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## Shopping Companion and The Subsequent Impact on Impulse Buying

**Dr. Anupam Ghosh**

Assistant Professor,  
Birla Institute of Technology  
Department of Management  
Mesra (Ranchi)  
E-mail: iitanupam@gmail.com

**Ms. Manisha Karandikar**

Associate Professor,  
Father C. Rodrigues Institute of Management Studies,  
Navi Mumbai & Ph.D scholar, Birla Institute of Technology, Mesra (Ranchi)  
E-mail: manisha.karandikar@gmail.com

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### Abstract

*Impulse Buying is an in-store decision made by consumer when he experiences a sudden and powerful urge to buy something immediately. Indians mostly shop with family and friends hence this paper looks at the phenomenon of Impulse Buying when the shopper is accompanied by family and friends and their influence on Impulse Buying. Survey method of data collection was used to collect sample of 2034 respondents from eight different cities of India using quota sampling. The paper compares the frequency of Impulse Buying while shopping alone and while shopping with family and friends and concludes that frequency of Impulse Buying is higher when a person shops with family but not with friends. The paper also checks for variation in Impulse Buying while shopping with family and friends across high, medium and less impulsive buyers and also across the family status of the respondents.*

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**Key words:** Impulse Buying, Family, Parents, Spouse, Children, Friends, Family Status,

### Introduction

India has shown a significant growth in consumer markets in the post liberalisation period and has become a hot destination for many international retail players. Favourable demographic divide, rising disposable incomes, easy access to credit and economic stability are some of the triggers of this growth. India is poised to become the fifth largest consumer market in the world by 2025. (Mckinsey, May 2007). Another recent report released by Boston Consulting Group (BCG) and Confederation of Indian Industries (CII)

titled, 'The Tiger Roars: An In-Depth Analysis of how a Billion plus people consume' projects a 3.6 times increase in consumer spending from 2010 to 2020 (CII, 2012). This increase in consumer spending would lead to a spurt in the phenomenon of impulse purchases as well. The phenomenon of Impulse Buying has been widely studied by several researchers however most research has been carried out in individualistic countries and the focus has been on shopper. However this paper looks at people accompanying the shopper and their impact

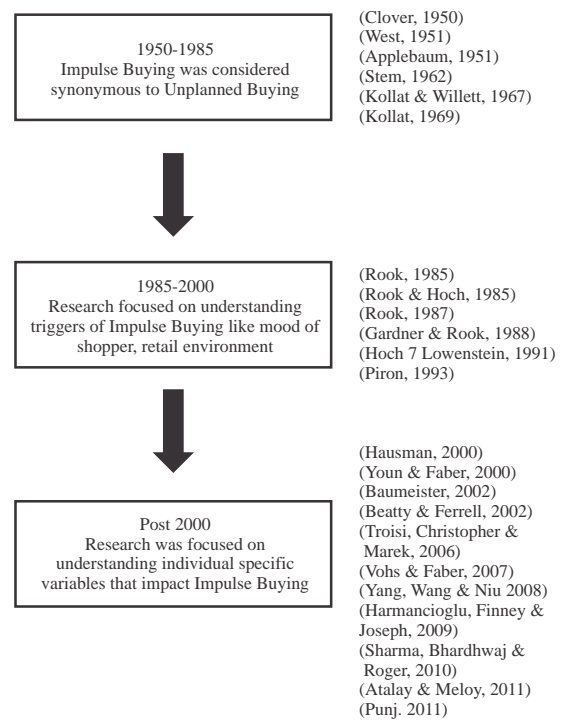
on Impulse Buying and thereby contributes to the existing body of research on Impulse Buying. This perspective of Impulse Buying is important in Asian countries as they are more collectivist and tend to shop with somebody unlike the developed individualistic countries like United States. The business pattern of India has also changed a lot, with corporate social responsibility being a good tool for development (Ghosh & Chakraborti, 2010). Also every Indian business is stressing on long-term survival by balancing the triple bottom line (Ghosh, 2011). Indian has been ranked as the fourth most attractive nation for retail investment among 30 emerging markets by management consulting firm AT Kearney (AT Kearney, 2011). The stable outlook assigned by rating agency Fitch is expected to attract foreign investments leading to a further growth of the retail sector (Business Standard, Jan 18, 2012, New Delhi). This rising income of consumers coupled with wider exposure due to growth of organised retail may positively influence Impulse Buying and it is important to study the spending habits of Indian consumers. Liberalisation allowed a lot of foreign players to set up their shops in India and exposed Indian consumers to global products and services thereby altering their expectations from companies serving them (Batra, 1997). A recent study on Indian consumers has indicated that Impulse Buying of commodities has significantly gone up due to full variety of products displayed by retail stores (Ahmad, 2011). Studying consumers in such transitional economies has become important for business as well as government (Chan, 2004). A study conducted by (Mai, Jung, Garold & Sandra, 2003) in emerging economy of Vietnam indicates that when transitional economies, attain a certain level of development, consumers in those countries demonstrate behavior similar to that of developed countries. Further the authors also mention that this is true with respect to Impulse Buying behavior despite cultural

differences. Since India is also considered as emerging market, it is important to study the Impulse Buying behavior of Indian consumers.

**Literature Review**

The existing body of knowledge on Impulse Buying is vast right from 1950s till date and we can see that study of Impulse Buying has changed directions at regular intervals as seen in Figure No.1.

**Figure No.1:** Progress on research on Impulse Buying as seen in Literature



The initial era of research on Impulse Buying Research on Impulse Buying dates back to 1950's where-in the decisions made by shoppers were either planned or unplanned. There was no definition on Impulse Buying then and researchers considered all unplanned buying to be Impulse Buying. (Clover, 1950), studied Impulse Buying in Texas during 1948 when all business establishments were asked to remain shut in three west Texas towns due



to shortage of gas. It was assumed that if stores had higher purchases made on impulse, it was likely that those stores could make up for the lost sales in the period after the closing. The findings indicate that significant amount of sales made by stores were due to impulse purchases. (West, 1951) studied Impulse buying in six Canadian cities and concluded 36.8% of all purchases made were Impulse purchases (Unplanned Buying). (Applebaum, 1951), also considered Impulse Buying synonymous to Unplanned buying and studied customer buying behavior patterns and identification of customers who are likely to be high impulse buyers. (Stern, 1962), suggested four classifications of Impulse Buying viz. Pure Impulse Buying, Reminder Impulse Buying, Suggestion Impulse Buying & Planned Impulse Buying. This was the first attempt to differentiate Impulse Buying from Unplanned Buying, however the difference was still not clearly established. (Stern, 1962) studied nine factors that are major influencers in Impulse Buying. These included Low Price, Marginal need for item, Mass Distribution, Self-Service, Mass Advertising, Prominent Store display, Short Product life, Small size or light weight, Ease of storage. The research was focussed on identifying products that are more likely to be bought on Impulse. Research by (Kollat & Willett, 1967) also considered Impulse Buying to be synonymous to Unplanned purchases and studied various variables like in-store stimuli, frequency of purchase, transaction size, shopping list and demographic variables. Further (Kollat, 1969) also studied several definitions of Impulse purchases that exist in literature and concluded that the opinion about Impulse purchases varies considerably thereby limiting the utility of his concept. It is important to note that this research also considered unplanned purchases and Impulse purchases to be similar. Research on Impulse Buying went beyond products when Rook & Hoch (1985) looked at Impulse Buying from a consumer's

perspective and said "it is individuals and not the products that experience the impulse to consume". This gave research on Impulse Buying a new direction and research was not restricted to products alone, it also looked at the psychological content of consumer's experiences during Impulse Buying. In fact, Impulse Buying was defined for the first time by (Rook, 1985) and was thereby differentiated from unplanned buying. The concept of Impulse Buying was re-conceptualized as a narrower and specific part of unplanned purchases. Impulse Buying was defined as "Impulse Buying occurs when a consumer experiences a sudden and powerful urge to buy something immediately" Rook (1985). This led to a new direction in research on Impulse Buying and research then looked at consumer related psychological aspects of Impulse Buying. Researchers then looked at pre purchase and post purchase moods of consumers indulging in Impulse Buying. (Rook, 1987) studied post purchase behavior of 133 respondents after Impulse Buying and reported that 80% of the respondents had experienced some problem after indulging in Impulse Buying with majority of them indicating financial problems, followed by disappointment with the products. Study by (Gardner & Rook, 1988) revealed that consumers indulge in Impulse Buying when they are depressed, frustrated or bored in order to get away from that mood. (Piron, 1993) investigated the emotional reactions of shoppers and concluded that there is a significant difference between emotional reactions of Planned, Unplanned and Impulse purchases. The post purchase mood of these consumers was found to be positive indicating that consumers look at Impulse Buying as a source of immediate gratification. Impulse Buying is positively associated with negative affect indicating that negative emotions are associated with Impulse Buying (Silvera, Lavack & Kropp, 2008). This indicates that consumers are likely to indulge in Impulse Buying at both

ends of the spectrum of their mood. When consumers are bored or depressed they indulge in Impulse Buying to elevate their mood. They are also likely to indulge in Impulse buying when they are happy as an act of self-gifting. (Atalay & Meloy, 2011) refers to Impulse Buying as Retail Therapy as consumers indulge in Impulse Buying with the intention of 'self-treats' to repair their bad mood. (Yi & Baumgartner, 2011) concludes that Impulse Buying is associated with guilt feeling and consumers resort to coping strategies to overcome their guilt feeling. Impulsivity was considered as a personality trait and research on Impulse Buying then focused on identification of individual specific variables like attitudes, personality etc. Attempts were then made to find out which consumers depending on their personality, attitudes are more likely to indulge in Impulse Buying. Impulsivity as a trait was studied by different researchers and attempts were made to establish a relationship between impulsiveness and personality of consumers. Also several studies regarding attitudes of consumers were studied to enhance understanding of Impulse Buying. (Hausman, 2000) concluded that high impulse shoppers shop for hedonic reasons and found correlation between Style Consciousness and Impulse Buying. Also high impulse shoppers perceive buying decisions to be more laborious than low impulse shoppers. (Youn & Faber, 2000) concluded that Impulse Buying tendency is highly correlated with lack of control. Further shopping enjoyment increases positive affect and in-store browsing that influences the shopper to buy impulsively (Verplanken, Bas, Herabadi, Perry & Silvera, 2005) studied the role of self-esteem in Impulse Buying and concluded that Impulse Buying is driven by low self-esteem and dispositional negative affect. (Yang, Wang & Niu 2008) concluded that Impulse Buying is positively correlated to Idolatory & Economic Independence. (Sharma, Bhardhwaj & Marshall, 2010) concluded that

consumer impulsiveness & optimum stimulation level had a positive association with Impulse Buying and variety seeking whereas self monitoring relates negatively with Impulse Buying. (Punj, 2011) relates Impulse Buying with Variety seeking and proposes a hidden socio normative dimension to this purchase typology. In addition to individual specific factors, literature mentions that another area that impacts Impulse buying is the cultural orientation of the individual (Stern, 1962), (Gardner & Rook, 1988). (Kacen and Lee, 2002) studied phenomenon of Impulse Buying across four different countries & concluded that collectivist culture discourages Impulse Buying as they tend to place group interest ahead of personal interests. The study also concludes that examining Impulse Buying solely from a western view point is incomplete. Since Impulse Buying is an in-store decision the person accompanying shopping may also exert influence on Impulse Buying decisions. (Maram and Kongsompong, 2007) concluded that consumers in Collectivist countries like India, Thailand & Taiwan are more susceptible to social influence in buying situations than consumers in individualistic countries. It also states that in case of Indians, parents, close friends & salespersons strongly influence the buying decisions. This study is carried out for purchasing behaviour in general and not specifically for Impulse Buying. (Luo, 2002), reveals that Impulse Buying increases when you shop with peers and it decreases when you shop with family. This study again reinforces that shopping with friends and family have an impact on Impulse Buying, however it does not look at the phenomenon of Impulse Buying for family and friends.

### **Gaps in Literature**

Extensive research has been carried out in the field of Impulse Buying, but the impact of shopping companion on Impulse Buying decision has not been studied by many

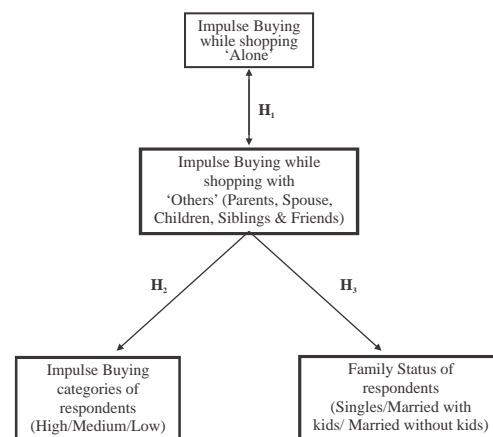
researchers. Luo (2002) reveals that impulse buying increases when you shop with peers and it decreases when you shop with family, however this study does not look at Indian consumers in particular. Further this paper also advises that future studies on Impulse Buying should consider the moderating role of susceptibility to influence during Impulse Buying. A recent study carried out on Indian consumers concludes that 70% of the respondents go to hypermarket with somebody and shopping is like a community activity in India (The Economic Times, 6<sup>th</sup> June 2012, Mumbai). Hence it is important to study whether the people accompanying the shopper have an impact on Impulse Buying decision as well. Since family values are strong in India, it is relevant to study whether parents, siblings, spouse and children who would generally accompany a shopper have any impact on Impulse Buying. This is the primary lacuna that this paper intends to fill. Further the impact of person accompanying the shopper may differ with respect to family status of the shopper. It is possible that as individual progresses in his family life cycle the influence of the person accompanying may vary. As 'Singles' the influence of friends and parents may be different than their influence on 'married with kids' categories of respondents. It is hypothesised that 'Singles' will shop impulsively when they shop with parents, siblings and friends as compared to married respondents. This may be due to the fact that as a person progresses in his family life cycle, spouse and children play a more important role in their decision making process.

### Research Objectives

The paper looks at incidence of Impulse Buying while shopping with family and friends. The primary objective is to determine whether frequency of Impulse Buying while shopping 'Alone' and while shopping with family and friends varies significantly. Hence the frequency of Impulse Buying while

shopping alone and while shopping with family and friends was statistically compared. Further the paper also studies variation in Impulse Buying while shopping with family and friends across Impulse Buying categories of respondents. This was done because it is well recognised in literature that impulsivity is a trait and people who have a powerful impulsivity trait are more likely to indulge more often in Impulse Buying. It is hypothesised that respondents who have a high impulsive trait will shop on impulse while shopping with family and friends as well. Further we also check the incidence of Impulse Buying while shopping with family and friends across different categories of family status viz. 'Singles', 'Married with no kids' and 'Married with kids'. It is hypothesised that influence of parents and friends on Impulse Buying decisions will be higher in case of 'Singles' than married respondents. In other words the paper tries to determine whether the influence of person accompanying shopping varies across Family Status of respondents. The variables under study are represented by a conceptual diagram (Figure No.2).

Figure No.2: Conceptual Diagram



The objectives thus can be framed as follows:

- To compare frequency of Impulse Buying while shopping alone and while shopping

- with family and friends
- To determine whether Impulse Buying while shopping with family and friends varies cross Impulse Buying categories and Family Status categories of respondents.

### **Research Methodology**

An exploratory research was carried out across eight different cities of India to study the phenomenon of Impulse Buying. The cities were selected on the basis of a report on retail cities published by Le Salle Jones Meghraj (Kelly, Gupta & Masih, 2007). This report classifies retail cities of India on the basis of the retail development in five different categories viz. Maturing cities, Transitional Cities, High growth cities, Emerging cities & Nascent cities.

The selection of cities was done in such a manner so as to ensure that each category of city mentioned above is well represented. Further the researcher ensured that each zone of the country viz. North, East, West & South had some representation. The cities thus selected for data collection were Mumbai & Baroda from West zone, Jamshedpur & Guwahati from East zone, Varanasi & Chandigarh from North zone and Chennai & Vizag from South zone. The number of respondents surveyed from each city and classification of city is given in Annexure No.1

The sample was selected using Quota sampling technique. The quotas were formed on the basis of age as previous research suggests that Impulse Buying varies with age and is highest in the age group 18 to 39 years. The sample was selected such that the age groups 18 to 24 years and 25 to 40 years had the highest representation of around 35% for each of these age groups. The other age groups, viz. 12-17 years, 41-55 years and 'Above 55 years' comprised of around 30% of the sample.

Impulse Buying Behavior was captured using

scale available in literature. Buying Impulsiveness Scale is a 5 - point Likert scale developed by Rook & Fisher that has nine items with one of them reverse coded (Rook & Fisher, 1995). It may be recalled from literature review that it was Dennis Rook who had first defined Impulse Buying in 1987 and this scale has been widely used in the existing literature on Impulse Buying by other researchers (Hausman, 2000), (Vohs & Faber, 2007), (Yang, Wang & Niu, 2008). The items of Buying Impulsiveness Scale are given in annexure as Annexure No.2. This scale however has not been used with respect to Indian context hence the researchers initially tested the validity and reliability of the scale before using it in actual survey. In order to check validity of the scale, it was shown to a panel of two practicing managers from the retail industry and two faculty members in the area of market research. The panel felt that the items on the Buying Impulsiveness Scale were adequate to assess the Impulse Buying behavior of the respondent. The reliability of the scale was determined by administering it to a sample of 118 shoppers in front of a retail store. The reliability of the scale was determined by calculating cronbach alpha value. The value of cronbach alpha was found to be 0.80 for Buying Impulsiveness Scale (Refer to Annexure No.3 for details of reliability analysis). This value of cronbach alpha is considered to be very good (George & Mallery, 2003) and hence this scale was used in the final survey of 2034 respondents across eight different cities in India.

The overall Impulsiveness of the respondents during shopping was thus captured using Buying Impulsiveness Scale (BIS). This score on Buying Impulsiveness Scale was used to classify the respondents in three categories, High Impulse Buyers, Medium Impulse Buyers & Low Impulse Buyers. The respondents who scored in either the top 33% were classified as high Impulse Buyers, the lower 33% were classified as low impulse

buyers and the middle 33% of the respondents were classified as medium Impulse shoppers. This method has also been followed by other researchers who have used this scale (Youn & Faber, 2000).

**Hypotheses Formulation & Testing**

The hypotheses were developed in accordance to the research objectives mentioned above. The first set of hypotheses compares the incidence of Impulse Buying while shopping 'Alone' and while shopping with 'Others'

H<sub>1</sub> = There is a significant difference between frequency of Impulse Buying while shopping alone and while shopping with 'Others' (Parents, Spouse, Children, Siblings & Friends)

Since 'Others' comprise of Parents, spouse, children, siblings & friends the above hypothesis was broken into each of these relationships and was tested individually using paired 't-test' at 95% significance level. The compiled results of paired-test' for hypothesis of each relationship viz. parents, spouse, children, siblings & friends are given in Table No.1.

Table No.1: Impulse Buying while shopping

Impulse Buying while shopping Alone & while shopping with 'Others'					
	Mean	Std Deviation	t - value	df	Sig
Alone	2.74	1.26	-6.4	1929	0.00
Parents	<b>2.98</b>	1.16			
Alone	2.81	1.22	-11.667	966	0.00
Spouse	<b>3.4</b>	1			
Alone	2.85	1.21	-5.811	768	0.00
Children	<b>3.18</b>	1.06			
Alone	<b>2.73</b>	1.25	1.46	2033	0.14
Friends	2.68	1.13			
Alone	<b>2.73</b>	1.25	3.73	2033	0.00
Siblings	2.59	1.09			

'Alone' vis-à-vis while shopping with 'Others' The results of 't-test' indicate that Impulse Buying while shopping with parents, spouse, children and siblings is significantly different than Impulse Buying while shopping 'Alone'.

The mean values indicate that Impulse Buying while shopping with parents, spouse and children is higher than Impulse Buying while shopping 'Alone' whereas Impulse Buying while shopping with siblings is lower than Impulse Buying while shopping 'Alone'. Impulse buying while shopping with friends is not significantly different than while shopping alone. This means that friends neither reduce nor increase incidence of Impulse Buying. These results are further discussed in the section findings and discussion in the paper.

The next set of hypotheses compare frequency of Impulse Buying while shopping with family and friends across Impulse Buying categories and Family Status. In other words we determine whether high impulse buyers shop more often on impulse with family and friends than medium and less impulsive shoppers. In addition to this we also determine whether Impulse Buying with family and friends differs across 'Singles', 'Married with no kids' and 'Married with kids' categories of respondents. The paper also checks for significant interaction between the two independent variables (Impulse Buying categories and Family Status) while shopping with family and friends.

