3 thousand hectare. The State occupied the third position in terms of area under organic cultivation in the country and ranked fourth in terms of organic production, during the year 2012-13. The organic acreage in Maharashtra expanded at a CAGR of 28 percent from 35.4 thousand ha in 2009-10 to 74.4 thousand hectare in the year 2012-13, accounting for around 1.4 per cent of the aggregate organic area in the country.

GOVERNMENT INITIATIVES TO PROMOTE ORGANIC FARMING

NATIONAL PROJECT ON ORGANIC FARMING

The National Project on Organic Farming (NPOF) is a Central Sector Scheme implemented during the Tenth Five Year Plan with an outlay of Rs. 57.04 crore. The scheme was subsequently expanded in the Eleventh Five Year Plan with an outlay of Rs. 101 crore. The primary objective
of the NPOF Scheme is to encourage the production of food organically, and promote manufacture and usage of organic and biological inputs, such as bio-fertilizers, organic manure, biopesticides and bio-control agents.

CAPITAL INVESTMENT SUBSIDY FOR SETTING UP OF ORGANIC INPUTS PRODUCTION

The NPOF provides financial assistance for fruits and vegetables waste compost units by providing for 33 per cent of the capital cost of the project, subject to a ceiling of Rs. 63 lakh. Further, NPOF provides subsidy for the construction of bio fertilizer or bio pesticide production unit to an extent of 25 per cent of the capital cost of the project subject to a ceiling of Rs. 40 lakh. The remaining cost is envisaged as credit support from financial institutions and margin
money. The subsidy is credit linked and back-ended and mobilized through NABARD.

NATIONAL PROJECT ON MANAGEMENT OF SOIL HEALTH AND FERTILITY (NPMSF)

The National Project on Management of Soil Health and Fertility (NPMSF) was implemented during the Eleventh Five Year Plan period with an outlay of Rs. 429.85 crore, to promote the balanced and judicious use of fertilizers and organic manure on soil test basis. This Scheme provides financial assistance at Rs. 500 per hectare for promoting the use of organic manure.

NETWORK PROJECT ON ORGANIC FARMING BY ICAR

The Network Project on Organic Farming initiated by the ICAR in the 10th Five Year Plan at the Project Directorate for Farming Systems Research, Modipuram, Uttar Pradesh, involves developing package of practices for different crops and farming systems under organic farming in different agro-ecological regions of the country. The project has been running at 13 centres including State Agricultural Universities (SAUs), spread across 12 States. The crops for which package of practices for organic farming have been developed include basmati rice, rain fed wheat, maize, red gram, chickpea, soybean, groundnut, mustard, isabgol, black pepper, ginger, tomato, cabbage and cauliflower.

NATIONAL HORTICULTURE MISSION

This is a Centrally Sponsored Scheme; launched in 2005-06, the Scheme aims at strengthening the growth of the horticulture sector comprising of fruits, vegetables, roots and tuber crops, mushroom, spices, flowers, aromatic plants, cashew and cocoa. NHM provides financial assistance for establishing vermi compost units and HDPE vermi beds. Assistance is also being provided under the Mission for organic certification of Rs.5 lakh for a group of farmers covering an area of 50 hectares.

RASHTRIYA KRISHI VIKAS YOJNA

Assistance for decentralized production and marketing of organic fertilizers is available under Rashtriya Krishi Vikas Yojna (RKVY) for projects formulated and approved by the State Level Sanctioning Committee.

ORGANIC PRODUCTS: STATUS OF INDUSTRY AND TRADE FROM INDIA

As per Industry Sources, the Organic food market in India was valued at Rs. 675 crore (~ USD 150 Million) during the year 2009-10. The market has been estimated to be worth Rs. 1928 crores (~ USD 306 Million) during the year 2013-14, growing annually at the rate of 30 per cent. The augmentation in the disposable income

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and concerns for health are enabling the organic food market in India to increase steadily. The organic products industry is mostly export oriented accounting for a share of around 70 percent of the industry. The key export destinations of Indian organic products are the USA, Canada, South Africa, and the European countries. Germany is one of the top 10 trading partners for the organic foods exports from India. Other key export destinations include Australia and Japan.

Organic cotton and textiles is the largest exporting organic segment from India. Other organic products with high demand in the international markets are tea, basmati rice, pulses, honey, spices, coffee, and fruits, such as mangoes, bananas, and sugarcane. India is a major exporter of organic mangoes to the USA.

The exports of organically managed foods have been witnessing a rising trend over the years both in terms of value as well as volume. The export of organic foods increased at a CAGR of 18 per cent in value terms as the exports increased from Rs. 498.2 crores in 2007-08 to approximately Rs. 1328.61 crores in 2013-14. The volume of exports has risen at a CAGR of 29 percent from 38 thousand tonnes in 2007-08 to nearly 178 thousand tonnes in 2013-14.

Europe has been a major market for organic foods exports from India. The share of EU in total exports of organic foods was 41.7 per cent during the year 2013-14. Apart from countries of the EU, Switzerland was the leading importer of Indian organic foods in Europe accounting for 7 percent of the share of European imports of organic foods from India in value terms, and 6 percent in terms of quantity.

USA accounted for 37.6 percent of India's exports of organic foods in the year 2013-14. In terms of value, exports to USA were valued at Rs. 498 crore and the quantum of exports was 75 thousand tonnes during the year 2013-14. Canada accounted for 13.7 percent of the exports in 2013-14.

In 2013-14, Japan was the leading Asian country that imported organic foods from India with nearly 43 percent share in the value of aggregate exports of organic foods from India to the Asian region. In terms of volume, Japanese imports of Indian organic foods stood at 309 tonnes in 2013-14. UAE was the second largest Asian country importing organic foods from India constituting 11 percent of the total imports of Indian organic foods by Asia. The quantity of imports by UAE in 2013-14 was 171 tonnes and valued at Rs. 4.26 crore. Israel, with import of organic foods from India worth Rs.3.72 crore, is the third largest importer of Indian organic foods in the Asian region. The other significant Asian importers of organic foods from India are Sri Lanka (7 percent), South Korea (6 percent), Philippines (5 percent), China (4 percent), Iran and Singapore (3 percent each). Australia and New Zealand are other significant export destinations for India's organic foods exports with a share of 1.1 per cent and 0.3 percent, respectively.

CHALLENGES AND STRATEGIES

SUPPLY CHAIN MANAGEMENT

The supply chain of organic products industry is often faced with challenges with respect to poor collection channels, insufficient production of organic products, poor transportation facilities and lack of proper processing facilities in-line with the global organic standards. Under supply of appropriate storage infrastructure and quality control also remains a difficult area. Although many organizations in India have developed clear quality standards, often together with the farmers, and have included them in their contracts, complying with contracts has been a challenge for the staff directly involved in purchase from the farmers. Adequate training of farmers, producers and processors also has been of considerable challenge.

STRATEGIES

Improvements in the distribution (setting up own cold room, purchasing air-conditioned truck for transportation) and the packaging (packaging done fully by company staff, setting up specific packaging centre) may be considered to address the supply chain challenges. Focusing on total quality management at each point in the supply chain is of considerable importance. Developing direct business relations, planning sales in line with production, and developing advance purchasing scheme may make the supply chain more efficient.

FOOD ORIGIN AND MILEAGE

The concept of food mileage, which refers to the distance the food is transported, from the time of its production, until it reaches the consumer, gains prime importance in the case of organic food products. Since the past decade, the country of origin of the food and food mileage are becoming increasingly important. Maintaining supply volumes and supply continuity are major concerns for most food companies.

STRATEGIES

Streamlining logistics is the key to minimize food mileage, which may include minimizing the lead time from farm to shelf and increase the shelf life of fresh organic foods. This would require, revamping warehouse management, order management and transportation management by way of implementation of integrated automated storage/retrieval systems, automatic identification of products, conveyors, order-picking systems, RFID, sortation equipment, and software and systems integrations.

SIZE OF FARMS AND COLLABORATION

The production of produce in small to medium farms is rather limited, amounting to a few hundred tonnes. This challenge is particularly evident in sectors, such as dairy, poultry, fruits and vegetables, where scale and linkage with primary processing is critical. Similarly, marketing channels are more difficult to access for smaller producers. Further, many buyers seem to be ambivalent about channels of distribution.

STRATEGIES

Aggregation of the unorganized small organic producers by forming cooperatives and producer companies may enable the producers to put together their produce, obtain funds, possess the processing and storage facilities in the proximity of production, and strengthen the bargaining power. Working as cooperatives and producer companies may also help the producers focus more on production strategies, by delegating operations and marketing to hired professionals.

Aggregation may also facilitate trainings in marketing as well as on specialized methods of production to the farmers and producers.

HANDLING AND STOCK MANAGEMENT

Stock control procedures and stock management have been a challenging area for the organic products industry. Organizations often struggle with keeping their information up to date and, as a result, the information generated is not always used as effectively as could be. Poor documentation has been a considerable challenge for the industry with respect to certification, market entry and product positioning.

STRATEGIES

Total Quality Management is essential in handling and stock management, which may include a contingency plan for handling wastage. Monitoring purchase, waste, and sales are important for informed decision making, planning of production, and purchase volume. Effective use of data generated by proper record keeping is the key to make the system effective.

MARKETING AND SALES MANAGEMENT

Marketing of organic products involves both the social and ecological aspects of the products. In doing so, efforts need to go into capacity building, production related issues, quality parameters and the logistics of procuring products, especially from remote and inaccessible areas. Organic certification is becoming increasingly important in relation to marketing. Supermarkets are potentially attractive channels for the sale of organic products. However, they are often very demanding in terms of product quality, availability and price.

STRATEGIES

Pro-active certification, opting for good packaging techniques, product development as per consumer preferences, collaboration among the organic sector for generic promotion activities and adopting effective marketing methods by usage of media and display messages can enhance the organic products sales.

COST, MARGINS, PRICE SETTING AND VALUE ADDITION

Price premium of organic products in comparison with conventional products is often a marketing challenge for sale of organic products. Pricing has also been a limiting factor during the economic recession when more producers turn to organic production, and consumer markets shrink. The prices for organic products vary significantly between different companies, different retail formats and across product categories, which also is a significant challenge for the organic industry.

STRATEGIES

Initial determination of basic price by the producer, followed by future pricing based on more specific cost-benefit calculations of organic production may be regarded as an effective pricing mechanism for organic products. The premium price, to be fixed for organic products, must be acceptable in mature markets.

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Incorporating a condensed supply chain, making use of the arrangement of direct marketing and instructing the farmers to use a Participatory Guarantee Scheme, so that it involves lesser cost, can enable reduction in the prices of organic products, as compared to conventional farm products.

CHALLENGES AND STRATEGIES SPECIFIC TO INDIAN ORGANIC PRODUCTS INDUSTRY

TRANSITION ASSISTANCE
The conversion period may turn out to be a difficult phase for the farmers owing to several direct and indirect costs involved in the process. Moreover, during the early stages of the transition, there is requirement of heavy and additional investments in farm-undertakings, such as machinery, storage and soil fertility building mechanisms. Organic techniques are generally more labour intensive and thus the wage cost rises.

STRATEGIES
There is vital need for a programme that is particularly designed to provide aid to the organic farmers during the three year conversion period. The policy should involve the provision of annual payment during the transition period to compensate for the loss of income occurred in the course of converting from non-organic to organic.

ISSUES IN CERTIFICATION
This procedure requires extensive paperwork, detailing farm history, and usually including the results of soil and water tests. It also involves annual on-farm inspections and the fee needs to be paid by the growers to the certification bodies for annual surveillance. The cost involved along with the prolonged procedure and lack of knowledge and understanding is acting as an obstacle in the organic certification procedure in India, particularly for the small and marginal farmers.

STRATEGIES
In order to persuade the farmers to undertake the certification process, there is a need to make the procedures simple and less expensive. Government initiatives may be required to bring down the cost of certification. Furthermore, increased assistance should be provided for the Participatory Guarantee Scheme.

LIMITED KNOWLEDGE ON ORGANIC PRODUCTION
There is also limited availability of suitable designs of organic farming systems for various climatic conditions and crops, supported through appropriate technologies. Availability of insufficient biomass on-farm; and inaccessibility of external inputs, such as organic manures and pesticides; organic ways of post-harvest handling and packing; have also been cited as challenges in organic production in India.

STRATEGIES
Increased funding for research, education and extension activities and promoting continued economic analysis of the issues and trends in the organic sector would be productive in enhancing knowledge related to organic production. Encouraging the development of seeds, varieties and livestock breeds suitable for the organic farming system would facilitate the extension of organic farming.

MARKET INTELLIGENCE
The information available in the country regarding organic products produced and exported is limited, and thus do not lead to any business or policy decisions. Data are also not available to calculate the prices of different organic commodities under variety of farming cultures of India. In the absence of appropriate and adequate information, a vague mechanism of organic pricing and premiums prevails.

STRATEGIES
There is an urgent need to undertake cost benefit analysis and developing a framework for price discovery of organic commodities. Moreover, strengthening of data collection and dissemination is also required to take informed decision on markets and products that have potential in India. The undertaking of comprehensive studies on organic niches of India would be advantageous in bringing organic farmers into the export market, with comparative advantage.

INSURANCE OPTIONS FOR RISK MANAGEMENT
Vagaries arising out of natural calamities are common to both conventional and organic farming.
There are various perils in organic farming, which may cause damage to crops such as drought, excess moisture, freezing, insect damage, disease and weeds. Also, there is income loss for producers transitioning to organic production.

STRATEGIES
It is mandatory to develop viable and effective risk management programs to address the needs of organic farmers and safeguard the organic farmers from losses. There is also a felt need of an insurance coverage for producers transitioning to organic production.

SUMMARY AND RECOMMENDATIONS
Organic farming in India is at a nascent stage. According to the official statistics, until February 2001 there were only 304 organic farms in India and the figure has increased to 1426 farms during February 2002. The area under organic cultivation as on February 2002 was 2775 hectares, accounting for barely 0.0015% of the total agricultural land (Source: Adopted from report "The real green revaluation and FAO statistics"). However, the database is still very poor and it can be assumed that the real figures are much higher.

Organic products produced in Indian are tea, spices, vegetables and fruits, rice, cashew nuts, coffee, oil seeds, pulses, cotton, and herbal extracts. India is classified into 21 agro-ecological zones based on temperature, soil condition, and rainfall. Hence, each zone has comparative advantage for the production of different products e.g. tea in eastern region, spice and coffee in southern region, rice and wheat in northern region, and cotton in western region. Products with potential in domestic market are fruits, vegetables, rice, and wheat. Products with potential in export market are tea, fruits and vegetable, rice, cotton, wheat, and spices. Besides the mentioned potentials India has following advantages:

1. India is strong in production of high quality of tea, rice specialties, ayurvedic herbs, spices, etc.
2. India has a rich heritage of agricultural traditions which are suitable for designing organic production system.
3. The labour is relatively cheap.
4. The Indian government has started to support organic agriculture on a large scale.

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INTRA-BRICS TRADE & ITS IMPLICATIONS FOR INDIA

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ABSTRACT

In the recent years, developing countries have increasingly emerged as regional and global growth engines, reflecting higher growth in economic activity and trade, as compared to the developed economies. Brazil, Russia, India, China and South Africa (BRICS) – the five emerging global powers from the continents of Asia, Africa and Latin America – are incrementally increasing their global engagements In 2008, four emerging economies, viz. Brazil, Russia, China and India, came together to form the BRIC group of countries. Earlier called BRIC, without South Africa, this group was initially coined by Goldman Sachs in 2001, by Jim O'Neill in a paper titled 'Building Better Global Economic BRICs'. In 2010, South Africa, another emerging economy, joined this group, which came to known as the BRICS group. Together they account for almost 18 per cent of the world's economy. They have approximately 3 billion people, a combined nominal gross domestic product of US\$ 16.039 trillion and an estimated US\$ 4 trillion in combined foreign reserves. All are members of the G20 group of countries. Today, BRICS economies together account for 22.5 per cent of the global output, 17.2 per cent of global trade, and over 40 per cent of the global population. This Discussion Paper, using a series of analytical tools, illustrates the trends in trade and competitiveness between the BRICS countries as well as its implications for India. Tellingly, the results indicate a complementarity in export and import products with low levels of competition, which can provide opportunities for enhanced intra-BRICS trade. This paper concluded that over 10 years the weight of the BRIC countries and especially China in world GDP will grow, raising important issues about the global economic impact of fiscal and monetary policy in the BRIC countries.

KEYWORDS

BRICS, capital mobility, export intensity index, free trade agreement, import intensity index, intra-BRICS trade, trade intensity analysis.

JEL CODES

B17, F13,P33, P45, Q27.

INTRODUCTION:-INTRA-BRICS TRADE

BRICS countries have made significant progress in integrating with the global economy. Analysis of trading patterns within BRICS countries reveals that levels of Intra-BRICS trade is quite diverse, mainly reflecting comparative sizes of the economies. Over the past decade, intra-BRICS trade has increased by nearly threefold, supported by increase in intra-regional trade for all the member countries. An analysis of the intra-BRICS trade reveals that China has played a significant role by accounting for nearly half of the intra-BRICS trade. This was followed by India, Brazil, Russia, and South Africa. However, it may be mentioned that BRICS countries have not harnessed the potential offered by the regional cooperation, especially given the significant growth of its market size to US\$ 16.5 trillion in 2015 from US\$ 6.1 trillion a decade ago, supported by a large consumer An analysis of trade intensity index (TII) highlights.

That trade intensities of Brazil and South Africa with BRICS have improved since 2001, while that of China, India and Russia, on the other hand, have deteriorated since 2001.

The mutually invigorating trade interaction among the BRICS countries is reflected in their trade composition. Brazil and Russia are among the world's largest producers and exporters of natural resource, while most of their imports include manufactured and processed goods. India and China, on the other hand, are among the major exporters of manufactured and processed goods, and major importers of natural resources. South Africa, apart from being a major trading partner for India, China and Brazil, serves as an important trade route for India-Brazil trade. Thus, growing synergies among the

A BRICS economy is mutually beneficial to the members. According to Goldman Sachs, a significant driver of BRICS growth stems from the large scale Chinese and Indian industrialization and urbanization creating strong demand for Russia's and Brazil's abundance of natural resources.

