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CRITICAL CUSTOMER ANALYSIS - E BANKING

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ABSTRACT

Globalization and deregulations have increased competition in the market places. The increased competition, in turn, calls for that organizations continuously increase their productivity and decrease their costs. Investments in information technology are one important means to increase productivity and decrease costs. The service industries are mostly customer driven and their survival in competitive environment largely depends on quality of the service provided by them. In this context, quality of service furnished by banks is very important and profitability of their business is closely connected to the quality of service they render. E-banking is a new delivery channel for banks in India. However, the service quality in e-banking from customer's perspective needs thorough analysis to find out the determinants for success and growth of new channel of delivery in India so that useful guidelines for bankers can be extracted. In this study the paper aims at identifying the important parameters crucial for service quality in e-banking from customer's perspective. The study identifies various dimensions and characteristics of service quality in e-banking and explores various aspects of customer satisfaction in relation to the traditional and e- service quality. A valid mathematical model is proposed to assess the overall service quality using regression analysis. The results show that customers are satisfied with quality of service on four dimensions such as reliability, accessibility, privacy/security, responsiveness and fulfilment. The statistical analysis on these dimensions concludes that banks providing internet banking facilities are reliable but have to improve a lot on user friendliness.

KEYWORDS: *E-banking, Service quality, customer's perspective, principal component analysis.*

INTRODUCTION

Recent advances in technology have created a surge in "technology-based self-service" (Dabholkar et al. 2003). E-service is becoming increasingly important not only in determining the success or failure of electronic commerce (Yang et al., 2001), but also in providing consumers with a superior experience with respect to the interactive flow of information. Internet banking has become the self- service delivery channel that allows banks to provide information and offer services to their customers with more convenience via the web services technology. The evolution of e-banking has fundamentally transformed the way banks traditionally conduct their businesses and the ways consumers perform their banking activities. Today e-banking has experienced phenomenal growth and has become one of the main avenues for banks to deliver their products and services (Amato- McCoy, 2005).

Dabholkar (1994) claims that when the customer is in direct contact with the technology there is greater control such as with Internet banking. Whereas, if there is an absence of direct contact, like with telephone banking (since the customers are able to press numbers only on their

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telephone keypad technology is not visible to them) it is assumed that there is less control perceived by the customer during this transaction.

Electronic banking (e-banking), also known as Internet banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels (Daniel,1999; Sathye1999). E-banking includes the systems that enable individuals or businesses and financial institutions along with customersto provide access to their accounts, obtaininformation on financial products and services through a public or private network, including the internet ortransact business. Customers access e- banking services using an intelligent electronic device, such as a personal computer, automated teller machine, personal digital assistant and kiosk. Chou and Chou (2000) recognized five basic services associated with online banking: view account balances and transaction histories; paying bills; transferring funds between accounts; requesting credit card advances; and ordering checks for more faster services that can be provide by domestic and foreign bank.

E-banking reaps benefits for both banks and its customers. From the banks point of view, e-banking has helped banks in lowering operational costs by reducing physical facilities and staffing requirement, reduced waiting times in branches lead potential increase in sales performance and larger global reach (Sarel and Mamorstein, 2003). From the customers point, e-banking enables customers to perform a wide range of banking transactions electronically via the bank's website anytime and anywhere (Grabner- Kraeuter and Faullant, 2008). In addition, customers are no longer confined to the working hours of banks nor required to travel or wait in queues for transaction (Hamlet, 2000).

In India, in 1996, ICICI bank was the first bank which offered this delivery channel by kicking off its online services. Other private sector banks like Citibank, IndusInd Bank and in 1999, HDFC started offering internet services. In July 2001, SBI launched its services. Other public sector banks like Allahabad Bank, BOB (Bank of Baroda), Syndicate Bank and Bank of India, also rolled its services during the same period. Banks in India currently offers “Fully Transactional Websites” to their customers. The customers would conduct a variety of transactions through internet banking facility which includes: account summary, details of historical banking transactions, funds transfer, loan applications, bill payments, cheque bookrequest, cheque status enquiry, stop cheque request, credit card payments/statements, facilities to contact account managers, etc. In India, slowly, the customers are heading towards Internet banking, but security and privacy of internet banking is primary concern (Malhotra and Singh, 2009). This study explore acceptance of e-banking in India from the point of view of customers.

E-BANKING & SERVICE QUALITY

The banking industry has followed this Internet application trend in recent years, and sometimes called "e-banking" refers to all banking transactions now completing through Internet applications. In the recent literature some key issues addressed about the e-banking include: customer acceptance and satisfaction, services rendered, privacy concerns, operational risks and profitability. Smaller community banks are more interested in the application of e-banking to gain certain competitive edges over their larger competitors. E-banking has been viewed as an

advanced upgrading from previous electronic delivery systems to open many new business opportunities for the banking industry. According to a survey there was a planned $2 billion new investment in the new electronic banking technology within the banking industry (Radeki, etc.1997). Among surveyed banks at the time, about two third (66%) planned to invest in telephone banking technology, and the remaining one third (34%) already targeted e-banking options. There have been several major challenges and issues faced to the e-banking growth, the major one amongst them is the security concern.

Customers are certainly concerned of giving their bank account number online or paying an invoice through Internet. Another issue of e-business (including e-banking) is the quality of delivery service - including both delivery speed (i.e., short advance time required in ordering) and delivery reliability (i.e., delivery of items/services on time). Limited payment options available to online customers are also being complained. Additionally, customers (who are non-computer "genius" like most senior citizens) have been reluctant in their choice of doing business (including banking transactions) online and worried their unfamiliarity about the computer placing them in a disadvantageous position. It has been predicted that in long-term to be successful, e-business operations of must compete differently from traditional business counterparts which signifies that the strategic positioning decision of an e-banking operations must establish its own unique competitive priorities and "order winning criteria"- so as to geta competitive edge and sustain its customers on a regular basis.

The advance of communication and computer technology and the availability of the Internet have made it possible that one can do most banking transactions from a remote location even without stepping into a physical financial structure - i.e., the emerging of e-banking (the e-business application in the banking industry). E-banking is seen as a revolution progress in the banking industry. For instance, 20 years ago, 70% of all consumer financial transactions went through a bank office with brick and mortar structures. Today, less than 30% of the same consumer financial transactions run through a branch office or the lobby of a main bank office. As a result, strategic plans are formulated by the banks to fight back in winning their customers. By adopting new technology the industry believes that the banks will be able to improve customer service level and tie their customers closer to the bank. Meanwhile, the banking industry has been also looking for new methods to expand its customer base and to counteract the aggressive marketing effort of those non-traditional banking entities.

Competition made many banks realized quickly that there are numerous customers who like to do banking electronically this lead many banks, based on their existing 24-hour telephone banking systems, to develop and implement several important e-banking applications so that their customers can pay bills, transfer money among accounts, download statement information, check account history and computerize their checkbooks online. For example, some banks decided to provide Internet access to their customers and becoming the dominant provider of local Internet connection services for the local community they tried to lock in customers to their financial institution. Some banks are taking a leap forward to install advanced software so as to process all consumer loan applications on-line, a new paperless e-loan process. In this, Customers will get hard copies of all documents signed for their personal records. And the signatures will be created from images collected by special electronic signatures (e-signature).

The e-banking has been growing at a rapid pace and is believed that it will help banks to increase

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revenue, cut costs and will give convenience to customers. Due to different motivational factors banks have placed different investments in their e-banking efforts. E-banking sector has been growing to reach a competitive level where some its new services have gained a growing popularity like e-payments and statement aggregation. This service is used to drive new business, initiate improved service quality, increase profitable cross selling opportunities and is also becoming popular customers. E-banking with the advantages of quick and easy application process, less technical issues, more options for banking customers and less deposit requirement have taken the banking industry to a new phase.

Weather all et al., (1984), who state that consumers are thought to have a positive perception of technology, since they believe technology will deliver a faster and more efficient service than that of the employee. Gummesson (1991) also lay emphasis that reliability and user-friendliness are important evaluation of technology-based services. Service quality is the extent to which a service meets customer's needs and expectations (Lewis and Mitchell, 1990). It can be defined as the difference between customer expectations of service and the service perceived. Service quality has been recognized as the potential to strategic benefits, which leads to increase in customer retention rates and also has the tendency to enhance operational efficiency and profitability (Cronin, 2003; Rust et al., 2001; Zeithaml, 2000). Today winners are those who overcome consumer cynicism by exceeding expectation and going beyond the point of encounter. The challenging business environment in the financial service market has resulted in using alternative delivery channels, with a view to attract more customers, and encouraging loyalty (Bauer et al., 2005; Parasuraman et al., 2005). Amongst all of them the more recent delivery channel introduced is electronic banking which means the provision of information about the bank and its products via a page on the internet.