H<sub>2</sub> = There is a significant difference between frequency of Impulse Buying while shopping with 'Others' (Parents, Spouse, Children, Siblings & Friends) across Impulse Buying categories of respondents

H<sub>3</sub> = There is a significant difference between frequency of Impulse Buying while shopping with 'Others' (Parents, Spouse, Children, Siblings & Friends) across Family Status of respondents

H<sub>4</sub> = There is a significant interaction between Impulse Buying categories and Family Status of respondents for Impulse Buying while shopping with 'Others' (Parents, Spouse, Children, Siblings & Friends)

The above hypotheses were broken down individually for parents, spouse, children, siblings & friends and were individually

tested using Two Way ANOVA at 95% significance. The consolidated results of two-way ANOVA for Impulse Buying while shopping with 'Others' (parents, spouse, children, sibling & friends) are given in Table No. 2.

Table No.2: Two Way ANOVA for Impulse buying with 'Others'

	Variation in Impulse Buying while shopping with				
	Parents	Spouse	Children	Siblings	Friends
Across Impulse Buying category of respondents	Significant	Significant	Not Significant	Significant	Not Significant
Highest mean values	High Impulse Buyers	High Impulse Buyers		High Impulse Buyers	
Family Status of respondents	Significant	Significant	Not Applicable	Significant	Significant
Highest mean values	Singles	Married with kids	Singles	Singles	
<b>Interaction between Impulse Buying categories &amp; Family Status</b>					
Impulse Buying category *Family Status	Significant	Not Significant	Not Applicable	Significant	Not Significant
Highest mean values	High Impulse Buyers who are single			High Impulse Buyers who are single	

The results of two way ANOVA used to test hypotheses for Impulse Buying while shopping with parents indicates that frequency of Impulse Buying varies significantly across Impulse Buying categories and Family Status of respondents and we can see a significant interaction among these variables. The mean values indicate that high impulse buyers and 'singles' are the ones who shop most often on impulse when they are shopping with parents. Since the interaction effect is significant, we examine the mean values and conclude that high impulse buyers who are 'Single' shop impulsively most often when they shop with parents

The hypotheses with respect to Impulse Buying while shopping with spouse were tested using Two Way ANOVA at 95% significance and the results indicate that the frequency of Impulse Buying varies significantly across Impulse Buying

categories and Family Status of respondents, however there is no significant interaction among them at 95% significance level. The mean values indicate that high impulse buyers and respondents in 'married with kids' are the ones who shop most often on impulse when they are shopping with spouse. Since the interaction effect between the independent variables viz. Impulse Buying categories and Family status is not significant we do not look at the mean values for interaction effects.

In case of Impulse Buying while shopping with children, there are no categories of family status and hence there is only one hypothesis that is tested using one way ANOVA. The results indicate that frequency of Impulse Buying while shopping with children does not vary significantly across Impulse Buying categories of respondents.

Impulse Buying while shopping with friends does not vary significantly across Impulse Buying categories of the respondents but varies significantly across Family Status of the respondents. The mean values indicate that it is 'Singles' who buy impulsively when they are shopping with friends.

Impulse Buying while shopping with siblings varies significantly across Impulse Buying categories as well as family status of the respondents. The interaction among Impulse Buying categories and family status is also significant in case of Impulse buying while shopping with siblings. The mean values indicate that it is high impulse buyers who are 'Singles' buy impulsively when they are shopping with siblings.

**Findings & Discussion**

The paper primarily compares Impulse Buying while shopping alone and while shopping with friends and family. Impulse Buying while shopping with parents, spouse and children is higher than while shopping alone. This could be because parents, spouse and children are amongst the closest reference group and hence they tend to impact Impulse Buying decision resulting in higher impulse

purchases. Impulse Buying while shopping with siblings is lower than Impulse Buying while shopping 'Alone'. This could be due to the fact that siblings for the purpose of study included cousins as well and these may not be part of the closest reference group of the shopper and hence indulgence in Impulse buying while shopping with them may be lower. Friends neither reduce nor increase incidence of Impulse Buying as Impulse Buying while shopping with friends is not significantly different than while shopping alone. This means that probably the comfort level while shopping with friends is high and hence one would comfortably indulge in Impulse Buying unlike in case of shopping with siblings wherein frequency of Impulse Buying is lesser than while shopping 'Alone'. Further it is likely that these findings may vary across family status because as individual progresses in his family life cycle it is possible that the influence of friends, parents and siblings may vary. Hence we check frequency of Impulse Buying while shopping with family and friends across family status as well.

In case of family status, Impulse Buying while shopping with family & friends varies significantly across categories of family status. 'Singles' shop on impulse more often than 'Married with no kids' and 'Married with kids' category of respondents while shopping with parents, friends and siblings. This may be due to that fact that as 'Singles' the influence of parents, friends and siblings is high and they form part of the innermost reference group for the consumer and as he progresses in his family cycle, the importance of spouse and children increases. In case of Impulse Buying while shopping with spouse, 'married with kids' shop more often on impulse than 'married with no kids' category of respondents. This again may be due to the fact that spouse is again a part of the innermost reference group for married individuals and with more years of married life, the comfort

level while shopping with spouse may be higher resulting in higher impulse purchases. Impulse Buying while shopping with parents, spouse & siblings varies significantly across Impulse Buying categories of respondents. High impulse buyers shop on impulse more often than medium and less impulsive shoppers when they shop with parents, spouse and siblings. In case of Impulse buying while shopping with children and friends as well the mean values indicate that high impulse buyers shop impulsively more often though not significantly more often than medium and low impulse buyers. Thus we can overall conclude that high impulse buyers shop on impulse more often when they shop with family and friends.

The paper thereby concludes that frequency of Impulse Buying while shopping with parents, spouse, children and siblings is higher than while shopping alone. Further if individuals have impulsivity as a powerful trait they tend to buy impulsively even when they shop with their family and friends. In early stages of family life cycle i.e. as 'Singles' the frequency of Impulse Buying while shopping with parents, friends and siblings is higher and as he progresses frequency of Impulse Buying with spouse is higher. These are the unique contributions of this paper towards the existing literature on Impulse Buying.

### **Managerial Implications**

The findings of this study are relevant to players in the retail industry as it looks at the Impulse Buying behaviour of Indian consumers. This paper looks at impact of friends and family members who accompany the consumer during his shopping trips. This is particularly important for a country like India wherein the shopping is generally a group activity and 70% of the shoppers shop with somebody and only 30% shop alone. The research concludes that Impulse Buying is higher when a consumer shops with a person

in his innermost reference group like parents, spouse, children and siblings. This indicates that close bonding between the shopper and the person accompanying is important and the shopper may feel relaxed while indulging in Impulse Buying. The comfort shared with the people in the innermost reference group may be one of the reasons for this hence retailers need to provide ambience that will make the shopper comfortable. Retailers who offer a full range of products for the entire family should promote the fact the store is a venue for the entire family to have fun and spend some good time together. This would encourage shoppers to shop with their entire family and thereby increase chances of them indulging in Impulse Buying. In terms of family status, 'Singles' are likely to indulge in Impulse Buying when they shop with parents and siblings. Though it is likely that 'Singles' would be accompanied by friends on shopping trips, chance of Impulse Buying are high only when they shop with parents and siblings. In case of married respondents, they are likely to indulge in Impulse Buying when they shop with spouse and children again emphasising the fact that a store needs to have offerings or products for the entire family. This probably explains why stores offering full range of products like Big Bazaar are popular in India as they offer products for entire family thereby attracting the entire family and resulting in higher probability of occurrence of Impulse Buying

**Limitations of the study & Future areas of research**

The study looks at the phenomenon of Impulse Buying while shopping with family and friends. However it does not look at the type of influence exerted by these people on the shopper. Future research can explore as to what type of influence viz. Informative, Comparative or Normative influence is exerted by the person accompanying the shopper. In addition to this it is possible that Impulse Buying happens not only for the

respondents but also for the person accompanying him or her during shopping. In addition to studying Impulse Buying for 'self' it would be interesting to study the extent of Impulse buying for family and friends when they accompany the shopper during shopping trip. So in addition to studying impact of person accompanying, future research can also look at Impulse Buying for person accompanying shopping. For the purpose of this study, siblings included cousins as well. This could be one of the limitations of the study because the relationship shared with own siblings and cousin might vary and hence the results of Impulse Buying while shopping with them may also vary. Further the age of siblings may also play an important role. Do siblings elder than the respondent has a different impact on Impulse Buying decisions than younger siblings? These could be some areas that future research can look in.

**Annexure**

Annexure No.1: List of cities selected for data collection and number of respondents from each city

Name of the city	Category as per Le Salle Meghraj Jones Report	Zone	No. of respondents
Chandigarh	High Growth city	North	242
Varanasi	Nascent city	North	270
Jamshedpur	Emerging city	East	258
Guwahati	Nascent city	East	255
Mumbai	Maturing city	West	210
Baroda	High Growth city	West	249
Chennai	Transitional city	South	279
Vizag	Emerging city	South	269

Annexure No.2: Buying Impulsiveness Scale by Rook & Fisher

1. I often buy things spontaneously
2. "Just do it" describes the way I buy things
3. I often buy things without thinking
4. "I see it, I buy it" describes me.
5. "Buy now, Think about it later"



- describes me
6. Sometimes I feel like buying things on the spur of the moment
  7. I buy things according to how I feel at the moment
  8. I carefully buy most of my purchases
  9. Sometimes I am a bit reckless about what I buy

Item No.8 is reverse coded

Annexure No. 3: Reliability of Buying Impulsiveness Scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.802	0.802	9

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## An empirical study of service quality of Public road transportation companies in Ahmednagar city of Maharashtra (INDIA)

**Mr. Rajendra Kisansing Pardeshi**

Associate Professor & Research scholar (University of Pune)

IBMRD, Ahmednagar (MS.) India.

E-mail id : kavirajthakur@yahoo.co.in

**Dr. Meera Kulkarni**

Professor & Research Guide (University of Pune)

IMSCD&R, Ahmednagar (MS.) India.

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### Abstract

*Every organization is service organization today. Service Today service quality become more vital than ever before because service providers have realised that they have to provide customer-perceived value, if they want to stay in business. As global competition increases, customers have more varieties to choose from and of course service quality will become their priority when spending their (customers) money, especially as they try to maximize the value in return as well as satisfaction for every unit of money spent. However, to achieve service quality, we must be able to measure it so that improvements required can be determined and made. In this regard, the SERVQUAL instrument is one of the tools used today in order to measure service quality. In this paper, we used the public transportation company specifically AMT and MSRTC as a base to determine the effectiveness of SERVQUAL in measuring service quality. We used the SERVQUAL instrument to measure the Gaps in different areas of the service in public transportation. We described the SERVQUAL instrument and stressed its importance and appropriateness in measuring service quality. Through this instrument, we were able to determine the level of perceived service performance of the bus companies and then used these measurements to determine the Gaps in each area of the service. The difference between the service performance (perceived service quality) and the highest quality improvements the customer still expects from the company on that particular area of service. It must be noted that if service quality is low, it might trigger a customer complaint behavior.*

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**Key words:** Service quality, Transportation, SERVQUAL model, MSRTC, AMT

### Introduction

Today customers demand greater quality and so public transportation which is vital to

the economic sustainability of many cities and nations is now under pressure for better services in order to meet customer

expectations. In many cities in the world they were monopolies but today new and alternative forms of transportation has led to the emergence of rivalry in the industry and alternative modes of transportation in the city has transformed the markets in which transport companies operate (from monopolistic market structures to competitive market structures). Rising oil prices has also led to an increase in the usage of these public transportation services to the extent that overcrowding and the comfort of passengers have declined.

In order to become customer focused, companies must set in place a measurement system that includes the voice of the customer. SERVQUAL is a measuring tool developed by Parasuraman et al. (1985), aimed at measuring service quality. SERVQUAL approach according to Parasuraman et al. (1985) is based on the assumption that service quality is the difference between expectation of the customer and the actual service performance of the service being consumed. In this regard, SERVQUAL conforms to the definition of services as postulated by many recent scholars like Edward Deming (1986, P5) who emphasized that “quality should be aimed at the needs of the customer, present and future”. Generally service quality in this sector (public transportation) was rare or unheard of probably because they were monopolies and were owned by the state all these measures greatly impact the service quality in the transportation industry including bus service companies and these measures are clearly reflected in our questionnaire.

Therefore, the goal of this paper is to reveal the effectiveness of SERVQUAL in measuring service quality and also reveal how technology is increasingly playing a vital role in boosting customer satisfaction in services by using Ahmednagar City buses and MSRTC bus companies (public transportation) as an example on which we base our facts. In order

to do this, we developed a questionnaire based on the SERVQUAL framework. The questionnaire was used to interview several customers of these bus companies and the result was used to determine the level of service quality as perceived by the customers. We went further to compare the results with those of the results from the companies and noticed that they were very similar. In addition, the questionnaire was designed in such a way that it had controlled questions and we noticed the areas in public transportation that affects customers. Perception of quality was effectively captured or identified by this questionnaire due to the SERVQUAL framework. In addition, we also noticed that technology boosted customer satisfaction and the areas of the service process that made use of technology had greater satisfaction if and only if the technology was reliable and easy to use. However, we also noticed that, if the technology failed to function as expected, customer satisfaction greatly suffered, hence service quality. This the reason why in this paper we want to prove that SERVQUAL is an effective instrument in measuring service quality of services as perceived by the customer.

## **2 Literature Review**

### **2.1 SERVQUAL Measurement tool for service quality**

SERVQUAL is a 22-item instrument that includes the five service dimensions of tangibles, reliability, responsiveness, assurance, and empathy. Parasuraman et al. (1985, 1988, 1991) postulated that the SERVQUAL items represented “core evaluation criteria that transcend specific companies and industries, providing a basic skeleton underlying service quality that can be supplemented with context-specific items when necessary” (Masood et al, 2003; 2004, p.819). Some authors have even described the idea of trying to measure service quality as an

illusion. This is because of the intangibility, heterogeneity and inseparability characteristics of service industry outputs (Parasuraman et al., 1985, 1988; Lewis, 1994). This also partly due to the fact that “the characteristics of service quality are not objective, but subjective for each customer. As a consequence, major efforts have been taken to conceptualise service quality” (Bruhn & Georgi, 2006, p.11). The best known model in this context is the so-called GAP model of service quality that explains the determination of service quality as the gap between service expectations and perceptions by four internal gaps (Parasuraman et al. 1985). The widely known measurement instrument based on the Five GAP model is the SERVQUAL approach that measures service quality using 22 items that are associated with the five service quality dimensions: tangibles, reliability, responsiveness, assurance and empathy (Parasuraman et al. 1988). The Five-GAP model was originally four gaps and according to the model, service quality is not attained if there is a gap between:-

- GAP-1: Customer expectations and management's perceptions of these expectations.
- GAP-2: Management's perceptions of customers. expectations and the defined service specifications.
- GAP-3: The defined service specifications and the delivered service.
- GAP-4: The communicated service and the delivered service.

“The above four gaps concern the causes of poor service quality in the way the organization is managed” (Chau & Kao, 2009, p.110).

- GAP-5: The difference between customer's expectations and service performance or perception.

GAP-5 measures the user quality. The five dimensions (reliability, responsiveness, assurance, empathy and tangibles) are

“recognizable in the SERVQUAL literature as gap-5” (Chau & Kao, 2009, p.110). Therefore it is very customer oriented as it captures the customer's perceived value of the service being offered. “Gap-5 depends on the size and direction of the four disconfirmations associated with the delivery of service quality on the marketer's side” (Chau & Kao, 2009, p.110).

Therefore, it is evident that service quality is an integral part of the SERVQUAL instrument. Many researchers and studies have acknowledged the fact that high quality service is essential for firms that want to be successful in their business (Parasuraman et al., 1988; Rust and Oliver, 1994). This is because high service quality leads to customer loyalty (Lewis, 1994), higher profitability (Gundersen et al., 1996) and lower cost (Grant, 1998). This will lead to higher competitive advantage for the service company.

However, SERVQUAL has several limitations (Asubonteng, McCleary, and Swan 1996; Buttle 1996). First, SERVQUAL measures are essentially generic rather than industry-specific. The five dimensions and twenty-two items cannot cover all the industry-specific service areas. Second, SERVQUAL measures focus on the quality of the service process, neglecting that of the service outcome. Third, the measures do not include service costs, which are one of the most important determinants of service value. Finally, the SERVQUAL model is built upon an assumption of multi-attribute evaluations; thus, it does not capture categorical product or service judgements made on the basis of product cues or service incidents (Fiske and Pavelchak 1986; Sujun 1985).

## **2.2 The five dimensions of SERVQUAL**

The five dimensions (reliability, responsiveness, assurance, empathy and tangibles) of the SERVQUAL instrument can be found in GAP-5 and when measured, the

difference between customer expectation (the importance) and perceived service (performance) can be determined. Below is a brief description of the items in SERVQUAL by Parasuramam et al. (1994, p.207).

#### **Reliability**

- Providing services as promised.
- Dependability in handling the customers. service problems.
- Performing services right the first time
- Providing services at the promised time
- Maintaining error-free records

#### **Responsiveness**

- Keeping customers informed about when services will be performed.
- Prompt service to customers
- Willingness to help customers
- Readiness to respond to customers. requests

#### **Assurance**

- Employees who instill confidence in customers
- Making customers feel safe in their transactions
- Employees who are consistently courteous
- Employees who have the knowledge to answer customer questions

#### **Empathy**

- Giving customers individual attention
- Employees who deal with customers in caring fashion
- Having the customers. best interest at heart
- Employees who understand the needs of their customers
- Convenient business hours

#### **Tangibles**

- Modern equipment
- Visually appealing facilities
- Employees who have a neat, professional appearance
- Visually appealing materials associated with the service.

### **3 Methodologies**

The research methodology used was both qualitative and quantitative. Our qualitative analysis is based on the research findings and results from scholars, practitioners and researchers. We used them in order to support our arguments. We also made use of journals and books as well as personal interviews conducted during our survey in order to develop our theory. We used qualitative analysis to explain the quantitative data from our questionnaire which was filled by the passengers of public transportation companies in Ahmednagar City in Maharashtra state of India.. We used both a judgmental and a random sampling method to select candidates for interview. We set clear criteria for selecting a candidate for interview, in order to ensure the fairness, relevance and accuracy of responses. We then used Microsoft Excel to analyse our data.

#### **3.1 Data Collection**

Our field research is about the main public bus companies in Ahmednagar (AMT city bus, MSRTC buses). Due to the fact that our research is about customer complaint behaviour in public transportation, we decided to use these companies as examples in order to determine the pattern of customer complaint behavior in public transportation. It was quite interesting to carry out this research because we live and study in the city of Ahmednagar and also use the services of these companies. We designed a questionnaire which we distributed to respondents as well as conducted personal interviews in order to obtain a more detailed and accurate feedback (Detailed interviews) from the respondents who were users of the services of these bus companies. We made sure that our sample size should be large enough so that the results from the sample can be extrapolated to the entire customer group of AMT Bus and MSRTC. We consider extrapolation to be very important in producing valid results.

### Sampling Process

Our sample was drawn from the population of Ahmednagar City. Based on the results from our sample, we want to be able to say with 95% confidence interval that the whole target customer base is acting, feeling, behaving or complaining about this industry in the same manner as the survey sample. We used the formula below in determining the sample size needed so that the survey results should be accurate at the 95% confidence level which literally means that the possibility of the results occurring by chance is 5 percent. According to Anton (1996, p.89) the formula to determine the sample size required is as follows:-

$$\text{Sample Size} = 2500 * N * (1.96)^2 / (25(N-1)) + (2500 * (1.96)^2)$$

- N: Total Population (Population of Ahmednagar City).
- (1.96): The confidence coefficient: Z-score.

The population of Ahmednagar(Municipal corporation) is @3,00,096 inhabitants (Population survey,2011). Based on the above formula, the minimum sample size required for this research should be 382 respondents determined as follows:-  $2500 * 3,00,096 * 3.8416 / 25(3,00,096 - 1) + (2500 * 3.8416) = 383.6$  respondents

### Sample Description

However, our sample was well above this minimum requirement by 223.4 (607- 383.6). Due to the fact that some respondents did not provide answers to all the questions in the questionnaire, the number of respondents who answered some questions could be lower than 607. To ensure that our sample actually included the customer base of AMT Bus Company and MSRTC, we focused on people who actually use the public transportation. We did not hand in questionnaires to people who had not used the services of the companies in the last 3 months (We included only those people who had used the bus companies

within the last 3 months from the day we interviewed them). Therefore our qualification question or criteria for selecting respondents were as follows:-

- Active user: Respondent should be a regular user of AMT Bus or MSRTC
- Passive user: If the respondent is not an active user, he should have used the Bus companies in question at least once in the last three months (From the date of interview).
- Balance in gender proportion.