LITERATURE REVIEW

Although researches on global and regional CGE are getting more active, less attention has been taken to those regions grouped by both the economic and politic standards such as the BRICS countries within the global CGE framework. Separately speaking, Maldonado et al. (2007) modeled foreign capital flow to Brazil as stemming from an investment decision whose risk depended on the expected rate of loss of foreign reserves. By comparing the response of the two versions of the model by simulating the implementation of the trade agreements with the Americas and with the European Union, they concluded that the inclusion of endogenous foreign capital flow in the model significantly amplifies. One of the latest global CGE research publications came from Lemelin et al. (2013), they present an applied CGE world model with financial assets and endogenous current account, along with the capital and financial account balances. Their financial CGE model involves 14 regions including two main BRICS countries China and India. However, the G7 group is not so appropriate in terms of the developed regions due to its smaller scale compared with the OECD, and is less representative than the USA plus EU. Das (2012) also made the two BIRC countries China and India as the core regions in his global CGE model. His model presented that exogenous technology shock from developed North, vehicle via trade, transmits to developing Souths and induces productivity growth. What's more, dynamism of Southern Engines of Growth – India and China – caused them to emerge as 'core' South. Das's paper shows kind of inter-relationship implication among the developing countries, while the other BRICS countries' role still unknown. As BRICS are the leading countries in terms of economy development, it is easy to find out that they are often concerned in some other global CGE research works especially in GTAP model (McDonald at al 2008, Walmsley and Hertel 2000, Elena et al 1999, 2006). Pereira et al (2010) analyze the impacts of the Doha Round on Brazilian, Chinese and Indian agribusiness using GTAP 7, compared with the EU 25 regions and The USA as the developed countries. Their research gave many reasonable implications such as the highest growth rate owned by China and Brazil. While some limitations must be figured that It is kind of static model but not a dynamic one, which is not enough to analyze the scenarios of these fast developing countries. Besides, more researches could be found in some regional CGE model focus on Russia (Orlov and Grethe 2012), India (Ojha et al 2013) and China (He et al 2010, Horridge et al 2008) due to the data quality limitation and specific model structure designing. As reviewed above, it is implied that less global CGE modeling work has been done about the BRICS countries, as well as the GTAP modeling.

Since the BRICS countries are the most sensitive regions both in the economic and politic fields, and most of the international issues such as tariff exemption and trade facilitation are very complicated due to the policy intervention, we put our research focus on the BRICS countries' inter-action, along with their trading and financial relationship with the advanced regions (e.g. EU and the United States) by a global CGE model. For the most obvious feature of the BRICS countries is the long-lasting fast economic growth, a dynamic model is necessary and introduced in our model.

Because most of the CGE model has often been used to analyze the trade and energy issues just like what Dixion et al. (2006), Hertel (1994) and Böhringer (2011) have done, a tariff reduction scenario is certainly necessary to be introduced into our global CGE model. In addition, there are more measures taken to improve the trade facilitation by some organizations such as the World Customs Organization's Data Model and Single Window Projects, the UN/CEFACT's trade facilitation projects, and the EU Blue Belt Pilot Project. So it is reasonable and necessary to analyze the effects of these trade facilitation because these policies are often

implemented regionally (EMSA, 2010), partly and temporarily (Trade Facilitation and Port Community System Committee, 2012). We will further introduce the related tariff reduction and facilitation policies in detail in the following processing part.

OBJECTIVES OF THE STUDY

The major objectives of present study are:
1. To analyse the potential for Enhancing India's Trade with BRICS
2. To examine the trends in Share of BRICS as a group and of individual countries of BRICS in World trade during 2006-2015
3. To analyse trends in the Intra-BRICS Trade intensity of BRICS as a group during the time period 2006-2015
4. To analyse the trends in the Intra-BRICS trade intensity of each of the BRICS Countries during the time period 2006-2015

ANALYSIS AND DISCUSSION

1. POTENTIAL FOR ENHANCING INDIA'S TRADE WITH BRICS

Underlying the robust trend in bilateral trade between India and rest of BRICS countries has been the rising trend in India's trade deficit with BRICS countries. India's trade deficit with rest of BRICS increased from US\$ 8.7 billion in 2006, to US\$ 58.4 billion in 2015. India maintained the largest trade deficit with China (US\$ 52 billion), followed by Russia (US\$ 2.9 billion), South Africa (US\$ 2.5 billion), and Brazil (US\$ 1 billion). To further enhance India's trade with the BRICS countries, and at the same time to address the rising trade deficit, an important strategy would be to focus on India's export potential to these countries. Such a strategy would also contribute to the overall efforts to enhance India's trade with BRICS. While India's current global capability could be matched with the import demand of BRICS countries, leading to enhanced exports from India, strategy to promote. bilateral trade relations could also encompass the case for enhancing domestic production in India to cater to the large demand existing in other BRICS countries. Given India's expertise in several manufactured products, and technology which is affordable and adaptable, other BRICS countries would also stand to gain with increased import of such items from India. This would also help in further strengthening bilateral ties, and resulting in a mutually rewarding long-term partnership. Potential items of export for India to other BRICS countries up to the 6-digit HS code, have been identified and presented in the study.

2. CHALLENGES AND THE WAY FORWARD

BRICS countries have made significant progress in integrating with the global economy. According to the IMF, more than 40 per cent of the global economic growth is generated by BRICS economies. However, the share of intra-BRICS trade to its global trade is still as low. Further, intra-BRICS trade is dominated by China on both export and import fronts. The growth of intra- BRICS trade has been constrained primarily by high and escalating trade costs and restrictive trade policy environment. In the World Bank's 'Ease of Doing Business', trading across borders index, it has been observed that despite progress made in the past, the trading across borders rankings of BRICS countries remain low. Cumbersome documentation and customs clearance, poor inland transportation and terminal handling, are some of the reasons that hamper exports. BRICS economies have reduced their tariff rates in the recent years, however, there exists import restrictions in terms of non-tariff barriers. There has been a rise in the incidence of technical barriers to trade (TBT) and sanitary and phytosanitary measures (SPS) applied by the BRICS. Apart from these, the prevalence of anti-dumping measures, countervailing duties and safeguards have also affected intra-BRICS trade. In order to expand cooperation in trade among BRICS countries, the following goals should be pursued:
1. Enhancing consultations and exchanging information on macroeconomic and trade policies;
2. Encouraging trade and investment links between BRICS countries with an emphasis on promoting market access on goods and services amongst BRICS countries and supporting industrial complementarities, sustainable development and inclusive growth;
3. Simplifying and increasing the efficiency of administrative procedures to facilitate and accelerate mutual trade and investment;
4. Improving the transparency of trade and investment climate in the framework of international obligations and national legislation; and
5. Creating favorable conditions for development of mutual trade and foreign direct investment in the BRICS countries in order to diversify production and exports.

3. EXIM INDIA'S ENDEAVOURS TO HARNESS SYNERGIES WITH BRICS COUNTRIES

Export-Import Bank of India (Exim India or the Bank) has played a catalytic role in augmenting India's increasing integration with the global economy, with particular reference to the countries of the South. The BRICS economies have been a focus region for Exim India, and thus a critical component of its strategy to promote and support two-way trade and investment. As a partner institution to promote economic development, the commitment towards building relationships with the BRICS economies is reflected in the various activities and programmers, which Exim India has set in place. Exim India is the nominated member development bank from India under the BRICS Interbank Cooperation Mechanism. Other nominated member development banks from other BRICS nations are: Banco Nacional de Desenvolvimento Economico e Social (BNDES),Brazil; State Corporation Bank for Development and Foreign Economic Affairs (Vnesheconombank), Russia; China Development Bank Corporation (CDB), China, and Development Bank of Southern Africa (DBSA), South Africa.In April 2010, Exim India entered into a Memorandum of Cooperation (MOC) with BNDES, Vnesheconombank, and CDB, in the BRIC (Brazil, Russia, India, China) Summitheld in Brazil. The MOC signed in the presence of Heads of four States/ Governments seeks to develop cross border transactions and projects of common interest; strengthen and enhance trade and economic relations between BRIC countries and its enterprises; and finance the investment projects and to work towards economic development of BRIC countries. Towards fostering institutional linkages, the Bank entered into a Framework Agreement on Financial Cooperation with BNDES, Vnesheconombank, CDB, and DBSA at the third BRICS Summit, held in Sanya, China in April 2011. The Agreement aims to facilitate financial cooperation among the partner development banks of the BRICS countries, with a view to promoting trade and investment for economic development. As a follow-up to this Agreement, the Bank hosted a Technical Group Meeting in Kumarakom, Kerala, in February 2012, during which the member development banks discussed and finalized two Agreements viz., 'Master Agreement on Extending Credit Facility in Local Currency' and 'BRICS Multilateral Letter of Credit Confirmation Facility'. During the fourth BRICS Summit hosted by India in New Delhi in March 2012, Exim India signed these two multilateral financial cooperation agreements with other member development banks. The Bank also hosted the Annual Meeting and Financial Forum under the BRICS Interbank Cooperation Mechanism coinciding with the fourth BRICS Annual Summit at New Delhi. Exim India has signed two multilateral financial cooperation agreements with other member development banks of BRICS nations, in the presence of Heads of States/Governments of the BRICS countries during the fifth BRICS Summit 2013. The two agreements signed during the occasion are: (i) BRICS Multilateral Infra-structure Co-financing for Africa; and (ii) BRICS Multilateral Cooperation and Co-financing Agreement for Sustainable Development. These two agreements are aimed at setting broader agenda for cooperation in these key areas; and are expected to enhance cooperation among BRICS development banks to promote intra-BRICS trade. Exim India has also been participating in the Annual Meetings of the BRICS Financial Forum, under the BRICS Interbank Cooperation Mechanism.

CHART 1.1: SHARE OF BRICS COUNTRIES IN WORLD GDP
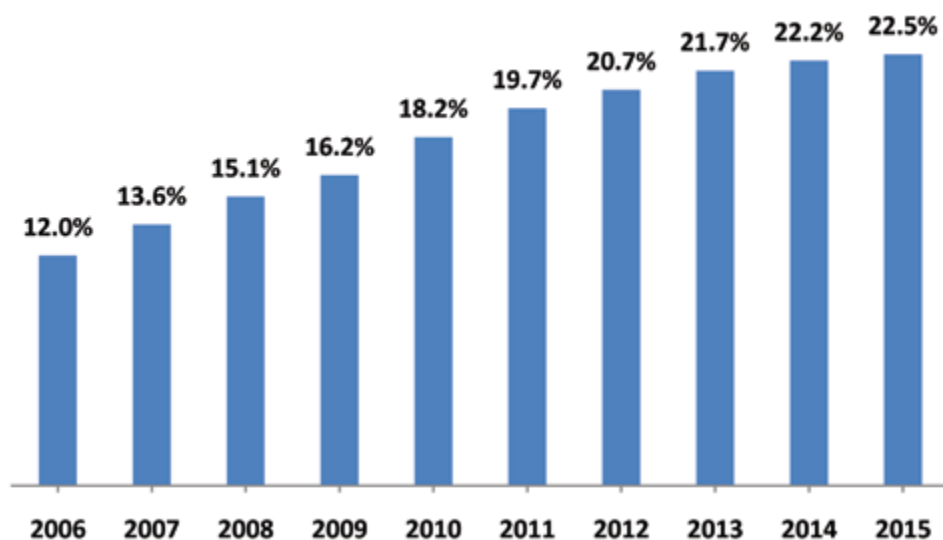
Source: IMF, World Economic Outlook, April 2016 and July 2016 Update; and Exim Bank Analysis.

CHART 1.2: REAL GDP GROWTH OF BRICS COUNTRIES
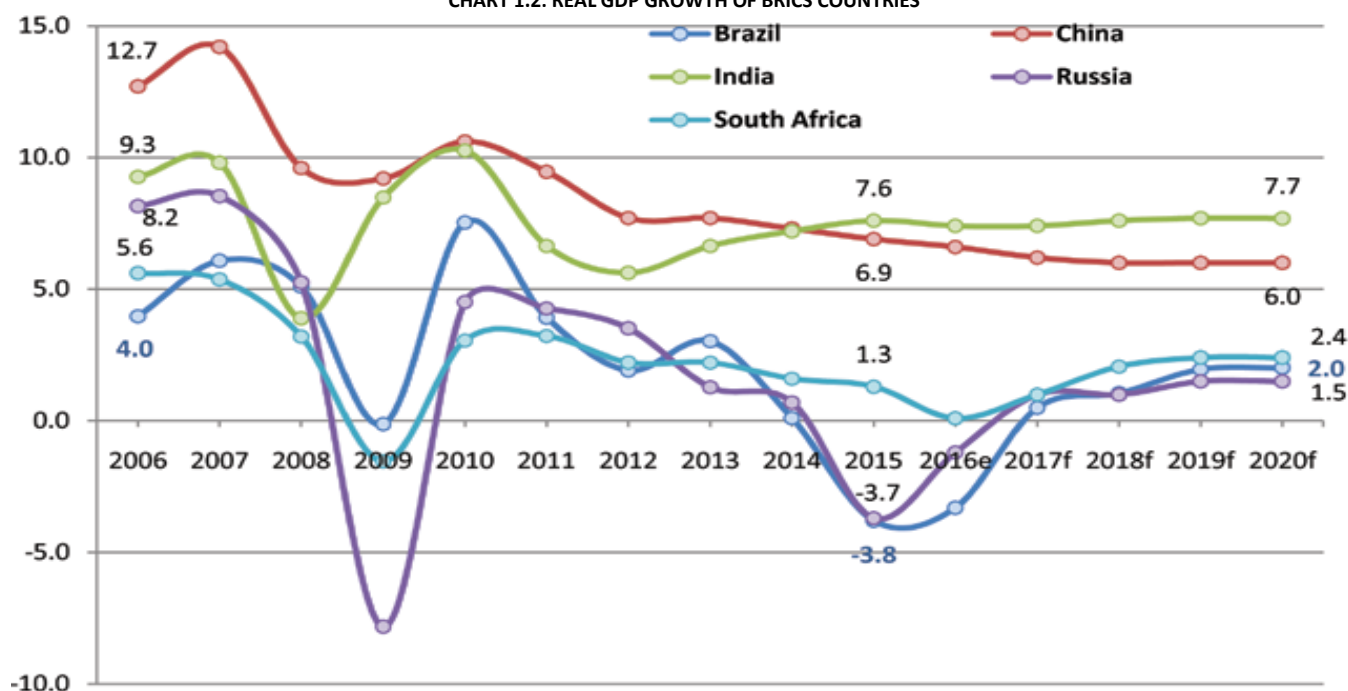
Source: IMF, World Economic Outlook, April 2016 and July 2016 Update; and Exim Bank Analysis.

TABLE 1: MAJOR INDUSTRIES IN BRICS COUNTRIES

Brazil	Coffee, soybeans, wheat, rice, corn, sugarcane, cocoa, citrus, and beef.
Russia	Grain, sugar beets, sunflower seeds, vegetables, fruits, beef, and milk.
India	Rice, wheat, oilseed, cotton, jute, tea, sugarcane, lentils, onions, potatoes, dairy products, sheep, goats, poultry, and fish.
China	Rice, wheat, potatoes, corn, peanuts, tea, millet, barley, apples, cotton, oilseed, pork, and fish.
South Africa	Corn, wheat, sugarcane, fruits, vegetables, beef, poultry, mutton, wool, and dairy products.

Source: CIA World Factbook

TABLE 2: MAJOR AGRICULTURE AND ALLIED PRODUCTS OF BRICS COUNTRIES

Brazil	Textiles, shoes, chemicals, cement, lumber, iron ore, tin, steel, aircraft, motor vehicles and parts, and other machinery and equipment
Russia	Mining and extractive industries producing coal, oil, gas, chemicals, and metals; all forms of machine building from rolling mills to high-performance aircraft and space vehicles; defense industries (including radar, missile production, advanced electronic components), shipbuilding; road and rail transportation equipment; communications equipment; agricultural machinery, tractors, and construction equipment; electric power generating and transmitting equipment; medical and scientific instruments; consumer durables, textiles, foodstuffs, and handicrafts.
India	Textiles, chemicals, food processing, steel, transportation equipment, cement, mining, petroleum, machinery, software, and pharmaceuticals.
China	Mining and ore processing, iron, steel, aluminum, and other metals, coal; machine building; armaments; textiles and apparel; petroleum; cement; chemicals; fertilizers; consumer products (including footwear, toys, and electronics); food processing; transportation equipment, including automobiles, rail cars and locomotives, ships, aircraft; telecommunications equipment, commercial space launch vehicles, and satellites.
South Africa	Mining (world's largest producer of platinum, gold, chromium), automobile assembly, machinery, textiles, iron and steel, chemicals, fertilizer, foodstuffs, and commercial ship repair.

Source: CIA World Factbook

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4. BRICS GLOBAL TRADE: RECENT TRENDS

The significance of international trade among BRICS countries was highlighted during the Sixth BRICS Summit in Fortaleza, Brazil in 2014. During this Summit the BRICS countries adopted a key decision on launching comprehensive talks regarding the BRICS Strategy for Economic Partnership and a draft BRICS Roadmap for BRICS Trade, Economic and Investment Cooperation. The countries also coordinated subsequent joint steps in topical areas of cooperation such as the creation of favorable conditions for barrier-free trade, among others. At the non-governmental level, the BRICS Trade & Economics Research Network (BRICS-TERN) was launched at the WTO Annual Conference to commemorate the 10th anniversary of China's accession to the WTO in Shanghai on November 19, 2011.

CHART 1.3 & 1.4: SHARE OF BRICS IN WORLD EXPORTS
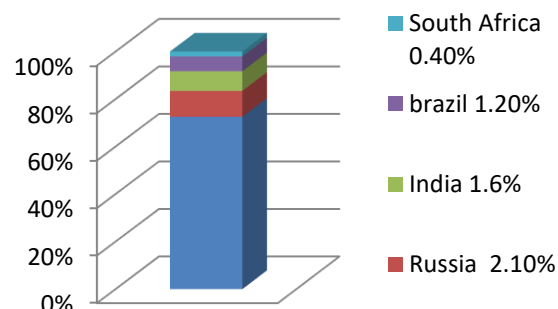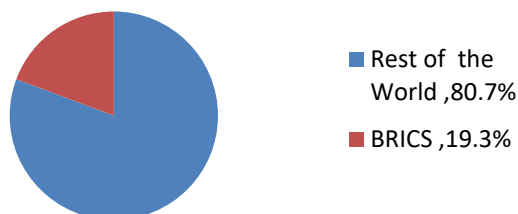
Source: ITC Trademap; and Exim Bank Analysis.

