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Store Location, Ambience and Security Decisions ....Pg. 25

ARTICLES

DOCTORAL ABSTRACTS

BOOK REVIEWS

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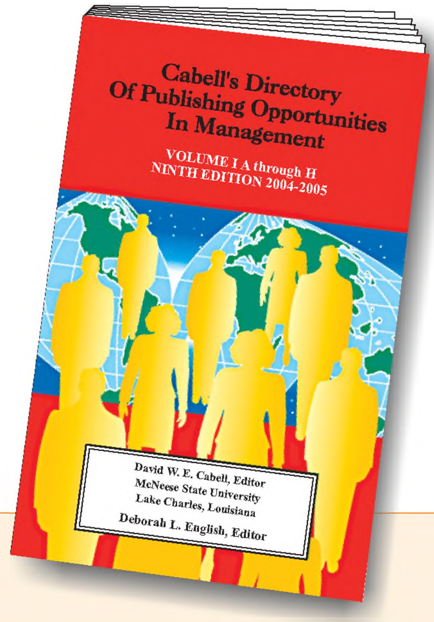

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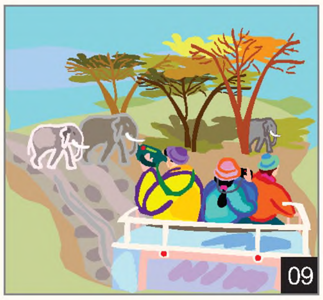

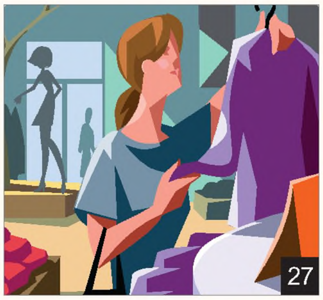

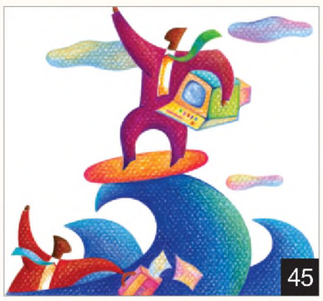

DOCTORAL ABSTRACTS

BOOK REVIEWS

From The Editor's Desk

"End of the road marks the beginning of a new journey......."

The footprints of year 2010 on the sands of time are still afresh and the year 2011 has already started reeling. The nightmare of recession finally got over by the end of year 2010 and market got a face lift and awaited a bright future.

However in the year 2011, the world has already started witnessing turmoil and disasters. The sudden uprising, starting from Egypt has rippled down thorough Arabian world resulting in political crisis in many countries .Earthquakes and Tsunami devastated Japan and many company's stock prices crashed in stock market.

The unpredictability of the events has shadowed the market once again.

In any situation it is the customer who rules the world of business. The service provider should not only fulfill his needs but also go that extra mile to delight him beyond his expectation.

The first article "Mapping Expectation and Satisfaction Level of Adventure Tourist for Land, Air and Water Based Sports in India" focuses on the expectation of Adventure tourists with respect to attributes like aesthetic appeal, sport facilities, food and accommodation etc. It further maps these levels of expectations and satisfaction on an expectation-satisfaction grid for better understanding.

The world that was earlier connected with the Internet has now leapt one step ahead and mobiles have brought better, faster and easier connectivity everywhere. The next article "Consumer Perceptions of Marketing and Non-Marketing Communications Received via Mobile Technology" studies the acceptance of mobile applications among men and women of various age groups and concludes that younger cell phone users are more likely to accept mobile applications.

The third article "Store Location, Ambience and Security Decisions: An Empirical Study of Readymade Garment Retailers" discusses the importance of the factors like location, ambience and security to ensure maximum customer access.

The technological revolution has changed the very face of education and made it cross the geographical boundaries of the world. The fourth paper "E-Learning Vs Traditional Education: A Meta Analysis of Distance Learning Technologies" probes what distance education has to offer by analyzing the strengths and weaknesses of each of these assessed modalities in an effort to help educators and professionals recognize the depth, offerings, and limitations of these emerging technologies.

Research and innovation are the buoyancy force of education. This issue includes four doctoral abstracts in diverse areas which may prove useful for researchers.

In the first doctoral abstract "Analysis of E-Business Models and Business Process Simulation for Internet Banking" Dr. Neeru Maheshwari has analyzed and compared various E-Business models to identify appropriate metrics for assessing the particular business model for Internet Banking .Her findings show that reengineering and migration from traditional form of business to E- Business has helped the banks save time, cost, human resource and given them an competitive edge over others traditional banks.

Dr. Snigdha Tripathi , in her research "Public Debt and Its' Sustainability: Perspective for a Backward State In India-A Case Study of Orissa" has studied the dimensions of the fiscal imbalances of the state Govt. of Orissa. Further assessment of the fiscal sustainability of the state Govt. of Orissa is made and some remedial measures for policy prescription have been suggested.

In the next doctoral abstract Dr. Madhusudan N Pandya "A Study of Patients' Satisfaction Measurement in Hospital Services of Selected Health Care Facilities" has measured patients' overall satisfaction /dissatisfaction as experienced and reported by selected patients on selected hospital services and has concluded that hospital management should identify areas of concern and plan its action in right direction considering patients' satisfaction.

Dr. Bizal Zaveri has identified, analyzed, interpreted and reported selected criteria concerning online and offline shopping of tangible products and also availing of E-Services using Internet by selected female Internet users in the state of Gujarat in his doctoral abstract "A study of Online vs. Offline Shopping Activities: on Female Internet Users in Selected Cities of Gujarat." It has been concluded that online retailers should develop an effective website that has attributes that not only attract shoppers to visit it but also encourages them to follow through with purchases from the Internet websites.

We hope that the present edition of the journal will prove to be both interesting and beneficial for you.

Your suggestions and contributions are invaluable for us.

Regards,

Vibha

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Mapping Expectation and Satisfaction Level of Adventure Tourist for Land, Air and Water Based Sports in India

Vijita S.Aggarwal, Meenakshi Handa, K.Ajay Singh

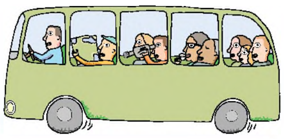
ABSTRACT

The present study is undertaken to explore the areas of tourist satisfaction and dissatisfaction and to understand the factors affecting tourist satisfaction. The paper aims to study the level of expectation and level of Satisfaction of Adventure Tourist for Land, Air and Water based sport with respect to identified 6 attributes. It further aims to map these levels of Expectation and Satisfactions on an Expectation – Satisfaction Grid for better understanding.

The data has been gathered from a sample of 300 adventure tourist comprising of 100 Land, 100 Air and 100 Water Based Adventure Tourist. Factor Analysis has been applied and it has broadly clustered 28 relevant items into Six significant factors. All these factors have internal consistency reliability greater than 0.84.

The findings of the study are that the attribute Aesthetic Appeal is rated high on both Expectation and Satisfaction by the tourist for all – Land, Air and Water based Sports. Facilities is rated high on Expectation and Satisfaction for Land and Water based Sports and Accommodation is rated high on Expectation and Satisfaction for Air and Water based Sports. The major areas of concern are Food Safety and Security which are rated low on Satisfaction as well as Expectation for Water and Air based Sports.

Key words: *Tourist, Satisfaction, Expectation, Adventure, Sports, Land, Air, Water.*



INTRODUCTION

Increasing lust for *adventure and world culture* and *pure nature* are generally considered to be the factors supporting India. Since India is strategically located and it has fabulous natural and cultural tourist resource wealth, it is now high time that the country prepares her to favorably tilt the tourist influx. This, in turn, would demand for a thoroughly professional attitude and efforts on part of the tourism planners, public and private sector tourism enterprises, researchers and academicians. Appropriate strategies to penetrate the desired micro and macro tourist market segments must be taken up on priority basis. Likewise facilities, amenities and services need to be created taking into consideration the generic expectation levels of the potential tourist but in the manner that the tourist plant don't act parasitically on the destination environment nor does it lead to the dilution or distortion of the *"local value"' or* country's image. So far the practice has been to perceive tourist demand on the basis of perceived perceptions and not on authentic research.

The study of expectation and satisfaction level has paramount significance so far as sustained development of tourism at the given destination is concerned. While the level of expectation of the potential tourist acts as a deciding factor in his/her decision to visit a particular destination, the satisfaction level speaks about the quality of the composition of tourist product (attraction + services + socio-cultural status + economics + ecological environment) experienced by him/her. (Singh, 2004).

As such, the expectation level of tourist in a way is the cumulative expression of degree of his/her awareness level with regard to the given destination vis–a–vis his/her socio / cultural / economical background. Quite often, the information available to the potential tourist about the destination, i.e., about the prevailing tourist appeal, tourist plant service and quality of overall environment, is considerably different from the ground realities, as it may be incomplete, insufficient or confusing, resulting into indecision or reluctance to visit the given destination in which the tourist would have otherwise been keenly interested, had the information been closer to the ground realities. Yet another implication could be that the resulting dreamy picture perceived by the tourist, owing to overenthusiastic marketing efforts may lead to his/her actual visit to the destination, in which he/she would have been otherwise uninterested. If, the right person does not visit the right place, it is bound to create chaos which would neither be in the benefit of the customers and the industry, nor to the advantage of the destination environment. Tourist's access to right information, in turn, depends on a variety of factors, i.e. the degree of professionalism of the destination promoters, effectivity of the media /style/design opted by them to create awareness in the market, personal whims of the word of mouth (publicity) transponders and misinterpretation of the message by the tourist himself/herself. Evidently if the potential customers are not aware, less aware or wrongly aware about the prospective destination, the marketing efforts / strategies needs urgent review. In such circumstances, tourist expectation studies provide vital clues to the marketers and developers to take appropriate course of action. (Singh, 2004)

The significance of tourist satisfaction does not need any justification; less satisfaction is bound to have far reaching impacts on the image of the destination, due to negative word of mouth publicity. Thus, if the areas of tourist dissatisfaction are realistically explored and well thought of actions are taken accordingly, the insignia downfall of the destination because of the distorted image can be realistically translated into its progressive prosperity. Furthermore, too high expectations seldom lead to high satisfaction even though the actual overall experience of the customer may be close to expected lines. Therefore efforts should always be directed towards not raising too high expectation, all the same taking into consideration that expectations below a certain level may not translate a potential demand into an effective one. Since, satisfaction and expectation perspectives are also based on the individual perception and aptitudes; as the same set of suppliers cannot satisfy even two individual of same age, income, occupation and social group, it becomes challenging to create an ideal situation where the expectation and satisfaction levels of more than one person can be ensured. Of course, if the generic factors responsible in this regard vis-à-vis broad market segments (age/income/occupation/place of residence/ motivation etc.) are carefully researched, appropriate marketing strategies as also provision of right mix of facilities / services can be developed at the destination. It is to this end that the present study has been undertaken.