Based on the criteria above, the sampling method used in this survey is judgmental sampling method and random sampling because some of the observations were selected based on our judgments, intuition and discretion influenced by the criteria above. In places such as the college/ Institutes, where majority were students, we made a random sample ensuring that all the students had equal chances of being in the sample. However, before handing them the questionnaire, we made sure that they use the public transportation (AMT Bus and MSRTC). We interviewed and conducted our field survey over a period of three months so that we could increase the chances of meeting/interviewing different people from different backgrounds and with different demographic and socio-economic characteristics.

In order to ensure that our sample included a wide range of respondents with different demographic and socio-economic characteristics, we made sure that there was no wide discrepancy between the proportion of male and female. We also made sure that our sample included people of all age groups who use the public transport in Ahmednagar. In addition, we interviewed people who were students as well as fully employed so that the respondents should have a wide distribution of income. We also interviewed students as well as people in different parts of the city like Parks and shopping centers like Big Bazaar Mall where we knew that there is a high

chance of interviewing people with higher income levels. We also interviewed passengers in the bus to be sure that they were users of public buses as well as meet those people who are living in the outskirts of Ahmednagar city (Locality/Urban area).

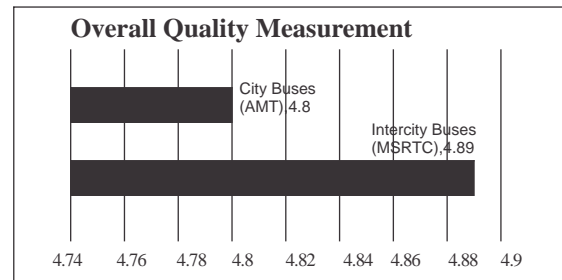
#### 4 Data Analysis

Data from the questionnaire will be analysed in 4 steps in order to ensure clarity, coherency and accuracy. Step 1; Analysis of data of questions formulated within the framework of SERVQUAL dimensions in section 1 of the questionnaire and Step 2; Analysis of Real Incident questions and the Irritating questions in section 4.

Step 1; Analysis of data of questions formulated within the framework of SERVQUAL dimensions in section 1 of the questionnaire In this step, we shall analyse the data in the SERVQUAL section of the questionnaire measuring service quality in Ahmednagar City buses and intercity buses (MSRTC). For easier analysis, city buses are referred to as business level 1 and intercity buses are referred to as business level 2. This will facilitate the differentiation between these business levels and industry level in the next chapters):-

The first section is designed within the framework of SERVQUAL and it measures the service quality of the Bus Companies in Ahmednagar (AMT City Bus and MSRTC ) and the difference between the customers. Evaluation of performance and his expectations would be used to determine the level of complaint motivation. The questions in this section were designed within the framework of SERVQUAL instrument. They were subjected to minor wording modification and addition of some items (measures) that were relevant to the public bus passenger sector in order to suit the industry. This section of the questionnaire is based on SERVQUAL and had a total of 24 questions. The graph below shows the overall service quality (service performance) evaluation of

City Buses (business level 1) and Intercity Buses (business level 2) based on the evaluation of all respondents (607). Business Level 1 will be abbreviated as B1 and business level 2 as B2. This measurement was done on the basis of SERVQUAL dimensions.



Graph 1: Perceived Service Performance (Service Quality) of city buses\*(AMT) and intercity buses (MSRTC)

The average of all five dimensions gave us an overall measure of service performance as perceived by the customers. Base on these figures, we could determine the Gap-5 of the overall service performance of the bus companies and then determine the level of overall satisfaction. Base on 77% (467) of respondents the overall service performance of intercity buses (B2) was 4.89 out of 7 maximum points. This implies that the overall service performance (satisfaction) was rated 69.86% ( $4.89/7*100$ ). Therefore Gap-5 is 2.11 ( $7 - 4.89$ ) which is 30.14% ( $2.11/7*100$ ). Base on 98% (595) of respondents the overall service performance of City Buses (B1) was 4.8 out of 7 maximum points. This implies that overall service performance (satisfaction) was rated 68.57% ( $4.8/7*100$ ). Therefore Gap-5 is 2.20 ( $7 - 4.8$ ) which is 31.43% ( $2.2/7*100$ ).

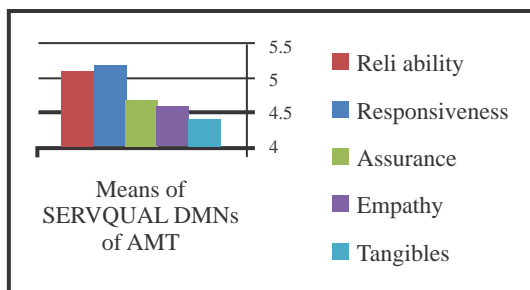
Therefore, the size of Gap-5 for B1 is larger, indicating that more customers are dissatisfied (less satisfied) as compared B2 whose size of Gap-5 is smaller indicating less dissatisfaction (more satisfaction) when compared with B1. This implies that we should expect more complaints and lower service quality in this research to come from the B1. However, it must be noted that more



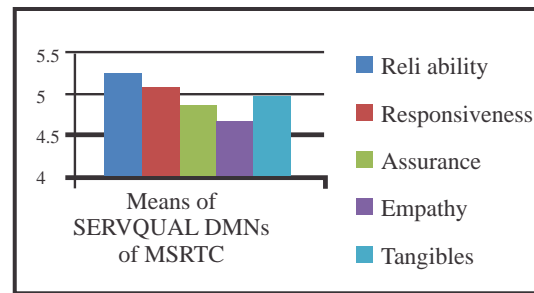
respondents participated in the evaluation of the perceived service performance of B1 (98%) than in B2 (77%).

Due to the fact that the perceived service performance of B2 was rated 4.89 and for B1 4.8 implies that the customers believe that the service performance of both companies are between sufficient and good (Scale 4 = sufficient and Scale 5 = Good), which when rounded up to 5 could be considered good. However, these customers believe that these bus companies could still do more in order to meet their expectation (Scale 7 = Excellent). The Gaps indicate that there are certain elements of the service that still needs improvement and these elements could be considered as the sources of dissatisfaction or low service quality. Therefore, in this section as mentioned before, we calculated the gap-5 values of each item. For each of the dimensions, an average of its individual items gap-5 figures was calculated to give a final value for that dimension.

The Five Dimensions of SERVQUAL (Mean Analysis of Quality dimensions) The graph 2a below shows the ratings of AMT City Bus service performance (service quality) according to the five dimensions as perceived by the customers. These scores could be interpreted as the level of customer satisfaction according to the five dimensions.



Graph 2a: Means of service quality dimensions of Ahmednagar City buses



Graph 2b: Means of service quality dimensions of MSRTC

The graph 2b above shows the ratings of Intercity Buses service performance (service quality) according to the five dimensions and as perceived by the customers. These scores could be interpreted as the level of customer satisfaction according to the five dimensions. The smaller the size of Gap-5 for each dimension the higher the level of perceived service performance (satisfaction) it contributes to the overall service quality in public transportation (bus companies) and vice versa.

**The SERVQUAL dimensions for AMT buses (business level 1) scored the following points (ranked from highest to lowest):-**

Sr. No	Dimension	Gap score	% Gap score	GAP-5 %
1	Responsiveness	5.2	74.29	25.71
2	Reliability	5.1	72.86	27.14
3	Assurance	4.7	67.14	32.86
4	Tangibles	4.6	65.71	34.29
5	Empathy	4.4	62.86	37.14

**The SERVQUAL dimensions for MSRTC buses (business level 2) scored the following points (ranked from highest to lowest):-**

Sr. No	Dimension	Gap score	% Gap score	GAP-5 %
1	Reliability	5.15	73.57	26.43
2	Responsiveness	5.0	71.43	28.57
3	Tangibles	4.9	70	30
4	Assurance	4.8	68.57	31.49
5	Empathy	4.6	65.71	34.29

Gap-5 of the responsiveness dimension was smaller (25.71%) for business level 1 and in terms of satisfaction ranked first. In business level 2 Gap-5 was larger (28.57%) and ranked second. This implies that passengers are more satisfied with the degree of responsiveness of the services of business level 1 than of business level 2. Therefore, it is more likely that more complaints will come from the items of responsiveness dimension of intercity buses than from city buses. It must also be noted that the dimension responsiveness had a total of 8 questions (items) in our questionnaire and this may have contributed to it having a high ranking.

Gap-5 of the reliability dimension was smaller (26.43%) for intercity buses and in terms of satisfaction ranked first. In city buses Gap-5 was larger (27.14%) and ranked second. This implies that passengers are more satisfied with the level of reliability of the services of intercity buses than of city buses. Therefore, it is more likely that more complaints will come from the items of reliability dimension of B1 than from B2 because B2 has a higher level of perceived service quality, hence satisfaction.

Gap-5 of the assurance dimension was smaller (31.49%) for B2 and in terms of satisfaction ranked fourth. In B1 Gap-5 was larger (32.86%) and ranked third. This implies that passengers are more satisfied with the level of assurance of the services of B2 than of B1. Therefore, it is more likely that more complaints will come from the items of assurance dimension of B1 than from B2. Gap-5 of the tangible dimension was smaller (30%) for B2 and in terms of satisfaction ranked fourth. In B1 Gap-5 was larger (34.29%) and ranked third. This implies that passengers are more satisfied with the quality of tangibles of B2 than of B1. Therefore, it is more likely that more complaints will come from the items of tangible dimension of B1 than from B2.

Gap-5 of the empathy dimension was smaller (34.29%) for B2 and in terms of satisfaction

ranked fifth. In B1 Gap-5 was larger (37.14%) and also ranked fifth. This implies that passengers are more satisfied with the level of empathy in the services of B2 than of B1. Although empathy has the largest Gap-5 in both companies, it is more likely that more complaints will come from the items of empathy dimension of B1 than from B2. Therefore, empathy has a significant influence on service quality in public transportation. However, it must be noted that the dimension empathy had a total of two questions and this may have contributed to it having the lowest score.

## **5 Discussions**

This paper aims at proving that SERVQUAL is effective in measuring service quality and also the impact of technology on customer satisfaction. The questions in the SERVQUAL section of the questionnaire revealed interesting information which when compared to other customer feedback or complaints about the bus companies, one realizes that the areas with low service quality were those areas from which many customer complaints came from. It must be noted that in this thesis, the wider the Gap-5 of a question, the more likely will customer complaints come from that area and vice versa. For example, when comparing table 1 and table 2 above, it is evident that most complaints in both our survey and the complaints received by the management of the bus companies came from those areas of the service process that directly involves the employees that is areas of the service process that customers (passengers) can directly associate blame for the unfavorable service experience to an employee. This is due to the fact that services are intangible and therefore any failure or unfavorable experience will always be associated with the employee providing it. For example, in our survey, 33.33% of unfavorable service experience was due to lack of punctuality, 13.73% due to the

rudeness of the drivers, 9.8% because bus did not stop, 6.8% due to lack of drivers assistance and 0.98% due to eviction of a passenger from the bus. This makes a total of 64.64% of problems coming from areas of the service process in which a failure can be directly associated to an employee. In Table 2, complaints made by customers were 60% due to employees (driving too fast, service, did not stop), 12% due to lack of punctuality - (too late, too early) and 1% due to no travel guarantee - (very late). This makes a total of 72.8% of problems coming from areas of the service process in which a failure can be directly associated to an employee (frontline employees). Additional evidence to support this argument is that, if the questions and the dimensions are ranked at the industry level (from those with the highest level of satisfaction implying smallest Gap-5 to those with the lowest level of satisfaction implying largest Gap-5), one will realize that those areas of the service process which have a high involvement of employees or where employees and customers come in contact had a relatively lower perceived service quality, hence larger Gap-5 than those areas of the service that made use of self service through technology. View ranking below and explanation after that:-

Sr. No.	Question No.	GAP (%)	GAP 5 (%)	Dimensions
1	1	79.5	20.6	Responsiveness
2	1	78.5	21.5	Assurance
3	8	78.3	21.7	Responsiveness
4	5	76.5	23.5	Responsiveness
5	1	75.5	24.5	Reliability
6	2	73.7	26.3	Responsiveness
7	3	73.5	26.5	Reliability
8	4	73.4	26.6	Reliability
9	1	72.2	27.7	Tangible
10	4	71.9	28.1	Tangible
11	2	71.2	28.8	Reliability
12	6	71.0	29.0	Responsiveness
13	4	77.7	29.3	Responsiveness
14	2	69.5	30.5	Assurance
15	3	68.3	31.7	Assurance
16	3	65.9	34.1	Tangible
17	1	65.6	34.4	Empathy
18	7	65.2	34.8	Responsiveness
19	2	62.8	37.2	Tangible
20	2	62.6	37.4	Empathy
21	3	62.2	37.8	Responsiveness
22	4	57.2	42.8	Assurance

The mean (average) of Gap-5s at industry level is 29.8% (654.1%/22) and the median is 28.4 (28.1% + 28.8%/2). Based on this mean, we can see that Gap-5 of 9 questions is larger than the mean or average (29.8%) of all the Gaps. It is worth noting that 5 out of these 9 questions measure perceived service quality in areas of the service process which directly involve the employees that is customers can directly associate the failures or shortage of quality to the frontline employees. Based on the median, the Gap-5 of 11 questions is larger than the median (28.4%) and 7 out of these 11 questions measure perceived service quality in areas of the service process which directly involves the employees. This supports the reasons why most of the complaints received by the company management as well from our survey came from the areas which involved the employees (See table 1 and 2). The dimension empathy (which indicates the extent to which employees instill confidence in customers) in both business levels had the largest Gap-5 (37.4%: Business level 1 and 34.4%: Business level 2 respectively). Therefore, from the SERVQUAL section of the questionnaire, we can conclude that service quality in public transportation is highly influenced by the performance of the employees. Therefore, service providers should ensure that frontline employees are well trained. This will reduce the Gap-5s in these areas of the service, thus improving the overall service performance.

The Gap-5 of questions measuring perceived service quality based on the use of technology reveals that the level of customer satisfaction is high in areas of the service process that involves the use of technology. For example, question 1(Assurance) and question 4 (Reliability).

Question 1(Assurance): Do you feel safe using the bus Travel as you like/discount cards? This question had a Gap-5 of 21.5% and a perceived service quality of 78.5% ranking second compared to all other questions the SERVQUAL instrument. Its

Gap-5 is smaller than the mean by 8.3% and by the median by 6.9% indicating high levels of customer satisfaction. The bus Travel as you like/discount cards enable passengers to pay for their trips without coming in contact with an employee. In addition, fares are lower when paid using the Travel as you like/discount cards than when paid directly to the conductor.. This discount increases customer satisfaction. In addition, time is also saved because the payment process is shorter when using Travel as you like/discount cards. Technology creates the opportunity co-production which in return reduces cost and increases customer satisfaction.

Question 4 (Reliability): Are the bus reservations and bookings reliable? This question had a Gap-5 of 26.6% and a perceived service quality of 73.4% ranking eighth compared to all other questions in the SERVQUAL instrument. Its Gap-5 is smaller than the mean by 3.2% and by the median by 1.8% indicating high levels of customer satisfaction. This is because, especially in the intercity buses, the bookings are done through telephone / mobile and they are usually cheaper and allow customers to book for their travels well in advance of the travelling date. Moreover, changes in bookings could be made with minimal charges. Many respondents were particularly happy about the fact that a booking telephonically done ,was cheaper and faster and could be done any time. However, although technology contributes significantly to customer satisfaction, our survey also revealed that if it is not reliable (technical equipments function smoothly and are easy to use) customer satisfaction will be very low. This is because the card punching machines which are used in reading the charge cards are usually not functioning. The company management said that they are aware of this particular problem and are currently replacing the old machines with new ones.

Another evidence to show that SERVQUAL

is effective in measuring service quality is the analysis of the irritating questions. Most passengers were 72.71% that they would be very irritated if a bus leaves early, hence may likely complaint. If this information is compared to the complaints made by customers in our survey, one realises that 33.33% and this was the highest amount complaints received. The second most irritating factor for respondents was late arrival and they were 65.14% certain that this will irritate them and even force them to complain. On table 1 punctuality which includes late arrivals ranked first in terms of number of complaints made by respondents indicating that this survey including SERVQUAL is effective in measuring service quality. In addition, 12% of the complaints received by the management of the companies were due to lack of punctuality and this ranked second in terms of number of complaints.

## **6 Managerial implications**

This section offers proposals on what management should do in response to the results of this survey and the impact on service quality.

### **6.1 Employees**

The results obtained from SERVQUAL instrument in the first part of our survey reveals that the areas of the service process whereby the failures could be directly associated with an employee scored the lowest points in perceived service performance or customer satisfaction. This is an indication that employees are partly responsible for the poor services in public transportation.

### **6.2 Technology**

It has a triple positive effect on services because it reduces cost, increases customer satisfaction through co-creation and co-production and finally it relieves the employees from the burden of some tasks and enables them to focus on other vital tasks in the service process. Our survey revealed that

customer satisfaction is higher in those service processes where technology is used. Moreover, information and communication technology has an immense data gathering potential which when analysed, can be used to respond to customer complaints cost efficiently and effectively. Information from these data can be used to improve service design. In addition, it can also enhance customer relationship management (CRM), thereby improving the relationship between the service provider and the customer. Some information and communication technology even provide platforms for dialogical interaction between the service provider and the customer, thereby making it possible for the advantages of viewing customer complaint behavior from the service dominant logic perspective to be realised.

## 7. Conclusions

Effectiveness of SERVQUAL in measuring service quality  
SERVQUAL has the ability to capture all dimensions within the service. Our survey has revealed to us that employees are a source of service failure and customer dissatisfaction. Therefore, employees should be equipped with the tools especially technology that will enhance their performance. In addition, coproduction also enhances service quality and customer satisfaction. Since coproduction has been made possible through the advancement of technology, service providers should invest more in self service technologies to boost service quality and customer satisfaction. Employees should also play a vital role in encouraging customer complaints so that this information should be used to improve service quality which is the key to success and complete advantage. This research describes the various complaint channels, complaint barriers and triggers according to customer's personal characteristics and socio-economic background. By identifying and

understanding the personal characteristics and socio-economic factors of your customers, service providers would be able to allocate their resources more effectively and efficiently to boost customer complaint. This information can be useful in service design and service recovery.

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## A Study to examine India's Trade Dynamics and International Trade

**Ms. Priti Bakhshi**

Faculty Finance at Jaipuria Institute of Management,  
Dakachya, Indore-Dewas Highway, Indore,  
E-mail:- pritibakhshi@gmail.com

**Dr. Ganesh Kawadia**

Head & Professor at School of Economics,  
DAVV, Takshila Campus, Indore,  
E-mail:- ganesh.kawadia@yahoo.com

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### Abstract

*International trade is exchange of capital, goods, and services across international borders / territories. In recent times, Trade evolution is significant in case of India being fourth largest economy of the world. The main objectives of study are to examine Trade Dynamics of India and to study the shift in trade patterns of India. The secondary data collected from the various sources are analyzed with the help of various statistical tools like Export Volume Index; Import Volume Index; Degree Of Trade Openness; Gross Barter Terms Of Trade; Growth Rate Using Semi Log Regression Model; Trade Shift Using Dummy Regression Model Etc.*

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**Key words:** International Trade, Exports, Imports, Growth rate in international trade, Trade Shift

### Introduction

International Trade

International trade is exchange of capital, goods, and services across international borders or territories. In most countries, it represents a significant portion of gross domestic product (GDP). While international trade has been present throughout much of history, its economic, social, and political importance has been on the rise in recent times due to Trade Dynamics. International trade is the fortitude of our modern, commercial world, as producers in various nations try to profit from an expanded market, rather than be limited to selling within their own borders.

### The Trade Evolution

Over a period of time, there are profound structural changes in the whole economic

system of a country. There is a significant evolution in trade. Earlier it was only in primary products having comparative advantage but now it has moved to secondary as well as tertiary sectors; in traditional era, it was mainly between neighbouring countries but now it is with any country in any corner of the world; earlier there was movement of goods only but now it is not restricted to goods but it covers movement of goods, services, capital, people, technology, FDI etc.

### India

India is the fourth largest economy of the world on the basis of Purchasing Power Parity. It is one of the most attractive destinations for business and investment opportunities due to huge manpower base, diversified natural resources and strong macro-economic

fundamentals. Also, the process of economic reforms initiated since 1991 has been providing an investor-friendly environment through a liberalised policy framework spanning the whole economy.