CHART 1.5 & 1.6: SHARE OF BRICS IN WORLD IMPORTS
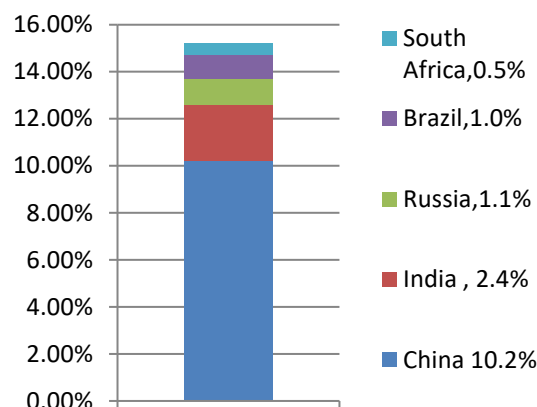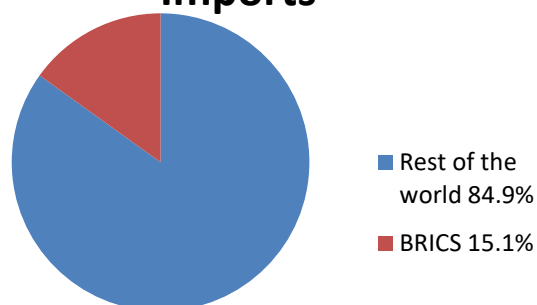
Source: ITC Trademap; and Exim Bank Analysis.

5. INTRA-BRICS TRADE: AN ASSESSMENT

As highlighted in the previous chapter, BRICS economies together account for 22.5 per cent of the global output and 17.2 per cent of global trade. BRICS countries have made significant progress in integrating with the global economy. Analysis of trading patterns within BRICS countries reveals that levels of intra-BRICS trade are quite diverse, mainly reflecting comparative sizes of the economies. Over the past decade, intra-BRICS trade has increased by nearly three-fold during 2006 and 2015, supported by increase in intra-regional trade for all the member countries. As regards its share in the BRICS global trade, intra-BRICS trade showed gradual increase during the same period. This share had peaked in 2011. Rapid economic expansion, increasing importance of South-South trade, and the recent financial crisis that triggered in 2007, were responsible for this rise. China has played a significant role in the intra-BRICS trade, accounting for over half of the intra-BRICS trade. This was followed by India, Brazil, Russia, and South Africa. However, it may be mentioned that BRICS countries have not harnessed the potential offered by the regional cooperation, especially given the significant growth of its market size to US\$ 16.5 trillion in 2015 from US\$ 6.1 trillion a decade ago, supported by a large consumer base of over 3 trillion population.

TABLE 3: INTRA-BRICS TRADE

Items	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Nominal GDP (US$ bn)	6136.4	7863.8	9543.6	9707.4	11924.3	14326.2	15329.0	16444.6	17270.2	16483.8
Population (mn)	2822.6	2848.2	2873.6	2898.9	2925.2	2956.7	2991.9	3018.0	3046.8	3073.0
Intra-BRICS Exports (US$ bn)	92.9	128.6	168.9	143.6	210.7	274.9	281.4	296.4	295.3	242.3
Intra-BRICS Imports (US$ bn)	103.8	150.3	209.4	173.9	248.6	339.2	354.9	356.9	356.4	296.7

Source: IMF World Economic Outlook April 2016; ITC Trade map; and Exim Bank Analysis

6. TRADE INTENSITY ANALYSIS AMONG BRICS MEMBERS

Keeping in view the increasing importance of BRICS countries both economically and politically and increasing efforts by BRICS countries to enhance mutual trade relations, the following section analyses country wise intra-BRICS trade through the trade intensity index (TII). TII determines whether the value of trade among BRICS countries is greater or smaller than expected value on the basis of their importance in world trade. The following section measures trade intensity through three parameters, a) Intra-BRICS trade intensity index (TII); b) Intra-BRICS export intensity index (XII); and c) Intra-BRICS import intensity index (MII).

TABLE 4: COMPARATIVE GROWTH DYNAMICS OF INTRA-BRICS TRADE (2006 TO 2015) (CAGR %)

Region/ Country	Intra-Exports	Total Exports	Intra-Imports	Total Imports
BRICS	11.2%	8.0%	12.4%	7.9%
Brazil	13.1%	1.5%	14.9%	7.2%
Russia	6.8%	9.1%	10.3%	3.2%
India	4.4%	3.7%	15.4%	9.1%
China	13.5%	10.0%	11.7%	8.7%
South Africa	12.3%	3.2%	7.9%	1.7%

Source: ITC Trade Map, Geneva; Exim Bank Analysis.

Note: Shaded area implies intra-BRICS export/import growth is greater than total export/ import growth.

The BRICS members is seen in their composition of trade. Brazil and Russia are among the world's largest producers and exporters of natural resource, while most of their imports include manufactured and processed goods. India and China, on the other hand, are among the major exporters of manufactured and processed goods, and major importers of natural resources (Exhibit 3.1). South Africa, apart from being a major trading partner for India, China and Brazil, serves as an important trade route for India-Brazil trade. Thus, growing synergies among the BRICS economies is mutually beneficial to the members. According to Goldman Sachs, a significant driver of BRICS growth stems from the large scale Chinese and Indian industrialization and urbanization creating strong demand for Russia's and Brazil's abundance of natural resources9. Exhibit 3.1: Intra-BRICS Trade: Offering Greater Counter Cyclical Growth Opportunity.

BRICS Tariff Profile The common feature in the tariff policies of the BRICS is the recent liberalization of their economies. Brazil and South Africa subordinate their tariff policies to a regional bloc, which forms the Southern Common Market (MERCOSUR) and the South African Customs Union (SACU), respectively. They thus have restricted autonomy when it comes to changing their policies. Within the context of MERCOSUR, Brazil is taking on the difficult task of converging the common external tariff (CET) with various applied exceptions. South Africa underwent a process of subordinating its tariff policy to SACU's CET10. Besides cuts in tariff rates, a large number of import restrictions in the form of prohibitions and quotas have also been done away with. Licenses, however, continue to be important means for regulating imports in the BRICS. According to the World Trade Organization (WTO)11, there has also been a rise in the incidence of technical barriers to trade (TBT) and sanitary and phytosanitary measures (SPS) applied by the BRICS. All BRICS economies are members of international standard setting organizations, including International Plant Protection Convention (IPPC), Organization International des Epizooties (OIE) and the Codex Alimentations Commission and steps have been taken to bring about greater harmonization in the standards adopted based on guidelines and recommendations of the OIE, IPPC and Codex. All BRICS countries also have memorandum of understanding on standards, conformity assessment and accreditation procedures with several third countries and are sig-natories to a number of multilateral and bilateral mutual recognition agreements. There are a number of such arrangements amongst the BRICS themselves. The rising trade of BRICS economies has also been accompanied with an increase in the use of trade remedies. Trade remedies include anti-dumping measures, coun-tervailing duties and safeguards.

7. EXPORT –IMPORT BANK OF INDIA IN BRICS COUNTRIES

Exim India's Association with BRICS Exim India is the nominated member development bank from India under the BRICS Interbank Cooperation Mechanism. Other nominated member development banks from other BRICS nations are: Banco Nacional de Desenvolvimento Economico e Social (BNDES), Brazil; State Corporation Bank for Development and Foreign Economic Affairs (Vnesheconombank), Russia; China Development Bank Corporation (CDB), China, and Development Bank of Southern Africa (DBSA), South Africa. Exim India is the nominated member development bank from India under the BRICS Interbank Cooperation Mechanism. Other nominated member development banks from other BRICS nations are: Banco Nacional de Desenvolvimento Economico e Social (BNDES), Brazil; State Cor-poration Bank for Development and Foreign Economic Affairs (Vnesheconombank), Russia; China Development Bank Corporation (CDB), China, and Development Bank of Southern Africa (DBSA), South Africa. In April 2010, Exim India entered into a Memorandum of Cooperation (MOC) with BNDES, Vnesheconombank, and CDB, in the BRIC (Brazil, Russia, India, and China) Summit held in Brazil. The MOC signed in the presence of Heads of four States/ Governments seeks to develop cross border transactions and projects of common interest; strengthen and enhance trade and economic relations between BRIC countries and its enterprises; and finance the investment projects and to work towards economic development of BRIC countries. Towards fostering institutional linkages, the Bank entered into a Framework Agreement on Financial Cooperation with BNDES, Vnesheconombank, CDB, and DBSA at the third BRICS Summit, held in Sanya, China in April 2011. The Agreement aims to facilitate financial cooperation among the partner development banks of the BRICS countries, with a view to promoting trade and investment for economic development. As a follow-up to this Agreement, the Bank hosted a Technical Group Meeting in Kumarakom, Kerala, in February 2012, during which the member development banks discussed and finalized two Agreements viz., 'Master Agreement on Extending Credit Facility in Local Currency' and 'BRICS Multilateral Letter of Credit Confirmation Facility'. During the fourth BRICS Summit hosted by India in New Delhi in March 2012, Exim India signed these two multilateral financial cooperation agreements with other member development banks. The Bank also hosted the Annual Meeting and Financial Forum under the BRICS Interbank Cooperation Mechanism coinciding with the Fourth BRICS Annual Summit at New Delhi.

8. CHALLENGES FOR ENHANCING INTRA-BRICS TRADE

BRICS countries have made significant progress in integrating with the global economy. According to IMF12, during 2010-14, the BRICS accounted for about 40 percent of global growth, up from about 10 percent during the 1990s. However, the share of intra-BRICS trade to its global trade is still as low. Further, intra BRICS trade is dominated by China on both the export and import fronts. The growth of intra-BRICS trade has been constrained by a number of factors. Among others, high and escalating trade costs and restrictive trade policy environment are the major deterrents to trade.

9. HIGH AND ESCALATING TRADE COSTS

In the World Bank's 'Ease of Doing Business', trading across borders index has eight sub-components namely (i) Time to export: border compliance (hours), (ii) Cost to export: border compliance (USD), (iii) Time to export: Documentary compliance (hours), (iv) Cost to export: Documentary compliance (USD), (v) Time to import: Border compliance (hours); (vi) Cost to import: Border compliance (USD); (vii) Time to import: Documentary compliance (hours); and (viii) Cost to import: Documentary compliance (USD).

TABLE 5: DOING BUSINESS RANKINGS FOR TRADING ACROSS BORDERS OF BRICS COUNTRIES

Country	Trading Across Borders Ranking
Brazil	145
Russia	170
India	133
China	96
South Africa	130

Source: World Bank, Doing Business 2016

Note: the above rankings are for 189 economies

10. RESTRICTIVE TRADE POLICY ENVIRONMENT

BRICS economies have reduced their tariff rates in the recent years, however, their import restrictions in terms of non-tariff barriers exist. There has been a rise in the incidence of technical barriers to trade (TBT) and sanitary and phytosanitary measures (SPS) applied by the BRICS countries. Apart from these, the prevalence of anti-dumping measures, countervailing duties and safeguards have also affected intra-BRICS trade.

WAY FORWARD

In order to expand cooperation in trade among BRICS countries, the following goals should be pursued:
- Enhancing consultations and exchanging information on macroeconomic and trade policies;

- Encouraging trade and investment links between BRICS countries with an emphasis on promoting market access on goods and services amongst BRICS countries and supporting industrial complementarities, sustainable development and inclusive growth;
- Simplifying and increasing the efficiency of administrative procedures to facilitate and accelerate mutual trade and investment;
- Improving the transparency of trade and investment climate in the framework of international obligations and national legislation; and
- Creating favorable conditions for development of mutual trade and foreign direct investment in the BRICS countries in order to diversify production and exports.

CONCLUSIONS & RECOMMENDATIONS

As per the World Development Indicators of the World Bank, India is an emerging economy with a gross domestic product of US$ 1.88 trillion in 2013. It is the largest economy in South Asia and one of the fastest growing in the world.

In 2013, its merchandise export was valued at US$ 336.61 billion, with the United States of America (US$ 41.96bn), United Arab Emirates (US$ 33.98bn) and China (US$ 16.42bn) being its top three export destinations. Furthermore, in 2013 its import was worth US$ 466.04 billion, with the top three sources being China, Saudi Arabia and United Arab Emirates (US$ 51.64bn, 36.60bn and 32.95bn, respectively).

Since 2001, its trade openness (export plus import of goods and services as a percentage of GDP) increased from 27 per cent to 57 per cent. While India's trade openness has surpassed Brazil, Russia and China, over the next few years it is expected to pass the current world average of 61 per cent. In 2013, it was 65 per cent in the case of South Africa.

Not only among its peers in the BRICS group of countries, is India poised to become a major trade open" country in the world. Therefore, given the fact that by the end of the next decade the BRICS group is expected to account for almost 50 per cent of world's GDP growth and the centre of gravity of the global economy is expected to be located somewhere between India and China, India should give much greater emphasis on similarities (and otherwise) of intra-BRICS trade.

Further welfare gains from trade will be available for India as well as the other BRICS countries if: a) intra-industry trade is promoted sincerely, and b) intra-industry trade is promoted along with horizontal movement of capital, that is, horizontal foreign direct investment due to the similarities of skill level amongst the BRICS countries. A strong institutional framework will be needed to tap into the potential skills and resources of each country.

Our analysis has revealed that there are many product categories in which India is competing with other BRICS countries and also there are products where India is enjoying comparative advantages. Accordingly, India should re-orient its Focused Market and Focused Product initiatives in its new trade policy. Our comparative analyses of Revealed Comparative Advantage of top ten products of the BRICS group of countries supports this re-orientation. With an increasing level of specialization between and among the BRICS industries the cost of production will decreases, providing economic gains for all consumers across borders.

Furthermore, though our analyses did not go beyond trade, looking at Degrees of Similarity in Export Structures (Finger-Krein in Index) and Relative Export Competitive Pressure Index of different pairs of BRICS countries, there may be a case for a free trade agreement among the BRICS group of countries. More importantly, if the BRICS group of countries can negotiate a comprehensive economic partnership agreement among themselves, covering behind-the-border issues of trade and investment (such as intellectual property rights, standards, competition, government procurement), not only will there be more robust trade growth among those countries but they can also play a more proactive role in global trade and investment governance in the future. 24 Intra-BRICS Trade & Its Implications for India.

While we are not recommending an immediate initiation of negotiations for a BRICS free trade agreement with a built-in agenda for a comprehensive economic partnership agreement at a later stage, we should keep a close eye on how they react to expected impact of mega free trade agreements (Trans-Pacific and Trans-Atlantic) on their economies.

Over the last few years, the BRICS group of countries has shown the world that they can arrive at multilaterally negotiated solutions. Future growth of intra-BRICS trade (and investment), particularly in the context of the Fortaleza Declaration, may make a stronger case for institutionalizing BRICS trade (and investment) relationship.

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AN EMPIRICAL STUDY OF ATTACKS ON AODV IN MANET

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ABSTRACT
A Mobile Ad-Hoc Network is a self-designed gathering of mobile hubs in which there is no need of predefined framework. In this network hubs can self-assertively change their geographic areas. MANET is more defenseless against digital attacks than wired networks on account of no any focal coordination component. The Blackhole attack at network layer is the most consideration looking for attack in AODV steering convention when contrasted with different protocols. This paper displays an audit of Blackhole attack in AODV directing convention.

KEYWORDS
MANET, AODV, Security, Black hole Attack, Worm Hole Attack, Grey Hole Attack, Detection and Prevention Techniques.

JEL CODES
L86, C89.

1. INTRODUCTION

The Mobile Ad-hoc Network (MANET) is a gathering of self-arranging framed with the remote connection mobile hubs where every hub in MANETs is allowed to move freely with framework less and decentralized network. A MANET having central qualities, for example, open medium, dynamic topology, appropriated participation, and multi-jump directing. Because of these qualities, remote mobile ad-hoc network are helpless against the attacks. For the fundamental usefulness of the network, security is the most imperative worry in the mobile Ad-hoc network. MANETs are powerless against different sorts of attack, with the end goal that active and passive attacks. In passive attacks, inside the transmission go the attackers endeavor to find important data. Then again, active attacks, attackers endeavor to disturb the operation of correspondence. Every hub in MANET acts a switch that advances information bundles to different hubs. In this manner, there are three sorts of directing protocol: Proactive Protocols, Reactive Protocols and Hybrid Protocols.

1.1 AODV ROUTING PROTOCOLS

The AODV routing protocol is an adaptation of the DSDV protocol for dynamic connection conditions. Each hub in an ad hoc network keeps up a directing table, which contains data about the course to a specific goal. At whatever point a packet is to be sent by a hub, it initially checks with its steering table to decide if a course to the goal is already accessible. Assuming this is the case, it utilizes that course to send the packets to the goal. On the off chance that a course isn't accessible or the already entered course is inactivated, at that point the hub starts a course revelation process. A RREQ (Course Ask for) packet is broadcasted by the hub. Each hub that gets the RREQ packet initially checks on the off chance that it is the goal for that packet and assuming this is the case, it sends back a RREP (Course Answer) packet. On the off chance that it isn't the goal, at that point it checks with its directing table to decide whether it has a course to the goal. If not, it transfers the RREQ packet by broadcasting it to its neighbors. On the off chance that its steering table contains a passage to the goal, at that point the subsequent stage is the correlation of the 'Goal Succession' number in its directing table to that present in the RREQ packet. This Goal Grouping number is the arrangement number of the last sent packet from the goal to the source. In the event that the goal grouping number present in the steering table is lesser than or equivalent to the one contained in the RREQ packet, at that point the hub transfers the demand further to its neighbors. In the event that the number in the directing table is higher than the number in the packet, it indicates that the course is a 'crisp course' and packets can be sent through this course. This middle of the road hub at that point sends a RREP packet to the hub through which it got the RREQ packet. The RREP packet gets handed-off back to the source through the turn around course. The source hub at that point refreshes its steering table and sends its packet through this course. Amid the operation, if any hub distinguishes a connection disappointment it sends a RERR (Course Mistake) packet to every other hub that uses this connection for their correspondence to different hubs.