LITERATURE REVIEW

In defining Tourist Expectation, Tourist Perception and Tourist Satisfaction, several researchers came up with different expressions. Akama and Kieti (2003) argue that tourists usually have initial expectations on a service before they consume it. According to Tribe and Snaith (1998), expectations are what people anticipate regarding their experience. Akama and Kieti (2003) hold that such expectations are formed through information from advertisements and word of mouth perceptions from other consumers during past experience. Expectations of a frequent consumer of service would rely more on the influence of past experience than sources of information. The four levels of customer expectations are the ideal, predicted, deserved and minimum tolerance. Expectations are always changing because consumers are aware of alternative service providers in the ever-growing industry. Hence increased competition suggests a need for an improved standard of service. Rodriguez del Bosque, Martin and Collado (2006) add four similar factors to those by Akama and Kieti (2003), they are : past experience, tourists' level of previous satisfaction with the service, communication from the service provider such as promises and the tourist's perceived image of the service.

Williams and Buswell (2003:65) define perceptions as "a comparison to excellence in service by the customer" and argue that perceptions are made at the end of a service encounter. However, Zeithaml (1988) believe that a process of judgment is performed during the service delivery process and then once more at the post-consumption stage. The nature of judgment can be subjective, for example two consumers can formulate totally different perceptions of an identical service experience. Customer perceptions of a service are complex judgments and can be modified by factors such as the consumer's mood and/or importance of the encounter. On another note, Bennett (2000) believes that expectations and perceptions can form a basis for travel.

Qu and Ping (1999) also argue that tourist satisfaction can be affected by tourists' initial expectations concerning a destination. Such expectations are influenced by several factors. Firstly, the advertising strategy applied by service providers is important because, if not well developed, it can create expectations that can be difficult to satisfy. Advertisements include brochures, media and informal interactions from friends and relatives (word of mouth advertising). Secondly, experience with similar services and their personnel can cause tourists to compare and make judgment regarding quality. Added to this is the fact that some tourists simply expect more service and are therefore likely to set high expectation standards.

Simpson (2000) point out that expectation may determine experiences tourists will enjoy because every tourist has a unique agenda prior to visit. Akama and Kieti (2003) add that the extent to which tourists' initial expectations are met or exceeded determines the level of satisfaction. In situations where the overall performance by the tourism service provider meets or exceeds initial expectation, the tourist is considered satisfied. Where performance is below the tourists' initial expectation, satisfaction level is considered low or non-existent. In order to emphasise the importance of perceptions in contributing to satisfaction, Saleh and Ryan (1993:107) state: "*Satisfaction is determined by the consumers' perceptions of the service and attention they receive from the representative of the service company with whom they are dealing.*"

In addition, Heung *et al.* (2001) argue that people's perceptions can be influenced by internal factors such as values, motives, socio-demographics and external factors such as media and past experience. They also argue that tourists make decisions on satisfaction based on how they perceive services; hence it is crucial that they perceive that a service will satisfy them. Following the arguments on expectations and perceptions in the literature, it becomes obvious that the key to improving tourist satisfaction is to reduce the gap between tourist expectation and the perception on the services consumed at a destination. This is important because good service quality is likely to result in tourist satisfaction since satisfaction is an affective concept based on the individual's needs and desires (Qu & Ping, 1999). Arguments by the cited authors suggest that expectations and perceptions play an important role in determining satisfaction.

Tourist satisfaction is important to successful destination marketing because it influences the choice of destination, the consumption of products and services, and the decision to return (Kozak & Rimmington, 2000). Several researchers have studied customer satisfaction and provided theories about tourism (Bramwell, 1998; Bowen,2001). For example, Parasiraman, Zeithaml, and Berry's (1985) expectation-perception gap model, Oliver's expectancy–disconfirmation theory (Pizam and Milman, 1993), Sirgy's congruity model (Sirgy, 1984 ; Chon and Olsen, 1991), and the performance – only model.(Pizam, Neumann, and Reichel, 1978) have been used to used to measure tourist satisfaction with specific tourism destinations. In particular, expectancy-disconfirmation has received the widest acceptance among these theories because it is broadly applicable.

Pizam and Milman (1993) utilized Oliver's (1980) expectancy-disconfirmation model to improve the predictive power of travelers' satisfaction. They introduced the basic dynamic nature of the disconfirmation model into hospitality research, while testing part of the original model in a modified form. In order to assess the causal relationship between two different disconfirmation methods, they employed a regression model with a single "expectation – met" measure as the dependent variable, and 21 difference–score measures as the independent variables. Some studies on customer satisfaction are also notable in tourism behavior research. For example, Pizam, Neumann and Reichel (1978) investigated the factor structure of tourists' satisfaction with their destination areas. The authors showed eight distinguishable dimensions of tourist satisfaction.

Barsky and Labagh (1992) introduced the expectancy – disconfirmation paradigm into lodging research. Basically, the proposed model in these studies was that customer satisfaction was the function of disconfirmation, measured by nine "expectations met" factors that were weighted by attribute – specific importance. The model was tested with data collected from 100 random subjects via guest comment cards. As a result, customer satisfaction was found to be correlated with a customer's willingness to return.

Chon and Olsen (1991) discovered a goodness of fit correlation between tourists' expectations about their destination, and tourists' satisfaction. Then, after tourists have bought the travel service and products, if the evaluation of their experience of the travel product is better than their expectations, they will be satisfied with their travel experience. Furthermore, Chon and Olsen (1991) provided an intensive literature review of tourist satisfaction. One thing to be noted, however, is that although the posited social cognition theory offers an alternative way of explaining satisfaction processes, its methodological mechanism is analogous to that of expectancy–disconfirmation theory. In other words, the concepts of congruity and incongruity can be interpreted similarly to the concepts of confirmation and disconfirmation, both of which can result in either positive or negative directions.

Kozak and Rimington (2000) reported the findings of a study to determine destination attributes critical to the overall satisfaction levels of tourists. Pizam, Neumann, and Reichel (1978) stated that it is important to measure consumer satisfaction with each attribute of the destination, because consumer dis/satisfaction with one of the attributes leads to dis/satisfaction with the overall destination. Furthermore, Rust, Zahorik, and Keininghan (1993) explained that the relative importance of each attribute to the overall impression should be investigated because dis/satisfaction can be the result of evaluating various positive and negative experiences.

Tourist expectation and satisfaction with respect to six attributes namely: Information, Aesthetic Appeal, Facilities, Safety and Security, Accommodation and Food have been measured and positioned on an Expectation – Satisfaction Grid in the present study.

OBJECTIVES OF THE STUDY

The objectives of the study are to:

- To identify the attributes of Adventure Tourist Expectation and Satisfaction.
- To map the level of Expectation and Satisfaction of Adventure Tourist with respect to various attributes for Land, Air and Water based sports.
- To identify the attributes which are high on both Expectation and Satisfaction; low on both Expectation and Satisfaction and high on expectation and low on satisfaction.
- To analyse the positioning of the attributes on Expectation- Satisfaction Grid.

RESEARCH METHODOLOGY

To identify the major attributes of Adventure Tourist Expectation and Satisfaction, Factor Analysis was applied on the collected data. The means of level of Expectation and level of Satisfaction of each attribute was calculated for Land, Air and Water based sports. The placement of each attribute on an Expectation-Satisfaction grid was accomplished by using the means of expectation and satisfaction as the coordinates. When these calculations had been performed, they were plotted on a two-dimension grid. This Expectation - Satisfaction grid positioned the grand means for satisfaction and expectation, which determined the placement of the axis on the grid. Each attribute on the grid was then analyzed by locating the appropriate quadrant in which it fell.

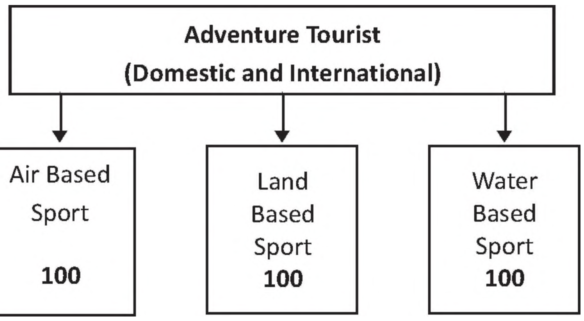
Sample

A sample size of 300 adventure tourist of age between 25 – 55 years was taken for the study. Out of these 300 adventure tourists 100 tourists were taken from air based sport, 100 from Water based sport and 100 from Land based sport. The tourist were identified taking help from the officials of Department of Tourism, Government of India and tour operators from Delhi. These agencies provided the information on groups which were likely to visit various destinations of adventure sports.

The following destinations were identified for contacting the respondents:

- For Air Based Sports – Billing (H.P), Naukuchiatal (Uttarakhand), Solang Nala (H.P)
- For Land Based Sports – Uttarkashi (Uttarakhand), Joshimath (Uttarakhand)
- For Water Based Sports - Shivpuri (Uttarakhand), Goa (Goa)

Sample Distribution of Adventure Tourist



The tourist were administered the questionnaires individually. The sample of the study was selected selected using randomization through lottery system. The list of the adventure tourist was provided by the tour operators. The names of these tourists were then written individually on a single slip. Out of available set of tourists 25% of respondents were picked by lottery system. This was done to avoid over representation of any particular group. The survey was conducted on the sites (destinations where the sports were taking place). All the questionnaires were got filled by the scholar himself thus reducing the possibility of any ambiguity or perceptual deviation. The domestic tourist were of both domestic and foreign origin.