Prescriptions of service quality could occur at multiple levels in an organization – e.g. with the core service, physical environment and interaction with service providers (Bitner and Hubert 1994) on the other hand, for a service organization customer's satisfaction is based on a function of all the encounters or experiences of the customers with that of the organization. Customer satisfaction can occur at multiple levels of an organization for example satisfaction with the core service, with the contact person, and satisfaction with the whole organization. Service quality can be termed as a concept which has aroused considerable interest in the research literature because of the obstacles in both defining and measuring it with no overall consensus emerging on either (Wisniewski, 2001). Service quality has a number of different other definitions as to what it means. One defines service quality as the extent to which a service meets customer's needs and expectations (Lewis and Mitchell, 1990). Onk visit and Shaw (1991) feel that the significance of intangibility is over-emphasized and the service provider's offer is their capacity of productiveness. Since, services cannot be stored and hence they are produced and consumed simultaneously. Customers are present and can take part in the delivery process.

REVIEW OF LITERATURE

Following the boomof new technologies such as the internet and mobile phones in practice, e-banking has also been the focus of numerous academic papers Adoption, perception and usage ofinternet banking by consumers is one of the topics heavily examined in e-banking literature. Centeno(2004) argues that the main motivation factors for the consumers to use internet banking are speed, the convenience of remote access, 24/7availability and price incentives.

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Durkin, et.al.(2008)notes that the simplicity of the products offered via internet banking facilitates the adoption of internet banking. Gumussoy (2008) compare the consumer perception of internet banking and other banking channels and report that internet banking, phone banking and ATM substitute each other.Maenpaaet.al. (2008) examine the consumer perceptions of internet banking in Finland and their findings indicate that perception gets influenced by the familiarity. Guerrero, et, al.(2007) examine the usage of internet banking by Europeans and their results indicate that ownership of diverse financial products and services towards finances and trust in the internet as a banking channel influence clients usage of internet banking. Confirming other papers, Sohail and Shanugham(2003) document accessibility of internet, and resistance to change are found to be influencing Malaysia's use of internet banking. Major factors affecting consumer adapt ing t o t his was Perceived risk, as well as customer satisfaction of online banking services.

To How croft, et. al.,(2002) the principal characteristics that inhibit online banking adoption are security and privacy. In electronic banking services of Malaysia it was found that security was main barrier to the expansion of e-commerce. By dealing electronically Banks and customers take a very high risk (Mukti,2000; Chung and Paynter, 2002). It is noted that although consumer's confidence in their bank was strong but their belief in the technology was weak (Roboff,1998). Today customers are more concerned about security and privacy issues (al., 2002).In adopting online banking potential customers mentioned online banking regulations, consumer's privacy, and bank's reputation and Internet security as the most important future challenges. (Aladwani, 2001).To be a barrier to propagation of new innovations a high level of perceived risk is considered (Ostlund,1974). Influenced by the hackers story customers may fear that an unauthorized party will gain access to their online account and serious financial implications will follow. The survey by White and Nteli (2004) found that UK consumers rankedthe security of bank's website as the most important attribute of internet banking service quality.

This anxiety is vividly illustrated by the results of Sathye (1999), who reported that three-quarters of Australian respondents with regard to E-banking expressed security concerns. Wholly, the literature appears to be unambiguous in its finding that the level of perceived risk is negatively related to the attitude towards banking on the World Wide Web (Singh,2004; Lee et al., 2005,Rotchanakitumnuai and Spence, 2003; and Gerrard et al:2006). This study uses apparent security as a interpreter of customer approval. A majority of studies highlight the fact that "security" is the biggest single concern for customers when faced with the decision to use E-banking. Security has always been an issue, but its possibility has changed from mer equal ms about the privacy of personal information to uncertainties of financial loss (Sayarand Wolfe, 2007). White and Nteli (2004) find that "security" is the most important attribute for UK internet.

HYPOTHESIS

It is indeed essential to emphasize the fact that the Indian culture is different from the countries where previous research was done. The researchers predicted that on the acceptance of online banking the familiarity and economic benefits of using the Internet has a significant impact. If the customers are not used to access internet frequently, and have no trust on Internet as a secure environment to conduct financial transactions, then it is very difficult for them to accept online

banking. Therefore, the following hypotheses were adopted:

- On adoption of e-banking among customers, Security and trust has significant impact.
- On adoption of e-banking among customers, Innovativeness has significant impact
- On adoption of e-banking among customers, Familiarity has significant impact.

RESULTS AND DISCUSSION

The respondents of this study were both male (67.85%) and female (32.14%).The most respondents aged (26.71%) was in the age of 20-30 years old (refer to Table 1). Many of the participants were postgraduate (26.42%) and with the income of 10000 - 30000 (35.71%). The total respondent of 140 have received and analyzed in the following way.

TABLE 1: DISTRIBUTION OF RESPONDENTS BY DEMOGRAPHIC BACKGROUND (N=140)

Demographic Variables	Categories	Respondent %
Gender	Male	67.85
	Female	32.14
Age(In years)	Less than 20	08.57
	20-30	26.71
	30-40	21.42
	40-50	24.71
	Above 50	10.00
Qualification	Up to 12th	25.00
	Graduates	25.71
	Postgraduates	26.42
	Professionals	22.85
Income(Per Month)	Below 10000	28.57
	10000-30000	35.71
	30000-60000	17.85
	Above 60000	17.85

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Source: Field Survey 2013

ACCEPTANCE VALUE

A factor analysis was conducted to construct data that will help to evaluate factors that influence customer's usage of e-banking. Three factors were generated, which explained 52.39 percent of the variance. The extracted factors were then rotated using variance maximizing method (Varimax). These rotated factors with their variable constituents and factor loadings are given in table 2. These factors are labelled security and trust, innovativeness and familiarity.

TABLE 2: ACCEPTANCE VALUE OF E-BANKING

Measurement Items	Security & Trust	Familiarity	Innovativeness
Assurance	**0.809**		
Authenticity	0.761		
Liquidity	0.713		
Insurance Coverage	0.782		
Clarit /Transparency	0.792		
Security & less risk to use	0.831		
Privacy is maintained	0.764		
Bill payment		0.679	
E-ticket		0.834	
Creative services		0.672	
One stop Banking			0.758
safe and suitable holdings			0.832
Easy to use			0.815
Quick transaction			0.824
Time saving		0.826	
Extensive		0.765	
No need to carry cash		0.815	
Order cheque book			0.781
Apply for loans			0.751
Wide range network			0.601
Online trading	0.792		
Eigen Values	4.184	3.713	1.397
Percentage of variance	37.643	7.43	5.122
Cumulative Variance	37.643	46.413	52.39

Source: Field Survey 2013

The regression analysis was conducted to reveal how different factors identified through Factor analysis affect the use of online banking. The respondent's intention to intensify the acceptance of e-banking services was regressed on the four independent variables, namely security and trust, innovativeness, familiarity and awareness. The results are reported in table 3.

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TABLE 3: REGRESSION ANALYSIS ON E-BANKING ACCEPTANCE FACTOR

Diffusion Factors	Regression Co-efficient	t-Values	Significance Level
(constant)	2.075	61.923	.00
Security and trust	0.88	2.146	0.019
Familiarity	.007	.212	.725
Innovativeness	-.034	-1.021	.264
R2	.565		
F ratio	86.946		

Source: Field Survey 2013

The regression equation was significant at 1percent level with the F value of 86.946 and the independent variables account for 57 percent of the variance in degree of the acceptance of e-banking by the customers. Security and trust (β=0.88) and Familiarity (β=.007) were significantly positively related to the acceptance of e- banking services, while Innovativeness did not emerge as significant factors in explaining the acceptance of e- banking service by the respondents. Koufaris and Hampton-Sosa (2004) also demonstrated that perceived security control of the site strongly influenced acceptance of online banking by customers. If the customers are less concerned about unauthorized use of or illegal access to their personal andfinancial data by third parties, they will have greater influence on the willingness to use online banking, which in turn will lead to higher acceptance to it. Thus, banks should improve their web security features in order to enhance the customer's acceptance. White and Nteli (2004) find that "security" is the most important attribute for UK internet banking customers.Akinci et al. (2004) find that the selection of an internet banking service provider is effectedby security, reliability and privacy. Security, which involves protecting users from the risk of fraud and financial loss, has been another important issue in safe use of the internet when conducting financial transactions in Saudi Arabia (Sohail and Shaikh, 2007).

IMPORTANCE AND PERFORMANCE OF ELECTRONIC BANKING SERVICES

The customers indicate that they are satisfied in the following areas "Convenient location", "Secure services", "User friendly", "Provide services in different language", "24X7", "Provide voice/online direction for new user".

As indicated in table (4), "Convenient location" and "Secure services" are regarded as important yet they are not sufficient. This implies that customer's satisfaction levels can only be raised if the system is user friendly and providing services in different language. The twenty four hours service and vocal directions for new users, in fact raise expectations levels of

delivery, quality, trust and the need to build, maintain and consistently enhance relationship.