FIG 1a: PROPAGATION OF RREQ.
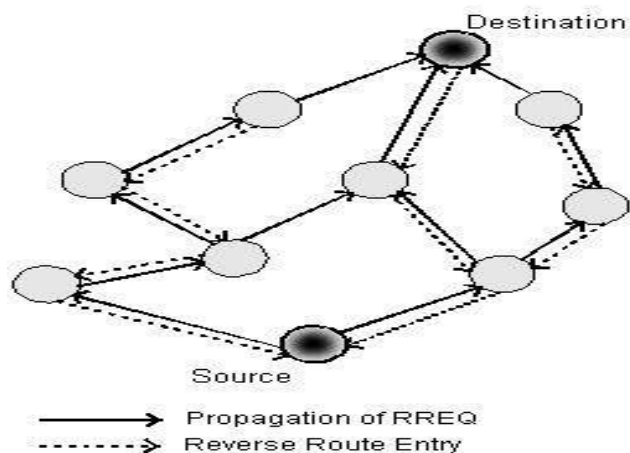
FIG. 1b: PROPAGATION OF RREP
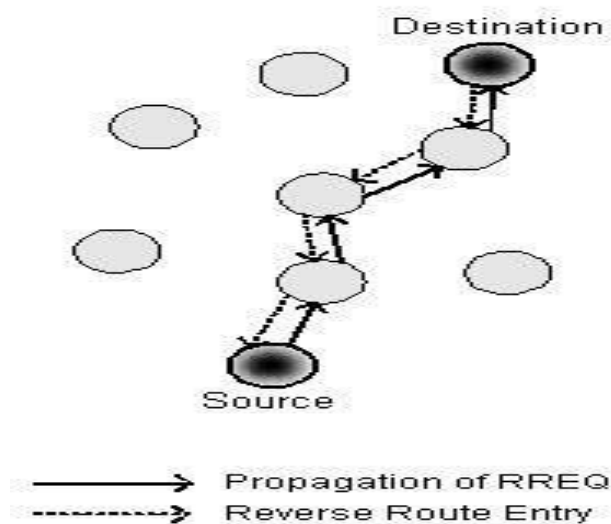
1.2   BLACK HOLE ATTACK IN AODV

In Dark opening attack a malignant hub advertises about the most limited way to the hub whose packets it needs to catch. In following figure, envision, M is malignant hub. At the point when hub A broadcasts a RREQ packet, hubs B, D and M get it. Hub M, being a malevolent hub, this hub does not check up with its directing table for the asked for course to hub E. Subsequently, it instantly sends back a RREP packet, guaranteeing that it has a course to the goal.

Inside Dark gap attack: This kind of dark opening attack has an interior noxious hub which fits in the middle of the courses of given source and goal, when it finds the opportunity this pernicious hub makes itself an active information course component. Presently this hub is fit for directing attack with the begin of information transmission. This is an inner attack since hub itself has a place with the information course.

Outer dark opening attack: Outside attack physically remains outside of the network and denies access to network. Outside attack can turn into a sort of interior attack when it take a control of inward vindictive hub and control it to attack different hubs in MANET.

FIG. 1c: BLACK HOLE ATTACK
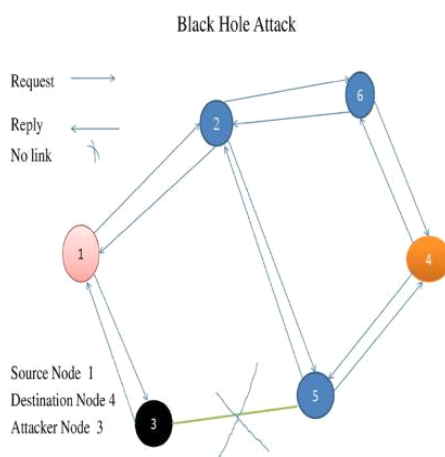
1.3   WORMHOLE ATTACK IN AODV

Wormhole attack is a sort of replay attack that is especially testing in MANET to safeguard against. Regardless of the possibility that, the directing data is private, scrambled or validated, it can be exceptionally successful and harming. An attacker can burrow a demand packet RREQ straightforwardly to the goal node without expanding the bounce check esteem. Consequently it keeps some other courses from being found. It might badly upset correspondence as AODV would be not able discover courses longer than maybe a couple bounces. It is simple for the attacker to make the burrowed packet land with preferred metric over an ordinary multi-bounce course for burrowed separates longer than the run of the mill transmission scope of a solitary jump. Malicious nodes can retransmit listened stealthily messages again in a channel that is solely accessible to attacker. The wormhole attack can be converged with the message dropping attack to keep the goal node from getting packets.

FIG. 1d: WORM HOLE ATTACK
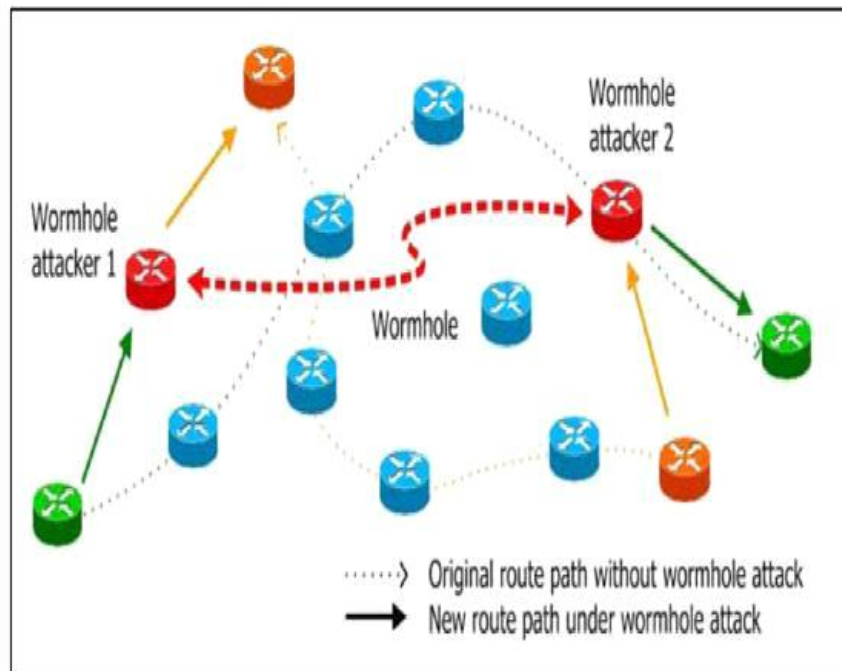
1.4 GRAY HOLE ATTACK

Gray hole attack is bit like dark gap attack with a little variety where the malicious node does node drop the whole packets instead it will drop some specific packets. In Gray opening attack, a node which is individual from the network, gets RREQ packets and make a course to goal. Subsequent to making the course, it drops some of information packets. Gray gap attack is extremely hard to distinguish on the grounds that malicious node don't drop information packets consistently however instead it will drop the information packets every so often. In this manner some of the time node will act typical node and at some point node change to malicious node

FIG. 1e: GREY HOLE ATTACK
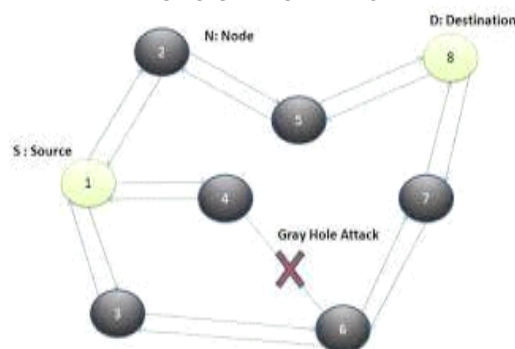
2. LITERATURE SURVEY

In this section, we review different methods for the detection and prevention of various attacks in AODV based mobile ad-hoc networks.

2.1 DPRAODV (Detection, Prevention and Reactive AODV) SCHEME

In this paper creators proposed have proposed the strategy DPRAODV (A dynamic learning framework against black hole attack in AODV based MANET) to avert security of black hole by illuminating different nodes in the network. In ordinary AODV, the node that gets the RREP packet initially checks the estimation of arrangement number in its directing table. On the off chance that its arrangement number is higher than the one in steering table, this RREP packet is acknowledged. In this arrangement, it has an addition check whether the RREP grouping number is higher than the edge esteem. In the event that it is higher than the limit esteem, at that point the node is thought to be malicious node and it adds to the black rundown.

2.2 ABM (Anti-Black hole Mechanism) SCHEME

This paper endeavors to recognize and isolate malicious nodes, which specifically perform black hole attacks by sending IDSs in MANETs (mobile ad hoc networks). All IDS nodes play out an ABM (Anti-Black hole Mechanism), which appraises the suspicious estimation of a node, as per the measure of strange contrast amongst RREQs and RREPs transmitted from the node.

2.3 HONEYPOT BASED DETECTION SCHEME

In Creators propose a novel procedure by utilizing mobile honeypot specialists that use their topological information and identify such spurious course advertisements. They are conveyed as wandering programming operators that visit the network and draw attackers by sending course ask for advertisements. We gather important data on attacker's technique from the interruption logs accumulated at a given honeypot Downsides: proposed calculation is for WMN not for MANET.as it is proactive mechanism, it will produce bunches of activity. nectar pot has absence of concentrated specialist control

2.4 ERDA (Enhance Route Discovery for AODV) SCHEME

ERDA (Enhance Route Discovery for AODV) conspire: Have outlined an ERDA answer for enhance AODV protocol with least alteration to the current course disclosure mechanism recvReply() work. The strategy called ERDA (Improve Course Disclosure for AODV). The proposed strategy can alleviate the foresaid issue by presenting new conditions in the directing table refresh process and furthermore by adding straightforward malicious node detection and confinement procedure to the AODV course revelation mechanism.

2.5 CRYPTOGRAPHIC BASED TECHNIQUE

This paper centers that numerous examinations have been done keeping in mind the end goal to enhance the security in MANETs, a large portion of which are depended on cryptographic based procedures so as to promise a few properties, for example, information trustworthiness and accessibility. These procedures can't keep a malicious node from dropping packets expected to be handed-off.

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2.6 TIME-BASED THRESHOLD DETECTION SCHEME

Propose calculation improvement of the first AODV steering protocol. In this, one timer is set into the Timer Lapsed Table which is gather the demand of other node subsequent to accepting the primary node's demand. Gather Defeat Answer Table incorporates the packet succession number and got time. After that tallying the timeout esteem utilizing arriving time and based on threshold esteem take choice for the course.

2.7 EFFECTIVE FILTERING TECHNIQUE

In this method creator proposed another mechanism to forestall RREQ flooding attack; this system can recognize the malicious nodes and attacker nodes, which are irritating the network correspondence. In this method there are two thresholds RATE_LIMIT and BLACKLIST_LIMIT, which are utilized to limit the RREQ message. RATE LIMIT parameter shows no. of RREQ that can be known and overseen. Here every node screens the RREQ and keep up a tally table for RREQ got. Anonymous Secure

2.8 ROUTING PROTOCOL TECHNIQUE

In this system introduced unknown correspondence. In this paper, three fundamental segments are utilized: white posting threshold, blacklist threshold and transmission threshold. This segment shows the threshold limit of demand packets sent by the neighboring execution investigation of flooding Attack. In RREQ flooding attack the invader chooses various IP addresses which are absent in the network or pick subjective IP addresses reliant on data about scope of the IP address in the network. Debilitating neighborhood concealment strategy, a solitary threshold is set up for all neighboring node. In Information flooding attack the invader node initially sets up the way to every one of the nodes and send pointless packet.

2.9 TRUST ESTIMATION TECHNIQUE

A trust estimator is utilized as a part of each node to evaluate the confide in level of its neighboring nodes. The trust level is a component of different variables like, proportion of number of packets got in place from the neighbor to the aggregate number of got packets from that node, proportion of the quantity of packets sent effectively by the neighbor to the aggregate number of packets sent to that neighbor normal time taken to react to a course ask for and so forth. This procedure proposed a distributive way to deal with distinguished and keep the flooding attack.

3. CONCLUSION

There is no fix mechanism to identify or keep the attacks specialist finds new techniques to distinguish these attack. To identify multiple attack there is one or mixes of two techniques are utilized. As discussed above techniques are executing in AODV or in DSR directing protocol. The proactive based technique gives higher packet delivery ratio yet it makes all the more overhead. While, reactive based technique gives bring down overhead yet the packet loss is higher. So hybrid technique is arrangement of that issue. Consolidating both proactive and reactive technique we show signs of improvement comes about.

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MERCHANDISER'S PERCEPTION TOWARDS QUALITY OF WORK LIFE IN TIRUPUR GARMENT INDUSTRY

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ABSTRACT

"Quality of Work Life" is a term that had been used to describe the broader job-related experience an individual has. Quality of Work Life of the merchandiser's in Tirupur garment industry. To study the demographic, quality of work life, motivation, job security and job satisfaction given to the merchandisers in Tirupur garment industry. The employee satisfaction depends upon various factors like high salary, more promotional opportunities, work environment, job nature, job security, coordinal communication with the management and relationship with other employees etc. The research design chosen is descriptive in nature. The sample size taken to conduct the research from 100 merchandisers. To offer suggestions for quality work life of merchandiser's in the garment industry. QWL aims at to meet the twin goals of enhanced effectiveness of organization and improved quality of life at work for merchandisers. This will help to know the quality work life of the merchandisers in Tirupur garment industry.

KEYWORDS
quality of work life, motivation, job security, health and wellbeing, job satisfaction, merchandiser and quality of life.

JEL CODE
O15, J20, J28.

1. INTRODUCTION

The garment export industry is one of the most dynamic sectors of the Indian economy. It has made significant projects over the year not only in respect of its contributions to industrial productions, export and generation of employment of employment but also achieving a high degree of sophistication quality up gradation cost reduction and standardizations capable of withstanding stiff international competition.

The garment industry is one of India's largest foreign exchange earners, accounting nearly 16% of the country's total exports. Tirupur is an important trade centre which is famous for its knitted garments.in index it accounts for 90% of India's cotton knitwear exports.

Human resource is an imperative aspect in industries of all kinds, were it forms the base for everything in an organization. Human resource is a broad concept and it comes in both qualitative and quantitative human assets in a society. It includes total knowledge, skills, creative abilities, talents and aptitude on organizations workforce as well as value, attitudes involved. It is the sum of aptitude of the employed persons. Behind the growth and development of garment industries, is the human effort of the merchandiser's in and around Tirupur. Merchandiser's from the base for achieving the goals of every organization with perfect policies and procedures.

Work life is relatedly a HR term in literature and started to come prominence from 2000 onwards quality of work life is a combination of commitment to the organization and its value to help the organizational citizenship. Quality of work life determines the person who is fully involved in and enthusiastic about the work.

Work life aspects of the organization welfare through giving the best out of him. Moreover, the organization output is a factor for knowing the level of employee's performance. The present study tried to analysis the quality of work life merchandiser's in Tirupur garment industry.

2. QUALITY WORK LIFE PERCEPTION

Quality of work life (QWL) refers to the favourableness or unfavourableness of a job environment for the people working in an organisation. The period of scientific management which focused solely on specialisation and efficiency, has undergone a revolutionary change. The traditional management (like scientific management) gave inadequate attention to human values. In the present scenario, needs and aspirations of the merchandisers are changing. Employers are now redesigning jobs for better QWL.

The QWL as strategy of Human Resource Management has assumed increasing interest and importance. Many other terms have come to be used interchangeably with QWL such as 'humanisations of work' 'quality of working life, 'industrial democracy' and 'participative work'

"QWL is based on a general approach and an organisation approach. The general approach includes all those factors affecting the physical, social, economic, psychological and cultural well-being of workers, while the organisational approach refers to the redesign and operation of organisations in accordance with the value of democratic society."—Beinum

"QWL is a way of thinking about people, work and organisations, its distinctive elements are (i) a concern about the impact of work on people as well as on organisational effectiveness, and (ii) the idea of participation in organisational problem-solving and decision making." —Nadler and Lawler

3. SCOPE OF THE STUDY

This study is concerned with analysing the quality of work life of merchandisers in Tirupur garment industry. This study will make the management to know about their merchandisers perception about their present quality of work life. The result of the study based on the perception of merchandiser of Tirupur industry. The study is focuses of the merchandisers involvement in work towards the efficiency of the organizations. The study will be useful for the merchandiser to understand the mind-set of the merchandiser and there motivate them.

4. OBJECTIVES OF THE STUDY

The following are the objective of the study,
1) To study the demographic factors of the merchandiser's in the Tirupur garment industry
2) To Study the perception towards quality of work life of merchandiser's in garment industry.
3) To find out the perception towards motivation of merchandiser's in the company.
4) To analyse the merchandiser's job security and job satisfaction of the company.
5) To offer suggestions for quality work life of merchandiser's in the garment industry.

5. RESEARCH METHODOLOGY

The research design used for the study is a **descriptive research design**. The main characteristic of this method is that the researcher has no control over the variables. It is only record of the feeling of merchandisers towards their work life.

In this study **non-probability sampling procedure** is used, under this convenience sampling method is adopted. The total sample size constitutes of **100 merchandisers'** in garment industry in Tirupur City.

Data source	Primary data
Research Approach	Survey
Research Instrument	Interview Schedule cum Questionnaire
Method of Conduct	Personal

TOOLS FOR ANALYSIS

The primary and secondary data were presented in the form of tables and these tables were systematically analysed with the aid of some statistical techniques like percentage, weighted average and Henry Garrett Ranking Technique.

6. LIMITATIONS OF THE STUDY

1. Some of the workers were reluctant to reveal certain information and were not able to express their opinion freely.
2. It was very difficult to meet the respondents at the working place.
3. The study was conducted in short span of the time.
4. Due to internal rigid nature of respondent's resistance to some questions were observed.

7. REVIEW OF LITERATURE

Dr. A. Valarmathi & Dr. Hema Bhalakarishnan [1] This study reckons the effects of quality of work life on merchandiser's. It aims to put on imminent into current working policies and practices and issues of merchandiser's in textile sector in Coimbatore region. Several remarkable factors that influence quality of work life are noted. QWL provides for the balanced relationship among work, non- work and family aspects of life. In other words, family life and social life should not be strained by working hours including overtime work, work during inconvenient hours, business travel, transfers, vacations, etc.

Dr.U.Vani & Ms. P.Janani [2] Job satisfaction is the result of various attitude, the person holds towards his job and towards life in general. Job satisfaction of industrial workers are very important for the industry to function successfully. The employee satisfaction depends upon various factors like high salary, more promotional opportunities, work environment, job nature, job security, coordinal communication with the management and relationship with another merchandiser's etc. The sample size determined for the study is 165. The stratified proportionate sampling was used in this study. The primary data was collected through questionnaire. Among the various factors ranked, it was found that payment of wages and salary are satisfied, proceeding to co- workers relationship are cordial, working conditions are satisfied and Promotion opportunities are satisfied are ranked as second, third and fourth, followed by Jobs security, Company policies and rules and Training and development are satisfied respectively.