The survey was conducted in different months for 2 different years for all the three types of sports namely: Land Based sport, Water Based Sport and Air Based Sport

Tools Used

The questionnaire on Tourist expectation and satisfaction was developed by taking feedback from multiple focused group interviews with Adventure Tourists. The focused group interview data was analyzed by adopting content analysis technique. The content analysis has helped to develop a list of attributes for tourist expectation and tourist satisfaction. A pilot study was conducted with 50 Adventure tourist interested in diverse adventure sports.

A five point scale ranging from strongly disagrees to strongly agree was used to study participants assessment of individual attributes. On an average the survey took about 5-10 minute to complete. All the questionnaires were personally administered by the scholar.

The questionnaire was got filled by the same sample tourist selected, for

Expectation – after the arrival of tourist at the Destination / Delhi and before experiencing the facilities and services of Adventure Tourism destination

Satisfaction – after the tourist had experienced the services and facilities of the Adventure Tourism Destination.

RESULTS AND ANALYSIS

The conceptual scheme of the study consists of tourist expectation and tourist satisfaction attributes to understand the level expectation and level of satisfaction of Land Water and Air based Adventure tourist with respect to each attribute. In order to conduct analysis it was important to reduce the data to a manageable size. Data collected was loaded into SPSS and preliminary analysis began with reducing the data set into factor. Detailed results of factor analysis and varimax rotations are summarized in Table 1. (Factor Analysis is a technique for identifying groups and clusters of variable. Principal component Analysis is concerned only with establishing which linear component exists within the data and how a particular variable might contribute to that component.)

The following table provides a brief description of factors extracted by factor analysis according to the criterion of factor loading greater than or equal to 0.6 and cronbach's alpha reliability coefficient greater than or equal to 0.75.

Table 1: Summary of Factor Analysis Results

Factors	Variables	Loadings					
		1	2	3	4	5	6
Factor 1	**Facilities**						
1	I expect the adventure recreation facilities to be ample in India	.732					
2	I expect the availability of equipment for adventure sports to be adequate	.803					
3	I expect the expertise of the instructors to be good	.794					
4	I expect the variety of adventure sports options to be ample	.832					
5	I expect the adventure sports options for amateurs to be good	.852					
6	I expect the adventure sports options for experienced seasoned adventurers to be good	.795					
7	I expect the porter facilities to be available in abundance	.802					
8	I expect the pony facilities to be available in abundance	.807					
9	I expect the price – value equation of the adventure sports packages to be adequate	.705					
Factor 2	**Aesthetic Appeal**						
1	I expect the natural beauty of the destination to be impressive		.713				
2	I expect that the places generally would be less polluted and refreshing in India		.822				
3	I expect that the eco – friendly tourist practices are adopted		.839				
4	I expect the Adventure tourist destinations not to be overcrowded		.809				
5	I expect that the places are exotic and worth visiting		.743				

Factor 3	**Information**						
1	I expect the information about the adventure sports options in India to be adequate			.788			
2	I expect the promotional literature regarding adventure tourism in India is impressive			.891			
3	I expect the information on trekking routes to be up to the mark			.805			
4	I expect the availability and reliability of counter maps to be high			.702			
Factor 4	**Safety and Security**						
1	I expect the safety and security measures for adventure sports to be good				.793		
2	I expect the quality of equipments used for adventure sports to be good as per the safety standards				.831		
3	I expect the rescue operations to be good in India				.692		
4	I expect that the crime rate is not high				.626		
Factor 5	**Food**						
1	I expect the availability of food at adventure destinations to be adequate					.685	
2	I expect the quality of food to be good					.790	
3	I expect the food to be hygienic					.813	
Factor 6	**Accommodation**						
1	I expect the number of accommodation units at the adventure tourist destinations to be adequate						.821
2	I expect the accommodation facilities to be comfortable						.843
3	I expect the quality of the tents and its accessories such as mattresses and sleeping bags to be good						.825

A summary for ready reference is presented in Table 2, which shows

a) the major constructs used in the study
b) their factor analytically derived dimensions
c) the number of items constituting the factors

Table 2: Table Showing Cronbach's Alpha Coefficients Indicating the Internal Consistency for the Respective Factors

S.No.	Factors Values	Mean Variables	No. of Variables	Eigen	% Variance	% Cummulative	Cronbach's Alpha
1	Aesthetic Appeal	4.26	5	3.88	10.48	10.48	.868
2	Accommodation	3.96	3	1.37	3.71	14.19	.859
3	Facilities	3.79	9	8.89	23.95	38.14	.934
4	Information	3.77	4	3.59	9.71	47.85	.850
5	Safety and Security	3.64	4	2.69	7.26	55.11	.858
6	Food	3.59	3	1.93	5.20	60.31	.849

Thus, 28 out of 39 items of the questionnaire on tourist satisfaction were found to be factor analytically meaningful.

The result of factor analysis has yielded 6 factors upon principal component analysis with varimax rotation. These factors were named as follows: Aesthetic Appeal, Facilities, Accommodation, Information, Food and Safety and Security.

ATTRIBUTES OF TOURIST EXPECTATIONS AND SATISFACTIONS

Information

The structure of this factor indicates the importance of information in attracting, making aware and holding the adventure tourist. Appropriate information, at the right time and at the right place helps in converting the potential tourist into an actual adventure tourist for a specific destination. Information factor includes the aspects such as quality, quantity, variety, availability, reliability and technicality. This factor has an important implication on expectation and satisfaction level of adventure tourist.

Aesthetic Appeal

This factor is related with the beauty and appeal of the destination. Natural beauty and its uniqueness is a major pull factor for any destination. This factor comprises of attributes such as natural beauty of a destination, exoticness of a destination, eco-friendly practices adopted at the destination, level of pollution and level of congestion at the destination. The hygienic, neat and clean and refreshing surroundings adds up to the natural beauty and appeal of the destination. Aesthetic appeal is a strong determinant of tourist expectation and satisfaction level as the tourist is not only interested in the activity itself but also with the exoticness of the surrounding in which the activity takes places, it sharply enhances the overall experience.

Facilities

The structure of this factor indicates the importance of making adventure sports activities smooth, and comfortable besides being thrilling and exciting. This factor comprises of attributes such as availability of equipments, expertise of instructors, and variety of adventure sports options for amateurs as well as for experienced seasoned adventurers, support of porters and ponies and price-value equation of adventure sports packages. Facilities and services at the destination form the major essence of a destination. The success or failure or popularity or non-popularity of the destination depends on this factor irrespective of the natural beauty of that destination. Hence it is a major factor which plays a key role in formulation of expectation and leads to tourist satisfaction or dissatisfaction.

Safety and Security

The factor structure demonstrates the importance of secured feeling at the destination. This factor is not only related with safety of a tourist while participating in adventure sport with respect to quality of equipments, rescue operations and safety measures taken for adventure sports but also safety in the destination with respect to any crime such as theft, physical assault, or any kind of harassment. This factor has a far reaching effect on the level of expectation and on the final level of satisfaction.

Accommodation

This factor demonstrates the importance of place of stay at the destination. To feel comfortable and at peace the place of rest and relaxation where one spends more than half a day should be good. This factor comprises of attributes such as availability, variety and comfort of accommodation facilities. This factor not only includes the built accommodation (hotels, motel, resorts, guest houses, etc.) but also movable accommodation units like tents and its accessories such as mattresses, sleeping bags etc. As the present area of study is adventure sports, there are a number of sports and destinations where built accommodation is not possible and feasible e.g., trekking, mountaineering, river water sports etc. The tourist venture into the naïve, fragile areas and select their own camp site in accordance with the accompanying guide after judging the surrounding area (often close to a water body). After a thrilling and activity prone day, the place of accommodation, its quality and ambience plays a very important role in overall satisfaction with the destination/activity as a whole. If the stay is not comfortable and relaxing it has a bearing on the activities of the next day and the days to come.

Food

This factor indicates the importance of food so much so that it is covered as a separate factor and is not integrated with accommodation. This factor comprises of attributes such as availability, quality and hygiene of food. Availability includes not only existence of something to eat at the destination/ activity area but also the multiplicity of cuisines; the cuisines that the tourist are used to, the cuisines that are unique to the destinations, the cuisines that are globally accepted. Food is one of the basic needs and hence has to be taken care of with great caution. Food again is one of the major factors leading towards satisfaction or dissatisfaction with the destination. Expectations with regard to food further leads to satisfaction or dissatisfaction with food.

All the above mentioned six factors are responsible for the overall satisfaction level of the adventure tourist. Tourism industry is a complex industry and forms a complete whole by the amalgamation of many things. If any one component is missing, the phenomenon cannot take place. Similarly tourist expectations and satisfactions are dependent on all these factors and dissatisfaction with any one of the factors can lead to overall dissatisfactory experience of the tourist.

All the six attributes were positioned on the Expectation – Satisfaction Grid and Expectation Satisfaction Analysis was done.

Significance of difference In Mean Scores on Expectation and Satisfaction of Adventure Tourist

Table 3: Significance of Difference in Mean Scores on Expectation and Satisfaction of Adventure Tourist

	Expectation		Satisfaction				Level of
	Mean	SD	Mean	SD	df	t	Sig
Information	15.11	1.728543	11.77667	2.241324	299	23.182	<.001
Aesthetic Appeal	21.73667	2.51962	21.75	3.438057	299	-0.069	NS
Facilities	34.19333	4.513372	27.63333	4.448015	299	19.947	<.001
Safety and Security	14.57	2.067045	9.403333	2.816695	299	26.002	<.001
Accommodation	11.89333	1.3717	8.893333	2.307894	299	21.515	<.001
Food	10.79333	1.57869	8.02	2.224732	299	19.225	<.001
Total	108.2967	8.58259	87.47667	10.74372	299	28.183	<.001

Comparison of mean ratings of level of expectation and level of satisfaction of all 300 Adventure Tourist was done. The results in table 3 indicate that mean values of the level of expectation was much higher than that of the level of satisfaction of adventure tourist for all the variables except Aesthetic Appeal where the mean difference was non-significant. The mean difference between the level of expectation and level of satisfaction is statistically significant at 0.001 in case of all the variables except Aesthetic Appeal. The level of expectation of the tourist is high and comparatively the level of satisfaction of the tourist is low.