TABLE 4: E-BANKING SERVICE USED BY CUSTOMER

	Importance Rating	Performance Rating	Performance Importance
Internet Banking			
ease of use	4.11	4.21	-0.01
24 * 7	4.22	4.11	0.18
process the transaction efficiently and fast	4.31	3.99	-0.32
perform accurate transaction instantly	4.18	3.89	-0.33
Satisfying customer needs through feedback	4.25	3.96	-0.23
ATM Banking			
Convenient location	4.66	4.03	-0.35
secure services	4.45	4.22	0.04
user friendly system	4.11	4.34	-0.13
provide services in different languages	3.88	4.24	0.03
Mobile banking			
Connect fast to the services	3.88	3.47	-0.2
Provide voice/online direction for new users	3.17	4.01	0.16
A pleasing music to avoid the customer getting bored	3.64	3.33	-0.04
Imparting information about other services of the bank	3.14	3.56	-0.29

CONCLUSION

In a country like India, there is need for providing better and customized services to the customers. Banks must be concerned about the attitudes of customers with regard to acceptance

of online banking. The importance of security and privacy for the acceptance of internet banking has been noted in many earlier studies and it was found that people have weak understanding of internet banking, although they are aware about risk. The present study shows that customers are more reluctant to join new technologies or methods that might contain little risk. Hence, banks should design the website to address security and trust issues. The recommendations to the banks are that they have to increase the level of trust between banks website and customers. In order to achieve this, the following strategies should be applied by banks.

- Banks should ensure that online banking is safe and secure for financial transaction like traditional banking.
- Banks should organize seminar and conference to educate the customer regarding uses of online banking as well as security and privacy of their accounts.
- Some customers are hindered by lack of computer skills. They need to be educated onbasic skills required to conduct online banking.
- Banks must emphasize the convenience that online banking can provide to people, such as avoiding long queue, in order to motivate them to use it.
- Banks must emphasize the cost saving that online can provide to the people, such as reduce transaction cost by use of online banking.

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FACTOR ANALYSIS OF OPERATIONAL EFFICIENCIES AIDED BY ADOPTING E-PROCUREMENT BY MEDIUM SCALE INDUSTRIES INTAMILNADU

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ABSTRACT

Medium scale industries in Tamilnadu are using e-procurement. There are various benefits that the organisations realise by using e-procurement. These benefits are grouped under operational efficiency terms. This study focuses on identifying various operational efficiencies realised by organisations by adopting e-procurement. This study also focuses on grouping these operational efficiencies for the better understanding of the benefits. For this purpose factor analysis is used.

KEYWORDS: *Medium scale industries, e-procurement, operational efficiencies.*

INTRODUCTION

Medium scale industries are playing important roles in national and international economies. The adoption rate of e-procurement by Medium scale industries is not as fast as compared to large scale industries. To increase the adoption rate the organisations need to know the benefits that they will realise by using e-procurement. These benefits might be in terms of operational efficiencies or in terms of business performance. This paper focuses on operational efficiencies. Considering that adoption of e-procurement is now a necessity so as to adapt them to the emerging trend of information revolution. However, the challenges faced by medium scale industries are not the same as those of large scale industries.

Electronic procurement (e-procurement) can be defined as using Internet (including Intranet and Extranet) technologies and applications, such as electronic data interchange (EDI), electronic mail (e-mail) and electronic marketplace (e-marketplace), in the purchasing process (De Boer et al. 2001). E-Procurement is the integration, management, automation, optimisation and enablement of an organisation‟s procurement process, using electronic tools and technologies, and web-based applications (V. Tatsis et al., 2006).

LITERATURE REVIEW

The following are the Operational Efficiencies recognised by implementing e-procurement system in organisations.

1. Standardized Purchasing Processes across the Organisation
2. Reduced administrative tasks
3. Reduced Inventory Levels
4. Reduced Non-Contractual (maverick) Buying
5. Reduced Operational Tasks

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6. Reduced Purchase Cycle Time
7. Reduced Transactional Costs
8. Reduced Monitoring costs
9. Reduced overall search costs
10. Reduced Average Production Cost

STANDARDIZED PURCHASING PROCESSES ACROSS THE ORGANISATION

Beamon, B.M. (1999), Boer L De. et al. (2002), Cassivi, L. et al. (2005), Gansler J. et al. (2003), Kathawala et al. (2002), Puschmann T and Alt R (2005), Rhee, S.-H. et al. (2007), Wojciech Piotrowicz and Zahir Irani, (2010) have found „Standardized Purchasing Processes across the Organisation" is the benefit of implementing e-procurement.

REDUCED ADMINISTRATIVE TASKS

Bendoly, E. and Schroenherr, T. (2005), Croom, S. and Johnston, R. (2006), Dubelaar et al. (2005), Gansler J. et al. (2003), Lin, C. and Pervan, G. (2003), Puschmann & Alt, (2005), Subramaniam and Shaw (2002), Son and Benbasat (2007) have found „Reduced administrative tasks" because of e-procurement.

REDUCED INVENTORY LEVELS

The authors like Aisbett, Lasch, and Pires, (2005), Bendoly, E. and Schroenherr, T. (2005), Dolmetsch R. et al. (2000), Michaelides, Ho et al (2003), Moore, (2007), Muffatto, M. and Payaro (2004), Puschmann T and Alt R (2005), Rhee, S.-H. et al. (2007), Subramaniam and Shaw (2002), Son and Benbasat (2007) have found „Reduced Inventory Levels" by using e-procurement.

REDUCED NON-CONTRACTUAL (MAVERICK) BUYING

Aisbett, Lasch, and Pires, (2005), Croom, S. and Johnston, R. (2006), De Boer, L. et al. (2002), Dolmetsch R. et al. (2000), Panayiotou et al. (2004), Puschmann & Alt, (2005), Rhee, S.-H. et al. (2007) found „Reduced Non-Contractual (maverick) Buying" by adopting e-procurement.

REDUCED OPERATIONAL TASKS

Authors like Beamon, B.M. (1999), Cassivi, L. et al. (2005), De Boer, L. et al. (2002), Puschmann T and Alt R (2005), Wojciech Piotrowicz and Zahir Irani, (2010) found „Reduced Operational Tasks" by implementing e-procurement.

REDUCED PURCHASE CYCLE TIME

Bendoly, E. and Schroenherr, T. (2005), Croom, S. and Johnston, R. (2006), Lin, C. and Pervan, G. (2003), Reese, (2003), Rhee, S.-H. et al. (2007), Son and Benbasat (2007), Subramaniam and Shaw (2002) found „Reduced Purchase Cycle Time" by adoption of e-procurement by medium scale industries.

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REDUCED TRANSACTIONAL COSTS

Akyuz and Rehan (2009), Croom, S. (2000), Dolmetsch R. et al. (2000), Gansler J. et al. (2003), Knudsen (2003), Sriram et al. (2000), Wojciech Piotrowicz and Zahir Irani, (2010) „Reduced Transactional Costs "

REDUCED MONITORING COSTS

Croom, S. (2000), Eyholzer K and Hunziker D (2000), Gansler J. et al. (2003), Rhee, S.-H. et al. (2007) found „Reduced Monitoring costs" by adopting e-procurement.

REDUCED OVERALL SEARCH (E.G. GOODS/SERVICES, SUPPLIER) COSTS

Croom, S. and Johnston, R. (2006), De Boer, L. et al. (2002), Eyholzer K and Hunziker D (2000), Gansler J. et al. (2003), Lin, C. and Pervan, G. (2003), Puschmann T and Alt R (2005), Wojciech Piotrowicz and Zahir Irani, (2010) found „Reduced overall search costs" by adopting e-procurement.

REDUCED AVERAGE PRODUCTION COST

Boer L De. et al. (2002), Croom, S. (2000), De Boer, L. et al. (2002), Dolmetsch R. et al. (2000), Lin, C. and Pervan, G. (2003), Puschmann T and Alt R (2005) found „Reduced Average Production Cost" by adopting e-procurement.

OBJECTIVE

The study has been conducted with the objective to identify operational efficiencies realised by adopting e-procurement.

RESEARCH METHODOLOGY

The study is descriptive in nature. Primary data is collected from organisations which are using e-procurement using a well-structured questionnaire. The medium scale organisations which have adopted e-procurement in Tamilnadu represent the sample universe. The list collected from Tamilnadu"s district websites like www.nellai.tn.nic.in, www.vellore.tn.nic.in and from District Industrial Centres, and State Industries Promotion Corporation of Tamil Nadu Limited. The sample size is determined by using n= ((std.dev*1.96)/ (mean*0.05))^2 which is 432. The simple random sampling with lottery method is used to select the sample respondents. The questionnaire is first tested for its relevance and content validity through a pilot study. The Cronbach's alpha value is 0.798 which indicates the reliability of the instrument.

DATA ANALYSIS

The data was analysed using the statistical package SPSS 16.0. Descriptive statistics, Factor analysis and reliability estimates were used for analysis.

ORDER OF VARIOUS OPERATIONAL EFFICIENCIES RECOGNISED

The extent of various operational efficiencies realised by the organisations are measured by five

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point Likert Scale with value 1 for „Strongly Disagree", value 2 for „Disagree", value 3 for „ Neither Agree nor Disagree", value 4 for „Agree" and value 5 for „Strongly Agree". The mean value of the various operational efficiencies realised is given in the following table.