INDUMATHY.R & KAMALRAJ.S. [3] Quality of work life refers to the level of happiness or dissatisfaction with one's career. There is an attempt to look into the Quality of Work Life among Workers with special reference to textile industry in Tirupur District – A textile hub. The research design chosen is descriptive in nature. The sample size taken to conduct the research is 60 workers. For this study, the sampling technique chosen is convenient sampling. Structured interview schedule was used for primary data collection. Secondary data was collected from earlier research work, various published journals, magazines, websites and online articles. Simple Percentage Analysis, Chi – Square Analysis and Weighted Average Score Analysis are the tools used for data analysis. The investigation has remarkably pointed out that the major factors that influence and decide the Quality of Work Life are attitude, environment, opportunities, nature of job, people, stress level, career prospects, challenges, growth and development and risk involved in the work and rewards.

T.Madhumitha, V.Pavithra [4] After Industrial Revolution, the importance of human factor reduced because of the vast mechanization. Various problems like job dissatisfaction, boredom, absenteeism, lack of commitment etc came up. It is nothing but having a work environment where employee activities become more important. Through Q.W.L, people involved get a sense of satisfaction in their work. As people develop themselves in new directions, new problems and issues arise, requiring them to develop new competencies to meet the changing requirements, aspirations and problems. It is also richer in terms of human capabilities, facilities and quality of living. During this research, 14 key factors have been chosen, which are influencing QWL in current scenarios. This paper is basically analysing about work culture and personal life in the manufacturing sectors. Research is limited to Chennai area and sample size is 100 employees'.

8. DATA ANALYSIS AND FINDINGS

TABLE 1: DEMOGRAPHIC FACTORS

S.NO	VARIABLES	CLASSES	PERCENTAGE
1.	AGE	20-25	20
		26-30	48
		31-35	8
		Above 36	24
2.	GENDER	Male	85
		Female	15
3.	MARITAL STATUS	Married	48
		Unmarried	52
4.	EDUCATIONAL QUALIFICATION	SSLC	4
		Higher Secondary	8
		Diploma	16
		Under Graduate	52
		Technical Qualification	20
5	MONTHLY INCOME	10000-15000	28
		15001-20000	32
		20001-25000	24
		Above 25001	16
6	WORKEXPERIENCE	Below 3	28
		3-5 Years	12
		5-7 Years	4
		Above 7	56

Source: Primary data

The above table shows that the majority 48 percent of the respondents were in the age group of 26-30, 85 percent of the respondents are male, 52 percent of the respondents are unmarried, 52 percent of the respondents are under graduate, 32 percent of the respondent's monthly income was between 15,000-20000, 56 percent of the respondents had working experience 7 years.

TABLE 2: WEIGHTED AVERAGE OF PERCEPTION TOWARDS MOTIVATION GIVEN TO THE MERCHANDISER'S IN TIRUPUR GARMENT INDUSTRY

FACTORS	TOTAL SCORE
Job Interest	4.2
Recognition	4.16
Proud	4.2
Statutory Benefits	4
Non-Benefits	3.88
Freedom	4
Suggestion Scheme	4.16
Demonstrates	4.2
Personal Accomplishment	4.32
Personal Satisfactions.	3.88
TOTAL	41

Source: Primary data

Mean score =4.1

The details of motivation given to the merchandisers are presented in the above table the mean score value is 4.1.

From the above table it can be inferred that the mean score is 4.1. Factors such as Job interesting, Proud, Recognition, Demonstrates, suggestion scheme, personal accomplishment measures are score above 4.1 Such as 4.2, 4.16, 4.2, 4.16, 4.2, and 4.32 respectively. Hence the respondents found these attributes to be highly satisfactory.

The factors such as statutory benefits, Non-benefits, Freedom, Personal satisfactions are below 4.1 such as 4, 3.88, 4 and 3.88 respectively therefore these factors are dissatisfied by the respondents.

TABLE 3: WEIGHTED AVERAGE OF PERCEPTION TOWARDS JOB SECURITY GIVEN TO THE MERCHANDISER'S IN TIRUPUR GARMENT INDUSTRY

FACTORS	TOTAL SCORE
Company Policies	4.12
Performance	4.32
High Priority	4.08
Union	3.8
Good	4.4
TOTAL	20.72

Source: Primary data

Mean score =4.114

The details of given job security to the merchandisers are presented in the above table the mean score value is 4.114.

From the above table it can be inferred that the mean score is 4.114. Factors such as Performance and Good measures are score above 4.114 Such as 4.32 and 4.4 respectively. Hence the respondents found these attributes to be highly satisfactory.

The factors such as Company Policies, High Priority, Union are below 4.114 such as 4.12, 4.08 and 3.8 respectively therefore these factors are dissatisfied by the respondents.

TABLE 4: WEIGHTED AVERAGE OF PERCEPTION TOWARDS HEALTH AND WELLBEING GIVEN TO THE MERCHANDISER'S IN TIRUPUR GARMENT INDUSTRY

FACTORS	TOTAL SCORE
Health Plans	2
Safety Equipment	2
Sanitation Facility	1.96
Basic Facilities	1.96
Stressful	1.84
Transport Facilities	2
Work Environment	1.92
TOTAL	13.68

Source: Primary data

Mean score =1.95

The details of health and wellbeing given to the merchandisers are presented in the above table the mean score value is 1.95.

From the above table it can be inferred that the mean score is 1.95. Factors such as health plans, safety equipment, sanitation facility, basic facility, transport facilities measures are score above 1.95 Such as 2, 2, 1.96, 1.96, 2, respectively. Hence the respondents found these attributes to be highly satisfactory.

The factors such as stressful, work environment is below 1.95 such 1.84 and 1.92 respectively therefore these factors are dissatisfied by the respondents.

TABLE 5: WEIGHTED AVERAGE OF PERCEPTION TOWARDS JOB SATISFACTION GIVEN TO THE MERCHANDISER'S IN TIRUPUR GARMENT INDUSTRY

FACTORS	TOTAL SCORE
Promotional Policy	4.16
Work Timing	3.56
Motivation by Senior	4.2
Relation Superior	3.8
Relation Sub-Ordinates	4.16
Communicates Every	3.48
Training Provided	3.96
Salary Polices	3.44
Job Utilizes of Skill	3.8
Procedure	3.8
Tools	3.96
TOTAL	42.32

Source: Primary data

Mean score =3.8

The details of job satisfaction given to the merchandisers are presented in the above table the mean score value is 3.8.

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From the above table it can be inferred that the mean score is 3.8. Factors such as Promotional Policy, Motivation by Senior, Relation Superior, Relation Sub-Ordinates, Relation Sub-Ordinates, Training Provided, Job Utilizes of Skill, Procedure, Tools measures are score above 3.8 Such as 4.16, 4.2,3.8 4.16, 3.96,3.8, 3.8 and 3.96 respectively. Hence the respondents found these attributes to be highly satisfactory.

The factors such as statutory Work Timing, Communicates Every, Salary Polices are below 3.8 such as 3.56, 3.48 and 3.44 respectively therefore these factors are dissatisfied by the respondents.

TABLE 6: PROBLEMS FACED BY THE MERCHANDISER'S

S. No	Problems ranked by the merchandiser's	TOTAL GARRETT SCORE	Mean score	RANK
1	NATURE OF WORK	5077	50.8	IV
2	SALARY	5761	57.6	I
3	NEAREST TO HOME	4065	40.65	V
4	RECOGNITION	5448	54.5	III
5	LEAVE FACILITIES	5639	56.4	II
6	OTHER AMENITIES	3897	39.0	VI

Source: Primary data

Most of the merchandisers are having problem with salary which ranked 1st, leave facilities are ranked as 2nd, recognition as 3rd rank, nature of work as 4th, nearest to home as 5th, other amenities as 6th rank.

9. SUGGESTIONS

- Training and development should be routine in the company environment. Regular training program will help the merchandisers to improve the technical skills and in turn increase the job satisfaction.
- To promote human relations, the work environment should be able to meet the needs of its workers such as minimum control and supervision, opportunity for maximum expression of one's abilities and skills, detailed knowledge about one self and about job.
- The quality of company functions will be improved, when its member's functions as groups under participative management and job-sharing method.
- During the production the supervisors can ask merchandisers about their own ideas in doing the particular work apart from the regular process followed in the company, it leads to the workers to be loyal to the management.
- Regular Break intervals and flexibility of work schedule should be assigned to the merchandiser's. If the organizations are willing to provide the refreshment to the merchandisers, then 30 minutes can be save per day, by avoiding the slow starting of the works.
- Performance appraisal method can be followed for evaluating the merchandiser's. It can be measured by individual performance, teamwork, sectional productivity, etc. For avoiding the monetary issues company could revise the salary in the regular intervals.
- Giving awards and rewards to the workers for their best performance can do motivation.
- The minimum basic salary per day for all types of workers should be based on 8 hours per day. In Tirupur garment industry work shifts are scheduled on a 12-hour basis, called 1 ½ shifts. Owing to break times, the actual work time during these 12 hours is about 10.5 hours. Workers are usually paid in accordance with their number of shifts, which ignores the fact that 2.5 hours of each day are entitled to 200% pay. There is no use of overtime wage rates and this system leads to workers being underpaid for overtime by about 20%.
- Employers should ensure that the benefits and welfare schemes under the labour laws reach all the merchandisers.
- Death or injury of any merchandisers during the tenure of employment should be paid with a compensation amount to workers' family by the employer.

10. SCOPE FOR FURTHER RESEARCH

This research paper made an attempt to study the merchandiser's in garment industry with special reference to Tirupur City. Also, it is possible to extend the research for male merchandiser's and female merchandiser's, concentrating on each gender by analysing the quality of work life. There is a wide scope for the further merchandiser's study from the people who joint new to the garment industry. The impact of garment industry in the psychological, Welfare and social well-being of the merchandiser's, the role of merchandiser's participation in the concerned industry for the economic development of our country and the global economic impact for the same could be considered in detail for further analysis and Research.

11. CONCLUSION

A study quality work life of merchandisers and satisfaction of merchandiser's, motivation given to merchandisers, job securityin the garment industry is the degree to which the merchandiser's in an organization feel safety, security and satisfaction with various factors. The study is most useful to determine the job satisfaction factors, motivation, job security, health and wellbeing affecting the merchandiser's in the Garment industry. When merchandiser's is hired in a formal way with formal contract it gives safety and security. But when they are hired in an informal and casual way it results in low pay, insecurity and poor conditions. In the whole study about the garment industry in Tirupur city the researcher found overall management welfare measures was satisfactory in nature. Minor changes need in the point of merchandiser's well wish. Only smaller level of administration reforms is needed in overall observation.

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THE EFFECT OF THE CAPITAL STRUCTURE AND LIQUIDITY TO BUSINESS GROWTH AND PROFITABILITY

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ABSTRACT
The research was conducted on Koperasi Pasar Srinadi Klungkung for 2012-2016. The sample of this study is the financial statements of each business on Koperasi Pasar Srinadi Klungkung, which amounts to 11 business units in 2012-2016 selected by nonprobability sampling method. Data collection is documentation. Analytical technique used is Path Analysis technique by using SPSS.Based on the analysis results found that the Capital Structure (DER), Liquidity (CR), and Business Growth (Asset) together significantly affect the profitability (ROA) in the business unit in Koperasi Pasar Srinadi Klungkung with profitability value or p value is 0,000 (<0.05 or 5%). Partially, the variable of capital structure has a negative and significant effect on profitability, liquidity has a negative and significant effect to profitability, business growth has positive and significant effect to profitability, capital structure has positive and significant influence to business growth, and liquidity has a negative and significant effect to growth in business unit at Koperasi Pasar Srinadi Klungkung in 2012-2016.

KEYWORDS
capital structure, liquidity, business growth, and profitability.

JEL CODES
G31, D29.

I. INTRODUCTION

Profitability in this study using Return on Asset (ROA) as a measuring tool to describe the management of koperasi in the use of total assets effectively and efficiently to produce SHU. The higher this ratio then the productivity of assets in obtaining profits will be considered faster, thus increasing the attractiveness of the members of koperasi in the divestiture and use services on the business unit on the koperasi. Higher profitability would indicate that the koperasi has a brighter prospect for developing investment so that it still needs external funding because the investments are likely to require substantial funds (Obafemi, 2017).

The capital structure in this study is measured from Debt to Equity Ratio (DER) because DER reflects the amount of proportion between total debt and total capital itself. This ratio is used to show the composition of total debt to total equity in the koperasi. The higher the DER shows the composition of total debt is greater than the total capital itself, thus effecting the greater the burden of the koperasi on external funds. Velnampy & Anojan (2014) states some companies try to maintain the capital structure to maximize corporate profits and how much money to be retained in the form equity and capital debt. The high co-operative debt allows companies to boost koperasi productivity. An empirical study of the effect of capital structure on profitability has been done by Kyereboah and Coleman (2017). Obert and Olawale (2016) made a similar study and found that there was no significant relationship between debt ratio and firm profitability. Mesquita and Lara (2013) this study revealed a negative relationship between profitability variables and the ratio of term debt. Research conducted by Velnampy & Aloy (2012), Fauzi (2013) found the capital structure has no significant effect on profitability.

The liquidity ratio is used to demonstrate the ability of koperasi management in fulfilling short-term obligations or debts. The greater the ratio of the liquidity of a koperasi, the greater the koperasi's ability to pay the obligations and vice versa. The ratio used in this research is Current Ratio (CR) that is the ratio of current ratio and current debt. This ratio shows the extent to which current assets cover their current liabilities. The greater the ratio of current assets to current debt the higher the ability of the koperasi to cover its short-term liabilities. Koperasi are essential to maintain a balance of liquidity ratios in order to meet the needs of short-term liabilities (Bhunia, 2015). The liquidity position illustrates the ability of koperasi to meet current and liquidity obligations of koperasi, Velnampy & Anojan (2014). Research conducted by Ravivathani (2015), Andarsari (2014), Velnampy & Anojan (2014), Shin & Soenen (2015), and Teruel & Solano (2015) stated that liquidity has a significant negative effect on profitability, while research conducted by Khan & Mutahhar 2016) shows that liquidity has a significant positive effect on profitability. Mary Njeri (2014) showed a significant effect of liquidity on profit growth, Khalidazia & Iskandar (2014) showed significant liquidity to profit growth. Research conducted by Bolek (2015), Uyar (2015) and Sen and Oruc (2015) found a significant effect on liquidity to profitability.

Business growth (assets) is a change (decrease or increase) total assets owned by the koperasi. According to Taswan (2013) growth is expressed as total asset growth where the growth of past assets will illustrate future profitability as well as future asset growth. Growth by Beaver, Ketter, and Scholes (2012) is defined as the annual change of total assets. The change is seen through the increase of the koperasi assets of each.

Koperasi Pasar Srinadi Klungkung is used as research object because this koperasi is very fast and contribute in economic growth based on the populist economy in Klungkung Regency, and aims to improve the welfare of the members and the surrounding community. This koperasi is also the largest koperasi in Klungkung district in terms of assets and business units by developing 11 business units and plays an important role in improving the living standards of members and communities.

II. LITERATURE REVIEW

PROFITABILITY
Koperasi with high profitability will reduce the debt, this is due to the large allocation of profits on retained earnings so that koperasi rely more on internal funds (Nuswandari, 2013). Profitability calculation aims to determine the ability of management in controlling the business efficiently. Benefits of profitability is to know the level of profit in a period, knowing the position of the previous year's koperasi profit and current year, knowing the development of profit from year to year, know the amount of net profit after tax with own capital, and know the productivity of all funds used either own capital and loan capital

BUSINESS GROWTH
Asset growth is a reflection of past investment successes and predictions for future corporate growth, as well as an indicator of demand in the industrial world (Sambharakresna, 2017). Brigham and Houstan (2010) mentioned that companies that have continued growth should rely more on external sources of funds. Koperasi growth opportunities are opportunities for koperasi to further develop and to invest in the future (Nuswandari, 2013). Increased business growth will provide an opportunity for koperasi to get a big SHU in the future.

LIQUIDITY

Liquidity deals with the problem of a company's ability to meet its financial obligations in the short term (Cashmere, 2012). The amount of means of payment owned by a koperasi at a time is the paying power of the koperasi concerned. A koperasi that has the power to pay is not necessarily able to meet all the financial obligations that must immediately be met or in other words the koperasi is not necessarily have the ability to pay.VMenurut Wild, et al (2015: 185) argued that liquidity (liquidity) refers to the ability of the company to meet short term liabilities. A koperasi that has the power to pay its short-term liabilities at maturity, so as to fulfill all its financial obligations that must immediately be met, it is said that the koperasi is liquid, and vice versa that does not have the ability to pay is illiquid.

CAPITAL STRUCTURE

The capital structure in this study is measured by Debt to Equity Ratio (DER), which is the ratio between total debt (debt or liability) long term to own capital (equity). DER is used to indicate how much a koperasi debt is used to run its operations compared to the amount of equity it has. The higher the DER shows the composition of total long-term debt is greater than the total equity, so that the larger the bebankoperasi against outside parties (creditor).

KOPERASI

The definition of a koperasi can be defined as an association consisting of persons or bodies that provide freedom of entry and exit as members by cooperating in a familial way to increase the welfare of its members (Arifin, 2011: 1). From these meanings it can be stated that the koperasi is an economic organization that conducts economic activities through business units undertaken with the aim to meet the needs of members and improve the standard of living members so that there is a welfare for the community.

III. HYPOTHESIS

CAPITAL STRUCTURE TO PROFITABILITY

Capital structure is the ratio between long term debt (long term debt) with own capital (Saidi, 2014). The capital structure can be measured by debt to equity ratio (DER). Debt to equity ratio is the ratio used to determine the ratio between total debt with own capital. This is done so that the debt to equity ratio becomes lower because the lower the debt to equity ratio the higher the profitability. A low debt to equity ratio means that the total debt held by the koperasi is less than its own capital, so the interest expense that must be issued by the koperasi will be small means that the koperasi works efficiently, resulting in higher profits. The higher the profit then profitability is also high.

H_1: Capital structure has a negative and significant effect on profitability.

LIQUIDITY TO PROFITABILITY

Liquidity has a close relationship with profitability, because liquidity shows the level of available working capital needed in operational activities. The higher the liquidity the lower the profitability and vice versa the lower the liquidity the higher the profitability. Liquidity shows the ability of a koperasi to fulfill its financial obligations that must be met or the ability of the koperasi to fulfill its financial obligations at the time of billing. Research conducted by Ravivathani (2015) & Andarsari (2016) stated that liquidity has a significant negative effect on profitability. Based on the above description can be formulated hypothesis as follows:

H_2: Liquidity has a negative and significant effect on profitability.