EXPECTATION – SATISFACTION ANALYSIS

The average level of the satisfaction with various attributes of adventure tourism and average level of expectation of these attributes were calculated for Land, Air and Water based sports from the sample collected. The placement of each attribute on an Expectation - Satisfaction Grid was accomplished by using the means of expectation and satisfaction as the coordinates. When these calculations had been performed, they were plotted on a two-dimension grid.

This Expectation - Satisfaction Grid positioned the grand means for satisfaction and expectation, which determined the placement of the axis on the grid. Each attribute on the grid was then analyzed by locating the appropriate quadrant in which it fell. For example the top left quadrant contains attributes that are rated high on satisfaction but the associated expectations with them were rated below average (Low Expectation, High Satisfaction). Attributes in the top right quadrant were those which were rated very satisfactory and the level of expectations rated was also above average. (High Expectation, High Satisfaction). Attributes in the bottom left quadrant were considered less satisfactory and their expectations were also rated below average. (Low Expectation, Low Satisfaction). Finally, Attributes in bottom right quadrant were those which were rated above average on expectation, but were rated below average on satisfaction (High Expectation, Low Satisfaction).

Three Expectation- Satisfaction Grids were prepared to analyse the level of expectation and satisfaction across all the six attributes (Information, Aesthetic Appeal, facilities, safety and security, accommodation and food) for land based sports, air based sports and water based sports.

Expectation – Satisfaction Analysis For Land Based Sport.

The average level of satisfaction with all the six variables (Information, Aesthetic appeal, facilities, safety & security, accommodation and food) were calculated for adventure tourist participating in Land Based Sport (Table 4). The Expectation - Satisfaction Grid positioned grand means for satisfaction (X=3.11) and expectation (X = 3.79) For Land Based Sport, which determined the placement of the axis on the grid. Figure 1 is an Expectation - Satisfaction Grid showing the overall ratings of adventure tourist participating in Land Based Sports in India. Aesthetic Appeal and Facilities were located in upper right – hand quadrant (High Expectation, High Satisfaction). Information, Food, Safety and Security and Accommodation were located in bottom- right hand quadrant (High Expectation, Low Satisfaction).

Table 4: Mean Values of Level of Expectation and Level of Satisfaction for Land Based Sport

Attributes	Expectation	Satisfaction
Information	3.52	2.97
Aesthetic Appeal	4.39	4.47
Facility	3.88	3.44
Safety and Security	3.62	2.52
Accommodation	3.9	2.72
Food	3.44	2.52
Average	3.79	3.11

Expectation – Satisfaction Grid for Land Based Sports

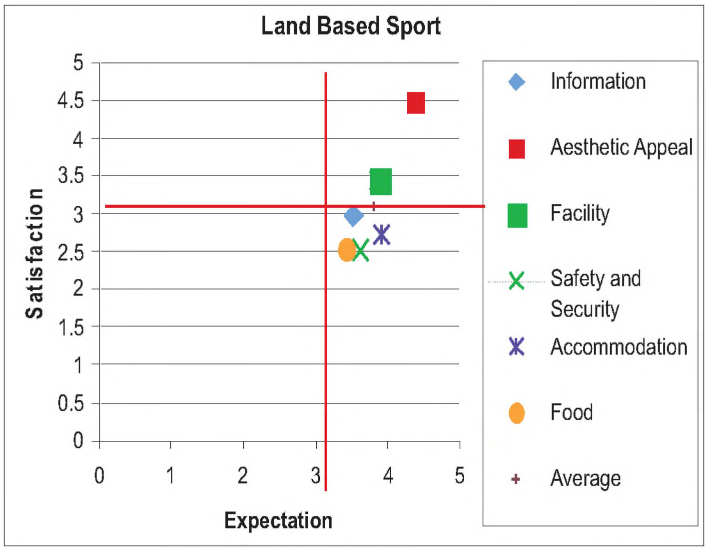


Figure 1

None of the variables were located in upper – left quadrant (Low Expectation, High Satisfaction). This indicates that the adventure tourist have high level expectation and high level satisfaction for attributes Aesthetic Appeal and Facilities, whereas for the attributes Information, Safety and Security, Accommodation And Food the level of expectation is high but the level of satisfaction is low for land based sports.

Expectation – Satisfaction Analysis for Air Based Sport

The average level of satisfaction with all the six variables (Information, Aesthetic Appeal, Facilities, Safety & Security, Accommodation and Food) were calculated for adventure tourist participating in Air Based Sport (Table 5). The Expectation - Satisfaction Grid positioned grand means for Satisfaction (X=3.06) and Expectation (X = 3.88) for Air Based Sport, which determined the placement of the axis on the grid.

Table 5: Mean Values of Level of Expectation and Level of Satisfaction For Air Based Sport

Attributes	Expectation	Satisfaction
Information	3.91	2.95
Aesthetic Appeal	4.19	4.26
Facility	3.65	2.85
Safety and Security	3.69	2.19
Accommodation	4.04	3.22
Food	3.77	2.88
Average	3.88	3.06

Expectation – Satisfaction Grid for Air Based Sports

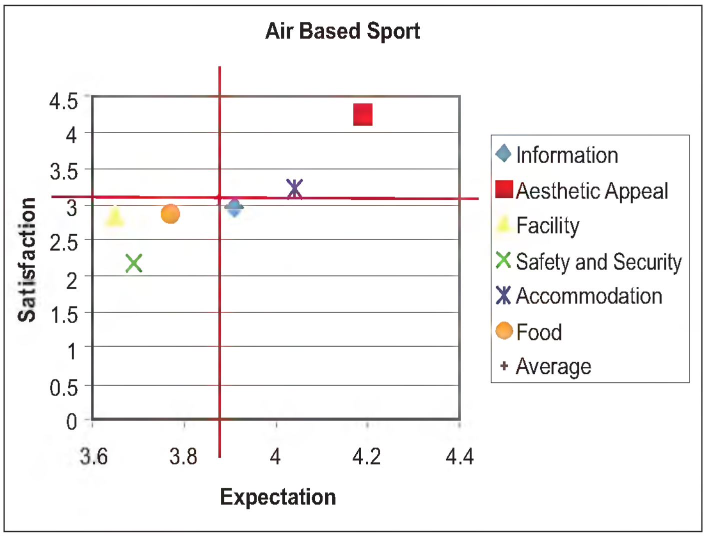


Figure 2

Figure 2 shows an Expectation – Satisfaction Grid for Air Based Sport. "Aesthetic Appeal" and "Accommodation" were located in upper – right hand quadrant (High Expectation, High Satisfaction). Only Information was located in lower right hand quadrant (High Expectation, Low Satisfaction). Facilities, Food and Safety and Security were located in lower left hand quadrant (Low Expectation, Low Satisfaction). No variable was located in upper left hand quadrant. (Low Expectation, High Satisfaction).

Expectation – Satisfaction Analysis for Water Based Sports

The average level of satisfaction with all the six variables (Information, Aesthetic Appeal, Facilities, Safety & Security, Accommodation and Food) were calculated for adventure tourist participating in Water Based Sport. (Table 6). The Expectation - Satisfaction Grid positioned grand means for Satisfaction (X=2.79) and Expectation (X = 3.89) for Water Based Sport, which determined the placement of the axis on the grid.

Table 6: Mean Values of Level of Expectation and Level of Satisfaction For Water Based Sport

Attributes	Expectation	Satisfaction
Information	3.9	2.91
Aesthetic Appeal	4.46	3
Facility	3.87	2.92
Safety and Security	3.61	2.34
Accommodation	3.95	2.95
Food	3.57	2.62
Average	3.89	2.79

Expectation – Satisfaction Grid for Water Based Sports

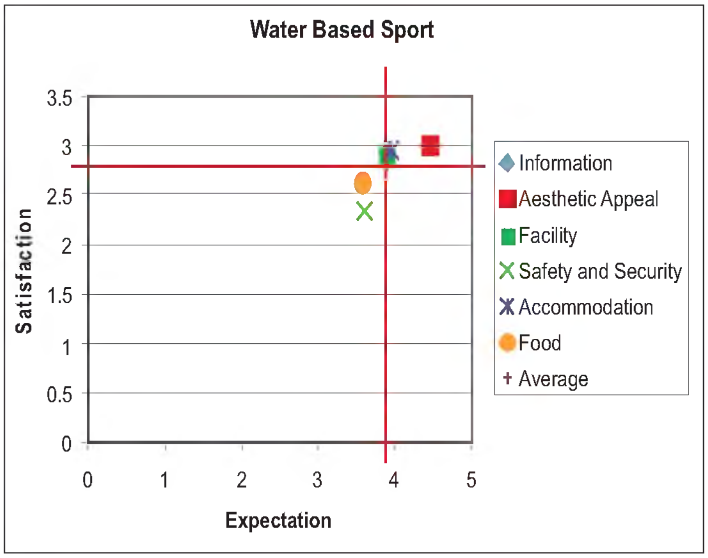


Figure 3

Figure 3 shows an Expectation – Satisfaction Grid for Water Based Sports. Aesthetic Appeal, Facilities, Accommodation and Information were located in upper right hand quadrant (high expectation, high satisfaction) whereas Food and Safety and Security were located in lower left hand quadrant (Low Expectation, Low Satisfaction). None of the variables were located in upper left hand quadrant (Low Expectation, High Satisfaction) and lower right hand quadrant (High Expectation, Low Satisfaction). This indicates that the level of expectation and satisfaction is above average for Aesthetic Appeal, Facilities, Accommodation and Information in case of Water Based Sports.