Since the early 1990s, India has embarked on a process of economic reform and progressive integration with the global economy to put it on a path of growth. India is changing rapidly, its democracy is more vibrant than ever and most analysts see India moving rapidly ahead, hence, it is increasingly regarded as an important international player on most global issues.

### **I. Review of Literature**

The Ricardian theory of trade focuses on comparative advantage, perhaps the most important concept in international trade theory. In a Ricardian model, countries specialize in producing what they produce best. Ricardian model does not directly consider factor endowments, such as the relative amounts of labor and capital within a country. Adam Smith, another classical economist, with the use of principle of absolute advantage demonstrated that a country could benefit from trade, if it has the least absolute cost of production of goods, i.e. per unit input yields a higher volume of output. Heckscher-Ohlin theory of factor proportions, emerged by two Swedish economists, Eli Heckscher and Bertil Ohlin in the early stresses that countries should produce and export goods that require resources (factors) that are abundant and import goods that require resources in short supply. This theory differs from the theories of comparative advantage and absolute advantage since those theories focus on the productivity of the production process for a particular good. On the contrary, the Heckscher-Ohlin theory states that a country should specialize production and export using the factors that are most abundant, and thus the cheapest. New Trade Theory tries to explain empirical elements of trade that comparative advantage-based models above

have difficulty with. These include the fact that most trade is between countries with similar factor endowment and productivity levels, and the large amount of multinational production (i.e. foreign direct investment) which exists. New Trade theories are often based on assumptions like monopolistic competition and increasing returns to scale. One result of these theories is the home-market effect, which asserts that, if an industry tends to cluster in one location because of returns to scale and if that industry has high transportation costs, the industry will be located in the country with most of its demand to minimize. Inspired by Piero Sraffa, a new strand of trade theory emerged and was named neo-Ricardian trade theory. The main contributors include Ian Steedman (1941-) and Stanley Metcalfe (1946-). They focus on the notion of capital as primary factor has no method of measuring it before the determination of profit rate (thus trapped in a logical vicious circle). In contrast with the traditional international trade theories, evidence says that now a days, the largest share of world takes place in intermediate goods, and final consumer goods sold in one country are often the assembly of components processed in many different countries.

According to Sanna-Randaccio (1996), "the major effects of economic integration are due to foreign direct investment which leads to industrial restructuring". As it is pointed out by Goldberg and Klein (1999), the amount of international trade undertaken by a country is often considered as a proxy for its degree of openness, but the focusing on trade may be misleading when international capital flows are significant. The study of international linkages among different countries requires, therefore, the analysis of both trade and FDI.

In 1947, the formation of General Agreement on Tariffs and Trade (GATT) marked a significant step to boost global trade but its role was taken over by the World Trade Organization (WTO) in 1995.

Sunil Khilnani analyses what role India could



play in the emerging uncertain global order. According to him, although the conventional indices of power may not be India's strength, it could still play a unique “bridging role” between the various competing forces, based on its accumulated strengths.

Parag Khanna delves into the subject of the role 'India's Diasporic Community' could play in enhancing regard and respect for their country of origin. Globalisation and technology have helped forge close links within the community and with India. Their role as potential “diplomatic force multipliers” is a new phenomenon, one that India watches with interest. Prasenjit K. Basu analyses the potential of India's economic progress in the coming decades. He is optimistic and has reasons to be so with faith firmly placed in the “stealth miracle”, fuelled by achievements in education, demographic dividend, sound financial system, growing services exports and a more sustainable buoyant manufacturing sector.

**I. RESEARCH GAP & OBJECTIVE**

Most of the studies or research done so far either talks about benefits of International Trade or they talk about comparative advantage. Therefore, the main objectives of study are:

- To examine Trade Dynamics of India.
- To study the shift in trade patterns of India.

**II. RESEARCH METHODOLOGY**

**Hypothesis formulated for the study**

For the effectiveness of study, following hypothesis is formulated:

- There is a change in India's Trade pattern since liberalization.

**Data Collection**

The study is based on secondary data collected from various published and unpublished sources. The entire research involves an extensive and intensive review of various books, working papers, scholarly articles and articles published in various journals, newspaper and periodicals. The main data sources used in the study are:

- I) IMF material about India: [www.imf.org/external/country/ind/index.htm](http://www.imf.org/external/country/ind/index.htm)
- ii) India Trade Statistics: [www.commerce.nic.in/tradestats/indiatrade.asp](http://www.commerce.nic.in/tradestats/indiatrade.asp)
- iii) Official website of Indian Government: [http://business.gov.in/trade/trade\\_stat.php](http://business.gov.in/trade/trade_stat.php)

**Research Tools**

The secondary data collected from the various sources are analyzed with the help of various statistical tools as applicable.

The following is the list of the various tools/concepts used in the study:

- I. Export & Import Volume Index
- II. Degree Of Trade Openness
- III. Gross Barter Terms Of Trade
- IV. Growth Rate Of Exports & Imports Using Semi Log Regression Model.
- Trade Shift In India's Exports & Imports Using Multiple Linear Regression Equation With Dummy Variable.

**Scope Of Study**

The scope of study is limited to India and data is collected from 1971 till December, 2010.

**I. Major Trade Blocs In The World**

**India's Trade With Main Partners**

India's trade with main partners is shown in the following table:

**Table A: India's Trade With Main Partner**

Partner regions	Mio euro	%
ACP	16,704.20	5.70%
Andean Community	778.2	0.30%
ASEAN	28,165.00	9.60%
BRIC	34,587.00	11.80%
CACM	377.4	0.10%
Candidate Countries	1,664.80	0.60%
CIS6,	146.60	2.10%
EFTA	7,315.20	2.50%
Latin American Countries	10,280.20	3.50%
MEDA (excl EU and Turkey)	7,670.20	2.60%
Mercosur	4,773.80	1.60%
NAFTA	31,524.50	10.80%

Source: IMF (Dots) 15/09/2010 DG Trade

For better understanding of India's trade with the main partners, percentage of trade is computed. On analysing India's trade with main partners, it can be inferred that India's

trade with BRIC and Nafta is maximum i.e. it mainly trades with Brazil, Russia, China, North America, Canada & Mexico through various trade agreements.

This table does not include EU mainly because India – European Union has not yet signed Free Trade agreement.

**India's Trade With The World – Country Wise**

India's Trade with the world – Country wise is shown in the following table:

**Table B: Percentage Analysis Of India's Trade With The World – Country Wise**

Rank	Partners	Trade in Mio eur	o%
1	EU27	53,353.00	18.20%
2	United States	27,369.60	9.30%
3	China	26,470.30	9.00%
4	United Arab Emirates	24,173.40	8.30%
5	Saudi Arabia	12,889.40	4.40%
6	Singapore	10,983.60	3.80%
7	Australia	10,202.60	3.50%
8	Hong Kong	9,749.50	3.30%
9	Iran	7,515.80	2.60%
10	Japan	7,415.00	2.50%
11	Rest	1,02,730.60	64.90%
	World (all countries)	2,92,852.80	100.00%

Source: European Union: 27 members. DG TRADE 9/15/2010

For better understanding of India's trade with the world and different countries, percentage of trade with each is computed. It is found that EU27 is the major Trade partner for India. EU's rank is at number 1 in trade with India. Trade with EU is almost equal to trade with US and China together. Trade with the EU represents almost 18.20% of India's exports and imports and the EU thus as a bloc can be said as India's largest trading partner. India's Trade with EU27 is more than trade with all the SAARC countries together.

**India's Trade Dynamics**

**a) TRADE EVOLUTION IN INDIA:**

Indian trade policy was extremely protectionist in the years 1950-1975. From the mid-1970s onwards there was a period of partial and

intermittent liberalization with an accelerating trend during the 1980s. Till early 1990s, India was a relatively closed economy. In 1991, the country embarked on a series of major trade reforms, progressively cutting tariff- and non-tariff barriers, phasing out quantitative restrictions, and easing limitations on the entry of foreign investment.

**b) INDIA'S EMERGENCE AS AN INTERNATIONAL INVESTOR:**

Since 1991, continuing economic liberalisation has moved the economy towards a market based system. A revival of economic reforms and better economic policy in 2000s accelerated India's economic growth rate. The country's openness to international trade has more than trebled since the late 1980s, and its economy has been expanding at an astounding pace, second only to the People's Republic of China (PRC) (World Bank 2008). The economy of India is the 12<sup>th</sup> largest economy in the world by market exchange rates and the 4<sup>th</sup> largest by purchasing power parity (PPP).

**c) INDIA'S TRADE DYNAMICS:**

India is opening its economy since 1991 and trade dynamics can be studied with the help of following table:

**Table C.: India's Foreign Trade – Rupees (Rs. In Crores)**

Year	Exports	Imports	Trade Balance
	1535.3	1634.2	-99.0
1971-72	1608.2	1824.5	-216.4
1972-73	1971.5	1867.4	104.0
1973-74	2523.4	2955.4	-432.0
1974-75	3328.8	4518.8	-1190.0
1975-76	4036.3	5264.8	-1228.5
1976-77	5142.7	5073.8	68.9
1977-78	5407.9	6020.2	-612.4
1978-79	5726.1	6810.6	-1084.6
1979-80	6418.4	9142.6	-2724.2
1980-81	6710.7	12549.2	-5838.4
1981-82	7805.9	13607.6	-5801.7
1982-83	8803.4	14292.7	-5489.4
1983-84	9770.7	15831.5	-6060.8
1984-85	11743.7	17134.2	-5390.5
1985-86	10894.6	19657.7	-8763.1
1986-87	12452.0	20095.8	-7643.8
1987-88	15673.7	22243.7	-6570.1
1988-89	20231.5	28235.2	-8003.7
1989-90	27658.4	35328.4	-7669.9
1990-91	32557.6	43192.9	-10635.2
1991-92	44041.8	47850.8	-3809.0
1992-93	53688.3	63374.5	-9686.3
1993-94	69751.4	73101.0	-3349.6
1994-95	82674.1	89970.7	-7296.6

Year	Exports	Imports	Trade Balance
1995-96	106353.3	122678.1	-16324.8
1996-97	118817.1	138919.7	-20102.6
1997-98	130100.6	154176.3	-24075.7
1998-99	139753.1	178331.9	-38578.7
1999-00	159561.4	215236.5	-55675.1
2000-01	203571.0	230872.8	-27301.8
2001-02	209018.0	245199.7	-36181.8
2002-03	255137.3	297205.9	-42068.6
2003-04	293366.8	359107.7	-65740.9
2004-05	375339.5	501064.5	-125725.0
2005-06	456417.9	660408.9	-203991.0
2006-07	571779.3	840506.3	-268727.0
2007-08	655863.5	1012311.7	-356448.2

Source: Directorate General of Commercial Intelligence and Statistics.

It can be noticed from the above table that in 70's India was a closed Economy and has started becoming liberal since 1991 as imports, exports and balance of trade has increased continuously since 1970 but a very sharp rise can be seen since 1991.

Being a developing country, Balance of trade position for India is Unfavourable and Trade Balance is increasing continuously since 1971. Imports are more than Exports so trade balance is unfavourable.

### India's Exports

Using the above table, a detail analysis is made for India's Exports in the following manner:

#### Export Volume Index

It has been calculated by dividing the total exports by base year's value multiplied by 100. Here the base year selected as 1993 = 100 as the liberalization and globalization policies came into some movement in this year. More the Export Volume Index, more is the growth in exports.

For 1993, Export Volume Index comes out to be 2014.47 and for 1991 it is 940.3. On analysing the results, it can be said that there is a sharp rise in the Index. This indicates that Exports are increasing.

#### Growth Rate Of Exports

In order to analyse the trend of growth rates of India's Exports with member countries, we have estimated the regression model through semi log function for the period 1971 to 2008.

$$\text{Log } Y_t = \beta_1 + \beta_2 T + U_t$$

Where  $Y_t$  = dependent variable (India's Exports),  $T$  is the time period and  $\beta_1$  and  $\beta_2$  are the regression coefficient. The trend growth rate is calculated from the  $\beta_2$  parameter. The compound growth rate is calculated using the following formula:

$$\text{Growth Rate} = (\text{Antilog } \beta_2 - 1) * 100$$

TABLE D.: REGRESSION MODEL THROUGH SEMI LOG FUNCTION (EXPORTS)

$$\text{Log } Y_t = \beta_1 + \beta_2 T + U_t$$

Dependent Variable = Log (Exports)

Variables	Coefficients	Std. Error	T	Sig.	R <sup>2</sup>
Intercept	3.077	(0.026)*	119.788	0.000	0.991
Time	0.071	(0.001)*	61.820	0.000	

\* Indicates value to be significant at 1% level

\*\* The Compound Growth rate is estimated to be 17.76% for 1971-2008.

In the above table, we have worked out the Growth of India's exports with all the member countries; we have estimated the semi-log function with respect to time for the period 1971-2008. The coefficient of determination of the model is very good ( $R^2 = 0.991$ ). The time variable explains 99% variation in Indian Exports. The Coefficient of time is positive and highly significant, suggesting on an average 17.76% growth in India's Exports.

#### Trade Shift In India's Exports

In order to find out the period of acceleration or shift in India's Exports Multiple Linear Regression equation with Dummy Variable has been used. We have used the following equation to examine the shift in the intercept coefficient.

$$\text{Log } Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 D_t + U_t$$

Where  $\beta$ 's are regression Coefficient;  $\beta_3$  represents coefficient of Dummy variable which zero for the period prior to the shift and one otherwise. Thus model before shift and after shift will be as follows:

$$\text{Before Shift (D=0) } \text{Log } Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t}$$

$$\text{After Shift (D=1) } \text{Log } Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3$$

We have used ordinary least squares (OLS)

method to estimate the parameters of these regression models.

Table E: Dummy Regression Model (exports)

$$\text{Log } Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 D_t + U_t$$

Dependent Variable is Log (Exports)

Variables	Coefficients	Std. Error	T	Sig.	R <sup>2</sup>
Intercept	3.141	(0.023)*	138.943	0.000	0.997
Time	0.063	(0.002)*	37.169	0.000	
dummy91-92	0.201	(0.037)*	5.369	0.000	

\* Indicates value to be significant at 1% level  
The dummy variable which is qualitative in nature helps to estimate shift in India's Exports for the period 1971 to 2008.

Through the regression analysis the shift year is estimated to 1991-92 for which the Regression Coefficient is Positive and statistically significant. The coefficient of determination of the model is very good (R<sup>2</sup> = 0.997). It is examined that the major year for shift in India's Exports is 1991-92.

### India's Exports With Top Countries

Following table is used to study India's Exports with top countries:

Table F: India's Exports With Top Countries

India's Trade Basket	Exports in US \$ Bn
USA	20.7
UAE	15.6
China	10.8
Singapore	7.4
UK	6.7
HK	6.3
Netherland	5.2
Germany	5.1
Belgium	4.2
Italy	3.9

Source: Ministry of Commerce & Industry (2008)

On analysing the above table, it can be said that India Exports heavily to USA, UAE, China, Singapore, UK, HK, Netherland, Germany, Belgium & Italy. USA, UAE and China together accounts for more than 25% of trade.

### India's Exports In Main Products

Following table is used to study India's Exports in main products:

Table G: India's Exports In Main Products US \$ in Bn

Source: Ministry of Commerce & Industry

Exports	Product
Petroleum Prod	28.4
Gems & Jewellery	19.7
Machinery & Instrument	9.1
Pharma& Fine Chemicals	7.6
RMG Cotton	7.5
Manu. Of Metals	7.1
Transport Equipment	7
Iron Ore	5.8
Cotton Yarn & fabrics	4.7
Pri & Semi Final Iron & Steel	4.2

(2008)

On studying the Exports on the basis of composition/ products, we can say that India mainly exports Petroleum products, Gems & Jewellery, Machinery and Instruments, Pharma and fine chemicals, RMG Cotton, Manufactured metals, Transport Equipment, Iron ore, Cotton yarn and fabrics, and Primary and semi-final Iron & steel. India is known for exports of Gems and Jewellery.

### India's Imports

Using the above table, a detail analysis is made for India's Imports in the following manner:

#### Import Volume Index

It has been calculated by dividing the total imports by base year's value multiplied by 100. Here the base year selected as 1993 = 100 as the liberalization and globalization policies came into some movement. More the Import Volume Index, more is the growth in imports.

Import Volume Index comes out to be 2343.699 for 1991 and 1385 for 1993. On analysing the results, it can be said that there is a sharp rise in the Index since 1991 or 1993. This indicates that Imports of India are increasing.

### Growth Rate Of Imports

In order to analyse the trend of growth rates of India's Imports we have estimated the regression model through semi log function for the period 1971 to 2008.

Table H.: Regression Model Through Semi Log Function (imports)

$$\text{Log } Y_t = \beta_0 + \beta_1 T + U_t$$

Dependent Variable is Log (Imports)

Variables	Coefficients	Std. Error	T	Sig.	R <sup>2</sup>
Intercept	3.181	(0.023)*	139.349	0.000	0.993
Time	0.071	(0.001)*	70.012	0.000	

\* Indicates value to be significant at 1% level  
 \*\* The Compound Growth rate is estimated to be 17.76% for 1971-2008.

In the above table, we have worked out the Growth of India's Imports with all the member countries; we have estimated the semi-log function with respect to time for the period 1971-2008. The coefficient of determination of the model is very good (R<sup>2</sup> = 0.993). The time variable explains 99% variation in Indian Imports. The Coefficient of time is positive and highly significant, suggesting on an average 17.76% growth in India's Imports. It is thus obvious that India has increased its Imports of goods and services.

### Trade Shift In India's Imports

In order to analyse the period of shift in India's Imports we have estimated it through a Dummy Regression Model for the period 1971 to 2008.

Table I: Dummy Regression Model (IMPORTS)

$$\text{Log } y_{it} = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 D_t + U_{it}$$

Dependent Variable is Log (Imports)

Variables	Coefficients	Std. Error	T	Sig.	R <sup>2</sup>
Intercept	3.155	(0.020)*	158.721	0.000	0.995
Time	0.077	(0.002)*	47.443	0.000	
dummy86-87	-0.152	(0.036)*	-4.202	0.000	

\* Indicates value to be significant at 1% level  
 The dummy variable which is qualitative in nature helps to estimate shift in India's Imports for the period 1971 to 2008.

Through the regression analysis the shift year is estimated to 1986-87 for which the Regression Coefficient is Positive and statistically significant. It is examined that the major year for shift in India's Imports is 1986-87.

### India's Imports With Top Countries

Following table is used to study India's Imports with top ten countries:

Table J.: India's Imports With Top Countries

India's Trade Basket	Exports in US \$ Bn
China	27.1
USA	21
Saudi Arabia	19.4
UAE	13.5
Iran	10.9
Germany	9.9
Switzerland	9.8
Singapore	8.1
Australia	7.8
Kuwait	7.7

Source: Ministry of Commerce & Industry (2008)

India mainly imports from China, USA, Saudi Arabia, UAE, Iran, Germany, Switzerland, Singapore, Australia and Kuwait. Imports from China is to the extent of 27.1 \$ Bn. China, USA and Saudi Arabia together accounts for more than 25% of imports.

### India's Imports In Main Products

Following table is used to study and analyse Product Wise Imports of India:

Table K: India's Imports In Main Products Us \$ In Ban

Exports	Product
Petroleum Crude & Prod	79.6
Electronic Goods	20.7
Transport Equipment	20.1
Machinery	19.9
Gold	6.7
Iron & Steel	8.2
Pearls/Semi Prec. Stones	8
Mata lifer Ores & Scrap	7.9
Organic Chemical	7.2
Coal, Coke & Berg	6.4

Source: Ministry of Commerce & Industry (2008)

On analysing the Imports on the basis of products, we can say that India mainly imports Petroleum Crude, Electronic goods, Transport equipment, Machinery, Gold, Iron & Steel, Pearls & Semi precious stones, Met lifer ores & Scrap, Organic Chemicals, Coal, coke and briquettes. The main item of import is Petroleum Crude and we can say that India is heavily dependent on foreign countries for Crude Oil which is one the cause of Co2 emissions.

**India's Trade Position**

Using the above table, a detail analysis is made for India's Trade position in terms of Gross Barter, Degree of Trade openness, Trade in terms of Oil / Non-oil etc in the following manner:

**Gross Barter Terms Of Trade**

Terms of trade is also estimated through GB TOT (introduced by F W Tausig) which is a measure of the purchasing power of exports of the country in terms of its imports. It is a relation of Volume of Imports with volume of exports. The terms of trade of a country is taken as an indicator to measure the gains from trade. The Country's gains from trade reduce because of smaller quantity of imports in exchange for a given quantity of exports. If ratio is more than 1, terms of trade are unfavourable and vice versa. It is computed as 1.473. As GB TOT is more than 1, it can be said that terms of trade are unfavourable for India. Outflow of Foreign exchange is much more than Inflows.