BUSINESS GROWTH TO PROFITABILITY

Cashmere (2013: 86) states that the asset is an asset or property owned by the company. Assets can be divided into two, namely, current assets and fixed assets. Fahmi (2013) states that current assets are assets owned by high turnover and most quickly disbursed with a period of one year, while fixed assets are assets held for more than one year, such as buildings and vehicles (Raharjaputra, 2009: 8). Total assets are the sum of the total assets of the koperasi consisting of all assets, either current assets or fixed assets whose value is balanced with total liabilities and equity. Koperasi that have high growth provide an increasingly evolving picture with high assets and sales.

H_3: Business growth has a positive and significant effect on profitability.

CAPITAL STRUCTURE TO BUSINESS GROWTH

The capital structure projected with debt to equity ratio (DER) is a balance between total debt with own capital. Koperasi financing decisions can be ensured in the hope of improving koperasi growth and increasing net profit significantly. Research conducted by Kusumaninggrum and Mawardi (2016), shows that the capital structure has a positive and significant effect on asset growth in financial institutions in Indonesia. Based on the description can be drawn hypothesis as follows.

H_4: Capital structure has a positive and significant effect on business growth

LIQUIDITY TO BUSINESS GROWTH

Liquidity has a close relationship with business growth, liquidity shows the level of availability of working capital required in operational activities, if current assets greater than current liabilities, it will increase the growth of assets. If short-term debt is high, it will compensate for the growth of assets as well vice versa. Research conducted by Audra (2012) liquidity affects the profit growth of the company. Based on the description can be drawn hypothesis as follows.

H_5: Liquidity has a negative and significant effect on business growth

IV. RESEARCH METHODS

PROCEDURE

The population in this study are each business unit in Srinadi Klungkung Market Koperasi in 2012-2016, which is 11 business units (Wholesale, Savings and Loans, P3KCK, Mini Supermarkets, Revolving Fund, Printing and Convection, Self-Service Building, Supermaket INTI, Tour Tirta Srinadi (Waterboom), Srinadi Workshop, and Radio Srinadi 99.7 FM). Sample determination technique used in this research is nonprobability sampling with saturated sampling technique, that is sample determination technique when all member of population used as sample (Sugiyono, 2012: 68). Koperasi Pasar Srinadi Klungkung has 11 business units, multiplied by 5 for each year of observation so that there are 55 samples. This research uses non-participant observation data collection method, that is data collection method by observing, taking notes and not directly involved with the object under study (Sugiyono, 2014). Record and collect financial report data on business units in Koperasi Pasar Srinadi Klungkung during the period 2012-2016.

V. ANALYSIS

Table 1 shows that the data is processed 51 observation data from 55 observation data, because there are 4 observation data outliner, which is obtained from 11 business units multiplied by 5 years period of study.

TABLE 1: HASIL ANALISIS DESCRIPTIVE STATISTIC

	N	Minimum	Maximum	Mean	Std. Deviation
Capital Structure	51	0,03	29,66	8,39	2,39
Liquidity	51	0,05	39,4137,05	3,64	8,08
Growth	51	-0,31	0,78	0,77	1,46
Profitability	51	-0,00		0,11	0,19

Source: Primary Data, 2017

Capital structure as measured by Debt to Equity Ratio (DER) is the ratio between total debt to own capital. Table 5.1 shows the average capital structure of the business unit in the Koperasi Pasar Srinadi Klungkung for 2012-2016 of 8.39% and the standard deviation of 2.39% where the standard deviation is smaller than the average value. Appendix 1 shows the lowest capital structure value of 0.03% (P3KCK business unit in 2013) and the highest value of 29.66% (business unit of Bengkel Sriandi in 2013), shows that most of the koperasi business units use debt as their source of funding.

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Liquidity measured by current ratio shows the ability of a koperasi to fulfill its financial obligations that must be met immediately. Table 5.1 shows the average liquidity in the business unit in Koperasi Pasar Srinadi Klungkung for 2012-2016 of 3.64% and standard deviation of 8.08%. Appendix 1 shows the lowest liquidity at 0.05% (Tirta Srinadi Wisata business unit in 2012) and the highest value of 39.41% (PK3CK business unit in 2013), indicating that most koperasi business units use current assets to meet their short-term liabilities.

Business growth as measured by total assets growth is the difference in total assets of the current period over the total assets of the previous period. Table 5.1 can be seen on average growth in business units in Koperasi Pasar Srinadi Klungkung 2012-2016 of 0.77% and standard deviation 1.46%. Appendix 1 shows the lowest growth value of -0.31% (Mini Swalayan business unit) and the highest value of 3.48% (Revolving Fund unit 2015), indicating most of the koperasi business unit experienced a positive growth.

Profitability as measured by Return on Assets (ROA) is the result of division between net income (SHU)) with total assets. Table 5.1 can be seen the average profitability in the business unit in Koperasi Pasar Srinadi Klungkung 2012-2016 of 0.11% and standard deviation 0.19%. Appendix 1 can be known the lowest profitability value of 0.00% (business unit Workshop Srinadi) and the highest score of 0.78% (unit of Radio Srinadi 99.7 FM), shows that most koperasi business units have positive profitability as measured by ROA.

TABLE 2: DIRECT COEFFICIENT OF EFFECT, INDIRECT EFFECT, AND TOTAL INFLUENCE BETWEEN VARIABLES

Effect of Variable	Direct Effect	Indirect Effect	Total Effect
X1-Y	-0,162	0,090	-0,071
X2-Y	-0,674	-0,265	-0,939
X3-Y	0,349		0,349
XI-X3	0,259		0,259
X2-X3	-0,760		-0,760

Source: Data diolah, 2018

Based on Table 2, it is seen that the direct effect of Capital Structure (X1) on Profitability (Y) is -0.162, the influence of Capital Structure (X1) on Profitability (Y) through Business Growth (X3) is 0,090 so that the total influence is -0,071. The magnitude of the direct effect of capital structure to profitability is less than the indirect effect of capital structure on profitability through business growth and because of the direct influence of business growth on profitability is significant then business growth does not play a role as a mediator variable. Liquidity in this case directly or through business growth affects profitability.

Based on Table 2. shows that the regression coefficient of capital structure to profitability is -0.162 with significance level = 0,05 (5%) and significance equal to 0,008. This proves that the capital structure has a negative and significant effect on the profitability of the business unit in Koperasi Pasar Klungkung Srinadi in 2012-2016. H1: Capital structure has a negative and significant effect on profitability.

Based on Table 1. shows that the regression coefficient of liquidity to profitability is -0.674 with significance level α = 0,05 (5%) and significance equal to 0,000. This proves that liquidity has a negative and significant effect on the profitability of the business unit in Koperasi Pasar Srinadi Klungkung in 2012-2016. H2: Liquidity has a negative and significant effect on profitability.

Based on Table 1. shows that the regression coefficient of profit growth on profitability is 0.349 with significance level α = 0,05 (5%) and significance equal to 0,001. This proves that the growth of business has a positive and significant effect on the profitability of the business unit in Koperasi Pasar Klungkung Srinadi in 2012-2016.

VI. DISCUSS AND CONCLUSION

H1 test results obtained that the capital structure has a negative and significant impact on profitability. The results of the study found that DER has negative and significant impact on ROA, indicating that the increase of total koperasi debt such as bank loan, koperasi saving, LPDB debt and time deposit will decrease the business result (SHU), it can be interpreted that the increase of long-term and short-term debt business units in the koperasi will decrease profitability. Managers in business units in koperasi have not been able to manage debt as an opportunity to increase productivity in producing SHU. Decision of capital structure is usually taken with consideration of debt received will raise SHU. The results of this study support the results of research conducted by Jati & Wiryanti (2016) to get the result that the debt to equity ratio significantly negatively affect profitability. Mawardi (2016) found that capital structure had a negative and significant effect on profitability.

The results of the second hypothesis testing obtained that liquidity has a negative and significant impact on profitability. Liquidity has a relationship with profita-biltas, because liquidity shows the level of availability of working capital required in operational activities. The higher the liquidity the lower the profitability and vice versa the lower the liquidity the higher the profitability. The main purpose in a koperasi is to achieve prosperity, one of them by maximizing SHU. The results of this study support research conducted by Ravivathani (2015) & Andarsari (2016) stated that liquidity has a significant negative effect on profitability.

The third test results obtained that business growth has a positive and significant impact on profitability in each unit in Koperasi Pasar Srinadi Klungkung in 2012-2017. The business growth in this study was measured using the proportion of increase and decrease in total assets of koperasi. Test results that have a positive direction on ROA means that the increase in growth measured through the growth of total assets will increase profitability gives the meaning that the current assets and fixed assets in the koperasi can be managed efficiently and effectively impact on increasing SHU. The increased total assets identify the prospects for investment effectively and affect the SHU's income. Managers in business units on koperasi are effective in managing current assets such as cash, accounts receivable, inventory, and fixed assets so as to increase SHU. The results of this study support the research conducted by Takarini and Ekawati (2013) shows that growth has a positive effect on profitability.

The results of the fourth hypothesis testing obtained that the capital structure has a positive and significant impact on business growth. Capital structure is the ratio between total debt with own capital. Capital structure in the business unit in the koperasi which is dominated by total debt (external fund) shows that the manager of the business unit in the koperasi has been able to manage the total debt as an opportunity to increase business growth. The high total debt owned by koperasi can boost productivity so as to increase business growth. The results of this study support the research Kusumaninggrum and Mawardi (2016), showed that the capital structure has a positive and significant impact on growth in financial institutions in Indonesia.

The result of the fifth hypothesis test shows that liquidity has negative and significant effect to business growth. This is because the current ratio that describes the current asset ratio with the current debt of the business unit in the koperasi is positive, meaning that the short-term loan is optimal even though the current ratio of the business unit in the koperasi keeps fluctuating up or down every year, but this condition does not affect the koperasi in deceiving its assets so that it will be able to increase the growth of its business. The results of this study support research conducted by Thaussie Nurvigia Research (2015) Partially and simul-taneously, liquidity has a significant negative effect on profit growth.

VII. RESEARCH IMPLICATION

The results of this study indicate the structure of capital and liquidity have a significant negative effect on the profitability of business units in Koperasi Pasar Srinadi Klungkung in 2012-2016. This result shows that business unit managers in koperasi tend to use external funding (debt) in running their business, but able to influence profitability thus increasing SHU.

Growth of business is expected to give a positive influence on profitability, in this study shows the increase in business growth followed by a significant increase in profitability, the manager of business units in the koperasi has been effective and efficient in running its business so as to increase SHU.

VIII. SCOPE FOR THE FUTURE RESEARCH

To the next researcher, especially those interested in researching the influence of capital structure and liquidity on business growth and profitability in koperasi, it is expected to conduct further research by adding non financial variables that can affect profitability in koperasi, such as member services, member participation, and economic benefits.

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QUALITY METRICS IS GOOD FOR PHARMACEUTICAL INDUSTRY

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ABSTRACT

Today's pharmaceutical industry must deal with regulatory oversight, inspections/audits, new technologies and soaring of drug prices. It is imperative that pharmaceutical industry adopts some form of business strategy to manage the vast amount of information available. Most popular and regulatory enforced is the quality metrics implementation. Is this best / good for the pharmaceutical industry? The answer to this question is that it depends on the pharmaceutical industry. This paper focuses on identifying pharmaceutical industry quality metrics which in-turn give a visualization of quality where we are and where we have to go i.e. visual displays that will guide pharmaceutical industry to improve quality into the drug product and to stabilize the economy of the country and unmet needs of 7+ Billion people to access quality medicines. Making effort for interested organizations can make informed decisions regarding best implementation of quality metrics. The exploratory method has been used for study through data available on regulatory websites, interview with pharma industrial personnel and secondary data in articles of other researchers. Quality metrics, directly and indirectly, connect-communicate-collaborate organization towards one quality standard throughout the organization. In nutshell encourages the pharmaceutical firm to implement quality metrics beyond the metrics described in this paper expected to maintain the process in a state of control over the life of the process, even as materials, equipment, production environment, personnel, and manufacturing procedures change.

KEYWORDS

quality, metrics, pharmaceutical, influence, good, visual displays.

JEL CODES

M1, M14.

INTRODUCTION

As per Peter Drucker, the two most important quotes in business management are (1)
1. "If you cannot measure it, you cannot improve it." And
2. "Leadership is doing right things"

Quality metrics are less understood and implemented in the pharmaceutical industry to monitor the quality risk of the site and as a continuous improvement tool for quality. The pharmaceutical industry visualization shall be though only quality metrics. First a thorough understanding of the current pharmaceutical industry practices about quality metrics analysis and through many interviews of both management and shop floor personnel an initial starting point quality metrics developed/identified to increase visualization of quality levels (low/medium/high) in the pharmaceutical industry. That initial thought was that if the quality can easily be quantified through quality metrics, that will adjust behavior in order to meet those expectation of quality and thus performance will improve overall.

Finally, the question if improving (quantification and qualitative) visualization of quality through quality metrics will, in fact, improve the performance of pharmaceutical industry and empower personnel. Quality metrics shall be evaluated for continuous improvement of quality as well as significantly increase compliance with regulatory requirements. Recommendations for increasing regulatory compliance to laid down standards of regulatory and delight of customer also be proposed.

In the year 2015, United States Food and Drug Authority (FDA) brought about Nonbinding Recommendations entitled 'Request for Quality Metrics Guidance for Industry' (2). Quality metrics are measurements of the value and performance of products, services, and processes. The following are common examples.

Customer Satisfaction: In many cases, it is appropriate to measure the quality of a product or service by the quantifying customer opinions. The most common way to do this is simply to ask customers to rate their satisfaction. For example, there is no better way to measure the quality of a meal beyond asking the customer if it was good.

Failure Rate: The reliability of products as measured by the probability of a failure over a period of time. For example, a robot might have an annual failure rate of 0.1% indicating that 1 out of 1000 units fail in a year.

Quality Control: Quality control is the sampling or testing of manufactured units or delivered services. For example, a hotel might randomly sample rooms that have been cleaned to make sure that the room is in the expected condition. This can then be tracked as a quality metric such as the percentage of rooms that met the hotel's standards.

Defect Rate: The quality of processes or project work can be measured with a defect rate. For example, the number of defects per 1000 lines of code can be considered a quality metric.

LITERATURE REVIEW

Jan Paul Zonnenberg (2014) provided analysis US FDA issues warning letter to a pharmaceutical company that directly address and make accountable to the Management of the company and not his employees for deviating the quality norms and GMP (3). Andrew Harrison, Susan J. Schniepp (2015), stated in his research article, effective implementation of a quality culture requires hand-to-hand hold between management and employees. Designing and defining of roles and accountability are the initial steps for quality culture for assuring quality drug product for unmet needs of the world population. The pharmaceutical firm had to take responsibility to provide technical training and ensuring adequate resources for performing discharging duties effectively (4). Jennifer Markarian (2017), has described in his research that "Cynicism had to be rid off and with optimistic quality, metrics had to be chosen as a quality tool (5). Jill Wechsler (2017), reveals that the US FDA and Pharmaceutical Industry also acknowledge the importance of an organization quality culture for assuring the quality of the drug product. The gap identified in his research was quality culture is visible and directly proportional how management holds the employees and empower but no tools available how to measure and document (6). Carmen Medina (2017) found in his research, all countries drug regulatory bodies confirmed quality system shall be compliant to the laid down guidelines. Deficient and lack of quality complaint tools and techniques result in audit findings and hefty fines and penalty (7).

Life Health (2013) found interesting finding in his Survey of Quality Assurance Executives found that Quality Assurance teams are looking for quality performance metrics to demonstrate training effectiveness (8). Jill Wechsler (2017) in his article 'FDA Quality Metrics Initiative Challenges Manufacturers' states that FDA plans to launch its quality metrics data initiative in January 2018 by opening an electronic portal (e-portal) to collect data on certain manufacturing processes electronically from biopharmaceutical companies. He found companies who able to demonstrate operations consistently produce high-quality products shall be rewarded (9). United States Food and Drug Administration (2016) proposed quality metrics through draft guidance, 'Submission of Quality Metrics Data' to support their risk-based inspection program and used throughout the drugs and biologics industry to monitor quality control systems and processes and drive continuous improvement efforts in drug manufacturing (2). Dr. Mike Long (2016) in his article briefed standardize quality metrics as one tool, but not the only tool, for prioritizing levels of effort and scrutiny for drug manufacturers. He concluded impact to industry could potentially be minimal. Organizations that already have a mature collection of data that is already required as a part of regulations have a leg up on other organizations that do not. Smart application of effort good

reporting structure will also be important in implementation. However, organizations that currently do not have a good handle on these will feel a significant impact (13).

NEED FOR THE STUDY

This study underlines identifying pharmaceutical industry quality metrics which in-turn give real-time governance, visualization of quality risk (Low-Medium-High) and interested organizations can make informed decisions regarding best implementation of quality metrics. Quality metrics, directly and indirectly, connect-communicate-collaborate organization towards one quality standard throughout the organization. In nutshell encourages the pharmaceutical firm to implement quality metrics beyond the metrics described in this paper expected to maintain the process in a state of control over the life of the process, even as materials, equipment, production environment, personnel, and manufacturing procedures change.

OBJECTIVES

1. To find out the pharmaceutical quality metrics recommended in pharmaceutical regulatory websites, interview with pharma industrial personnel and secondary data in articles of other researchers.
2. To find out whether pharmaceutical quality metrics are good for pharmaceutical industry for real-time governance for visual display of the department's information which needs to achieve one or more objectives; consolidated and arranged in a single frame so that the information can be monitored effectively by senior management at a glance, which may provide key insights of Department activities.

METHODOLOGY

The research methodology involved is a combination of data available on pharmaceutical regulatory websites, interview with pharma industrial personnel and secondary data in articles of other researchers. The participants for this study were managerial of a pharmaceutical industry; therefore, the study did not require ethics approval. The primary data has been collected in the year 2017, the interviewees were all at a managerial level within their respective organizations and were regarded as being experienced personnel. They were from the European Medicines Agency (EMA), US FDA approved organizations with several years of experience (5-25 years). They were selected on the basis of their seniority within their organization and also their willingness to participate in the research. Eighty three (83) managers were invited to participate; however, the two managers did not respond despite one follow up, and therefore, the 81 managers that did respond provide a 97.59% response rate, and those characteristics collected are presented in Table 1.