TABLE 1: ORDER OF VARIOUS OPERATIONAL EFFICIENCIES RECOGNISED

Operational Efficiency	Mean Value	Rank
Standardized Purchasing Processes across the Organisation	3.55	IV
Reduced administrative tasks	3.40	X
Reduced Inventory Levels	3.44	VIII
Reduced Non-Contractual (maverick) Buying	3.57	II
Reduced Operational Tasks	3.43	IX
Reduced Purchase Cycle Time	3.61	I
Reduced Transactional Costs	3.57	II
Reduced Monitoring costs	3.50	VII
Reduced overall search costs	3.53	VI
Reduced Average Production Cost	3.55	IV

Table 1 shows the Order of various operational efficiencies recognised by Organisations. Reduced Purchase Cycle Time is the first operational efficiency recognised by Organisations by adopting e-procurement have the highest mean value of 3.61. This shows that the e-procurement helps organisations in reducing purchase cycle time. Reduced Non-Contractual (maverick) Buying and Reduced Transactional Costs are the next operational efficiencies felt with the mean value of 3.57 each. This shows e-procurement has led to reduced unplanned purchase and also helps in reducing transactional cost. The next in the order are Standardized Purchasing Processes across the Organisation and Reduced overall search costs with the mean value of 3.55 each. E-procurement helps organisations to streamline the procurement process whereby leading to reduced overall search cost.

When mean values are observed closely it shows that the mean values of operational efficiencies like Reduced administrative tasks, Reduced Inventory Levels, Reduced Operational Tasks are between 3.0 & 3.5 which can be considered closer to value 3. This discloses that these are recognised by organisation at a very normal level. The remaining operational efficiencies (Standardized Purchasing Processes across the Organisation, Reduced Non-Contractual (maverick) Buying, Reduced Purchase Cycle Time, Reduced Transactional Costs, Reduced Monitoring costs, Reduced overall search costs, Reduced Average Production Cost) have mean value greater than or equal to 3.5 which can be considered closer to value 4. It reveals that these operational efficiencies are strongly recognised by the organisation because of implementing e-procurement.

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FACTORISATION OF VARIOUS OPERATIONAL EFFICIENCIES

Factor Analysis is done to reduce the number of variables into minimum manageable variables. The factor analysis is used to reduce the data collected on 10 variables (i.e.) the various operational efficiencies recognised by implementing e-procurement, into smaller number of manageable variables by exploring common dimensions available among the variables.

The suitability for factor analysis is tested using two analysis namely KMO test and Bartlett‟s test of Sphericity. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is a statistic which indicates the proportion of variance in the variables which might be caused by new factors. High values generally indicate that a factor analysis may be useful with the data. If the value is less than 0.50, the results of the factor analysis probably won‟t be very useful.

TABLE 2: KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.672
Bartlett's Test of Sphericity	Approx. Chi-Square	1621
	Df	45
	Sig.	.000

Source : Primary Data

The table-2 shows that the KMO value is 0.672 which indicates that the factor analysis is useful with the data. The chi-square value for Bartlett‟s test of Sphericity is 1621 and the significant value is 0.000 which is significant at 99 percent level of confidence.

The variables which are having Eigen values greater than one are taken for further analysis. For the purpose of extraction, Principal Component Analysis is used and for the rotation Varimax rotation is used which is the standard rotation method. Table-3 gives the complete information of deducted factors and the percentage of variance explained by them.

TABLE 3: VARIANCE EXPLAINED BY FACTORS

S. No	Factors	Eigen Value	% of Variance Explained	Cumulative %
1	Factor 1	2.597	25.972	25.972
2	Factor 2	1.892	18.921	44.893
3	Factor 3	1.845	18.447	63.340

Source : Primary Data

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The total variance explained by the three factors with Eigen value greater than 1 is 63 percent; remaining variance is explained by other variables. The Factor 1 explains 25.972 percent of the total variance and occupies the pivot position. This factor alone forms the major operational efficiencies recognised. The variables which are included in each factor are given in table-4.

TABLE 4: ROTATED COMPONENT MATRIX

Operational Efficiency	Factor		
	1	2	3
Reduced Average Production Cost	.906		
Reduced Transactional Costs	.774		
Reduced Monitoring costs	.755		
Reduced overall search costs	.586		
Reduced Operational Tasks		.839	
Reduced Purchase Cycle Time		.699	
Reduced administrative tasks		.514	
Standardized Purchasing Processes across the Organisation			.839
Reduced Inventory Levels			.752
Reduced Non-Contractual (maverick) Buying			.594

Source : Primary Data

TABLE 5: FACTOR LOADINGS OF TYPES OF E-PROCUREMENT

Factors	Components of Factors	Factor Loading
ProcurementCosts	Reduced Average Production Cost	.906
	Reduced Transactional Costs	.774
	Reduced Monitoring costs	.755

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	Reduced overall search costs	.586
ProcurementTasks	Reduced Operational Tasks	.839
	Reduced Purchase Cycle Time	.699
	Reduced administrative tasks	.514
ProcurementProcess	Standardized Purchasing Processes across the Organisation	.839
	Reduced Inventory Levels	.752
	Reduced Non-Contractual (maverick) Buying	.594

Source : Primary Data

From the factor analysis three factors are extracted from original ten variables. Four variables (operational efficiencies) are grouped under the first factor; another three variables are included in the second factor and three variables in the third factor. The first factor can be named as Procurement Costs; the second factor can be called as Procurement Tasks and the third factor as Procurement Process. The various operational efficiencies recognised which are included in the each factor along with their loadings are given in table - 5.

FREQUENCY ANALYSIS OF OPERATIONAL EFFICIENCIES

Based on the convenience, the five point scale of operational efficiencies can be classified in to three groups for easy interpretations of data. Number of organisations falling under each category is shown in table - 6.

TABLE 6: FREQUENCY ANALYSIS OF OPERATIONAL EFFICIENCIES

Scale Factors	**1 – 2.5**		**2.5 – 3.5**		**3.5 - 5**	
	Frequency	**Percentage**	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Procurement Costs	62	15	182	42	188	43
Procurement Tasks	54	12	172	40	206	48
Procurement Process	42	10	194	45	196	45

Source : Primary Data

PROCUREMENT COSTS

From the table - 5, it is clear that the first factor contains four variables namely Reduced Average Production Cost, Reduced Transactional Costs, Reduced Monitoring costs and Reduced overall search costs. All these variables are related to costs hence this factor can be called as Procurement Costs. This factor, Procurement Costs has the highest factor loading contributing around 26 percent of the total variance explained. The variables included under this type along with their respective loadings are given in the table - 5. From the frequency analysis table - 6, it is interpreted that 43 percent of organisations have strongly realised the benefits of reduced procurement costs by using e-procurement. Whereas 42 percent have normally realised and 15 percent have less recognised the benefit of reduced procurement cost. This illustrates that the most of the organisations have highly recognised the benefit of reduced procurement costs.

PROCUREMENT TASKS

From the table - 5, it is clear that the second factor contains three variables namely Reduced Operational Tasks, Reduced Purchase Cycle Time and Reduced administrative tasks. These variables are related to purchase tasks hence called as Procurement Tasks. It contributes around 19 percent of the total variance explained. The variables included under this type along with their respective loadings are given in the table - 5. From the frequency analysis table - 6, it is interpreted that 48 percent of organisations have strongly realised the benefits of reduced procurement tasks by using e-procurement. Whereas 40 percent have normally realised the benefits and 12 percent have less recognised the benefit of reduced procurement tasks. It is clear that the organisations have highly recognised the benefit of reduced procurement tasks.

PROCUREMENT PROCESS

From the table - 5, it is clear that the third factor contains three variables Standardized Purchasing Processes across the Organisation, Reduced Inventory Levels and Reduced Non-Contractual (maverick) Buying. This factor can be called as Procurement Process as all these three variables are relevant to it. It contributes around 18 percent of the total variance explained. The variables included under this type along with their respective loadings are given in the table - 5. From the frequency analysis table - 6, it is interpreted that 45 percent of the organisations have highly and normally recognised the benefits of reduced procurement process and whereas 10 percent of organisations have less recognised.

CONCLUSION

Reduced Purchase Cycle Time is the first operational efficiency recognised by Organisations by adopting e-procurement. The operational efficiencies like Standardized Purchasing Processes across the Organisation, Reduced Non-Contractual (maverick) Buying, Reduced Purchase Cycle Time, Reduced Transactional Costs, Reduced Monitoring costs, Reduced overall search costs, Reduced Average Production Cost are strongly recognised by the organisation because of implementing e-procurement. The three identified factors of operational efficiencies are Procurement Costs, Procurement Tasks and Procurement Process. Among these factors

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Procurement Costs and Procurement Tasks are highly recognised by most of the organisations whereas Procurement Process benefits is less recognised.

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WOMEN CONSUMER'S PREFERENCES ON GROCERY ITEMS –A STUDY WITH REFERENCE TO HYDERABAD CITY IN AP

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ABSTRACT

The purpose of this study is to examine the "women consumer's preferences towards branded and unbranded grocery items in Organized/Unorganized Retail Environment" and also aim to study the changing market scenario i.e. transition from unorganized sector to an organized one, Due to increasing self-service and changing consumers' lifestyle the interest in branding and stimulator of impulsive buying behaviour is growing increasingly. In my study I collected the data through questionnaire to know the consumer Awareness level and preference about branded and unbranded grocery items and also I tried to find out the factors that push a customer from unbranded to branded items.