**Degree of Trade Openness**

To check the Degree of trade openness for India, it is calculated by adding the Exports and Imports of goods and services divided by Gross Domestic Product and then multiplying by 100. Higher Degree of trade openness indicates openness of economy towards Exports and Imports.

India is becoming more and more liberal and is

no more a closed economy.

Table L: India's Imports, Exports and GDP (US\$ billions)

Year	2008
GDP	1,159.20
Exports	251
Imports	301

Source: Ministry of Commerce & Industry (2008)

Degree of openness for India is computed as 47.62%. It can be said that the Degree of openness for India was 47.62% for the year 2008.

**India's Foreign Trade –oil / Non Oil**

If we further bifurcate exports & imports into oil and non-oil, then we get:

Table M.: India's Foreign Trade –oil / Non Oil Rupees in Crores

Year	Export		Import		Balance of Trade	
	Oil	Non-oil	Oil	Non-oil	Oil	Non-oil
1971-72	10.5	1597.6	194.1	1630.4	-183.6	-32.8
1981-82	220.9	7585	5189.3	8418.3	-4968.3	-833.3
1990-91	937.8	31619.8	10816.1	32376.8	-9878.3	-756.9
2000-01	8541.7	195029	71496.5	159376	-62955	35653.1
2001-02	10106.6	198911	66769.9	178430	-56663	20481.5
2005-06	51532.8	404885	194640	465769	-143107	-60884
2006-07	84520.2	487259	258572	581935	-174052	-94675
2007-08	114192	541672	320655	691657	-206463	-149985
2008-09	123398	717357	419968	954468	-296570	-237111
2009-10	132616	712509	411579	944890	-278963	-232381

Source: Directorate General of Commercial Intelligence and Statistics.

It is found that there is a strong relationship between imports of oil and trade balance. More the imports of oil, more will be unfavourable trade balance. As imports of oil are increasing continuously and because of this, not only Trade balance of Oil is increasing but overall trade balance is also becoming unfavourable. We can say that our major imports include Oil which is not only affecting trade balance but is also a cause for increase in Co2 emission.

## India's Foreign Investment Inflow

To study India's Foreign Investment Inflow, following data is used:

Table N: India's Foreign Investment Inflow

Year	A. Direct investment			B. Portfolio investment			Total (A+B)	
	Rupees	US \$	%	Rupees	US \$	%	Rupees	US \$
	crore	Mn	x	crore	Mn	Y	crore	Mn
1	2	3	x	4	5	Y	6	7
1991-92	316	129	96.93	10	4	3.07	326	133
1993-94	1838	586	14.11	11188	3567	85.89	13026	4153
1995-96	7172	2144	43.83	9192	2748	56.17	16364	4892
1997-98	13220	3557	66.05	6794	1828	33.95	20014	5385
1999-00	9338	2155	41.59	13112	3026	58.41	22450	5181
2001-02	29235	6130	75.20	9639	2021	24.80	38874	8151
2003-04	19860	4322	27.53	52279	11377	72.47	72139	15699
2005-06	39674	8961	41.77	55307	12492	58.23	94981	21453
2007-08	140180	34835	56.09	109741	27271	43.91	249921	62106
2009-10	176304	37182	53.46	153511	32375	46.54	329815	69557

Source: RBI Database

Foreign Investment Inflow is sum total of Direct Investment and Portfolio Investment. Percentage of Direct Investment and portfolio investment is computed.

On analysing the Foreign Investment Inflow since Liberalization, it can be said that Foreign Investment inflow for India has increased continuously except in the year 1998-99 and 2008-09 due to Economic crisis. In the year 1998-99 and 2008-09, Portfolio investment has shown significant decrease as any economic crisis results into credit crisis which results into liquidity crisis. For rest of the years i.e. in normal conditions, the above data shows that growth potential are high in India and Foreign countries are interested in investing in India in anticipation of good returns due to high growth.

## VI. Conclusion & Recommendations

Following are some of the conclusions of the study:

- Over a period of years and mainly after 1991, India has become globalized.
- India's Trade with the world since liberalization has increased at a very fast rate except for 2008-09, due to recession; there is little decrease in Import and Export all over the world.

- India, being a developing country, suffers from unfavourable balance of payment as its imports are more than exports. For the year 2008, Export volume Index for India is approximately 930 and Import volume Index for India is approximately 1385. It can be said that there is a sharp rise in Index 1993. This indicates that Exports and Imports of India are increasing.
- Growth rate is computed through semi-log function between Exports and Time and also between Imports and time and growth for exports as well as Imports and it is found that growth rate is 17.76% for a period 1971 to 2008.
- Shift in Exports is estimated with the help of dummy variable and it is found that shift in exports is since 1991-92.
- Shift in Imports is estimated with the help of dummy variable and it is found that shift in exports is since 1991-92.
- Terms of trade is also estimated through GB TOT (introduced by F W Taussig) which is a measure of the purchasing power of exports of the country in terms of its imports. For India, it is 1.473 that indicates terms of trade are unfavourable.
- India is becoming more and more liberal and is no more a closed economy, this is checked through the Degree of Trade Openness. Currently, the degree of trade openness for India is 47.62% and the trend indicates that it has increased continuously since 1991. India Exports heavily to USA, UAE, China, Singapore, UK, HK, Netherland, Germany, Belgium & Italy. USA, UAE and China together accounts for more than 25% of trade. India mainly imports from China, USA, Saudi Arabia, UAE, Iran, Germany, Switzerland, Singapore, Australia and Kuwait. China, USA and Saudi Arabia together accounts for more than 25% of imports.
- On studying the Exports on the basis of composition/ products, we can say that India mainly exports Petroleum products,

Gems & Jewellery, Machinery and Instruments, Pharma and fine chemicals, RMG Cotton, Manufactured metals, Transport Equipment, Iron ore, Cotton yarn and fabrics, and Primary and semi-final Iron & steel. India mainly imports Petroleum Crude, Electronic goods, Transport equipment, Machinery, Gold, Iron & Steel, Pearls & Semi precious stones, Met lifer ores & Scrap, Organic Chemicals, Coal, coke and briquettes. The main item of import is Petroleum Crude and we can say that India is heavily dependent on foreign countries for Crude Oil (fossil fuel, one of the causes of Co2 emissions). On analysing the Foreign Investment Inflow since Liberalization, it can be said that Foreign Investment inflow for India has increased continuously except in the year 1998-99 and 2008-09 due to Economic crisis. In the year 1998-99 and 2008-09, the Foreign Portfolio Investment is found to be negative.

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## **A Study of The Level of Responsiveness Towards Goods and Services Tax (gst) Among People in Navi Mumbai in The Wake of Government of India's Proposed Implementation of The Gst Regime**

**Dr. Amit Aggrawal**

Associate Professor, Kohinoor Business School,  
Kohinoor City, Kurla, Mumbai  
E-mail: amit.aggrawal@kbs.ac.in

**Prof. Shilpi Agarwal**

Assistant Professor, IBSAR Business School,  
Navi Mumbai and Trainer, Securities & Exchange Board of India (SEBI), Mumbai  
E-mail: shilpiag1806@gmail.com

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### **Abstract**

*Goods & Services Tax (GST) was expected to be implemented in India on either April 1, 2012 or October 1, 2012. Earlier it was expected to be implemented from April 1, 2010. The GST structure, constitutional amendments and legislation is still being thought upon. GST is a major tax reform in India that will bring about sweeping changes in the Indirect tax landscape. Each and every individual will get impacted by GST in some or the other way. The present study is based on reviewing of knowledge of people in Navi Mumbai on the issue in light of the fact that like any other Taxation reform, this is also going to be a major trend setter in behavior of the masses as consumer wakefulness is a predominant factor for growth of any economic setup. If adopted and implemented in impeccably, GST may subside the prevailing problem of taxes. Introduction of GST will result in abolition of a number of taxes. The lack of uniformity in state VAT laws as well as in compliance measures result in additional burden on retailers which naturally passes to the consumers resulting in negative effect on the consumers' buying behaviour. Presumably, these issues will be addressed under uniform GST. In the background of above facts, the present study aims at finding the awareness of GST among masses in Navi Mumbai as this tax reform will be in some way or the another going to affect the citizens of Navi Mumbai and so as our economy.*

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**Key words:** International Trade, Exports, Imports, Growth rate in international trade, Trade Shift

### **Introduction**

Fiscal policy is one of the leading pillars in framing economic policies of any nation. The nations can be taken out of the gruesome problems of inflation and unemployment by the initiation of such policy in a pro masses mechanism. India has a well developed tax structure with three-tier federal structure,

comprising Union Government, State Governments and the Urban/Rural Local Bodies. Indian Constitution specifies about the distribution of revenues where exclusive powers are given to the State, to collect taxes and exclusive powers rest with Union in relation with taxes. Central Government levies taxes on income (except tax on

agricultural income, which the State Governments can levy), customs duties, central excise and service tax. Value Added Tax (VAT), Sales tax in States where VAT is not yet in force, stamp duty, State Excise, land revenue and tax on professions are levied by the State Governments. Local bodies are empowered to levy tax on properties, octroi and for utilities like water supply, drainage etc. Some taxes are levied and collected by the Centre but shared with the States. These include taxes on income other than agricultural income and union excise duties on goods included in Union List, except medicinal and toilet preparations. In the last 10-15 years, Indian taxation system has undergone tremendous reforms. The Constitution (Eightieth Amendment) Act, 2000, significantly changed the manner of distribution of Central tax collections between the Central and State Governments. Prior to this amendment, income tax and Union excise duties were the only taxes shared with the States. This amendment altered the pattern of sharing of Central taxes between the Centre and the States by providing for the sharing of the net proceeds of all Union taxes and duties with the States. Still further, the Constitution (Eighty-eighth Amendment) Act, 2003 has included taxes on services under entry 92C in the Union List in the Seventh Schedule of the Constitution.

### **The Goods & Services Tax (GST)**

The goods and services tax (GST) is a comprehensive value-added tax (VAT) on goods and services. It is a broad based, single, comprehensive tax levied on goods and services consumed in an economy. GST is levied at every stage of the production-distribution chain with applicable set-offs in respect of the tax remitted at previous stages. It is basically a tax on final consumption. To put at a single place, GST may be defined as a tax on goods and services, which is levied at each point of sale or provision of service, in

which, at the time of sale of goods or providing the services, the seller or service provider may claim the input credit of tax which he has paid while purchasing the goods or procuring the service.

France was the first country to introduce this system in 1954. Today, it has spread to over 140 countries. Through a tax credit mechanism, GST is collected on value-added goods and services at each stage of sale or purchase in the supply chain. GST paid on the procurement of goods and services can be set off against that payable on the supply of goods or services. But being the last person in the supply chain, the end consumer has to bear this tax and so, in many respects, GST is like a last-point retail tax. Many countries have a unified GST system. However, countries like Brazil and Canada follow a dual system wherein GST is levied by both federal and state or provincial governments.

In India, a dual GST is being proposed wherein a central goods and services tax (CGST) and a state goods and services tax (SGST) will be levied on the taxable value of a transaction. Goods & Services Tax (GST) was expected to be implemented in India on either April 1, 2012 or October 1, 2012. Earlier it was expected to be implemented from April 1, 2010. The GST structure, constitutional amendments and legislation is still work-in-progress. GST is a major tax reform in India that will bring about sweeping changes in the Indirect tax landscape. Each and every individual, including consumers will get impacted by GST in some or the other way.

### **Constitutional Provisions Governing Distribution of Tax**

The authority to levy a tax is derived from the Constitution of India which allocates the power to levy various taxes between the Centre and the State. An important restriction on this power is Article 265 of the Constitution which states that "No tax shall be

levied or collected except by the authority of law." Therefore, each tax levied or collected has to be backed by an accompanying law, passed either by the Parliament or the State Legislature.

### **Price And People**

Price sensitivity is an important aspect in the market today, as an average consumer prefers a product that is cheaper than a product which is above his/her budget. Although brand image comes into picture, but largely it's the money quotient that plays the key factor while shopping. It is the pricing of the product that influences the consumer to go ahead and pick up a product that he desires. People can either be subjective or objective, testing the persuasiveness of brand names. Retail stores selling the products also play an important role in swaying their decisions. Furthermore, a person may choose particular products/brands not only because these products provide the functional or performance benefits expected, but also because products can be used to express self personality, social status or affiliation or to fulfill internal psychological needs, such as the need for change or newness.

### **Review of literature**

Article 14 of the Indian Constitution states that "the State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India." It is quite evident from that this provision keeps every person on equal footing. The provision can be broken into parts, viz; Equality before Law & Equal Protection of Laws.

Equality before law has in itself remained a debatable topic for a long period of time. But, it would be very interesting and obvious to notice that this rule or provision mentioned under the Indian Constitution is not absolute, and is subjected to certain conditions. It allows state to treat certain section of the society differently than rest of the society.

As the implementation of GST in India is just around the corner, every industry is looking at how this will influence their present tax obligations and how things will turnout in future. Logistics industry looks to be upbeat with the possible implementation of GST as this regime has some tangible benefits in store for the industry. An Empowered Committee of State Finance Ministers has been set up under the leadership of Asim Das Gupta, the Finance Minister of West Bengal, to support the implementation of GST. The Centre and states have on agreed to a dual structure for the GST, with multiple rates for goods and a single rate for services.

The combined GST rate is being discussed by government.

Business related issues vis a vis GST can be categorized as under:

### **Procurement Related Issues**

- Possible higher tax outgo on procurement of goods and services on account of increase in rate of tax;
- Increased availability of credits across goods and services-Manner of credit availment including possible restrictions;
- Possible removal of exemptions on procurements;
- Educating vendors on GST related documentation.

### **Taxation Related Issues**

- Tax efficiency of direct interstate sales vis a vis stock transfers;
- Determining place of supply of services for payment of tax, possible need to split contracts state-wise;
- Possible change in taxable event: manufacture / sale to supply of goods and services.

### **Pricing Related Issues**

- GST will have impact on GST on pricing of goods and services on account of increase in rate of tax as well as increase in

GST credits;

- Review of tax clauses in contracts/agreements and communication to customers
- Analyzing impact potential of GST vis a vis current indirect tax impact.

More than 140 countries have introduced GST in some form. It has been a part of the tax landscape in Europe for the past 50 years and is fast becoming the preferred form of indirect tax in the Asia Pacific region. It is interesting to note that there are over 40 models of GST currently in force, each with its own peculiarities. While countries such as Singapore and New Zealand tax virtually everything at a single rate, Indonesia has five positive rates, a zero rate and over 30 categories of exemptions. In China, GST applies only to goods and the provision of repairs, replacement and processing services. It is only recoverable on goods used in the production process, and GST on fixed assets is not recoverable. There is a separate business tax in the form of VAT.

When the GST was introduced in New Zealand in 1987, it yielded revenues that were 45 per cent higher than anticipated, in large part due to improved compliance. Its more neutral and efficient structure could yield significant dividends to the economy in increased output and productivity. The GST in Canada replaced the federal manufacturers' sales tax which was then levied at the rate of 13 per cent and was similar in design and structure as the CENVAT in India. It is estimated that this replacement resulted in an increase in potential GDP by 1.4 per cent, consisting of 0.9 per cent increase in national income from higher factor productivity and 0.5 per cent increase from a larger capital stock (due to elimination of tax cascading). The Canadian experience is suggestive of the potential benefits to the Indian economy. This means gains of about US\$ 15 billion annually. Discounting these flows at a modest 3 per cent per annum, the present value of the GST

works out to about half a trillion dollars. This is indeed a staggering sum and suggests the need for energetic action to usher the GST regime at an early date.

People are influenced by following factors while making a buying decision.

1. Social Factors: Social factors refer to forces that other people exert and which affect behaviour. These social factors can include culture and subculture, roles and family, social class and reference groups.

2. Psychological Factors: These are internal to an individual and generate forces within that influence her/his behavior. The major forces include motives, perception, learning, attitude and personality.

3. Personal Factors: These include those aspects that are unique to a person and influence behavior. These factors include demographic factors, lifestyle, and situational factors.

Price sensitivity is an important aspect in the market today, as an average consumer would definitely prefer a product that is cheaper than a product which is above his budget. Although brand image comes into picture, but it's the money quotient that plays the key factor in the consumer behavior. It is the pricing of the product that influences the consumer to go ahead and pick up a product that he desires.

Choices made by consumers new to a market are driven by two competing forces: consumers' desire to collect information about alternatives and their aversion to trying risky ones. These forces give rise to three stages of purchasing: an information collection stage that focuses initially on low-risk, big brand names; a stage in which information collection continues but is extended to lesser-known brands; and a stage of information consolidation leading to preference for the brands that provide the greatest utility. The authors use a logic-mixture model with time-varying parameters to capture the choice dynamics of different consumer segments. The results show the importance of

accounting for product experience and learning when studying the dynamic choice processes of consumers new to a market. Insights from this study can help marketers tailor their marketing activities as consumers gain purchasing experience.

A consumer has his own framework in his mind. He tries a new product keeping in mind two factors-

The consumers desire to collect information about alternatives

Their aversion to trying risky ones. Thus when a consumer is new to the market he will definitely want to try out new products, which means risking and the other factor involves the information that he has collected from the market which lead to his brand preference. After experiencing different products only then will he be choosing a brand as per his want and preference.

When marketers talk about what they do as part of their responsibilities for marketing products, the tasks associated with setting price are often not at the top of the list. Marketers are much more likely to discuss their activities related to promotion, product development, market research and other tasks that are viewed as the more interesting and exciting parts of the job. Yet pricing decisions can have important consequences for the marketing organization and the attention given by the marketer to pricing is just as important as the attention given to more recognizable marketing activities.

### **Research Gap**

There is real dearth of studies related particularly to responsiveness towards GST among people in Navi Mumbai. There are many economies which give considerable stress on micro level demographic areas to implement and revise GST as it lays an impact on nation and consumers at both macro and micro level. Hence, present study epitomizes to be one which can be explored by policy makers as a public sentiment reckoner with

the fact that Indian GST is yet in the final stage of drafting.

### **Objectives Of The Present Study**

On the basis of literature reviewed, following objectives were set for the present research study

1. To study the awareness about Goods and Services Tax (GST) among people in Navi Mumbai.
2. To study the comparative view of people in Navi Mumbai on raising of Income Tax and introduction of GST by the government.

### **Research Methodology**

The present study is based on collection and analysis of primary data collected through questionnaire based survey. The questionnaire was divided into two sections with the intension to extract information regarding citizens` awareness on GST. The first section comprised of questions related to the awareness regarding GST of the residents of Navi Mumbai. In section two sample`s demographic information was collected. The area of present research is Navi Mumbai city; including various nodes in the city. Data was collected from 500 respondents. Final number of filled in questionnaires which were valid was 474. After designing the questionnaire, a pilot testing was conducted on a sample size of 50 respondents selecting the respondents from various nodes of the city.

### **Hypothesis**

Ho: There is no awareness about GST among residents of Navi Mumbai

Ho<sub>1</sub>: There is awareness about GST among residents of Navi Mumbai

### **Descriptive Statistics:**

Table 1 below is the summarization of descriptive statistics performed. Categorization A reported that 94.74% of the respondents were males and females being 5.26%. From the total 98.53% of the male respondents came from the accounting

background while 4.17% are females.

Table 1:

Non Accounting Background= NAC/  
Accounting Background= AC

Categorization A							
Gender	Male(%)			Female(%)			
NAC	94.23			5.77			
AC	95.83			4.17			
Categorization B							
Age in years	20-24(%)	25-29(%)	30-34(%)	35-39(%)	40-44(%)	45-49(%)	Above 49(%)
NAC	9.62	30.77	30.77	9.62	3.85	7.69	7.69
AC	12.5	37.5	25	20.83	4.17	0	0
Categorization C							
Marital Status	Single (%)			Married(%)			
NAC	48.08			51.92			
AC	50			50			
Categorization D							
Income (Annual)	Less than 1 lakh (%)	1 lakh to 2 lakhs (%)	2 lakhs to 3 lakhs (%)	Above 3 lakhs (%)			
NAC	19.23	28.85	15.38	36.54			
AC	4.17	12.5	16.67	66.67			

Categorization B showed that most of the respondents are from the age group of 25-29 years, charting a percentage of 32.89, followed by 35-39 years, successively 20-24 years old, 45-49 years, above 49 years, and lastly 40-44 years old. In the age group of 25-29 years old 37.5 are from the accounting background while 30.75% came from the non accounting background.

Categorization C displayed the marital status of the respondents. 48.68% are single while 51.32% are married both striking a balance from the accounting background reported 48.08% and 51.92% respectively.