DATA COLLECTION & INTERPRETATION

Random interviews were selected to encourage the interviewees to discuss openly and freely their individual and their organizations approach of quality metrics. These interviews are taken orally, and remote pharmaceutical sites are taken care by telephonic. The interviews on average lasted around 50 min. All interviews were documented with participant consent and the data is analyzed using a standard manual systematic process consisting of familiarization with the data, generation of initial codes, identification of themes with grouping, mapping and interpretation was used. A flow diagram of the data collection process is shown in Figure 1.

TABLE 1: SOCIO DEMOGRAPHICS OF STUDY PARTICIPANTS

S. No.	Organization Name#	MNC / Domestic	Export	No. of Employees	Location	No. of Participants	Gender	Job Title Range	Years of Experience
1	A	Domestic	Europe USA ROW*	1000+	Hyderabad India	15	Male: 12 Female: 3	• Senior Vice President • Senior Manager • Manager	8 to 25
2	B	Domestic	Europe ROW*	500+	Pune, India	16	Male: 14 Female: 2	• Managing Director • Manager	5 to 30
3	C	Domestic	Europe USA ROW*	2000+	Goa, India	18	Male: 13 Female: 5	• Senior General Manager • Manager	8 to 20
4	D	Domestic	Europe USA ROW*	1500+	Goa, India	21	Male: 17 Female: 4	• Senior General Manager • Manager • Assistant Manager	5 to 20
5	E	Domestic	Europe USA ROW*	740+	Chennai, India	10	Male: 8 Female: 2	• Senior General Manager • Manager • Assistant Manager	5 to 18
6	F	MNC	Europe USA ROW*	23000+	Hyderabad India	3	Male: 2 Female: 1	• Assistant General Manager • Senior Manager • Manager	8 to 15
TOTAL						83	**Male: 66 Female: 17**		

*Source: Primary Data. *ROW – Rest of World; Organization Name# - Confidential information*

FIGURE 1: FLOW DIAGRAM OF THE DATA COLLECTION PROCESS
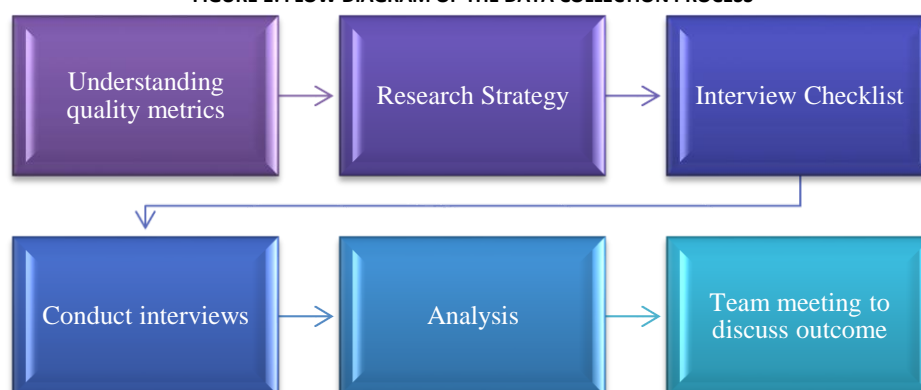
SUGGESTIONS

As a company identifies its goals and designs quality metrics to measure compliance with those goals, it should expect to introduce additional implementation tools to improve the metrics and help realize its goals.

The three most important factors to consider when designing quality metrics are:

Customer Focused: The metrics for a Management, quality manager, and regulatory agency will all be different. Management is concerned with quality metrics like the announcement of regulatory inspection, Recall of the drug from the market, Market complaints, Batch Failure, etc. A quality manager would like quality metrics would visualize quality risk time-to-time (High-Medium-Low), Open quality notifications, CAPA effectiveness, customer satisfaction, etc. The metrics for a Regulatory agency should be even more focused: non-compliances w.r.t. defined regulatory standards, Adulteration of Drug Products, Contamination Levels, etc. The important quality of quality metrics effectiveness are clearly aligned with the metrics, and the metrics are aligned with the quality vision of an organization. Religiously and timely these quality metrics shall report or presented to senior management for effective deriving of action plan and mitigation of quality risk.

Following are the interesting themes derived from the interviews based on the quality culture, philosophy and size of the organization:

1. Cultural influences, in particular in the larger organizations
2. The number of employees in the organizations impacts the number of quality metrics selection.
3. In big pharmaceutical firms, you have more employees working, and therefore, it is important to know the selection of quality metrics depend.
4. Analytical and Logical Approach to Quality Metric: The use of an analytical and stepwise selection of quality metric was apparent. The potential advantage that such approaches may add transparency to the decision-making process was evident.
5. Subjective and Personal Considerations of Quality Metrics:
   Personal preferences relating to the subjective interpretation of the quality metrics were identified. The individual human element of a person's beliefs, the values important to that person and their preferred approach were evident. Subjective factors such as opinion, experience, trade-off tolerance and preference are part of the quality metrics.
6. Frameworks and Analytical Approach to Quality Metrics: The use of frameworks to assist with the quality metrics review process and the use of analytical and stepwise decision-making approaches were raised by the interview participants. They commented on the potential that such approaches may add transparency to the visualization of the quality process.
7. Qualification and Experience in Previous Decision-Making: Bias based on a person's previous experience in quality metric selection was apparent from the interviewees. It was evident that past experience in quality metric selection and previous exposure to similar challenges are important factors for both individuals and organizations.
8. Impact Analyses of Quality Metrics: The value in identifying good and bad quality metrics was mentioned as was the need and value of reviewing and examining the impact of visualization of quality outcomes.
9. Quality Metrics Audit Trail: The value of maintaining an audit trail for important quality metrics was considered critical for visualization of quality. Transparency in the process and the potential for better predictability in future judgments were linked to having a record/audit trail of previous successes.
10. Individual versus Corporate Decision-Making: There is a difference between the corporate quality metrics and that of the individual. We have a good understanding of how a committee makes a decision, but we do not necessarily understand how individuals on that committee have made their own decision.

EVALUATION OF QUALITY METRIC

Many resources on the design of quality metrics suggest the SMART acronym as a good tool for evaluating the effectiveness of quality metric (10).

S means "SPECIFIC"   : Must be specific and targeted to avoid misinterpretation or dilution.
M means "Measurable"   : Must be able to collect quantifiable, measurable data.
A means "Actionable"   : Must be reasonably attainable so that the workforce isn't discouraged.
R means "Realistic"   : Must be cost-effective, and must measure things relevant to the business.
T means "Timely"   : Time-horizon of data capture must match that of the ability to respond.

The last three characteristics (S-M-A) are particularly important for the decision-making metrics deployed and implemented in pharmaceutical industry. The quality metrics must be relevant and lead to timely actions to be "smart" enough to influence the day-to-day operations. In addition, the metrics must be able to be influenced by the managers/employees and they must be able to have the authority to make those changes.

The following questions shall use and measure the quality of a metric evaluated:

1. Is the metric objectively measurable?
2. Does the metric include a clear statement of the end results expected?
3. Does the metric support customer requirements, including compliance issues where appropriate?
4. Does the metric focus on effectiveness and/or efficiency of the system being measured?
5. Does the metric allow for meaningful trend or statistical analysis?
6. Have appropriate industry or other external standards been applied?
7. Does the metric include milestones and/or indicators to express qualitative criteria?
8. Are the metrics challenging but at the same time attainable?
9. Have those who are responsible for the performance being measured been fully involved in the development of this metric?
10. Has the metric been mutually agreed upon by you and your customers?

The University of California provides a classification of performance metrics as summarized in Table: 2.

TABLE 2: UNIVERSITY OF CALIFORNIA PERFORMANCE MEASURES (11)

Measure of	Measures	Expressed as ratio of
Efficiency	Ability of an organization to perform a task	Actual Input / Planned Input
Effectiveness	Ability of an organization to plan for output from its processes	Actual Output / Planned Output
Quality	Whether a unit of an work was done correctly	Number of units produced correctly / Total number of units produced
Timeliness	Whether a unit of work was done on time.	Number of units produced on time / Total number of units produced
Productivity	The amount of a resource used to produce a unit of work	Outputs / Inputs

These questions and classifications reinforce the connection-communication-collaboration between customers expectations and design of quality metrics.

CONCLUSION

The above study gave the views of the pharmaceutical regulatory websites, interview with pharma industrial personnel and secondary data in articles of other researchers on the pharmaceutical quality metrics good for the pharmaceutical industry. 83 personnel (66 male: 17 female) from the pharmaceutical industry were interviewed (Table 1). The saturation point for the interviews was reached after 83 interviews. The consolidated output of the qualitative research comprised the identification of 68 quality metrics. These 68-quality metrics again classified department wise to empower and make responsible for their action and ways of working to retrospective time-to-time. Tabulated department wise quality metrics in Table: 3. However, assurance was provided to the interviewees that confidentiality would be respected.

TABLE 3: DEPARTMENT WISE – QUALITY METRICS (12)

Quality Department: Quality Metrics	Production Department: Quality Metrics
1. Adverse Event Rate	1. Batch Failure Rate
2. Analytical Invalid Rate	2. Batch Reject Rate by Product
3. CAPA Effectiveness Rate	3. Batch Reject Rate by Site
4. Confirmed OOS Rate by Product	4. Batch Yield Rate
5. Confirmed Out of Trend	5. Equipment Qualification Rate
6. Contamination Rate	6. Lots on Hold
7. Contract Manufacturing Batches Release Rate	7. Lots Pending More Than 30 Days
8. Contract Stability Testing / Manufacturing / Testing Sites Controls	8. Lots Rejected
9. Critical Investigations Rate	9. Number of Lots Attempted
10. Customer Service Measures Recall Procedure	10. Number of Out of Specification Results For Lot Release
11. Deviations Rate	11. Packing Material Rejection Rate
12. Temperature Excursion Rate	12. Process Validation Rate
13. Field Alerts Rate	13. Raw Material Rejection Rate
14. GMP Letter Withdrawal	14. Right First Time Rate
15. Internal Audit Rate	15. Right Second Time
16. Invalidated Out of Specification Rate	16. Risk Assessment of Equipments Rate
17. Investigation Free Lots Rate	
18. Lead Times for Investigations	
19. Lot Acceptance Rate	
20. Major Change Control Rate	
21. Methods Revision Rate	
22. Number of Recalls	
23. Number of Warning Letters	
24. On Time Internal Audit Rate	
25. Pharmacopeia Updates Rate	
26. Product Non-Quality Complaint Rate	
27. Product Quality Complaint Rate	
28. Quality System Effectiveness	
29. Recall Rate	
30. Regulatory Inspections Rate	
31. Reject Rate	
32. Repeat CAPA Rate	
33. Repeat Deviations Rate	
34. Rework / Re-Processing	
35. Risk Mitigation Plans	
36. SOP Revision Rates	
37. Specification Revision Rate	
38. Supplier Complaints	
Engineering Department: Quality Metrics	**Human Resource Department: Quality Metrics**
1. Adherence to Preventive Maintenance Schedule	1. Employee Satisfaction Rate
2. Percentage Overdue Preventive Maintenance Rate	2. Employee Turnover Rate
3. Unplanned Down Time Rate of Equipment	3. Organizational Health Metrics
4. Unplanned Maintenance Rate of Equipment	4. Percentage of Quality Staff
5. Utilities Qualification Rate	5. Percentage of Temporary Workforce
	6. Safety Accidents Rate
	7. Training Effectiveness Rate
	8. Training Roll Out Rates
	9. Human Error Rates

LIMITATIONS

The limitations of this study are that the point of view of the pharmaceutical regulatory bodies has not been considered. The reason was that the pharmaceutical regulatory bodies published limited pharmaceutical quality metrics and determined to be implemented. The second limitation was that the area covered regarding Indian multinational pharmaceutical companies. The study could have broadened its view if foreign multinational pharmaceutical companies covered. However, it was felt that the quality metrics are good for pharmaceutical companies having a direct influence on accessing the risk of quality and time-to-time steer the decisions to mitigate non-compliances, quality risk and strengthen quality systems.

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CHALLENGES & PROSPECTS OF CUSTOMERS TOWARDS E BANKING

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ABSTRACT

Electronic banking or E banking is the use of electronic means to transfer funds from one account to another rather than by cheque or cash. All banking activities that were conventionally carried by visiting a bank can now be done through a computer with internet. The important factors, which influence consumer perception of online banking are information, ease of use, satisfaction, security, proper utilization. We are trying to identify the challenges and prospects of customers towards E banking. And also we are trying to understand the different services provided by banks through internet.

KEYWORDS
E banking, modern banking.

JEL CODE
M30

INTRODUCTION
Online banking, also known as internet banking, e-banking or virtual banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website. The online banking system will typically connect to or be part of the core banking system operated by a bank and is in contrast to branch banking, which was the traditional way customers accessed banking services.

To access a financial institution's online banking facility, a customer with internet access would need to register with the institution for the service, and set up a password and other credentials for customer verification. The credentials for online banking is normally not the same as for telephone or mobile banking. Financial institutions now routinely allocate customers numbers, whether or not customers have indicated an intention to access their online banking facility. Customer numbers are normally not the same as account numbers, because a number of customer accounts can be linked to the one customer number. Technically, the customer number can be linked to any account with the financial institution that the customer controls, though the financial institution may limit the range of accounts that may be accessed to, say, cheque, savings, loan, credit card and similar accounts.

DEFINITION
It is defined as the automated delivery of new and traditional banking products and services directly to customers through personnel computer. E-banking was used as an informational medium to market banking products and services but with the development of new technology bank uses internet banking both for transactional and informational medium.

Internet banking is the term used for new age banking system. Internet banking is also called online banking. Electronic banking has experienced explosive growth and has transformed traditional practices in banking. Private Banks in India were the first to implement Internet banking services in the banking industry.

OBJECTIVES OF THE STUDY
1. To understand different services provided by banks through internet.
2. To identify the challenges and prospects of customers towards E banking
3. To find out the problems faced by the customers in E banking

RESEARCH METHODOLOGY
The analysis has been made mainly based on secondary data. We use only qualitative data for this study.

TYPE OF STUDY
The study is based on theoretical analysis.

REVIEW OF LITERATURE
Dannenberg and Kellner (1998), in their study, overviewed the opportunities for effective utilization of the Internet with regard to the banking industry. The authors evaluated that appropriate application of today's cutting edge technology could ensure the success of banks in the competitive market. They evaluated the services of banks via internet as websites provide sophisticated line of products and services at low price. The authors analyzed that transactions via internet reduce the risk of data loss to customers, chance to cut down expenses, higher flexibility for bank employees, re-shaping the banks' image into an innovative and technologically leading institutes, etc. The researchers found that banks could move one step further by entering into a strategic alliance with internet service provider. So, the bank of tomorrow stands to be feasible with today's technology.

Daniel (1999), in his research paper, described e-banking as the newest delivery channel offered by the retail banks in many developing countries. The objective of the study was to analyze the current provision of electronic services of major retail banking organizations in the UK. The researcher through a questionnaire found that 25% banks in the UK were those already providing e-banking services, 50% banks were testing or developing such services while 25% were not providing any e-banking services. Electronic channels, PC, digital TV and all these provide greater accessibility and services at lower price. To make services more adaptable, customers should be provided maximum choice and convenience. Restriction and limitation within organization to operate the services and its market share or strength were viewed as important to decide and operate the e-banking services.

Sathye (1999), in his research paper, explored the factors affecting the adoption of internet banking by Australian customers. The author stated that internet and other virtual banking had significantly lower the cost structure than traditional delivery channels. So, the banks should encourage customers to use internet for banking transactions. The author also emphasized that for adoption of internet banking, it was necessary that the banks offering this service made the consumers aware about the availability of such a product and explain how it adds value to the other products. The analysis of the study showed that security concerns and

lack of awareness stand out as the reasons for non-adoption of internet banking by Australian customers. However, internet should be considered as a part of overall customers' service and distribution strategy. These measures could help in rapid migration of customers to internet banking resulting in considerable saving of operating costs of banks.

Talwar (1999) examined the IT Revolution in banking sector, which had not only provided improved service to the customer, but also reduced the operational cost. The author brought out that computerization of banks, introduction of Real Time Gross Settlement System, setting up of Infinet, Electronic Payment Products (such as Electronic Clearing Service) had ensured better resource management, systematic efficiency and substantially reduced inter-branch reconciliation entries. However, fear of hacking, tampering of data, secrecy maintenance were certain issues which pose threats on usage 44 of electronic banking. The challenges in banking sector were manifold but still the constitution of National Payment Council by RBI and development of the integrated payment and settlement system was a step in this direction to remove the obstacles coming in the way of using electronic banking.

DISCUSSION
ELECTRONIC BANKING SERVICES
- Online banking.
- ATM and debit card services.
- Phone banking.
- SMS banking.
- Electronic alert.
- Mobile banking.
- Fund transfer services.
- Point of sales banking.

ADVANTAGES OF E-BANKING
1. Online account is simple to open and easy to operate.
2. It is quite convenient as you can easily pay bills transfer funds between accounts etc.
3. It is available all the time i.e. 24X7 you can perform your tasks from anywhere and at any time.
4. It is fast and efficient. Funds get transferred from one account to the other very fast.
5. Through internet banking you can keep an away on your transactions and account balance all the time. This facility keeps your account safe.
6. One can update contact information as well as check online statement with net banking.
7. One can check balance and online transactions any time no need to visit bank.

HOW E-BANKING CAN EASE YOUR LIFE (PRACTICAL USES)
Penalty due to non-payment of bill is not new to anyone of us. And quite obviously, who likes the long procedure of writing a cheque, standing in a long queue and then ensuring that the particular amount is available in your bank account?

Indian banks are trying to make your life easier. Not just bill payment, you can make investments, shop or buy tickets and plan a holiday at your fingertips. In fact, sources from ICICI Bank tell us, "Our Internet banking base has been growing at an exponential pace over the-last few years. Currently around 78 percent of the bank's customer base is registered for Internet banking."

To get started, all you need is a computer with a modem or other dial-up device, a checking account with a bank that offers online service and the patience to complete about a one-page application, which can usually be done online. You can avail the following services.

INTERNET BANKING Vs. TRADITIONAL METHOD
In spite of so many facilities that Internet banking offers us, we still seem to trust our traditional method of banking and is reluctant to use online banking. But here are few cases where Internet banking will turn out to be a better option in terms of saving your money.

'Stop payment' done through Internet banking will not cost any extra fees but when done through the branch, the bank may charge you Rs 50 per cheque plus the service tax.

Through Internet banking, you can check your transactions at any time of the day, and as many times as you want to.

On the other hand, in a traditional method, you get quarterly statements from the bank and if you request for a statement at your required time, it may turn out to be an expensive affair. The branch may charge you Rs 25 per page, which includes only 30 transactions. Moreover, the bank branch would take eight days to deliver it at your doorstep.