KEYWORDS: *Women consumers, Banded, Unbranded, Grocery Items, Organized, unorganized, Awareness, Preferences, buying behaviour.*

INTRODUCTION

In earlier day's historically and traditionally people used to sell or purchase the food items in loose, unbranded because it is the domain of small local players. But Due to changing consumers' lifestyle and increasing competition, LPG (Liberalization, Privatization and Globalization) some progressive traders like Local, Regional, National and global Retailers started the cleaning, grading and packaging, branding Food items such as Atta flour, sugar, tea powder, rice, honey ,cooking oils etc.,

Due to the rapid changes in the global market and the increased competition experienced between firms, "Brand Management" has become more important. Good brand management brings about clear differentiation between products, ensures consumer loyalty and preferences may lead to a greater market share.

"A brand, on the other hand, is "a name, symbol, design, or mark that enhances the value of a product beyond its functional value".

"Generic / unbranded products are known to the consumers on the basis of their ingredients as they are plain packed"

STATEMENT OF THE PROBLEM

The focus of the problem is to find out the consumer preference toward branded and unbranded Grocery Items. The study finds out whether the branded Grocery Items has been able to make the impact on consumers or not. It is concerned with measuring the success of branded Grocery items.

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OBJECTIVES OF THE STUDY

1. To study the consumer awareness towards branded and unbranded grocery items.
2. To evaluate the consumer Preference on the Branded and unbranded grocery items.
3. To Analyze the Factors affecting the customer's Purchase intentions on branded and unbranded grocery items

IMPORTANCE OF THE STUDY

This study reveals the Information about consumer preferences on Selected Products like [Atta Flour, Rice, Sugar, Tea, Honey, Dry-fruits, Pickles, Salt, Spices and Cereals] branded and unbranded Grocery Items and their Purchasing Behaviour in Organized and unorganized retail environment.

METHODOLOGY OF THE STUDY

Research design specifies the methods and procedures for collection of requisite information and its measurements and analysis to arrive at certain meaningful conclusion at the end of the proposed study. I conducted this research with the help of Questionnaire through Descriptive research.

SOURCES OF DATA

The study used both Primary and secondary data. The data was collected from 150 customers by using Questionnaire method and Internet, journals etc. The questionnaire had been prepared with closed ended questions in such a way that the respondents were able to answer in easy way.

SAMPLING DESIGN

For the purpose of the study, a sample of 150 consumers living in Hyderabad city was selected on simple random sampling basis.

LITERATURE REVIEW

[1]The Indian food market is estimated at over US$ 182 billion, while accounting for about two third of the total Indian retail market. Further, according to consultancy firm McKinsey & Co. The retail food sector in India is likely to grow from around US$ 70 billion in 2008 to US$ 150 billion by 2025, accounting for a large chunk of the world food industry, which grow from US$ 175 billion to US$ 318 billion by 2020, and to US$ 400 billion by 2025.

[2]According to a BMI forecast, India is likely to see a huge 443 per cent increase in mass grocery retail (MGR) sales during the 2007-2012 period. Ninety nine per cent of this segment is unorganized, and therefore, there is immense scope for growth for the organized sector.

[3]Professor Roger Moser from IIM Bangalore and his colleagues conducted the study "preferences of the urban Indian consumer" The organized retail market in India is growing, but over 90%, of Indian consumers still depend on micro-shops and street vendors for their daily

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requirements. The organized retail chains are gaining popularity in the bigger metros, but with growing opportunities in tier-2 cities, the potential for a huge market exists.

[4]Ac Nielsen the Power of Private Label (2005) an insight into consumer attitudes, two thirds of global consumers consider supermarket own or private label brands to be a good alternative to other brands. The study was done in developed markets of Europe, the Pacific and North America. With a global average of 69% agreeing they were extremely good value for money, and 62% considering their quality to be at least as good as the big brands. Study reveals that the image and education the biggest challenges for retailers in developing markets.

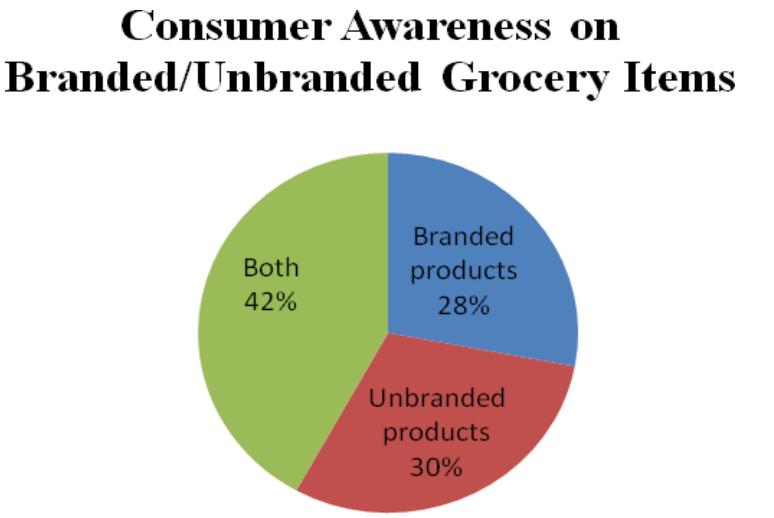
ANALYSIS AND INTERPRETATION

TABLE NO.1: CONSUMER AWARENESS

Category	**Awareness level**
	Percentage
Branded products	28%
Unbranded products	30%
Both	42%
Total	100%

Source: Primary data

EXHIBIT NO.1



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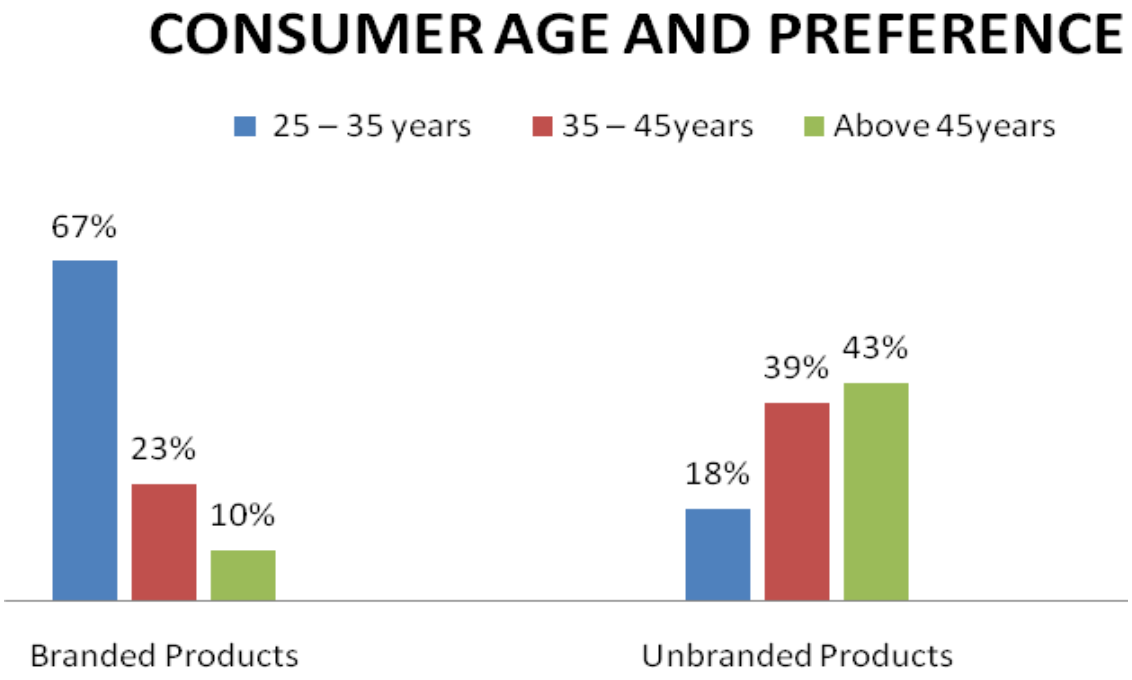
From the above Table 1, it could be understood that out of 150 respondents, 28% of the respondents are Aware of Banded grocery Items, 30% are responded for Unbranded grocery Items and 42% Majority of responders responded for Both Branded and Unbranded grocery Items.

TABLE NO.2: CONSUMERS AGE AND PREFERENCE

Category	Age			
	25 – 35 years	35 – 45years	Above 45years	Total
Branded Products	67%	23%	10%	100%
Unbranded Products	18%	39%	43%	100%

Source: Primary data

EXHIBIT NO.2



The above Table 2, clearly states that majority 67% of the women respondent's whose age group between 25–35 years are prefer to purchase Branded Grocery products and 18% of respondents are interested in Unbranded Products. The age group between 35-45 years no of respondent's preference on branded, unbranded products is followed by 23%, 39% and the remaining no of respondents 10% , 43% preference in Branded and Unbranded Items are belongs to above 45 years .