DISCUSSION AND IMPLICATIONS

Analysis of location of attributes in different quadrants on Expectation – Satisfaction Grid for Land, Air and Water Based Sports clearly shows that the attribure Aesthetic Appeal was rated high on both Expectation and Satisfaction by the Adventure Tourist for all – Land, Air and Water Based Sports. Adventure Tourist are highly satisfied with the Aesthetic Appeal of Adventure Tourist Destinations as the destinations are unique in terms of geographic location, topographic terrain, altitudinal variation; owing to which the destinations have unique climatic conditions having unique floral and faunal species with rich bio- physical diversity; all adding up to the Aesthetic Appeal of the destination. Good Aesthetic Appeal of the destination further enhances the experience of Adventure Sports. Natural Attractions of the country are par excellence and sustainable tourism should be developed and promoted to conserve and preserve the natural beauty of the destination in order to have a longer destination life cycle.

Attribute Information is rated high on Expectation by the Adventure Tourist for all – Land, Air and Water Based Sports, but is rated high on Satisfaction only in case of Water Based Sports. For Land and Air Based Sports attribute Information is rated below average on Satisfaction. This indicates that Information available for water sports is satisfactory in terms of contents and quality and is easily available. Information available for Land and Air Based Sports is not as per the expectations (not up to the mark). Content of Information (e.g trekking routes, maps, contour maps, altitude, climatic conditions, photographs, do's and don't's, ecological facts etc) has to be enhanced. More Information would lead to less of confusion, indecision and wastage of time and on the other hand would increase degree of Satisfaction level in the Adventure Tourist.

Attribute Accommodation is rated high on Expectation for all – Land, Air and Water Based Sports and rated high on Satisfaction for Water and Air Based Sports, but below average on Satisfaction for Land Based Sports. The reason for the same is that Air and Water Sports takes place at specific identified locations and hence uses fixed built - up accommodation; whereas for Land Based Sports mobile tents are used as majority of Land Based Sports are practiced in Himalayas and many places in Himalayas are not easily accessible and are uninhabited. Most popular Land Based Sports are Trekking, Mountaineering and Rock Climbing and because of their location tented accommodation is used. Tentage facilities are not up to the mark. High quality Swiss tents or equivalent should be used and equal weightage should be given to quality of tentage accessories (mattresses, sleeping bags etc).

Attribute Facilities is rated high on Expectation and Satisfaction for Land and Water Based Sports and low on Expectation and Satisfaction for Air Based Sport. The reason for the same is that India is a mature destination for Land and Water Based Spots with variety of opportunities for both amateurs and experienced; young and middle – aged. Aero sports have a recent origin in India and hence lacks in technology, expertise and variety. Facilities in all the areas should be enhanced and upgraded aggressively to meet the international standards and have a much desired satisfied clientele.

Attributes Food and Safety and Security are rated low on Expectation and Satisfaction for Air and Water Based Sports. Only for Land Based Sports none of the attributes lie in bottom left quadrant (Low Expectation, Low Satisfaction). The expectations for Food and Safety and Security is also rated high in Land Based Sports like all other attributes, but they are rated low on Satisfaction. Food and Safety and Security are very important attributes not only for satisfaction of the tourist but also for human beings in general. No one can enjoy exotic, unique and mesmerizing destinations on an empty stomach. Emphasis should be laid on providing quality, hygienic, delicious and variety of food to have satisfied tourist. Safety and Security is another major concern world wide. The rescue operations should be made more effective and prompt and crime rate should be checked. Latest equipments of international standard should be used for rescue operations for the tourist to feel safe and secure. As the expectation is rated low for food and safety and security it means that the image of India as Adventure Tourist Destination is not good regarding these two attributes. Steps should be taken not only to improve the provisions of food and safety and security but also to enhance the image with relation to these attributes in the minds of potential adventure tourist. The fastest way of improving image is through positive word of mouth by extremely happy and satisfied tourist.

The results show that for total adventure tourist (Land, Air and Water) the level of expectation is much higher than the level of satisfaction for all the variables with an exception of aesthetic appeal (Table 3). These results indicate that remedial action should be taken to increase the information about the adventure Sports, improve the facilities, safety and security provisions, quality of accommodation and food in order to increase the level of satisfaction of adventure tourist. Aesthetic Appeal of the destinations is acting as a major pull force and is high on satisfaction, hence steps should be taken for sustainable growth and development of Adventure tourism not affecting the ecology of the destinations negatively.

Satisfied Tourist is a key to success of any kind of tourism as he ensures repeat clientele and converts potential tourist into actual tourist.

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Consumer Perceptions of Marketing and Non-marketing

Communications received via Mobile Technology

Elizabeth C. Alexander, Deanna D. Mader

ABSTRACT

This study examines the acceptance of mobile applications, marketing and non-marketing, among men and women of various age groups, mobile phone usage rates and cell phone attachment groupings. The study found that younger cell phone users were more likely to accept mobile applications. Differences in acceptance by men and women were found in only three of the eight applications tested. Mobile phone users with high usage rates and those with high cell phone attachment scores were also more willing to accept mobile applications.

Keywords: *Consumer, Communication, Technology, Perception*

INTRODUCTION

It comes as no surprise – the use of mobile technology by consumers is increasing rapidly. The figures hold true for the United States, as well as countries in Asia, Europe, and all other parts of the globe (e.g. Campbell 2007; Librero, Ramos, Ranga, Trinona, & Lambert 2007; Okazaki 2005; Tripathi & Nair 2006). A large part of this rapid increase can be attributed to the technology's adoption by teens and young adults (e.g. Docksai 2009; Fletcher 2008; Tucker 2009; Terry, Stephen, & Downs 2007).

The movement to capture potential consumers, of all ages, with promotional material through cell phones was an obvious extension of communications materials for many outlets. “Mobile media engage people in interactive dialogue, which is building value for a brand,” says Jack Philbin, president of Vibes Media. “No other media can engage people one-on-one at an event.” (Cuneo 2005, p. S7). Professional sports teams and media/entertainment corporations have successfully put this into practice for several years.

Just a few years ago the adoption of mobile advertising by companies was reported to be in its infancy. For example, Okazaki (2005) recommended that mobile advertising become part of a multinational corporation's integrated marketing communications in order to reduce consumer resistance and increase synergic effects. The study predicted that use of mobile technology would most likely grow considerably as firms realized its positive impact on branding and technological advances improved facilitation and reduced costs. It appears that numerous companies have followed this advice with mobile advertising for special promotions, coupons, and location-based services (Becker 2009).

A location-based mobile application would allow a company to utilize the proximity of a customer to an outlet in order to provide the individual with added value. However the application of such services does not come without perceptual barriers in the form of privacy concerns. In a laboratory study of location-based services (LBS), Junglas and Watson (2008) found that participants viewed LBS as beneficial. Participants were positive toward and intrigued by location-tracking (e.g. finding a person) and location-aware services (e.g. finding an office). The authors did note, however, that participants expressed privacy concerns. Given this finding and preliminary findings of a second study, the authors conclude that privacy considerations are likely to be a major determinant in the success of LBS. To that end, companies using location-aware services such as promotional offers will need to make sure the consumer perceives the value of the service to be high and the privacy risk to be low .

As companies are using mobile technology to connect with consumers, Rogers' (1962) theory concerning innovation attributes with the speed of adoption and perceived risk as well as Davis' technology acceptance model may explain why consumers may not quickly accept the mobile marketing efforts of organizations.

According to Rogers, and innovation is more quickly adopted if it possesses the following attributes: relative advantage, compatibility, trialability, observability, and (low) complexity. Relative advantage provides the consumer with a better method to achieve their goals. It could be argued that mobile marketing activities provide a relative advantage to consumers. For example, consumers can receive coupons via their cell phone and redeem them with the cell phone without having to clip and carry the paper coupons with them. Economic advantages may also be realized as consumers are able to take advantage of special offers they may otherwise be unaware of and, in the case of receiving notifications of due dates, low balances, etc, consumers could realize economic advantages in reducing late fees and overdraft charges. Consumers are also able to receive automated messages concerning account activity or special events with little or no effort, providing a temporal advantage over other communication methods.

As many consumers already possess cell phones, it would seem that the use of mobile marketing is compatible with consumers' lifestyles. However, restrictions in compatibility may occur due to the capabilities of the cell phone itself and cell phone plans. Not all consumers possess plans that allow SMS or MMS messaging both of which are utilized by mobile marketers. Low-end phones may also have technological restrictions to the use of some mobile marketing applications, like location-based services. These restrictions would also limit the consumers' ability to trial the mobile marketing activities.

Although many people use their cell phones in public, receiving messages, whether personal or marketing messages, is more or less a private activity, limiting the observability attribute of mobile marketing. Consumers may be able to observe the redemption of mobile coupons, but many of the other mobile marketing activities consist of SMS or MMS messages which could not be easily observed by other consumers. Due to the inability to observe mobile marketing transactions, consumers may also not be aware of the level of complexity involved, possibly perceiving the activities to be too complex to engage in.

Perceived risk becomes another factor of importance when discussing adoption of an innovation. In the case of mobile marketing, consumers may perceive a risk to their privacy when engaging in mobile marketing activities, especially those activities which involve financial information and location-based services, limiting the adoption. In a qualitative study examining the adoption of internet financial services, Black, Lockett, Winklhofer and Ennew (2001) examined adoption using the perceived innovation attributes. Using focus group methods, the researchers found that relative advantage, compatibility, trialability and perceived risk were all factors to be considered in the adoption of Internet banking. Further research using Rogers' attributes would be useful in determining the adoption of mobile marketing activities by consumers.

Additionally, Davis' technology acceptance model (Davis, Bagozzi and Warshaw, 1989) could prove to be useful in determining factors related to consumer adoption of mobile marketing activities. Davis's model posits that perceived usefulness and perceived ease of use are critical to the intention to use technology. When applied to technology acceptance in the workplace, perceived usefulness is defined as the probability that use of the technology will increase performance and perceived ease of use indicates the use of the technology will be free from effort on the part of the user.

Both perceived ease of use and perceived usefulness could be useful in explain the adoption of mobile marketing by consumers. In Davis' model, perceived usefulness and ease of use lead to a positive attitude toward using the technology, which in turn leads to an intention to use, and finally use of the technology.