If the fund transfer has to be made outstation, where the bank does not have a branch, the bank would demand outstation charges. Whereas with the help of online banking, it will be absolutely free for you.

As per the Internet and Mobile Association of India's report on online banking 2006, "There are many advantages of online banking. It is convenient, it isn't bound by operational timings, there are no geographical barriers and the services can be offered at a miniscule cost."

CHALLENGES OF INTERNET BANKING
Though there are many advantages of internet banking, but nothing comes without disadvantages and everything has its pros and cons; same is with internet banking. It also has some disadvantages, which must be taken care of.

The disadvantages of online banking include the following:
1. Understanding the usage of internet banking might be difficult for a beginner at the first go. Though there are some sites which offer a demo on how to access online accounts, but not all banks offer this facility. So, a person who is new, might face some difficulty.
2. You cannot have access to online banking if you don't have an internet connection; thus without the availability of internet access, it may not be useful.
3. Security of transactions is a big issue. Your account information might get **hacked** by unauthorized people over the internet.
4. Password security is a must. After receiving your password, do change it and memorize it otherwise your account may be misused by someone who gets to know your password inadvertently.
5. You cannot use it, in case, the bank's server is down.
6. Another issue is that sometimes it becomes difficult to note whether your transaction was successful or not. It may be due to the loss of net connectivity in between, or due to a slow connection, or the bank's server is down

FINDINGS
1. Most of the e-banking customers come under the age group 25-35.
2. Majority of the customers are using ATM.
3. Majority of the customers are satisfied with the experience of e-banking.
4. E banking customers are aware about security concerns.

CONCLUSION

Anyhow, electronic banking is the new way of doing business without setting foot outside. It is defined as the automated delivery of new and traditional banking products and services directly to customers through personnel computer. E banking was used as an informational medium to market banking products and services but with the development of new technology bank uses internet banking both for transactional and informational medium. Internet banking is the term used for new age banking system. Internet banking is also called online banking. Electronic banking has experienced explosive growth and has transformed traditional practices in banking. Private Banks in India were the first to implement Internet banking services in the banking industry.

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IMPACT OF COUNTRY OF PRODUCTION ON CONSUMER BUYING DECISION: ELECTRONICS GOODS

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ABSTRACT
This paper summarises the theoretical and descriptive research on how the country of production has an impact on the buying decision of the people in respect to electronic industry of India. A wide array of approaches has been used to study the actual impact. The questionnaire method or rather the survey method has been used to collect the sample data from consumers to study the actual impact. The tools of SPSS has been used and applied to give us results, which have been further analysed and interpreted to come to a proper conclusion. Thus, the evidence suggests that in certain cases where male gender is involved country of production of the product has played a significant role in determining their buying behaviour. On the contrary in case where females are involved in the buying decision country of production hardly plays any significant role.

KEYWORDS
country of production, consumers buying behaviour, brand image, label information.

JEL CODE
M11

INTRODUCTION
In the recent years we have seen how the electronics industry of India has drastically grown to become one of the biggest industry of the country. India has always been a key production player of various electrical goods among giants like China and japan. Production is a systematic process which begins from procuring of raw materials till the manufacturing of the end product (final product). Thus it follows a series of steps which one needs to follow to utilise its resources efficiently. The electronics industry of India roughly contributes around 20-25% towards the Indian GDP thus making it one of the most prominent industry of India. It has also been forecasted that the electronics industry will grow and contribute over $1 trillion in the upcoming 5-7 years. Thus the country of production also plays a significant role in determining the buying decision of consumers till some extent. For e.g. a person may not prefer lights made in China but rather prefer lights that are made in India. Thus from this small example we see that Country of Production/ Country of Origin of the product plays a role in the buying behaviour of the consumer.

Imports of electronics have highly increased over the years with new and newer technology being developed every next moment. We see how technology has grown over the years and with the growth of technology came in new and innovative electronic products which can do wonders. Currently we import most of our electronics from China in fact most of the electronic products are either made or assembled in China. The prime reason for this is nothing but the availability of extremely cheap labour in China. Though India also has various large giants of electronic products like Surya, Micromax,etc.

OBJECTIVES OF THE STUDY
1.   To study the buying behaviour of consumers
2.   To find the amount of impact 'Producing Country' has on buying decisions
3.   To analyse and make report regarding whether one should outsource their electronic product manufacturing or do it in house

REVIEW OF LITERATURE
(**DavideCastellani, 2004**) DavideCastellani and AntonelloZanfei in their article titled "Choosing international linkage strategies in the electronics industry: the role of multinational experience" examines about the different aspects of multinational experience influence the decision of strategies or planning based on international linkaege. Various aspects such as efficiency and cost were taken into consideration by the authors to conduct the tests to select a viable option in terms of

joint ventures and alliances in electronic industry. The study showed that the country specific experience shows positive impact and hence increasing the profitability, whereas strategic alliances have a positive impact due the heterogeneity among the various factors.

(Naveen Amblee, 2011) Naveen Amblee and Tung Bui in their study titled "Harnessing the Influence of Social Proof in Online Shopping: The Effect of Electronic Word of Mouth on Sales of Digital Microproducts" talks about the gaining importance of e-commerce and various technologies in today's market. These technologies help in spreading eMOW(electronic word of mouth) among a community of likeminded people who share common interest and taste. The author used amazon shorts e-book as a market to conduct their study. The study suggested that eMOW is a major factor which is involved in a buying decision or behavior of the consumers since they are the primary source of information on which the consumer reacts and creates a reputation of a particular product.

(Terpstra) C. Min Han and Vern Terpstra in their study titled "COUNTRY-OF-ORIGINEFFECTSFOR UNI-NATIONAL AND BI-NATIONAL PRODUCTS" examines that if there is any effect of factors such as country of origin and the name of the brand for the process of customer evaluation of various products, whether uni-national or bi-national. The study was done by using the primary data involving interviews taken by the authors within a regional quota sample. The study found that the country of origin holds a special attribute when it comes to product evaluation by the customers.

(Martin S. Roth, 1992) Martin S. Roth and Jean B. Romeo in their journal titled "Matching Product Catgeory and Country Image Perceptions: A Framework for Managing Country-of-Origin Effects" examines the perception of consumers towards products manufactured in a particular country. The study also take into consideration of the product category and tries to create a suitable framework which helps them in finding result using both the factors while coming to a specific conclusion. The author used data from the customers in Mexico, Ireland and United States and reveals that product-country match is a vital factor for the customer decision.

(Sung-Tai Hong, 1989) Sung-Tai Hong and Robert S. WyerJr in their study titled "Effects of Country-of-Origin and Product-Attribute Information on Product Evaluation: An Information Processing Perspective" raised concerns about the underlying impact of country of origin and special information for the product selection by the customers. The study showed that the country of origin had a direct impact or influence on the product selection; also it stimulates the individuals to examine the other vital product attribute. Thus it is evident from the study that the use of factors such as country of origin acts as a basis of judgment and influence the decision of a customer.

(Todd, 2015) Sirrka L. Jarvenpaa& Peter A. Todd in their study titled "Consumer Reactions to Electronic Shopping on the World Wide Web" examines the impact of World Wide Web on the shopping behavior of consumers. The study involves reports on factors that are necessary for the selection of any product in the electronic shopping malls. The study was done by the author using an open ended survey with a sample size of 220 customers in relation to various aspects such as shopping experience, product perceptions, perceived risks which are vital factors for any shopper. The result of the study suggested that the factors which were discussed earlier have a significant impact on the buying behavior of consumers and therefore every retailer and producer should keep them in mind while making a decision.

(NES, 1982) WARREN J. BILKE and ERIK NES in their study titled "COUNTRY-OF-ORIGIN EFFECTS ON PRODUCT EVALUATIONS" reviews various works which talks about the impact of the country of production on the mind of any potential buyers of a particular product. This issue is a significant topic for the various countries which are developing in nature and have limited resources for the production of various products and are seeking to increase their export and are identifying various potential markets in different countries. The authors used primary data as a source of study involving survey from a limited sample size. The study revealed that country of production indeed act as a vital factor for creating a biasness in the mind of the buyer but however the impact can be compensated with the help of additional expenditure or lowering prices.

RESEARCH METHODOLOGY

The primary method used in this study is descriptive research. The data of this study was based on primary data, which is collected through questionnaires. Similarly secondary data is also been used to obtain a little help through different books and journals. The method of research used is survey method for collecting information related to the demographic and behavioral dependent and independent variables of the respondents. The sample size was of 100 people among which only 49 replied who had knowledge about label information and country of production from Bangalore. The survey was conducted over mail. The demographic factors such as income, age, and gender were studied. The research also included other descriptive information such as how country of production impacts a consumers buying decisions with respect to electronic goods. The analysis was done on the basis of quantitative research approach. The SPSS software was being used to examine the Impacts of country of production on consumers' buying decision in, Bangalore. The data is collected in this research with the help of survey and questionnaire techniques is used the researcher for the collection of data. All the questions are close ended. The questionnaire was made less than five points Likert scale. The data is analyzed with the help of SPSS and different techniques are used to interpret the data.

POPULATION AND SAMPLE SIZE

The population comprises of the consumers of Electronics products. The data is collected from a sample size of 49 consumers in order to find out the impact of Country of production on consumers buying decision in respect to electronic products.

INSTRUMENT

A questionnaire consisting of a line of questions and other options was circulated for the purpose of data collection. A questionnaire of 12 questions were 3 were demographic and rest 9 were related to research were used based on Likert Scale where 5 options were given measuring the degree of affirmation and agreement.

HYPOTHESES

H1: There is a relationship between country of production and Consumer buying decision.
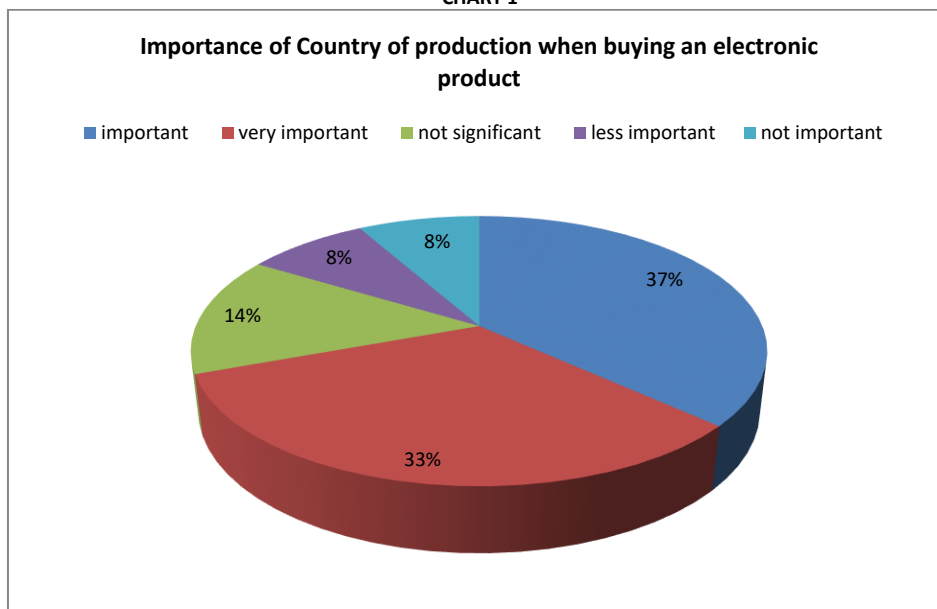H0: There is a no relationship between country of production and Consumer buying decision.

LIMITATIONS OF THE STUDY

* Due to the short time limit, this research was conducted only on a small size of population
* The students' overloaded work, to some extent, might affect the result because they were required to take part in many studies at the same time
* The respondents might not be motivated to reply accurately to the questionnaire.
* The assessment of the pretest and post test was conducted by the author herself, it is unavoidable that in this study, certain degree of subjectivity can be found.
* The study is limited to Bangalore and as such it may not be possible to generalize the findings of the entire population of the country
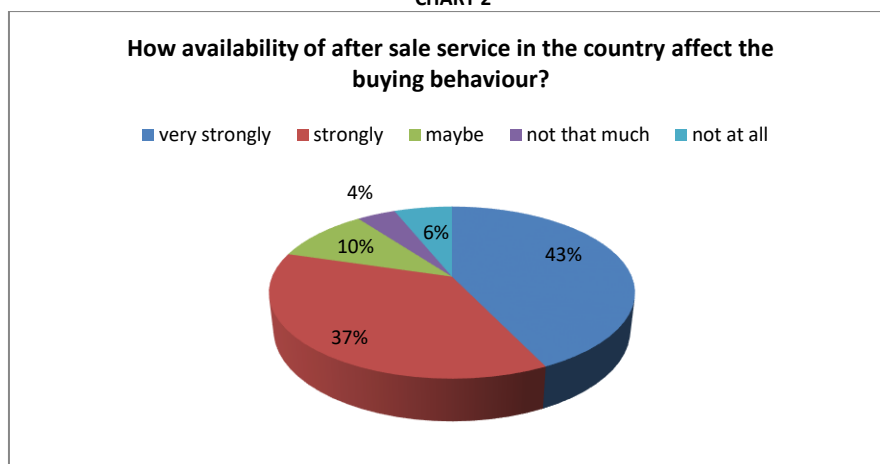
FINDINGS

Out of many questions put forward, the importance of Country of production was also determined to which 37% people responded with important and 33% responded as very important. Very few, a total of 16% termed it as non-important and hence the majority agreed with the importance of country of production and its value.

CHART 1

Importance of Country of production when buying an electronic product

■ important ■ very important ■ not significant ■ less important ■ not important
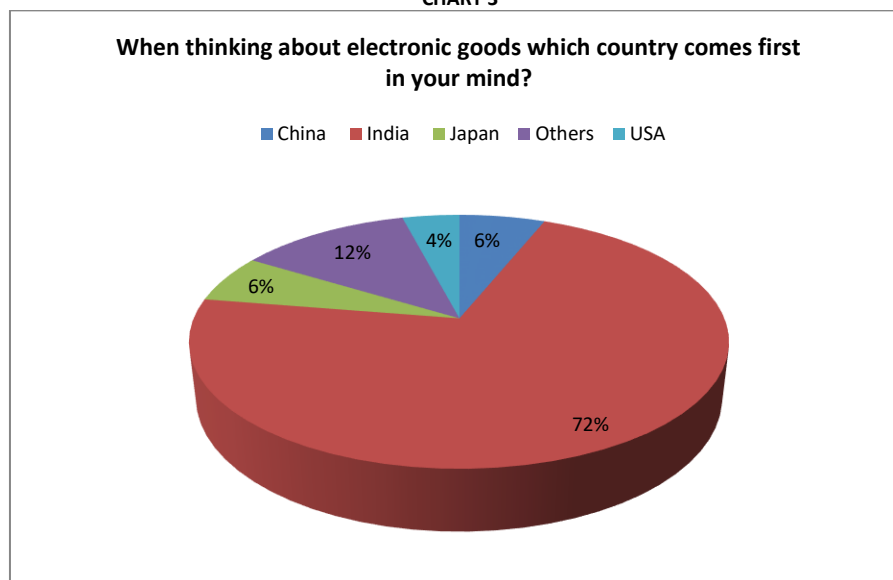
Also majority of people preferred to buy goods for which the after sales service was available in the host country of the customer. This was irrespective of the country of production. Generally a product manufactured In India is more capable to provide end to end after sales service In India.

CHART 2

How availability of after sale service in the country affect the buying behaviour?

■ very strongly ■ strongly ■ maybe ■ not that much ■ not at all

Another important finding was that the country's image matter a lot while deciding where to buy the electronics from. A lot of people prefer Japan and Korea for their new technology Adaptation, whereas majority of the respondents prefer India due to convenience, lower rates and better access to parts and spares. People then make their decision based on these country produced products only.

CHART 3

When thinking about electronic goods which country comes first in your mind?

■ China ■ India ■ Japan ■ Others ■ USA

DATA ANALYSIS
RELIABILITY
Scale: ALL VARIABLES

TABLE 1: CASE PROCESSING SUMMARY

		N	%
Cases	Valid	49	81.7
	Excluded[a]	11	18.3
	Total	60	100.0
a. Listwise deletion based on all variables in the procedure.			

TABLE 2: RELIABILITY STATISTICS

Cronbach's Alpha	N of Items
.767	9

The reliability test shows Cronbach's alpha of.767 which indicates a high level of internal consistency for the scale with this specific sample.
One way ANNOVA
In respect to income

TABLE 3: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Chancesofswitchingbrands	Between Groups	4.794	4	1.198	.813	.524
	Within Groups	64.839	44	1.474		
	Total	69.633	48			
Considerationoflabelinformation	Between Groups	3.575	4	.894	.677	.611
	Within Groups	58.058	44	1.320		
	Total	61.633	48			
ImportanceofCOOwhilebuying	Between Groups	.689	4	.172	.119	.975
	Within Groups	63.434	44	1.442		
	Total	64.122	48			
Topcountriesforelectronicgoods	Between Groups	5.055	4	1.264	1.167	.338
	Within Groups	47.639	44	1.083		
	Total	52.694	48			
Indianmanufacturerscapability	Between Groups	7.423	4	1.856	.965	.436
	Within Groups	84.577	44	1.922		
	Total	92.000	48			
EfficiencyofindiainElectronics	Between Groups	1.305	4	.326	.307	.872
	Within Groups	46.695	44	1.061		
	Total	48.000	48			
Highpricevscountrysimage	Between Groups	2.542	4	.635	1.533	.209
	Within Groups	18.234	44	.414		
	Total	20.776	48			
availabilityofaftersaleservice	Between Groups	11.217	4	2.804	2.065	.102
	Within Groups	59.762	44	1.358		
	Total	70.980	48			

This is the table that shows the output of the ANOVA analysis and whether there is a statistically significant difference between our group means. We can see that the significance value of all the factors is well above 0.05. And, therefore, there isn't any statistically significant difference in the mean length of time to complete the spreadsheet problem between the different courses taken.

CONCLUSION

On the basis of the above studies and tests it is evident that the country of production of any product does play a vital role in the mind of any buyer or potential buyer while selecting a product. This reveals that certain countries are able to build that goodwill and faith among the common customers when it comes to electronic products. However, apart from the country of production various other factors such as availability of after sale service, price of the product, brand image does influence the biasness of a customer but are very less significant when compared to the country of production. Therefore, it can be concluded that majority of people with certain class of knowledge and income have a certain amount of dependency on the country of production.

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Thanking you profoundly

Academically yours

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