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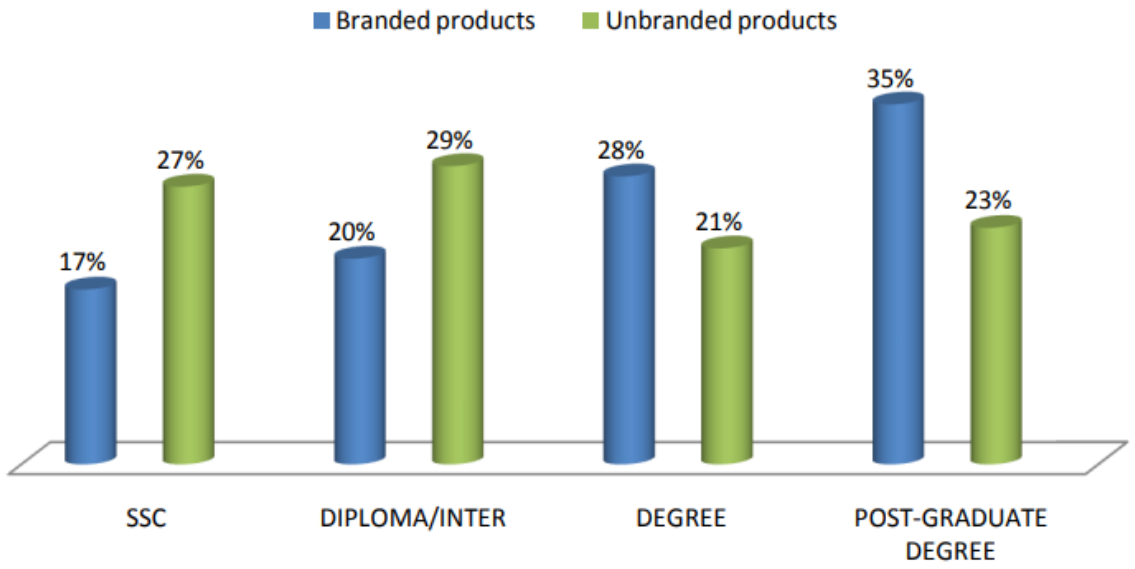
TABLE NO.3: CONSUMERS LITERACY LEVEL AND PREFERENCE

Category	Literacy level				
	SSC	Inter/Diploma	Degree	Post graduatedegree	Total
Branded products	17%	20%	28%	35%	100%
Unbranded products	27%	29%	21%	23%	100%

Source: primary data

EXHIBIT NO.3

CONSUMERS LITERACY LEVEL AND PREFERENCE



It could be inferred from the above Table 3, that Educational qualification of no of respondents and their preference on branded items are 35% postgraduates, 28%, 20% Degree & Inter / diploma and 17% of SSC are very much interested to purchase Branded Grocery Items and 23% postgraduate, 21% Degree, and 29% & Inter / diploma, 27% of SSC women respondents are preferring loose/unbranded products.

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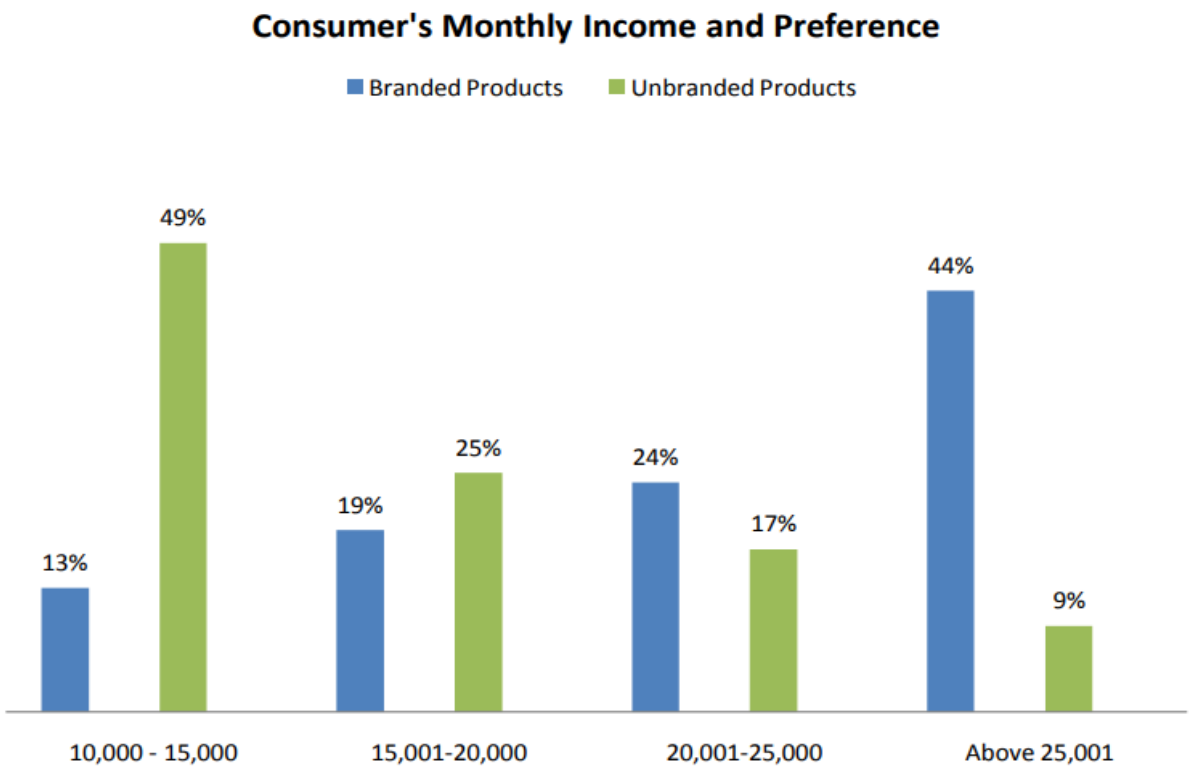
TABLE NO.4: CONSUMERS MONTHLY INCOME AND PREFERENCE

Category	Monthly Income				
	₹10,000 - ₹ 15,000	₹15,001- ₹ 20,000	₹20,001-₹ 25,000	Above ₹ 25,001	Total
Branded Products	13%	19%	24%	44%	100 %
Unbranded Products	49%	25%	17%	9%	100 %

Source: Primary data

EXHIBIT NO.4



From the above table 4, it is clear that no respondents monthly Income and their preference on branded and Unbranded Grocery Items are (13% ,49% respondents) 10,000-15,000 Income group, (13%,49% respondents) 15,001-20,000, (24%&17% respondents) belong to 20,001-

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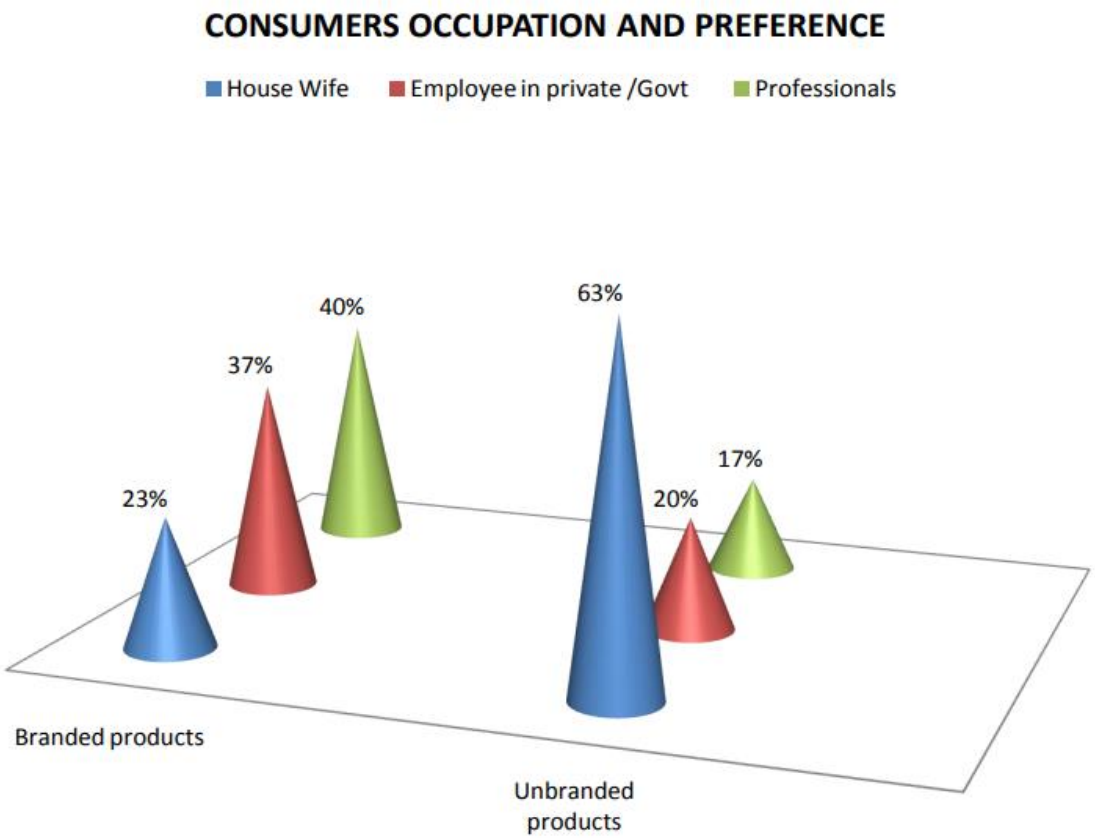
25,000 income group and remaining (44% , 9% respondents) are above 25,001.