Categorization d clearly shown that almost half of the respondents, i.e. 46.05% have an annual income level of Rs. 3 lakhs and above, followed by income level of Rs. 1 to 2 lakhs, i.e. 23.68%, 2 lakhs to 3 lakhs being 15.79% and those less than Rs. 1 lakh at 14.47%. Out of the total of high income level, i.e. Rs. 3 lakhs and above 66.67% have an accounting background while the remaining 36.54% are without an accounting background.

### Findings

The questionnaire initiated by asking the

respondents that if they realized that tax is major source of revenue for their government before proceeding with questions regarding GST. From Table 2 we found that about 95% of the respondents realized that Tax is a major source of income for the government. However, there are small groups totaling to 5.26% who are still not aware of this. Surprisingly, from the amount, about 4.17% came from the accounting background.

Table 2:

Knowledge of tax as government revenue		
	Yes (%)	No (%)
NAC	94.23	5.77
AC	95.83	4.17

In total 93.52% of the respondents heard about GST. The remaining who have yet to hear about GST are respondents from non accounting background. Hence, this shows that respondents from accounting background are and should be aware of GST.

Table 3:

Heard about GST		
	Yes (%)	No (%)
NAC	90.38	9.62
AC	100.00	0.00

Table 4 shows the respondents understanding towards GST. The response exhibits the balance between those who understand and those who do not. However, majority totaling to 57.69% of NAC respondents do not understand what is GST. In contrast AC group reportedly only 33.33%. It was further analyzed whether respondents who understand GST are able to define GST. A layman meaning of GST was met out of them.

Table 4:

understanding about GST		
	Yes (%)	No (%)
NAC	42.31	57.69
AC	66.67	33.33

Overall 60.53% of the respondents do not agree with the implementation of the proposed GST by the government. Simultaneously, with the previous response from NAC its imperative that the respondents who answered yes seems to agree with the implementation with the GST. Alternatively, respondents who answered no disagree with the implementation of GST. However, these results are not in line with the AC respondents. As revealed, 66.67% of the AC respondents who understand about GST do not agree with its implementation. Meanwhile, 33.33% of the AC respondents agree with the implementation of GST even though they do not have an in depth knowledge of GST as shown in table 5. As also, those who disagreed with the implementation of GST are of the view that GST will further escalate the price of goods and services.

Table 5:

implementation of GST		
	Yes (%)	No (%)
NAC	42.31	57.96
AC	33.33	66.67

Even though 60.53% as shown in table 5 of respondents disagreed with the implementation of GST, 51.32% as shown in table 6 of them opted for implementation of GST instead of increasing income tax rate. More than 70% of the AC respondents chose for implementation of GST. Meanwhile, NAC respondents opted for the implementation of GST as shown in table 6, exhibiting a consistent response. 40.38% of them chose the option for increase of income tax rate while the balance do not agree with either option.

Table 6:

GST or increase in income tax option		
	Yes (%)	No (%)
NAC	42.31	40.83
AC	70.83	29.17

**T-test:**

T-test exhibits that there is no proficient gender or other differences for all the variables tested which mean that respondents were having indifferent opinion upon these variables.

	T	df	Mean Difference	Std. Error Difference
Willingness	24.479	38	3.19652	.21850
Insight	38.833	38	3.42735	.16249
Reception	44.328	38	3.26496	.12332
Equipped	45.542	38	3.22121	.12211

T-test exhibits that there are no proficient ideology affiliation biases for all variables. As also, whether GST is implemented or not price variations should be favorable.

	T	df	Mean Difference	Std. Error Difference
Willingness	.712	15	.29630	.41588
Insight	1.395	15	.44444	.31850
Reception	1.395	15	.44444	.31850
Equipped	2.111	15	.33233	.12021

**Anova:**

Further, the one way ANOVA also reiterates the above fact as exhibited in table 3 below also suggested that there is no proficient difference irrespective of respondents` age or any other categorization factor for all the variables. Null Hypothesis is rejected as awareness is there among all the categorization of respondents.

		Sum of Squares	Df	Mean Square	F
willingness	Between Groups	4.934	4	1.233	2.062
	Within Groups	20.337	34	.598	
	Total	25.2713	38		
Insight	Between Groups	1.246	4	.312	1.029
	Within Groups	10.298	34	.303	
	Total	11.544	38		
Reception	Between Groups	1.361	4	.340	1.732
	Within Groups	6.679	34	.196	
	Total	8.040	38		
Equipped	Between Groups	2.614	4	.654	3.710
	Within Groups	5.990	34	.176	
	Total	8.604	38		

## **Conclusion**

In a nutshell, the awareness about GST among respondents is not consistent. The respondents are very much wary of the implications of the proposed GST. By and large, they are in impression that the GST will render positive scenario to the Indian Economy, so as to the business, which in turn is definitely a significant scenario for positive Perception while buying. The people are cautious towards deminting of their pockets in view of the proposed GST, but, nevertheless they are ready to take up challenges even in terms of negative impact on domestic outgo on procurement of goods and services on account of change in rate of tax after GST implementation.

## **Suggestions**

The proposed Goods & Services Tax (GST) is being seen as the panacea for removing ill-effects of the current indirect tax regime, prevalent in the country. GST may neutralise the existing problems of taxes being levied upon in our country. The masses of India, i.e. people have great expectations from the proposed GST. They think that GST will negate the unstructured and gruesome structure of indirect taxes in India. They are ready to shell even extra money to get parity in prices and to have confidence that whatever price they are paying is free from state level tax structure biases, Therefore, the Government should in true spirit and all respect work for proper implementation of the GST with the idea of attaining positive Mass Behaviour.

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## **Modified Multidimensional Scaling Technique for Brand Positioning of A Product - A Case Study on Shampoo Brands in Mumbai**

**Dr. Anjali Panigrahi**  
Associate Professor.

**Ms. Sneha C. Kotian**  
PhD Scholar – Pacific University – Udaipur.

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### **Abstract**

In the past few years, Indian beauty has occupied a significant place in the fashion world. Both men and women have started giving importance to personal beauty grooming. As such Indian cosmetic industry, especially the hair care market has risen to productive market. In this paper the researcher tried to focus on the hair care products especially top shampoo companies, major brands, The present study on Shampoo is also trying to find Consumer preferences about different features of Shampoos and how Packaging, Quantity, Easy Availability and Variety are affecting the sale of Shampoo's. Continuing scientific discoveries and social changes, over the year been greatly responsible for the developments that have taken place in the industry since, and brought shampoo, once a luxury, within the reach of everyone. In India, shampoos became a lifestyle product in urban homes from the 1960s. Despite steady growth, the market penetration of shampoo remained very badly low. This research is to evaluate the attributes which influence on consumer buying behavior and their preference in Shampoo market in Mumbai. The aim of this study is to reveal the position of any shampoo product or brand launched in the market or is currently functional, based on various factors. This research paper lays emphasis on modified multidimensional scaling which helps in efficient comparing of factors within a company/brand or between different companies/brands. The results from modified multidimensional scaling techniques indicate the important dimensions that are effective on consumer evaluations of brands.

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**Key words:** Brand positioning, Factor Mapping, Modified Multidimensional scaling & leading brands

### **Introduction**

Days are gone, when the people were using the home made products for hair care. With the advent of new thoughts, there is an increasing awareness amongst Indian about hair care. The Indians have long been obsessed with the long hair. Particularly south Indians are recognized by their thick, black and long hair. Shampoo industries have identified this aspiration quite well. Consumers are heterogeneous in their perceptions and preferences therefore in order

to map their perceptions, and based on that to position a brand scaling techniques are used. The consumers get attracted by the brands possessing special characteristics in product categories. They use the brands of their choices and refer to others for use (Aaker, David A., Rajeev Batra, and John G. Myers (1992).

In general consumers perceive the different brand in the way they have become benefitted by the products and accordingly position them on perceptual map. The term Positioning

refers to the place occupied by the product in the market (Ramanuj Majumdar, 2008). The concept of positioning evolved first in the field of marketing (Ries & Trout, 1986). Ries and Trout (1986) termed positioning as the act occupying a distinctive image in the target market's mind." Brand positioning is a relative concept; it is conceptualized with comparative assessment of a brand with others. The key idea in positioning the brand categories lies in identifying the uniqueness in the product. The association of the consumers with the brand is in general referred as brand positioning (Aaker, David A., Rajeev Batra, and John G. Myers (1992). The positioning of the brands is made by placing the competitive brands of the product category on comparative rating scale. Multi dimensional scaling is a powerful statistical tool used to condense the data by map by market researchers to depict consumer's reactions to product features for brand positioning. It is successfully used in positioning a product brand against its competitive brand (Marcus J. Schmidt, Seven Hollensen, 2006).

The paper undertakes the use of multi dimensional scaling technique in positioning the shampoo brand in Indian scenario. Successful positioning of brands requires the knowledge of attributes important to users (Kotler's 2007). The combination of such attributes forms the dimensions in multi dimensional solution. Multidimensional scaling is a class of procedures for representing perceptions and preferences of respondents spatially by means of visual display perceived of psychological relationship among stimuli are represented as geometric relationships among points in a multidimensional space.. The goal of the analysis is to detect meaningful underlying dimensions that allow the researcher to explain observed similarities and dissimilarities between objects. The most common and useful marketing application of multidimensional scaling is product positioning or brand positioning.

On the other hand Modified Multidimensional scaling (MMDS) is also a scaling technique used to map customer's preference or perception towards a brand. MMDS can define perceptions of consumers for various factors or parameters for a brand. The beauty of MMDS is that it tells how brands are perceived on (say) quality of product, various promotional schemes, availability of stock and other such factors which are of paramount importance to the company. Or even those factors which might be derived or reduced from the customers through factor analysis. To understand preference of various brands as perceived by customers we use MMDS.

### **Literature Review**

Consumer Research is one area where the marketing research firms are very active. A number of market surveys are being carried out at regular intervals both by the agencies as well as by big organizations selling consumer products. The focus of any consumer survey is to find out 'what does the consumer want?' 'What is his, preference, 'his own perception of the product', 'his loyalty'? (F.E. Brown).(Schiff man) Thus consumer buying behavior can be defined as heightened state of awareness that motivates consumers to seek out, attend and think about product information prior to purchase.

Multivariate analysis comprises a set of techniques dedicated to the analysis of data sets with more than one variable. Several of these techniques were developed recently in part because they require the computational capabilities of modern computers. Also, because most of them are recent, these techniques are not always united in their presentation, and the choice of the proper technique for a given problem is often difficult. (Hervé Abdi). Since 1997, multivariate analysis has been applied to a wide variety of problems in consumer behavior research. The modeling of consumer preferences among multiattribute alternatives has been one of the major activities in

consumer research for atleast a decade. Undoubtedly the expectancy value class of attitude model (Fishbein 1967).

Multidimensional scaling (MDS) analysis takes consumer judgments of similarity (or difference) of pairs of products and produces a map of the perceived relationship among the products. Each consumer evaluates the similarity (or difference) of each pair of products. MDS determines the relative similarity perceived by consumers among all the products. The results enable you to identify products that consumers see as similar. The following are some of the questions that can be answered with a multidimensional scaling analysis.

### **Perceptual mapping**

It is a graphic technique used by marketers that attempts to visually display the perceptions of customers or potential customers. Typically the position of a product, product line, brand, or company is displayed relative to their competition. Perceptual maps can have any number of dimensions but the most common is two dimensions. Perceptual maps use different size circles to indicate the sales volume or market share of various competing products.

### **Brand Positioning and Modified Multidimensional Scaling**

A key element of competitive marketing strategy is product positioning or Brand positioning. Product positioning has been defined as the act of designing the image of the firms, so that the target customers understand and appreciate what the factor product stands for in relation to its competitor. Each brand within a set of competitive offerings is thought of as occupying a certain position in customer's perceptual space which is mapped or plotted through modified multi dimensional scaling. The beauty of modified multidimensional scaling is that one can analyze any kind of similarity or dissimilarity on many parameters for a brand or product

leading to efficient comparisons. Modified multidimensional scaling very popular in psychological research on person's perceptions where similarities between trait descriptors are analyzed to uncover the underlying dimensionality of people's perception of traits. It facilitates efficient comparison for an individual to know how well his brand or product is functioning and also the key parameters on which it is functioning. Secondly it also helps in comparison of various factors compared within itself for a company. In short, we can have a inter as well as intra comparison for a brand or product. Therefore modified multidimensional scaling is used to a great extent in marketing research in order to detect the number and nature of dimensions underlying the perceptions of different brands or products factorwise. Factors can be those important factors obtained by factor analysis like brandname, Quality, Cost etc which may vary from one individual to another.

### **Shampoo market in Mumbai**

Aggressive marketing and media blitz has made it a frothy year for shampoo marketers. The consumer has got used to the idea of using only that brand of shampoo that suits his or her hair the best. This was achieved by launching a series of new brands, as well as repositioning old one. In this research, we would consider positioning of various brands of shampoos depending on the important parameters like cost, quality, fragrance, brand name, hair fall, availability and shine & softness in order to have an idea of how MMDS is performed

The overall objective of this research paper is to document the application of widely applied form of multivariate technique, MDS for brand positioning. It is anticipated that this paper will be valuable to the professional market researcher who is new to positioning of products.

## Research Methodology

The aim of this study is to explore the positions of seven shampoo brands (Dove, L'Oreal, Head and shoulders, Garnier fructis, Wella, Clinic plus, Pantene and Sun silk) that exist in the Indian market on a two dimensional perceptual map in order to reveal the proximities between these brands on the map which will represent how similarly and how different these brands are perceived when compared with each other. The research is composed of two parts as exploratory and descriptive studies. As the mapping technique used in this research is based on the attribute data an attribute ratings, as part of the exploratory study, a pre-test was conducted in order to explore the attributes that consumers feature in their shampoo purchase decisions. As part of the descriptive study, factor analysis was conducted in order to reduce the data without any data loss with a view to facilitate the interpretation of the perceptual map. The data were gathered from a convenience sample of family, friends, colleagues, students from colleges and acquaintances of researchers from suburban and central Mumbai. A total sample of 100 took part in the study. Further analysis was carried out by using SPSS (software package for Social Sciences) and Microsoft Excel 2007 for efficient data analysis.

## Research Objective

The overall objective of this research paper is to document the application of widely applied form of multivariate technique, MDS for brand positioning. It is anticipated that objectives and techniques used in this paper will be valuable to the professional market researcher who is new to positioning of products.

## Hypothesis

Ho: Modified multidimensional scaling is efficient that multidimensional scaling.

H<sub>1</sub>: not Ho

## Data Analysis

### Multidimensional Scaling

Assuming that we have decided to use the 3-dimensional solution for interpretation in this case, the next task would be to name the dimensions. For doing so, our previous knowledge of the brands may become important. For example, let us assume that the eight brands of shampoos were as follows

- Dove
- L'Oreal
- Head & shoulders
- Garnier Fructis
- Wella
- Clinic Plus
- Pantene
- Sun silk

If these had been the eight brands, then we must look at qualities of various attributes offered by these eight brands either through our judgments or knowledge of the market or through a survey of consumers, or a combination of these methods. This process of interpretation tends to be subjective, regardless of the methods used. The dimensions defined here are

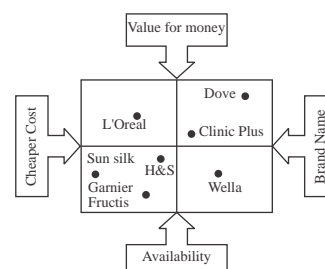
Dimension 1: Value of money

Dimension 2: Brand Image

Dimension 3: Effectiveness

Each consumers distance matrix can be separately analyzed through multidimensional scaling, or the ratings can be averaged across respondents and a single distance matrix was constructed. The assumption here is that ratings have been, aggregated assuming some homogeneity among the respondents. The data was measured on ordinal scale on SPSS and the output is as follow

### 2- Dimensional graph

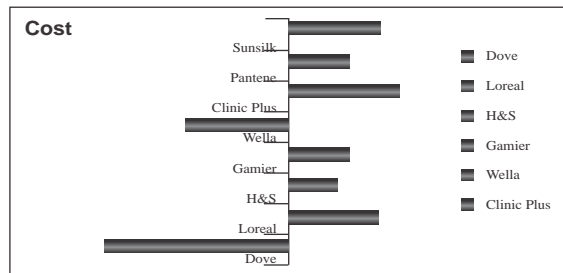


Dimensions are named according to market conditions and experience of researchers.  
For 2 – dimensional graph  
Dimension 1 = Value for money /availability  
Dimension 2 = Brand Name/cheaper cost

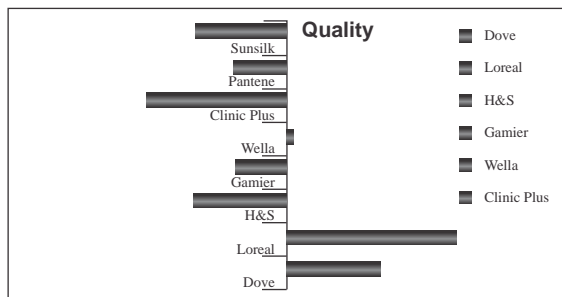
**Modified Multidimensional Scaling**

Factor wise comparison for each parameter

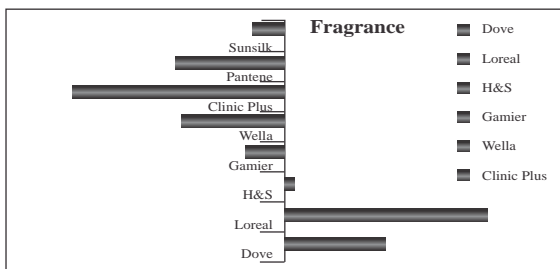
**Chart 1**



**Chart 2**

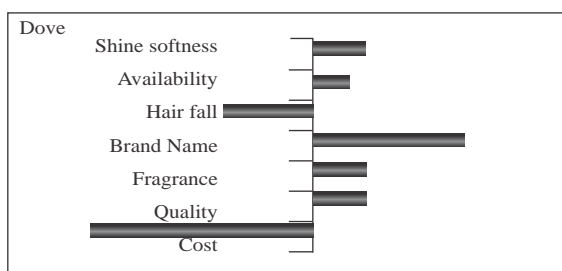


**Chart 3**

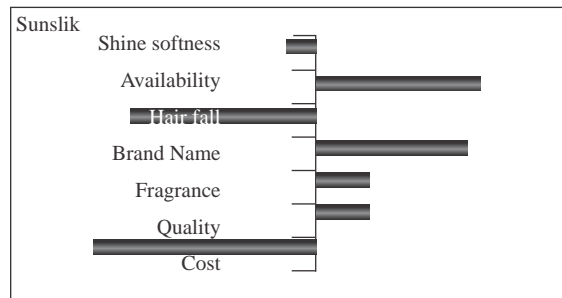


**Factor wise comparison within company**

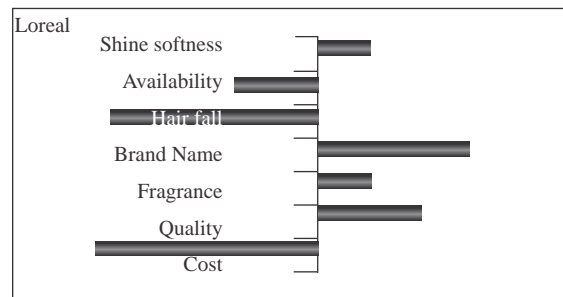
**Chart 7**



**Chart 8**



**Chart 9**



**Interpretation for Multidimensional Scaling**

In tables 1(a), 1(b), 2(a), 2(b), 3(a), 3(b) we have the outputs of a multidimensional scaling program using SPSS. Table 1(a) and table 1(b) contain the 3- dimensional solution. Table 2(a) and 2(b) contain 2\_- dimensional solution. Table 3(a) and 3(b) contain 1 dimensional solution.

Our first task is to determine the number of dimensions in which we feel the best solution exists. The decision is based on the stress value for various solutions in different dimensions. From table 1(a) and table 2(a) and table 3(a) we see following values of stress.

3-dimensional: 0.05230

2-dimensional: 0.24015

1-dimensional: 0.43159

Clearly one dimensional solution is not a good one as the stress value indicates lack of fit. The 2- dimensional solution is better, but the 3 – dimensional solution looks the best as the stress value is a low 0.05.

2 dimensional graph 3(c) explains that Dove and Clinic plus are perceived to be similar at

the same time it has value for money and enjoys a good brand name, whereas Wella is a standalone brand and so is head & shoulders to some extent. Sunsilk and Garnier fructis are close competitors and form a close competitive group. Here again, knowledge of brand name and their attributes or qualities would be used to name the two dimensions. Again dimension one could be value for money.