HYPOTHESES

As the mobile phone (and other devices) industry continues to expand, reaching more customers with more applications and better service, the question remains: How much and what types of mobile applications in marketing will be embraced by customers. This is an effective method for an organization to stay in touch with its customers, but will customers see any value?

Specific hypotheses being tested are related to the rating of various types of marketing and non-marketing mobile applications and their ratings among various consumer groups, including gender groups, age groups, phone usage, and groups based on cell phone attachment. Ratings for overall mobile applications, as well as individual types of mobile applications will be tested.

Cell phone attachment measures the bond individuals have with their mobile phones. Presumably, individuals exhibiting a stronger bond with their cell phones will be more accepting of the various mobile applications available and will use their phones in ways more than just to make telephone communications. These individuals are more likely to engage in additional types of connections through the use of their cell phone.

H1: High cell phone attachment (CPA) will be related to a higher level of acceptance for mobile applications in general, as well as the specific applications.

Similarly, those individuals reporting a higher usage rate are likely to value other mobile applications more than those with lower cell phone usage rates. More usage equates to more experience with the value provided from various cell phone applications.

H2: Higher phone usage will be related to higher acceptance of mobile applications in general, as well as specific mobile applications.

Younger consumers have a higher level of ownership and usage regarding cell phones. Younger individuals score higher on the CPA scale in general and are heavier users of technology. It stands to reason that younger consumers will be more likely to value mobile applications more than older consumers due to their increased experience and acceptance.

H3: Lower age groups will have greater acceptance of mobile applications in general, as well as specific mobile applications.

It is hypothesized that females will have a greater acceptance of the more social mobile applications than males. Females use technology to communicate socially and share information, rather than perform specific tasks. The mobile applications that allow for easier social interaction would be more valuable to the female population.

H4 Females will have a higher acceptance of the social mobile applications of friend location and restaurant location. Females will also have higher acceptance of mobile application used to advertise sales.

It is also hypothesized that the type of mobile application will impact acceptance ratings. Mobile applications that are perceived as a marketing application will be less accepted than an application that is less marketing and more functional to the phone owner. Consumers are hesitant to participate in what they perceive to be a solely marketing activity. Anecdotal self-report by consumers reveals that consumers don't want to lose control of their phone to a marketing endeavor.

H5: Marketing applications will be less accepted than non-marketing applications.

RESEARCH METHODOLOGY

A survey was developed to assess mobile phone usage, cell phone attachment, demographics, and opinions of various uses of mobile texting. The cell phone usage measures included a self-assessment of usage from very low to very high, monthly minutes used, number of calls received and made, plus features used most often. The cell phone attachment scale included 16 items using a 5-pt Likert scale identified by researchers and members of a student research team, reflecting cell phone users' experiences. The items adddress specific behavior and attitude examples with regard to cell phones. A previous application of the scale demonstrated reliabilty at .85. (Alexander, Ward, Braun 2007). Individuals were classified as high or low cell phone attached based on the mean and median figures. Individuals with a CPA of 2.65 or less were classified of having high cellphone attachment, whereas, individuals with a CPA rank of 2.66 or above are classified as having low cell phone attachment.

Various mobile applications, gathered from popular press, news reports, etc. were evaluated on a 5-pt scale (I would like this very much). Table 1 provides a list of the applications rated. The completed survey was administered electronically to members, students and otherwise, of the campus community who were invited to participate with a campus wide email.

Table 1: High versus Low CPA Attachment and Mobile Application Acceptance

Mobile Application	High CPA	Low CPA	Sig.
Notification of bill due dates	2.53	3.17	.00
Notification of bill payment received	2.56	3.17	.00
Announcements for electricity, water, or other utility outages	2.31	2.76	.00
Advertisement for special sales	3.85	4.40	.00
Receiving texts of workplace or class announcements	2.01	2.71	.00
Receiving automatic texting of locations of favorite restaurants, etc. when in a new city by GPS location	3.37	3.92	.00
Notice that a friend is nearby by GPS location	3.23	3.95	.00
Receiving class assignments from an instructor	2.39	3.29	.00

RESULTS

A sample of 511 usable cases was used in the data analysis. Sample characteristics reveal a majority of students participated in the research. Over 50% (56.9%) of the sample fell into the age group of 18 – 22. Other age groups were also represented at 28% for 23- 34, 8% for 35- 44 and 7% for over 44. Females participated more readily than males, with just over 26% of the sample being male. All student class ranks were represented and 88% of the respondents were students.

When analyzing the relationship between cell phone attachment (CPA) and opinions of various mobile text applications, in all cases individuals with a high CPA rated the mobile applications more favorable than those with lower CPA. All tests are significant at the p= .000 level. See Table 1 for item means. Hypothesis 1 is supported.

Similar results were found when analyzing phone usage and opinions regarding mobile applications. Individuals were classified as high or low users based on their self-reported usage rate. For all mobile applications, the high user group rated the application more favorable than the low user group. These differences were all significant at p-values between .000 and .005. See Table 2 for means. Hypothesis 2 is supported.

Mobile Application	High Usage	Low Usage	Sig.
Notification of bill due dates	2.55	3.13	.00
Notification of bill payment received	2.60	3.10	
Announcements for electricity, water, or other utility outages	2.34	2.73	.005
Advertisement for special sales	3.89	4.34	.00
Receiving texts of workplace or class announcements	2.02	2.68	.00
Receiving automatic texting of locations of favorite restaurants, etc. when in a new city by GPS location	3.36	3.91	.00
Notice that a friend is nearby by GPS location	3.27	3.88	.00
Receiving class assignments from an instructor	2.51	3.16	.00

Table 2: High versus Low Phone Usage and Mobile Application Usage

Younger cell phone users are more favorable to mobile applications in general than older cell phone users. Favorability decreased as age increased. Specifically, the 18 – 22 year olds mean for all applications was 2.94 which differed significantly from the means for the age group of over 44 with a mean of 3.74. The 23-34 age group also differed significantly from the over 44 age group with means of 3.18 and 3.74, respectively.

Detailed analysis revealed that younger cell phone users are more favorable towards specific mobile applications than older cell phone users. As the age increases, the favorability of mobile applications decreases. The exceptions were notification of bill due dates and notification of bill payment received which were rated more favorably by the 23 -34 age group, but not significantly so. Significant differences did occur between the 18-22 age group and the over 44 age group for advertisement for special sales, workplace/class announcements and receiving class assignments. See Table 3 for means and additional significant differences in age group ratings of mobile applications. Hypothesis 3 is supported.

Table 3: Age Group and Mobile Application Acceptance

Mobile Application	18-22	23-34	35-44	Over 44	Sig.
Notificatoin of bill due dates	2.79*	2.67*	2.94	3.85*	.001
Notification of bill Payment Reeived	2.81	2.73	3.00	3.48	N.S.
Announcements for Electricity, water, or other utility outages	2.47	2.49	2.74	3.00	N.S.
Advertisement for Special sales	3.96*	4.30	4.03	4.76*	.000
Receiving Texts of Workplace or class announcements	2.15*	2.52	2.53	3.18	.000
Receiving Automatic Texting of location of Favorite restaurants, Etc. When in a new City by GPS location	3.43*	3.87*	3.88	4.09	.003
Notice that a friend Is nearby by GPS Location	3.39	3.78	3.79	4.12	.008
Receiving class Assignments from An instructor Assignments from An instructor	2.55*	3.13*	3.38*	3.45*	.000

Note : Not significance = N.S.

Significant differences occurred between the genders in three of the mobile applications: advertisement for special sales, texting restaurant locations, and texting friend location. Women were more favorable to receiving texts for special sales with a mean of 4.06 compared to 4.31 for men. It should be noted that, although significant, the means are toward the unfavorable end of the scale. When rating text restaurant locations and friend locations, men rated these applications more favorable with means of 3.37 and 3.30, respectively. These were significantly different from the women's means (3.73 and 3.68) for the same applications. Hypotheses 4 is partially supported.

When analyzing the cell phone attachment means with self-reported phone usage measures, significant differences were found for all usage measures. As the minutes used per month increased, the cell phone attachment mean decreased, indicating a higher degree of attachment as more minutes were used. The same relationships were found with the number of calls made and received. In all cases the means were significantly different between usage groups at p=.000. See Tables 4, 5, and 6 for means.

Table 4: Cell Phone Attachment and Calls Received

Calls Received Per Day	Cell Phone Attachment Mean
0	4.34
1 to 5	2.88
6 to 10	2.35
11 to 20	2.13
Over 20	2.16

Table 5: Cell Phone Attachment and Calls Made

Calls Made Per Day	Cell Phone Attachment Mean
0	4.40
1 to 5	2.91
6 to 10	2.46
11 to 20	2.11
Over 20	1.92

Table 6: Cell Phone Attachment and Monthly Usage

Phone Use	Cell Phone Attachment Mean
Very Low	4.24
Low	3.33
Average	2.92
High	2.37
Very High	2.16

To analyze the difference in application acceptance, the applications were grouped into non-marketing type and marketing type applications (Table 7). The mean for applications considered marketing was 3.36, while the non-marketing applications mean was 2.83, indicating more acceptance of the non-marketing applications. This was a significant difference at p= .000 and Hypothesis 5 is supported.

Table 7: Mobile Application Items/Groups and Measurement Scale

What is your opinion of the following uses of text or media messaging ? 1=I would like this very much and 5=I would not like this at all.	
Notification of bill due dates Notification of bill payment received Advertisement for special sales Receiving automatic texting of locations of favorite restaurants, etc. When in new city by GPS location	Marketing
Announcements for electricity, water, or other utility outages. Receiving texts of work place or class Announcements notice that a friend Is nearby by GPS location Receiving class assignments from an Instructor.	Non-Marketing

FINDINGS AND MANAGERIAL IMPLICATIONS

The results indicate that the current study's sample characteristics are consistent with those of other studies with like samples. The current sample demonstrates that younger cell phone users are more comfortable with various mobile applications, including those applications used for marketing purposes. Furthermore, regardless of age, those with a higher cell phone attachment are also heavy users of their mobile device and are more accepting of the mobile applications.