TABLE NO.5: CONSUMERS OCCUPATION AND PREFERENCE

Category	Occupation			
	House wife	Employee in Private / Govt. sector	Professionals	Total
Branded products	23%	37%	40%	100 %
Unbrandedproducts	63%	20%	17%	100 %

Source: primary data

EXHIBIT NO.5



The above table 5, clearly states that majority 63% of the respondents are House wife and 20% ,17% of Employees , Professionals are showing much interest in preferring the Unbranded grocery Products and if you see the responses on branded products as follows like 40% majority of professional, 37% of working women and least 23% are house wives.

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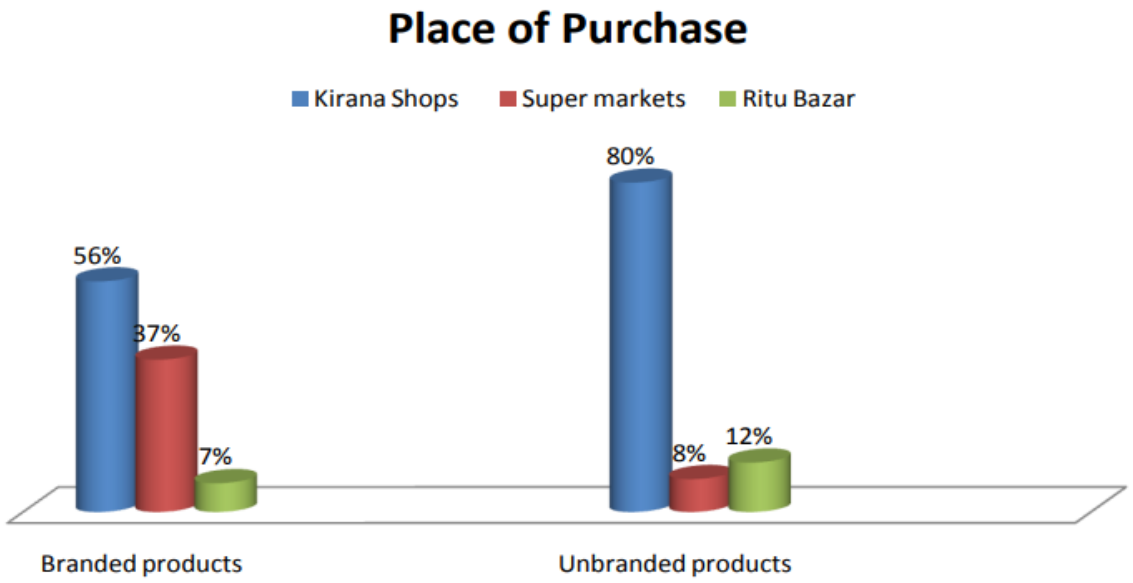
TABLE NO.6: PLACE OF PUCHASE

Category	Place of purchase			
	Kirana shops	Super markets	Ritu bazaar	Total
Branded products	56%	37%	7%	100%
Unbranded products	80%	8%	12%	100%

Source: Primary data

EXHIBIT NO.6



The above table 6, reveals that no of respondent's preference and their place of purchase of branded and unbranded grocery items as majority of 56%, 80% of the respondents are Purchasing in Kirana shops, 7%,8% of respondents purchasing in Super markets and remaining 7%,12% are purchasing at Ritu bazaar.

TABLE NO.7: FREQUENCY OF PURCHASE

Category	Frequency Of Purchase						
	Daily	Twice in a Week	Once ina week	Fortnightly	Monthly	Whenever needed	Total
Branded Products	7%	3%	3%	7%	63%	17%	100%
Unbranded Products	26%	5%	2%	4%	52%	11%	100%

Source: Primary data

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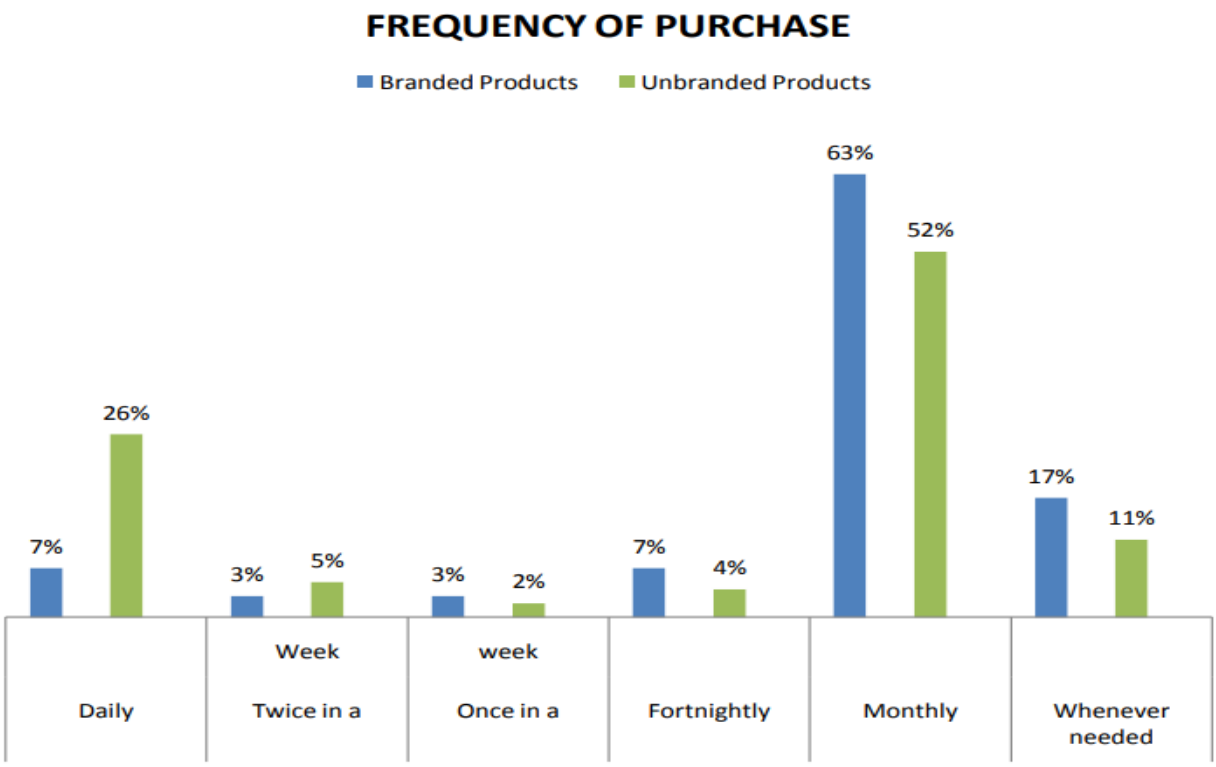
EXHIBIT NO.7



It is understood from the above table 7, that Majority 63%, 52% of respondents are Purchasing the branded and unbranded grocery products Monthly Once, Remaining 7%, 26% of respondents Daily, 3%,5% of twice in a week, 3%,2% are weekly once and 7%,4% fortnightly, 17% & 11% are purchasing the products depends on need/requirement.

TABLE NO.8: NATURE OF PURCHASE DECISION

Category	Purchase Decision		
	Impulsive buying	Planned Purchase	Total
Branded Products	21%	79%	100%
Unbranded Products	17%	83%	100%

Source: Primary data

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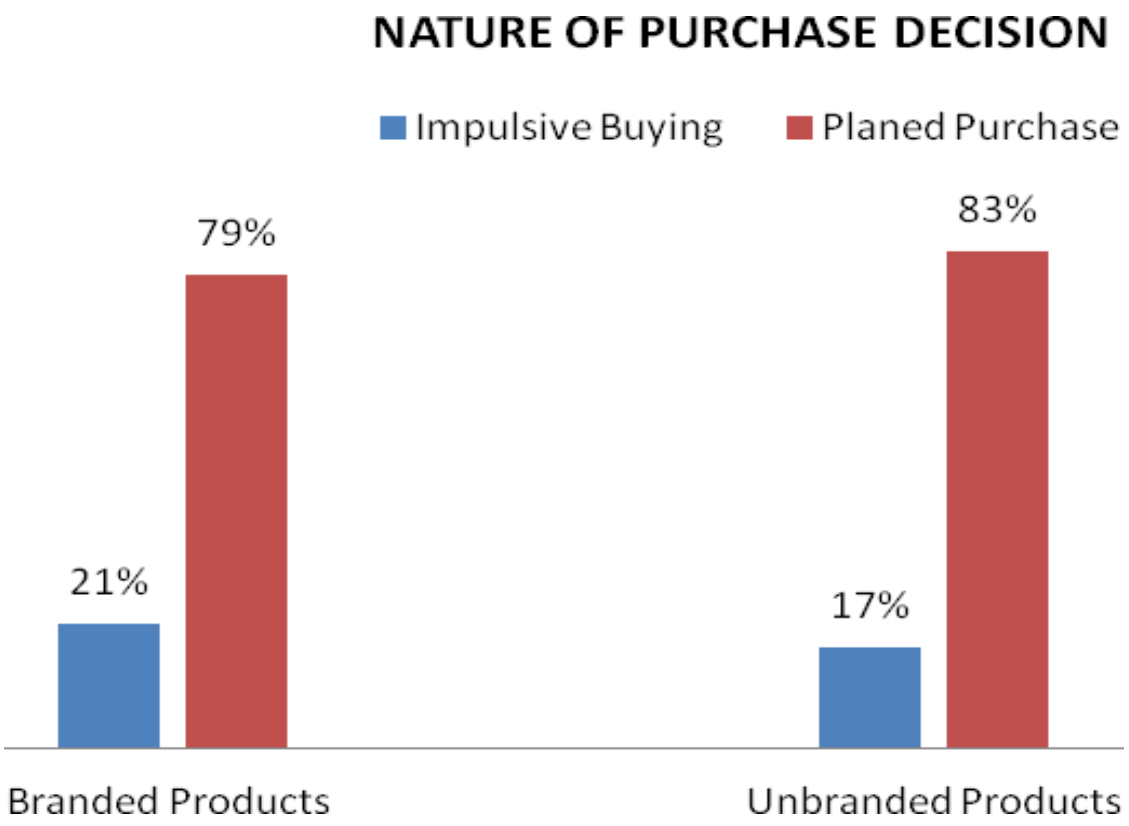
EXHIBIT NO.8