### **Interpretation for Modified Multidimensional Scaling Charts**

Factor wise comparison for all brands

1. Respondents have rated Clinic plus shampoo as the best for its price and they find its price as excellent. At the same time they find Dove as expensive brand in Indian Shampoos.
2. According to respondents L'Oreal has the best quality followed by Dove.
3. Again L'Oreal is best rated for Fragrance.
4. Brand Name for L'Oreal is Excellent but at the same time Dove is its close competitor in brand name.
5. In hair fall, Head & shoulders is second best rated after L'Oreal.
6. Respondents find availability of Sun silk excellent followed by clinic plus and availability of Wella is poor.
7. L'Oreal and Dove followed by Garnier are on the positive side for factor shine and softness.

### **Comparison of factors within a brand**

8. Among all the factors for Dove, it has its best ratings in brand name followed by Fragrance. It has to work on its cost since respondents find Dove as the costliest.
9. Clinic Plus is best rated for availability and Cost but to lead it has to work on its Quality

### **Findings**

MDS is carried out by asking customers how similar or dissimilar two brands are based on some dimensions or parameters. Every customer or respondent looks at the brands and differentiates them on some parameters which are unknown to researchers.

Secondly the graph 3(c) gives us brands plotted on 2 dimensions and looking at the position of various brands we name dimensions based on our experience. We are unaware of what parameter was there in customers mind while he was rating. Thirdly we notice that we are losing some information on third dimension which we define. The loss of information may turn out to be critical in some cases.

In MMDS, we define parameters and ask respondents to rate them on every parameter with desired scale. In this case we can understand which brand is doing well on which parameter because the respondent rates parameterwise. It also facilitates inter and intra comparisons for various brands with regards to various parameters'.

On the whole MMDS is much efficient than MDS since it helps in understanding preference of various brands as perceived by customers based on various parameters and provides efficient positioning parameter positioning.

### **Conclusion**

We accept  $H_0$  and conclude that MMDS is efficient and effective tool for recognizing important parameters for a brand and also helps in determining those factors, through which a brand can stand on leading position. One also gets knowledge about factors which are important for consumers and also about the competing factors within a brand.

It is anticipated that this paper will be valuable to the professional market researcher who is

new to positioning of products. The overall objective of this paper was efficient brand positioning and according to me it is met by modified multi dimensional scaling

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## **A Study of Consumer Perception and Attitude Towards Green Cars in Navi Mumbai Area**

**Mr. Rajesh Nair**

Assistant Professor

SIES College of Management Studies, Nerul,  
Navi Mumbai - 400706

E-mail: nairrajeshksn@gmail.com

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### **Abstract**

*A green vehicle or environmentally friendly vehicle is a road motor vehicle that produces less harmful impacts to the environment than comparable conventional internal combustion engine vehicles running on gasoline or diesel, or one that uses certain alternative fuels*

*The paper looks into the consumer perception and attitudes towards green cars. A questionnaire was designed with a sample size of 157 in area of Mumbai. The objectives of research is to determine perception of Green Cars in the minds of the average Indian Consumer, to ascertain the attitudes of people towards alternatively fueled vehicles and to ascertain the qualities that consumers look for in a green car . The analysis was done keeping parameters like Age, Sex, Education, Annual Family Income and Car usage. The research shows some interesting facts which could have a great importance to the manufacturer of a green car. Most of the respondents agree that green cars would replace conventional cars but the age group which felt the most was the age group of 33-43 years of age group. People with higher education such as post graduates understood the relevance of green cars more than other people.*

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**Key words:** Green Cars, Consumer Perception, Hybrid cars

### **Introduction**

Green vehicles can be powered by alternative fuels and advanced vehicle technologies and include hybrid electric vehicles, plug-in hybrid electric vehicles, battery electric vehicles, compressed-air vehicles, hydrogen and fuel cell vehicles, neat ethanol vehicles, flexible-fuel vehicles, natural gas vehicles, clean diesel vehicles, and some sources also include vehicles using blends of biodiesel and ethanol fuel or gasohol. Several authors also include conventional motor vehicles with high fuel economy, as they consider that

increasing fuel economy is the most cost-effective way to improve energy efficiency and reduce carbon emissions in the transport sector in the short run. As part of their contribution to sustainable transport, these vehicles reduce air pollution and greenhouse gas emissions, and contribute to energy independence by reducing oil imports.

The interest in commercial electric and hybrid vehicles, as the case for their light vehicle counterparts, is driven by the volatility of petroleum fuel costs, efforts to improve energy security, concerns about both toxic and

greenhouse emissions and an associated range of incentives that are now in place at national and local government levels. However, the barriers to mass-market uptake are numerous and significant. Although various incentive schemes can assist, the capital costs of the new technologies are high and, in some cases, fuel savings have not so far adequately off-set increased capital and operating costs. Furthermore, the electric-only operating range of electric and plug-in hybrid-electric vehicles remains a concern for consumers and the necessary recharging infrastructure is only in the early stages of development. Nevertheless, there are now many commercial electric and hybrid vehicles available in the market and the intense levels of research, development and investment in enabling technology and new vehicle production will no doubt result in many more during the next few years.

In this report, 'electric vehicle' refers to a purely battery-powered vehicle while 'hybrid' refers to hybrid-electric and hybrid-hydraulic vehicles. Hybrid-electric vehicles with the capacity to recharge their batteries from an external source are referred to as 'plug-in' hybrids.

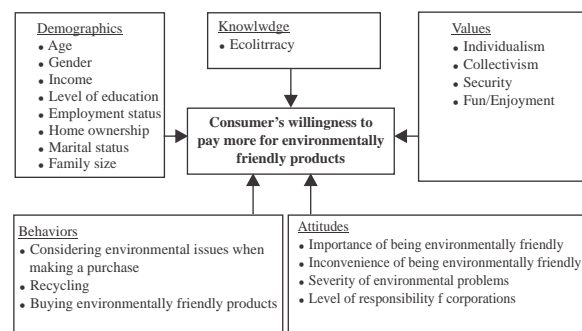
**Literature Review**

As the environment continues to worsen, the consumer has begun to realize the seriousness of the problem. Based on the needs of the consumer, businesses should design green products to match the customers' demands. Green cars are powered by alternative fuels and advanced vehicle technologies and include hybrid electric vehicles, plug-in hybrid electric vehicles, battery electric vehicles, compressed-air vehicles, hydrogen and fuel-cell vehicles, neat ethanol vehicles, flexible-fuel vehicles, natural gas vehicles, clean diesel vehicles, and some sources also include vehicles using blends of biodiesel and ethanol fuel or gasohol(US department of energy, 2010). The Theory of Planned Behavior was developed in response to a

related existing model—The Theory of Reasoned Action (TRA) (Ajzen, 1988, 1991). Briefly, the Theory of Reasoned Action (Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980) places intention as the principal predictor of behavior. So conceived, the more one intends to engage in behavior, the more likely is the occurrence of the behavior. Determining intention are attitude and subjective norm. The attitudinal determinant of intention is defined as the overall evaluation of behavior. This overall evaluation, in turn, is composed of the salient beliefs: the perceived likelihood of particular consequences of the behavior occurring, weighted by an evaluation of the consequences. The subjective norm determinant of attitude is conceptualized as social pressure from significant others to perform or not perform the behavior. The subjective norm, in turn, is composed of normative beliefs: the perceived pressure from salient referents, weighted by the motivation to comply with the referents. The TRA has received support across a range of contexts (Sheppard, Hartwick, & Warshaw, 1988). A recognized limitation of the TRA is that it was developed to deal with behaviors that are completely under an individual's volitional control (Ajzen, 1988; Fishbein, 1993). Figure 1 is the structure of TRA.

Attitude +Structure Norms = Behavior intention= Actual Acts

Efforts to identify environmentally friendly consumers can be traced back to the early 1970s.



For example, recent studies found that females tend to be more ecologically conscious than men (McIntyre *et al.*, 1993; Banerjee and McKeage, 1994). However, Reizenstein *et al.* (1974) found that only men were willing to pay more for control of air pollution, and Balderjahn (1988) reported that the relationship between environmentally conscious attitudes and the use of non-polluting products was more intensive among men than among women.

Following Berkowitz and Luttermann's (1968) study, Henion (1972) also thought that consumers with medium or high incomes would be more likely to act in an ecologically compatible manner due to their higher levels of education and therefore to their increased sensitivity to social problems.

However, the results did not support his hypothesis: environmentally friendly behavior was consistent across income groups. Moreover, Sandahl and Robertson (1989) found that the environmentally conscious consumer is less educated and has a lower income than the average American. This brought them to conclude that income and education are not good predictors of environmental concern or purchase behavior. On one hand, Maloney and Ward (1973) reported no significant linkage between environmental knowledge and ecologically compatible behavior. On the other hand, Vining and Ebreo (1990), as well as Chan (1999), have shown that knowledge about ecological issues is a significant predictor of environmentally friendly behavior. Amyx *et al.* (1994) even found that individuals highly knowledgeable about environmental issues were more willing to pay a premium price for green products.

Ecoliteracy was developed by Laroche *et al.* (1996) to measure the respondent's ability to identify or define a number of ecologically-related symbols, concepts and behaviors. It was found to be correlated with some attitudes and behavior towards the environment.

According to Triandis (1993), two major values that influence consumer behavior are individualism and collectivism. On one hand, individualism represents how much a person focuses on his/her independent self (i.e. how he/she depends only on himself or herself). Individualist people engage in voluntary associations and they make sure that they remain distinct individuals, even when they belong to groups. They also compete with others for status, which depends on their accomplishments much more than on their group memberships (Triandis, 1993). We suspect that this type of individual is not very conducive to environmental friendliness. On the other hand, collectivism implies cooperation, helpfulness, and consideration of the goals of the group relative to the individual. Being a collectivist means that one may forego individual motivations for that which is good for the group. The work of Triandis (1993) and McCarty and Shrum (1994) suggest that collectivist people tend to be friendlier to the environment, while individualistic people tend to be more unfriendly. In addition, McCarty and Shrum (1994) investigated the impact of two other relevant values on consumers' environmentally conscious behavior: fun/enjoyment and security. It was found that the fun/enjoyment value was positively related to attitudes about the importance of recycling and to the recycling behavior. This relationship makes sense if one considers that those who value fun and enjoyment in life may see a fulfillment of this end-state through interaction with the environment. The security value factor was not significantly related to either the importance of recycling or the recycling behavior. The two most studied attitudes in the ecological literature, with respect to environmentally friendly behavior, are importance and inconvenience. Amyx *et al.* (1994) define perceived importance, with respect to the environment, as the degree to which one expresses concern about ecological

issues. In other words, importance is simply whether consumers view environmentally compatible behaviors as important to themselves or society as a whole. Inconvenience refers to how inconvenient it is perceived for the individual to behave in an ecologically favorable fashion. For example, a person may feel that recycling is important for the long-run good of the society, but he or she may also feel that it is personally inconvenient. Similarly, a consumer may know that single-serve aseptically packaged juices or puddings will harm the environment, but still buy them because they are convenient. Laroche *et. al.* (1996) reveals that the strength of the relationships between attitudes and consumers' willingness to spend more for green products. The attitude that showed the most discriminating power between the two segments of consumers is the perceived inconvenience of being environmentally friendly. This study reveals that consumers willing to pay more for green products did not perceive it inconvenient to behave in an ecologically favorable manner. The opposite was found for the unwilling respondents. Therefore, it is of primary importance for marketers to advertise why it is convenient to purchase green products and to change consumer perceptions in a positive way. According to Michniak *et. al.* a majority of consumers indicate that 3rd party certification would increase their trust of environmental claims.

**Objectives**

1. To determine perception of Green Cars in the minds of the average Indian Consumer
2. To ascertain the attitudes of people towards alternatively fueled vehicles
3. To ascertain the qualities that consumers look for in a green car

**Research Design**

Data Source	Primary data source- Questionnaire Secondary data source- Internet
Sampling area	Mumbai
Sample size	157
Research instrument	Questionnaire
Method of contact	Personal

**Data Analysis**

**I. Age of the Respondents**

A total of 157 respondents were surveyed for the Consumer perception towards Green cars. Out of the respondents surveyed 72 were in the age group of 23 – 33 years, 66 respondents were in the age group of 33 – 43 years and 19 respondents were in the age group of 43 – 53 years. Thus it can be inferred that collectively 88% of the respondents were in the age group of 23 – 43 years indicating most respondents were young.

**II. Gender of the Respondents**

Out of the respondents surveyed 94 were males while 63 respondents were females. Thus it can be inferred that there is a balance in the sex of the number of respondents surveyed.

**III. Education of the Respondents**

Out of the respondents surveyed 69 were Graduates, 87 respondents were Post Graduates and 1 respondent was Doctorate. Thus it can be inferred that there is a balance in the number of Graduates and Post Graduates surveyed.

**IV. Annual Income of the Family**

Out of the respondents surveyed 22 had an annual income less than Rs. 600000. 19 respondents had an annual income of Rs. 600000 – 800000. 30 respondents had an annual income of Rs. 800000 – 1000000. 27 respondents had an annual income of Rs. 1000000 - 1200000 while 59 respondents had an annual income greater than Rs. 1200000. Thus it can be inferred that a collective of 74% of the respondents have annual average income of more than Rs. 800000 indicating disposable income available with families to

purchase a car.

**V. Age of the respondent Vs Green Cars replacing Conventional Cars over time**

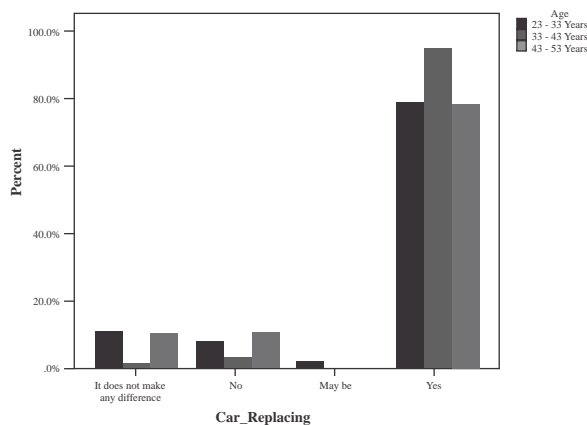
A test of Correlation was done for Age Vs Green car replacing the conventional cars over time to determine the relationship between the two parameters.

**Hypothesis:**

**H0:** The distribution of Green Cars replacing Conventional Cars over time is same across all categories of Age.

**H1:** The distribution of Green Cars replacing Conventional Cars over time is not same across all categories of Age.

3	The distribution of car replacing is same across all categories of age	Independent Samples Kruskal- Wallis Test 0.14	Reject the null hypothesis
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We reject the null hypothesis and state that the distribution of Green Cars replacing Conventional Cars over time is not same across all categories of Age. It is highest in the Age group of 33 – 43 Years. Also the highest number of respondents agreed that Green Car would eventually replace conventional cars.

**I. Age of the respondent Vs Understanding about Green Cars**

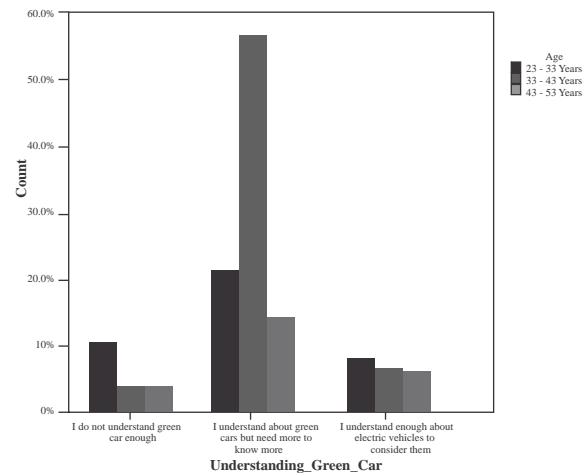
A test of Correlation was done for Age Vs Green car replacing the conventional cars over time to determine the relationship between the two parameters.

**Hypothesis**

**H0:** The distribution of understandings about Green Cars is same across all categories of Age.

**H1:** The distribution of understandings about Green Cars is not same across all categories of Age.

2	The distribution of understanding green cars is same across categories of age	Independent Samples Kruskal -Wallis Test	.548	Retain the null hypothesis
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We accept the null hypothesis that the distribution of understandings about Green Cars is same across all categories of Age. It is highest in the category of more information required for the purchase of the Green Car.

**Sex of the respondent Vs Price willing to pay for a Green Car**

A test of correlation was done for Sex Vs Price willing to pay for a Green Car to determine the relationship between the two parameters.

**Hypothesis:**

**H0:** The distribution of price willing to pay is same across all males and females surveyed

**H1:** The distribution of price willing to pay is not same across all males and females surveyed

5	The Distribution of Price Willing to pay is the same for both males and females	Independent Samples Mann- Whitney U Test .853	Retain the null hypothesis
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We accept the null hypothesis that the distribution of price willing to pay is same for males and females and it is highest in the category of Rs. 400000 - 600000.

**I. Sex of the respondent Vs Understanding about Green Cars**

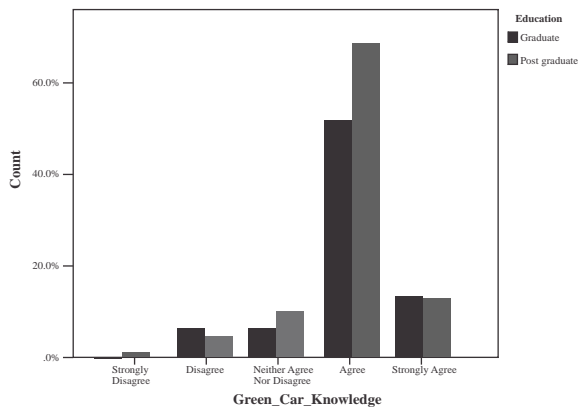
A test of correlation was performed between Sex & Understanding about Green Cars to determine the relationship between the two parameters.

Hypothesis:

**Ho:** The distribution of Understanding about Green cars is same across males and females

**H1:** The distribution of Understanding about Green cars is not same across males and females

2	The Distribution of understanding green cars is the same across both males and females	Independent – Samples Mann- Whitney U Test .239	Retain the null hypothesis
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Thus we retain the null hypothesis, but the significance is low. Overall males had a better understanding about Green Cars

**I. Annual Income of the family Vs Consideration to buy a Green Car**

A test of correlation was performed between annual income & consideration to buy a Green Car to determine the relationship between the two parameters.

Hypothesis:

**Ho:** The distribution of the future consideration to buy an environmental friendly car is same across all categories of Annual Income.

**H1:** The distribution of the future consideration to buy an environmental friendly car is not same across all categories of Annual Income.

4	The Distribution of future consideration is the same across categories of annual income.	Independent – Samples Kruskal -Wallis Test .976	Retain the null hypothesis
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**Annual\_Income \* Future\_Consideration Cross tabulation**

Count

	Annual_Income	Future_Consideration			Total
		May be	Yes	No	
	< Rs. 600000	2 <sub>a</sub>	7 <sub>a</sub>	13 <sub>a</sub>	22
	Rs. 600000 - 800000	1 <sub>a</sub>	5 <sub>a</sub>	12 <sub>a</sub>	18
	Rs. 800000 - 1000000	1 <sub>a</sub>	12 <sub>a</sub>	18 <sub>a</sub>	31
	Rs. 1000000 - 1200000	0 <sub>a</sub>	11 <sub>a</sub>	16 <sub>a</sub>	27
	> Rs. 1200000	3 <sub>a</sub>	22 <sub>a</sub>	34 <sub>a</sub>	59
Total		17	57	93	157

We accept the null hypothesis that the distribution of the future consideration to buy an environmental friendly car is same across all categories of Annual Income. Thus as income increases the acceptance of is higher

**I. Annual Income of the family Vs Willingness to pay for a Green Car**

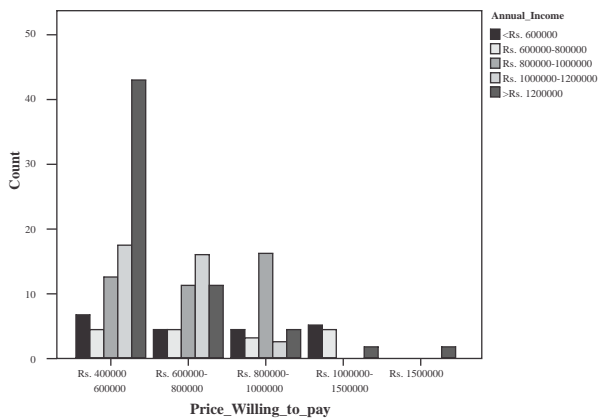
A test of correlation was performed between annual income & willingness to pay for a Green Car to determine the relationship between the two parameters.