Mobile technology provides nearly endless opportunities for managers to connect with their prospects and customers. Messaging, GPS, and Internet capabilities, among other applications, enable organizations to customize and place information in the receiver's hand, literally, anywhere and at any time. As proposed previously (Okazaki 2005), it is important for companies to include mobile marketing in IMC (integrated marketing communications) and adapt to rapidly changing technologies to benefit the consumer and reduce cost. Companies with a focus on the consumer (ex. Starbucks, McDonald's, Coldstone Creamery) have demonstrated to consumers the value of mobile campaigns with successful recent applications resulting in increased sales and coupon redemptions (Becker 2009). Taking it one, or more, steps further, augmented reality or AR (the science of enhancing a live experience with virtual components and information) is being used successfully with mobile technology by companies around the world (King 2009; Schiller 2009). The use of AR with mobile technology in the U.S. has been slower to develop than in either Asia or Europe primarily due to the slower adoption rate of smart phones by Americans (King 2009). However, the use of AR by companies marketing in the U.S. will increase, logically, as the adoption of smart phones increases.

It is worth noting that the use of mobile technology is not limited to the profit sector. Government offices and non-profit health care organizations and services can make use of the technology, as well. Since young adults are heavy users of mobile technology and are more inclined to accept the marketing applications of it, government funded and privately funded Institutions of higher education, in particular, will find their target market not only welcomes but desires information provided via a mobile format. In addition, government funded and privately funded offices of tourism will do well to utilize mobile technology.

Although the present study indicates mobile technology is accepted by all age groups, marketers need to carefully target audiences for mobile marketing or commerce campaigns to avoid alienating consumers. It will be critical for marketers to use the technology wisely and to demonstrate the value of mobile marketing communications to their prospects and customers if mobile marketing communications are to succeed. Consumers' negative views and blockages of landline telemarketing should encourage managers using mobile marketing to proceed cautiously. Assurances of communication value and privacy protection will counteract consumers' apprehensions, thereby allowing both parties to benefit.

The present study, though expanding the knowledge on this important and timely topic, is not without limitations. The largely student sample is appropriate due to the higher use of mobile technology by teenagers and young adults reported anecdotally via self-report and media. In addition, the sample has a slightly higher average age than traditional student populations and more than 80% are employed making the findings more generalizable. However, future research should make a concerted effort to expand the sample to more closely examine the middle- and upper-age categories. Additionally, while the present study examined age and gender, other demographic characteristics (e.g. education, income, marital status, number of children in the household) and psychographic characteristics (e.g. occupation, shopping behaviors, attitudes toward advertising, attitudes toward privacy) should be included in future research in order to provide managers more precise information for targeting purposes.

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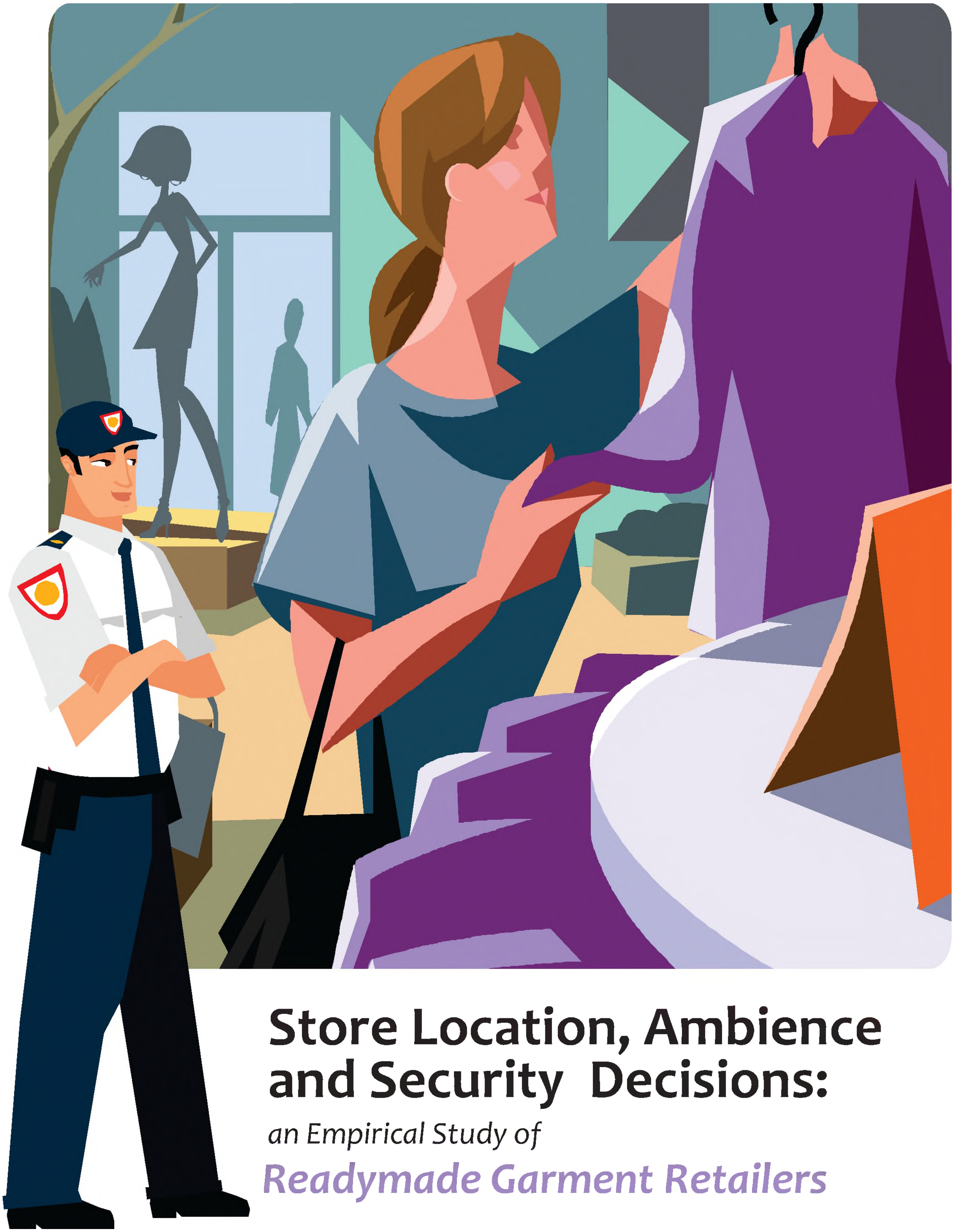

Store Location, Ambience and Security Decisions:

an Empirical Study of

Readymade Garment Retailers

Ritu Bajaj & Ajay Suneja

ABSTRACT

With the advent of organized retail and changing demographics of customers, a paradigm shift has taken place in readymade retailing. In order to ensure maximum customer access, great shopping experience, proper care of customers and assets of the store a retailer is now required to carefully decide about certain important aspects such as store location, ambience and security measures. The present study has been undertaken to determine the importance of the factors considered by readymade garment retailers for the selection of store location, ambience and security. A type-wise and size-wise comparative analysis of the retailers has also been made in this regard. The study found that 'transportation facility' is the most important factor influencing store location. Further, lighting, interior decoration, temperature and background music emerge as very important factors of store ambience. Regarding safety and security measures, study reveals that retailers very often have tie-ups with security agencies. The above results will prove very useful for retailers in developing marketing strategies.

Keywords: *Store Location, Store Ambience, Safety and Security Measures*

INTRODUCTION

Shopping in India has witnessed a revolution with the change in consumer buying behavior. Now a day, the consumers are more demanding. The emergence and the robust growth of organized retailing are among the major factors which have brought paradigm shift in the shopping pattern. Both the changing face of marketing and the changing demographics of the market have increased competition for the marketers in general and the retailers in particular. In this new marketing environment, some decisions of retailers have now gained more importance than that of the earlier period. The decisions which now require more expertise and in-depth understanding include store location, ambience and security concern. The above decisions aim at ensuring maximum customer access, great shopping experience, and trouble free care of customers, their belongings and store assets.

Store location is a long term strategic decision, irreversible in nature. It is a source of sustainable competitive advantage as land is a scarce resource which once occupied cannot be obtained by any other competitor. Location also influences the store ambience keeping in view the target customers and merchandise mix. Store ambience has become a major decision for retailers as the customers have become extremely demanding and want not merely to buy the goods but rather wish to make shopping a great experience by enjoying the ambience of the store. Customers even prefer to visit a store which is located farther than a store nearby if its ambience is providing them a better shopping experience. Thus, both location and ambience have become important decisions to be considered in relation to each other by a retailer. A retailer is always required to address the grim issue of store security. He is required to take every possible measure to avoid theft, shoplifting, damage to assets of store and belongings of the customers without causing inconvenience to them.

Organized retailers are adopting fast upcoming in lifestyle specialty retailing including readymade garments. The Exclusive Branded Outlets (EBOs) and Multi Branded Outlets (MBOs) are spending a lot of money on store building, ambience and security measures without having sufficient existing research studies to guide them. Thus, keeping in view the increasing importance of these major aspects in emerging organized retail business, the present study is devoted to explore the various factors considered by readymade garment retailers for choosing a retail store location and deciding its ambience. The study also attempts to find out the important safety and security measures adopted by these retailers.

REVIEW OF LITERATURE

In order to formulate research design an attempt has been made to get insights from existing studies on the subject under reference of this paper. The concerned studies are reviewed in this section.

Gupta (2008) examined the perception of retailers regarding the preferences of shoppers towards the different types of retail formats and also their response towards upcoming malls in metros and big cities. A questionnaire based survey of one hundred retailers revealed that important store indicators having effect on the buying decision of shoppers as perceived by the retailers are sales staff, merchandise quality and assortment, advertising and services. Further, significant difference was found in the level of importance in case of each of the indicators between multi-branded outlets and exclusive brand outlets of apparel. The mean value was found to be more in multi brand outlets than exclusive branded outlets in case of each of the indicators. Thus, retailers dealing in multi brand outlets were more concerned towards all the indicators than exclusive brand outlets. Study also brought out that window display was the most widely used method of visual merchandise presentation.