It is clear from table 8 that majority of 79%, 83% of respondents are purchasing the grocery products as for the planned purchase and remaining 21%, 17% respondents are impulsive buyers.

TABLE NO.9: FACTORS EFFECTING ON PURCHASING DECISION

Factors	Category		
	Banded Products	Unbranded products	Total
Reasonable Price	32%	68%	100%
Taste	45%	55%	100%
Quality	21%	79%	100%
Image	45%	65%	100%

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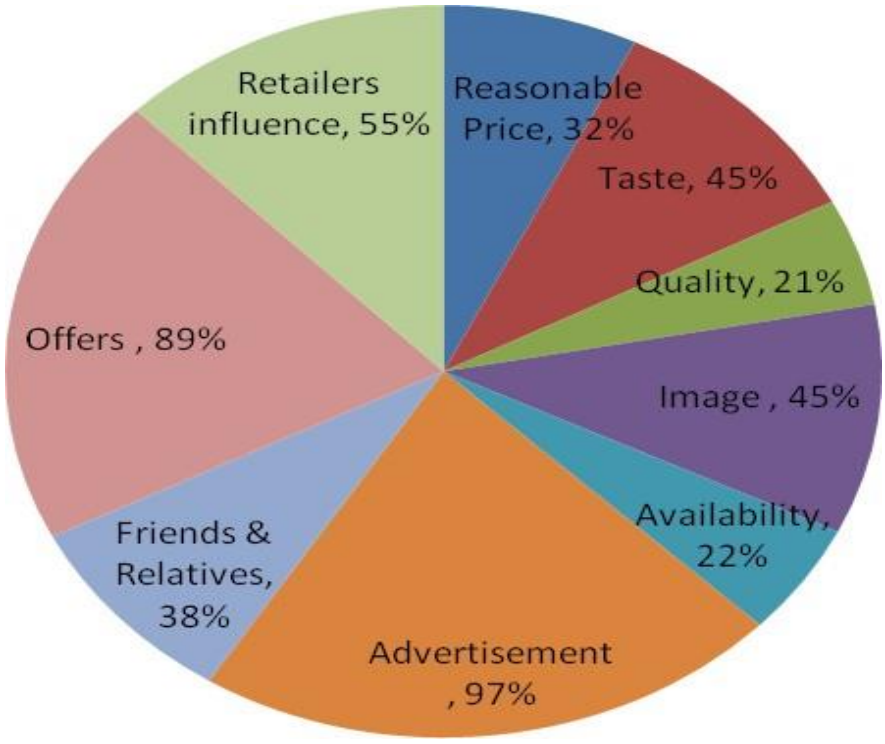
Availability	22%	78%	100%
Advertisement	97%	3%	100%
Friends & Relatives	38%	62%	100%
Offers	89%	11%	100%
Retailers influence	55%	45%	100%

Source: Primary data

EXHIBIT NO.9

BANDED PRODUCTS & FACTORS INFLUENCING ON WOMEN CONSUMERS CONSUMPTION



It is evident from the above table 9 that banded products and factors influencing on respondents preference are followed by Reasonable Price 32%, Taste 45%, Quality 21%, Image 45%, Availability 22% , Advertisement 97%, Friends & Relatives 38%, offers 89%, Retailers influence 55%.

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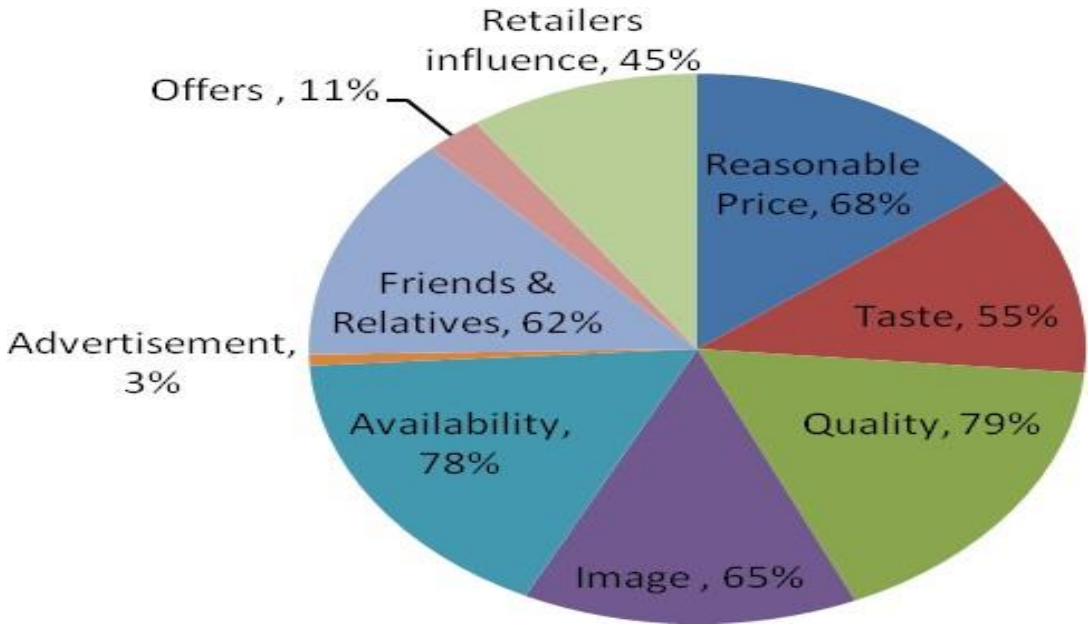
EXHIBIT NO.10

UNBANDED PRODUCTS & FACTORS INFLUENCING ON WOMEN CONSUMERSCONSUMPTION



It could be understood from the table 9, that unbranded products and factors influencing on respondents preference are followed by Reasonable Price 68%, Taste 55%, Quality 79%, Image 65%, Availability 78%, Advertisement 3% and Friends & Relatives 62%, Offers 11%, Retailers influence 45%.

FINDINGS

From the study the following important aspects are been identified they are:

1) From the study it is observed that more than 40 percent of the respondents at Selected Organized and unorganized Retail Shops in Hyderabad are Aware of both branded and unbranded Grocery Products.

2) From the study it is identified that more than 60 percent of the women respondent's age group between 25–35 years are likely to purchase the Branded Grocery products and 80 percent of above the 35 years Respondents prefer unbranded Grocery products at selected organized and unorganized Retail shops.

3) From the study it is observed that more than 40 percentage of Respondents Income above 25000 are interested in Branded items and the income between 10,000-15,000 buyers are

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shown much interest in unbranded Grocery items.

4) From the study it is observed that Brand Preference and Awareness of the respondents are differing according to the education levels. The study revealed that the respondents Qualification is higher are preferring the Branded items and those who have the lower qualification are interested in unbranded grocery products.

5) The study found that more than 60 percentage of house wife's are very much interested in unbranded grocery items and 40 percentage of professional are giving the high priority to branded grocery items.

6) From the data it is identified that more than 50 percentage and 80 percentage of respondents are purchasing branded and unbranded items in Kirana shops or neighborhood Grocery stores.

7) From the study it has been identified that more than 60 percentage and 50 percentage of respondents are purchasing branded and unbranded items according to Monthly Budget Plan and 80 percentage of Respondents are doing planned purchase.

8) From the data it has been identified that Advertisement, offers, taste and Retailer are influencing on 90 percent respondents to prefer the branded Goods, more than 60 percent of respondents said that Price, Product availability and quality, friends & relatives are impacting on consumer to prefer unbranded items.

CONCLUSION

In India according to many research Surveys there is huge growth potential for all the FMCG companies as Well-established distribution networks and intense competition between the organised and unorganized retailers. Again the demand or prospect could be increased further if these companies can change the consumer's mindset and offer new generation products. Earlier, Groceries were usually purchased by the housewife from small neighborhood grocery stores with an average size of about 250 square feet. Her loyalty was strong, based on convenience and added services such as credit and free home delivery, but today, Different brands are available and the same consumers are gradually shifting towards branded quality Products.

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