Hypothesis:

**Ho:** The distribution of willingness to pay for a Green Car is same across all categories of Annual Income.

**H1:** The distribution of willingness to pay for a Green Car is not same across all categories of Annual Income.

5	The Distribution of willingness to pay is the same across categories of annual income.	Independent – Samples Kruskal -Wallis Test .000	Reject the null hypothesis
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We reject the null hypothesis that the distribution of price willing to pay for a Green Car is not same across all categories of Annual Income. Maximum numbers of respondents are willing to pay Rs. 400000 – 600000 for a Green Car.

**I. Car Usage Vs Green Cars replacing Conventional cars**

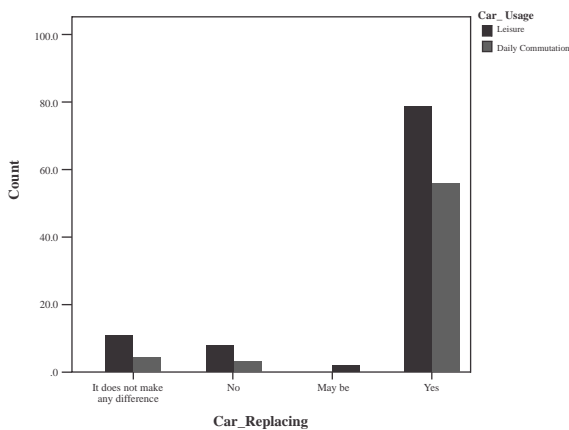
A test of correlation was performed between car usage & Green Cars replacing conventional cars to determine the relationship between the two parameters.

Hypothesis:

**Ho:** The distribution of Green Cars replacing conventional cars over time is same across all categories of Car Usage.

**H1:** The distribution of Green Cars replacing conventional cars over time is not same across all categories of Car Usage.

3	The Distribution of car replacing is the same across categories of car usage.	Independent – Samples Mann- Whitney U Test .937	Retain the null hypothesis
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We accept the null hypothesis that the distribution of Green Cars replacing conventional cars over time is same across all categories of Car Usage. The number of respondents whose car usage is Leisure believe that the over period of time conventional cars would be replaced by Green Cars.

**I. Car Usage Vs Knowledge of Green Cars**

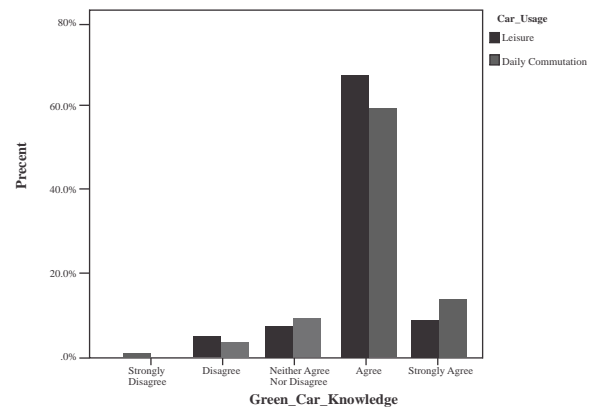
A test of correlation was performed between car usage & Knowledge of Green cars to determine the relationship between the two parameters.

Hypothesis:

**Ho:** The distribution of knowledge of Green Cars is same across all categories of Car Usage.

**H1:** The distribution of knowledge of Green Cars is not same across all categories of Car Usage.

1	The Distribution of Green car knowledge Is the same across categories of car usage.	Independent – Samples Mann- Whitney U Test .225	Retain the null hypothesis
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We accept the null hypothesis that the distribution of knowledge of Green Cars is same across all categories of Car Usage. Knowledge about Green cars is higher for users whose usage is Daily Commutation.

### **I. Factors considered during purchasing a car**

A total of 157 respondents were surveyed for the Consumer perception towards Green cars. Out of the respondents surveyed 31.3% of the respondents said they considered all the mentioned factors while purchasing a car, 28.6% respondents said Fuel Efficiency, 20.3% respondents said Features were an important factor while making the decision to purchase a car, 15.4% said the Brand was important and 4.4% of the respondents said the car being Environment Friendly was an important factor.

### **II. Motivators to purchase a green car**

A total of 157 respondents were surveyed for the Consumer perception towards Green cars. Out of the respondents surveyed 28.3% of the respondents said they considered Lower Maintenance as a motivator to purchase a green car, 26.7% respondents said Information on Green cars, 20.6% respondents said purchase price lesser than a conventional car is a motivator to purchase a green car, 18.2% said Government subsidy or tax exemption was important and 6.1% of the respondents said priority lanes for green cars is a motivator.

### **Conclusion**

The analysis was done keeping parameters like Age, Sex, Education, Annual Family Income and Car usage.

#### **1. Age of the Respondent:**

It was observed that age plays important criteria for the belief that distribution of Green Cars would replace Conventional Cars over time. Most of the respondents agree that the Green Car would replace conventional cars but the age group of 33 – 43 years were in favour as against other age groups. Age was also an important criterion for the understanding of Green cars. Most respondents understand about Green car but they needed more information to make purchase decision.

#### **2. Sex of the Respondent:**

The parameter of price willing to pay for a Green Car was assessed against the sex of the respondent. It was observed that most of the respondents irrespective of their sex were ready to pay a price of Rs. 400000 – 600000. Also a number of respondents were unwilling to pay a high price.

The parameter of understanding of Green Cars was assessed against the sex of the respondent. It was observed that maximum number of respondents knew about green cars but needed more information to make a purchase decision. Also the number of males who are ready to buy is higher.

#### **3. Education:**

The parameter of Education was assessed against the understanding of green cars of an individual. The knowledge about green cars was higher for Post Graduates than graduates. The parameter of Education was assessed against Green cars replacing conventional car over time. The number of Post Graduates who agree that Green cars would replace conventional cars over time is higher than Graduates.

#### **4. Annual income of the family:**

The parameter of Annual income of the family was assessed against future consideration to buy a Green car. As the annual income increased the number of respondents who were ready to buy a Green Car was higher.

The parameter of Annual income of the family was assessed against price willing to pay for a Green Car. Maximum respondents irrespective of their annual income of family prefer to pay Rs. 400000 – 600000.

#### **5. Car Usage:**

The parameter of car usage was compared against Green Cars replacing conventional cars over time. Higher number of users whose car usage was leisure agree that Green Cars would replace conventional cars over time.

The parameter of car usage was compared against knowledge about Green Cars. The number of respondents whose usage is for



daily commutation agree that they have better understanding of Green Cars.

### Recommendations

Based on the analysis, the following recommendations can be implemented:

1. Knowledge about Green Cars: Since many of the respondents were aware about the Green Cars, better communication regarding its usage needs to be given. This will ensure that people will give serious consideration to purchase.
2. Price of Green Cars: In India, only two varieties of Green Car are available. Reva of Mahindra has a price range of Rs. 400000 - 600000 (Ex-Showroom Price) while Prius of Toyota is available in the price range of Rs. 2700000 – 3500000 (Ex-Showroom Price). Since most of the respondents are willing to pay in the price range of Rs. 400000 – 600000, more promotion from Reva regarding its price range is required.
3. Subsidies and Infrastructure: The government should give subsidies on taxation for purchase of green cars, subsidies in toll collection from green car users, and the infrastructure facilities like electronic points at petrol pumps and key areas should be provided by the government at subsidised rates till the demand develops for green cars
4. Promotional Events: Events like test drive tours can be conducted at corporate parks or areas where corporate parks are located, popular malls etc. Companies can conduct events like Speed, Time Distance Rally where participants can use green cars for the rally.

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## Human Resource Development & Higher Education

**Dr. Mahadappa Gangaram Gonda**

Director, Pratibha Institute of Business Management

E-mail: maha\_gonda@yahoo.co.in

### Declaration

This article is original and written by me. The content of this article is based on empirical study made by the author and the review references. This has not been sent anywhere for any type of publication.

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### Abstract

*The countries in the world have been recognized on the basis of the level of economic & industrial development made by them. To bring such development and make human life happy is dependent more on the attitude and skills of citizens of a country. Citizens with various good qualities like leadership, proactive approach, knowledge, innovative & problem solving technique has brought prosperity for their people and they have been enjoying the benefits of economic & industrial growth. It is realized and accepted by all the human resource has been the most crucial & important among the various resources like natural resource and infrastructure to bring changes for the welfare of mankind. And the system of higher education in general and quality higher education in particular has direct correlation with development of human resource. Higher education system has a capacity to develop inherent qualities of youths to make them more resourceful. The countries which took initiate centuries back and implemented good system of higher education have been recognized as developed countries and other countries remained either developing or underdeveloped countries. India being a developing country requires huge manpower with certain skills to become a developed country. Central government has privatized higher education to accelerate growth in education and there has been increase in number of institutes of higher learning both, in private and public sectors. However higher education has been underperforming in the process of developing human resource to make India empowered by 2020 as Indians have been dreaming.*

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**Key words:** Green Cars, Consumer Perception, Hybrid cars

## Introduction

What is most surprising on the earth? Man, answered by a saint. Man creates and innovates new things and generates new ideas which make human life happy and unhappy as well. Material products and intangible services developed with the help of resources become useful in daily life of society to make living easy, comfortable and happy. Happy society can build a prosperous country with the help of man only and the same man brings numerous unhappiness, disasters and makes human leaving miserable. A man having with awareness of productive & unproductive uses of resources, a sense of self responsibility towards the society, with working skills and able to discriminate ethical and unethical aspects is most resourceful and valuable. Thus man is most surprising in the universe. In order to make a man more valuable and resourceful a system of education, both formal & informal has been implemented as a tool. The countries which realized the importance of education gave priority to it and have implemented effectively a system of good education, developed knowledgeable society and have become developed countries and dominating on other countries of the world which are less developed. Thus education has proved to be a strong and effective tool to convert an ordinary man into valuable human resource. Human Resource Development (HRD) through education is a process which passes through various levels, from school education to higher & professional education. Each level of education has certain activities aimed at developing specific areas & aspects of human resource. Higher education including professional education is at apex in education system and is expected to develop specific job skills in the youths so as to take up certain job. Thus higher & professional education has a vital role to play in the process of converting a man into more resourceful which eventually takes the country to the higher level of socio-

economic development.

## Higher Education in India

Higher education is at the apex in Indian education system and this sector has specific objective of creating knowledgeable youths with certain job skills and with ethical values who will become important resource for the nation to achieve the vision of empowered country by 2020. Some of the objectives of university education specified in proposed **Maharashtra Public University Act 2011**, (amended) are; 'to carryout responsibility of creation, preservation and dissemination of knowledge, to promote discipline & spirit of intellectual enquiry, to identify & cultivate talent, to train the right kind of leadership in all walks of life & to help younger generation to develop right attitude, interests & values'. Thus higher education is most crucial tool in converting population into valuable human resource. The Maharashtra Public University Act has urged that '**there is a need for the relevant and quality education with appropriate skills**'. Education in general and higher & professional education in particular has become extremely important in the 21<sup>st</sup> century, mainly because of its linkage with global economy. There has been a close relationship between education-knowledge creation-conversion of knowledge into wealth-economy of a nation and socio-economic transformation. Dr. APJ Abdul Kalam has envisioned about India that 'individual empowerment will lead to happy homes, happy homes will make developed villages and towns, developed villages and towns will lead to prosperous nations, prosperous nations will be generators of enlightened society which will create a peaceful world with sustainable growth'. India with 550 million youths to be empowered with knowledge and value adding employment skills, higher education has to do this task.

**Higher Education: Present Scenario**

Higher education system in India is second highest in the world and managed by an independent ministry both at central and state level governments. There were 634 universities including degree awarding institutes, deemed universities, private universities, central and state universities with total enrolment of around 17 million students in 33023 colleges all over the country by the end of 2011. The number of candidates pursuing higher education particularly post graduation, professional education and research was around 2.2 million which constituted 13 percent of the total enrolment in university education during the academic year 2010-11. Thus there was huge youth manpower with potentiality of bringing transformation in Indian socio-economic sector. Out of 550 million youths in the country during the year 2010-11 around 71 million (13 percent) had enrolled for university education including post graduation and professional courses. Indian government has decided to increase gross enrolment ratio (GRE) up to 20 percent by 2015 for which it has planned to establish more number of new colleges and new central universities. There has been considerable quantitative growth in number of universities, colleges and students enrolment in last six decades. There were just 30 universities and 695 colleges in the country in the year 1950-51 with 397000 students in university education. The number of universities has increased by more than 20 times and increase in number of colleges was about 33 times and enrolment has increased by more than 40 times by the end of 2011. Indian economy has been growing with an average growth rate of around 6-7 percent annually and poverty has come down from 57 percent to around 25 percent and literacy rate has increased from 18 percent to around 70 percent during this period. Creation of intellectuals and knowledgeable human capital helped in

boosting Indian economy to the level of developing country. This has been possible because of growth in education in general and development in higher & professional education in particular.

However the scenario in higher education and in the process of human resource development has been showing unsatisfactory performance. Dr. Goverdhan Mehta, a member of Prime Minister's Scientific Advisory Council, made a statement 'the government is looking for increasing enrolment due to which we will produce more than 6 million general graduate with no disciplinary capabilities and skills. Do we empower them to create a future for themselves? Somebody has to bring about a complete change and reengineer the system'. Quality of education at all levels from elementary education to professional education has been continuously deteriorating which eventually resulted in creation of unemployable and under employable degree holders. Research reports reveal that there is wide gap between the type of human resource developed by the present system of higher education and the type of workforce being demanded by the present job market. The institutes of higher education have been facing challenges which have become more complex in respect of equity, relevance of education, quality of education & governance. The following are certain examples in this regard.

- More than 2.2 lakh candidates crack each year for CAT, MBA entrance examination for just 5000 seats in 13 Indian Institutes of Management (IIMs) and for some approved autonomous institutes. Out of around 4000 management institutes in India MBA aspirants give priority only to IIMs and other institutes with quality education.
- Around 3650 MBA institutes from private sector with 370000 intake approved by AICTE are involved in management

education. Around 35 percent of the combined intake (around 130000 seats) in these institutes went vacant during the year 2011-12 due to non availability of eligible candidates for admission.

- Institutes have been adopting unfair practices for their survival and sustainability and quality of education is given less priority in real practice.
- AICTE report said that only around 25 percent of MBA candidates from approved institutes are employable.
- Around 5 lakh candidates have appeared for IIT CET this year for just 7536 seats in 15 colleges, Indian Institutes of Technology (IITs)
- Around 15 lakh students were pursuing engineering education in 3400 engineering college approved by AICTE during the year 2011-12, around 35 percent of the seats were vacant due to shortage of candidates for admission.
- Around 220 seats went vacant in all IITs together during the year 2011-12 for want of quality students for admission.
- As per the ASSCOM report only around 20 to 25 percent of the engineering graduates were employable.
- Millions of Indian students spend millions of dollar for acquiring higher education from the universities of developed countries. The major reason for students aspiring to seek higher education from overseas universities is employability.
- More than 90 percent of graduates & post graduates from traditional courses remain unemployable due to lack of employability skills.
- Enrolment for traditional courses in the colleges located in rural areas and suburban areas is less than their admission capacity.
- Thousands of teaching posts remain vacant in the institutes of higher & professional education including IIMs & IITs due to shortage of well qualified &

eligible candidates.

- The retirement age of professors and principals of certain institutes of professional education has increased by the HRD ministry from 60 years to 65 years due to paucity of manpower.
- Many posts of officers in defense are vacant due to shortage of good candidates eligible for admission. The above situations reveal that there is ample scope for improvement and quality enhancement in higher & professional education in India. The percentage of employable youths if increased from the present level of 25 percent to 40 percent there be availability of huge skilled manpower and they will generate resources for sustainable development.

#### **Strategies:**

Higher & professional education and human resource development are so closely interrelated they should not depart from each other. But the present system of higher & professional education has increased this gap and the institutes are underperforming due to which the job market is experiencing shortage of right type of manpower for sustainable growth. The following strategies would help in resolving the issues in higher education system.

- **Quality and Quantity:** The decision of central government to open more number of public funded universities and colleges all over the country as role models of good institutes and to increase gross enrolment ration (GER) will not help in quality improvement in the existing institutes. Priority should be given to upgrade and enhance the quality of education in existing institutes of higher education instead of opening new institutes. There have been less admissions in existing institutes during last few years due to lack of quality education in those institutes and

there will be no sense in increasing the number of institutes without quality improvement. Quality assessment and quality enhancement activities in all the institutes of higher education should be made mandatory. Continuation of approval of the institutions by the regulatory bodies should be based on the quality enhancement programs implemented by the institutions. The number of government agencies like NAAC & NBA be increased for timely assessment & accreditation of the institutes

- **Incentives for Quality Enhancement:** Motivational schemes must be introduced by the HRD ministry to the institutes from private sector for taking initiatives and for effective implementation of programs on quality enhancement. Incentives should be based noticeable changes in employability skills and overall development of youth rather than just producing the degree holders. The present schemes and assistance provided by the UGC & AICTE for quality enhancement is limited to only to certain colleges & institutes and large number of institutes in private sector are not eligible a for such schemes.
- **Governance:** A good culture and conducive environment within an institute of higher education can be built with the help of good governance. Framing code of conduct and ethical and fair practices followed in the institutes create a feeling of self responsibility among the stake holders which eventually results in better use of resources for improved results. Good governance helps in building trust among the individuals within the institutes by means of caring and respecting each other. It creates a sense of belongingness which promotes stability among the human resource and stability helps in conducting the activities for developing employable human resource. Good governance helps in creating institute's brand image
- **Industry Sponsorship:** The institutes of higher education if supported by the corporate sector by means of providing visiting faculty, training & development of students, providing opportunity to the candidates to learn by practically doing and providing final placement after completion of the course, helps in human resource development . Industry institute relationship will help in improving the employability skills of candidates and faculty members will understand the requirements of corporate sector. Industry can also make use of institute's resources for training and developing their present human resource. Thus there will be sharing of resources among institutes and industry which ultimately results in optimization of resources.
- **Change in Attitude:** Attitude of stake holders of higher & professional education matters more in the present era to bring changes & improvements in it. Both private and public sector institute are involved in it, but private sector has a dominating role in implementation of education system. Educational entrepreneurs (trustees) from private sector should think higher education is of money making venture through quality education instead of just money making. The candidates pursuing higher & professional education should learn by doing & studying and should concentrate on gaining of knowledge instead of just getting a formal degree. The parents of the candidates aspiring higher education should be ready to share additional cost, if any for improved and good quality of education. The faculty members working with any institute should consider fair practices being adopted by the institute, scope & opportunity for research &

innovations. And government regulatory bodies should promote activities & programs on quality enhancement. The regulatory bodies should give autonomy to the institutes to certain for effective functioning and misutilization of autonomy should be strictly regulated.

- **Joint Programs:** There is wide disparity in educational standards among the various types of educational institutes of higher education and that brings variation in employability skills of the students of those institutes. IIMs & IITs are considered highly standard institutes in management education & in engineering education respectively, and the candidates from these institutes are highly respected by the job market by offering high profile jobs with very high remuneration as compared with the candidates from other MBA institutes & engineering colleges. Certain joint programs between premier institutes and regional level institutes will help in developing educational standards of the latter institutes.
- **Non-profit Approach:** Institutes of higher & professional education need to provide quality education service) at affordable cost to the deserving candidate. Institutes should not become profit generating centers like commercial organizations. Moderate income generation is essential for upgrading the institutes and for adapting the changes. Certain fee considerations and or loan facilities be provided to the deserving candidates who can't afford to pay full fees.

### Conclusion

An important task of higher education is developing human resource with certain values and skills which are essential to take some job for the nation & for society. Very few institutes of higher education have been doing this task and very less number of candidates as

compared with the total enrolment has been contributing towards development of the country. More number of candidates with employability skills is required to accelerate the transformation the process. It is the joint responsibility of all the stake holders of higher & professional education to insist for developing value based employable human resource. The educational entrepreneurs from private sector need to give up profiteering approach from this venture and should work on imparting quality education at cost affordable to all deserving candidates and sustainability of the institutes. The candidates should become learners by self doing, parents should prepare to contribute for the activities add values to human resource, the faculty members should accept this profession by choice not by compulsion and help more in innovate & creative activities and the regulatory bodies need to become facilitator to the institutes for developing human resource.

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May you prosper and grow

Kohinoor Education Complex, Kohinoor City, Kirol Road,  
Off LBS Road, Kurla (W), Mumbai - 400 070.

Tel : 67887777 Fax : 67887788 Toll Free : 1800-266-7700

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