Kshatri (2008) made a survey of customers to understand and analyse their preferences for a particular type of store and intention for travelling a particular distance for selected category of products. The study found that the customers' intention to buy from a particular store/mall can be predicted through its proximity. The consumers make their final decision about any type of store after evaluating the attributes of store format and its proximity. The store attributes considered in the order of importance are variety, proximity, quality of service, low prices, brand name, promotional schemes and ambience. The study further found that proximity as a criterion is dependent on product categories.

Tamilarasan (2007) conducted a study on retail store service quality dimensions in select super markets of Chennai city. The study found that convenient location and ease of reaching the store were the most preferred attributes for the customers on the dimension of store location. The appearance of the physical facilities was the most important attribute on the dimension of tangibles. The study further revealed that convenient location and opening hours was the important attribute on the dimension of empathy. The study revealed that attributes under each quality dimension had to be improved by the stores to ensure customers' satisfaction.

Weitz and Kaltcheva (2006) recognized the significant impact of store environment on consumer shopping behaviour. Retailers devote considerable resources to store design and merchandise presentation activities. They proposed that consumers' motivational orientation moderates the effect of the arousal produced by store environment on the pleasantness of the environment perceived by them. The study made use of 'subjective arousal' by manipulating three visual elements of shopping environments viz. complexity, colour warmth and colour saturation. Motivational orientation was divided into two parts- recreational motivational orientation and task-orientated motivational orientation. Through the two experiments the study found that when consumers have recreational motivational orientation, high arousal has a positive effect on pleasantness, but when consumers have task-oriented motivational orientation, high arousal decreases pleasantness. For recreational oriented consumers, high arousal increases their intention to visit and make purchase in the store, but it has negative impact on shopping behaviour for task-oriented consumers. Lastly, pleasantness mediates the effect of arousal on shopping behaviour.

Kaur (2006) examined the best practices followed by various retailers in malls in particular to apparel. The objective of this study was to assess various attributes of the stores located in malls. The information was collected from one hundred retailers. The study found that shopping experience in the mall was based on key indicators such a product offering, physical characteristics of the store, store personnel, location, price charged, customer service and advertising by store.

Benito, et al., (2005) analysed the role of store format in retail competitive interaction. Authors specifically studied the relationship between store format location strategy and market response with the help of a model of spatial interaction which was empirically estimated in the context of food shopping. The model confirmed a greater spatial rivalry within store formats (intra-format) than between store formats (inter-format). The study found that two step hierarchy was involved in the process of retail store choice in which the consumer chooses first the type of retail store at which he will shop and then the specific store within that format. The spatial dimension is significant in the second level of decision making.

Grady, M.T. (2005) states that besides shoplifting and employee theft the retailers currently face a wide variety of security challenges from highly organized thieves and terrorists. The risk of natural disasters is also on the rise. Hence, the retailers need to prioritize such security issues and make use of fast-emerging technologies that enable the technological micromanagement of loss-prevention details without the constant need for human intervention. However, despite the use of advanced loss-prevention technologies, the success of security measures greatly depend on the quality of a retailer's loss-prevention staff.

Marianne, W. (2001) states that although most store security initiatives tend to concentrate on traditional strategies and high-tech systems, store design is equally important in this regard. Collaboration between store designers and loss-prevention staff is very essential as the same can help to minimize loss opportunities and accentuates customer service in the store. The author discusses the various ways in which security features can be built into store design.

Koelemeijer and Oppwal (1999) formulated and tested effects of consumption goal, retail assortment composition, and other distribution services on in-store purchase decision. Other distribution services include store ambience, accessibility of location, availability of information, and assurance of product delivery at the desired time and place. A choice experiment manipulated assortment composition, prices, store ambience, competing store features, and purchase goal. An application to florist stores found that in-store purchase decisions are affected by the size and composition of the assortment, and by the presence of a competing store, but not by ambience. The study elaborates several possible explanations for not finding an ambience effect. The study is useful to retail managers as the models like this one can help to predict the effects of changes in retail mix elements on customers' purchase behaviour.

Cox et al. (1993) states that shoplifting is an extremely destructive behaviour that is particularly common among adolescents. The paper has developed and tested a structural model of the social influences on adolescent shoplifting. The results of the study found that adolescents' involvement in shoplifting is strongly influenced by their friends' shoplifting behaviour, their attachment to their parents, and their own beliefs regarding the morality of this behaviour. The paper discusses the approaches that can be followed by retailers to discourage youthful shoplifting.

OBJECTIVES OF THE STUDY

The present study has been undertaken with the following objectives:

- To determine the importance of the factors considered by readymade garment retailers for the selection of store location, ambience and security.
- To compare type wise (EBOs and MBOs) and size wise (small, medium and large) the various factors considered by readymade garment retailers for the selection of store location, ambience and security.

RESEARCH METHODOLOGY

In accordance with the above-mentioned objectives, the study attempts to test the following null hypotheses (H_0):

H_0: There is no difference between EBO and MBO type retail outlets regarding the various factors concerning selection of store location, store ambience and security measures adopted.

H_0: There is no difference among small, medium and large size retailers regarding the various factors considered while deciding the store location, store ambience and security measures.

The present study has been done on menswear readymade garment retailers of Delhi and National Capital Region (NCR). Delhi and NCR is the hub of retail activity, where 527 percent increase in retail floor space has taken place since the year 2005. The study focuses on readymade garment retailing. Clothing and fashion accessory are the largest contributor to organized retail in India with 38.1 percent of market share valued at Rs. 29,800 crores. Further, the study is restricted to menswear readymade garment retailers, as this segment dominates the total readymade garment and accessories retail market with the contribution of 40.2 percent.

The study makes use of primary sources of data. The information required for analyzing the store location, ambience and security practices of readymade garment retailers was not available in any existing source of secondary data. Therefore, a questionnaire was prepared for the purpose of collecting the required information from retailers. The questionnaire was designed using Likert Scale. All the five responses of the statements have been quantified with the numbers 5,4,3,2,1 where in 5 denotes strongly agree/very important, 4 agree/important, 3 neutral/ somewhat important, 2 disagree/ least important and 1 strongly disagree/not at all important. The questionnaire was finalized on the basis of feedback of pilot survey. Administrative manager or the store manager who takes strategic decisions such as setting objectives, deciding store location and layout, and security measures etc. were the respondents for this survey. Obviously they are not only decision makers but supervise and manage the day to day operations. The average age of the respondents is 35 years and majority of them were post graduates in management.

For the purpose of survey, two major retail formats i.e. Multi Branded Outlets (MBOs) and Exclusive Branded Outlets (EBOs) have been selected. The selection of retail stores has been made from Times Style Guide 2006, published by Times of India Group. The Guide has over 1500 stores of lifestyle, catering to prime markets of Delhi and National Capital Region (NCR). As organised retailing is evolving fast in India, retailers gain proper insight and maturity in management of various aspects of store with time. Further, retailers having sufficient volume of business happen to be more professional in managing the retail store. Hence, only those stores were short listed in the list that were in existence for at least last three years and had been located at two different places. From the list of stores, 240 stores fulfilled the criteria. A sample of 75 (40 EBOs and 35 MBOs) retail stores were finally selected by using stratified random sampling technique. Further, in order to capture size-wise variations in store management practices, a size-wise analysis of the retailers has also been made. For this analysis, the retailers were grouped into three categories viz. small, medium and large retailers. Table 1 shows classification of retailers on the basis of size.

Table 1: Classification of Retailers on the Basis of Size

Type of Retailer	Size of the Store	No. of Respondents
Small Retailers	Up to 2000 sq. feet	26
Medium Retailers	2001-10,000 sq. feet	24
Large Retailers	10,001 sq. feet and above	25

Data collected through questionnaire has been analyzed by applying various statistical techniques such as mean, standard deviation, t-test and analysis of variance (ANOVA).

RESULTS AND DISCUSSION

The results of the survey are presented in Tables 2 to 9. During formulation of retail strategy, location of a store is a key consideration. Store location provides distinctive advantage to a retailer over the competitors. Location also influences the merchandise mix and the interior layout of the store.

Table 2: Factors Considered for Selection of Store Location in Case of EBOs & MBOs

Statements	EBO		MBO		Overall		t-value	p-value
	Mean	S.D.	Mean	S.D.	Mean	S.D		
Relevant customer traffic	4.82	.384	4.94	.235	4.88	.327	1.52	.120
Transportation facility	4.87	.334	4.94	.235	4.90	.292	1.00	.32
Parking facility	4.82	.384	4.77	.598	4.80	.493	.467	.642
Similar stores in the area	4.82	.446	4.94	.235	4.88	.366	1.40	.166
Land price / Lease Rent	4.77	.422	4.65	.539	4.72	.480	1.06	.293
Adjoining stores	4.82	.384	4.65	.591	4.74	.495	1.47	.145
Infrastructure analysis	4.77	.422	4.88	.322	4.82	.381	1.26	.212

Table 2 reflects the importance of various factors considered for selection of location for a store by the retailer. At overall level, transportation facility (mean score= 4.90) is the most important factor influencing store location. It is followed by relevant customer traffic and similar stores in the area with same mean scores of 4.88, parking facility (mean score=4.80), adjoining stores (mean score=4.74) and land price /lease rent (mean score=4.72). The mean score of all these factors exhibit that for modern retailers all these factors related to selection of store location are very important.

In case of both, Exclusive Branded Outlets and Multi Branded Outlets, transportation facility has been found as the most important factor influencing selection of store location. Also for Multi Branded Outlets, relevant customer traffic and similar stores in the area have been found as equally important factors. In case of both Exclusive Branded Outlets (EBOs) and Multi Branded Outlets (MBOs) all the factors considered for store selection have been found very important.

In order to test null hypothesis (H_0) that there is no difference between EBO and MBO type retail outlets regarding the various factors considered for selection of store location t-test has been applied. It aims to find the difference in mean score in case of each of the factors between EBOs and MBOs. The results of the test reveal that no significant difference has been found regarding any of the factors concerning selection of store location between the EBOs or MBOs (p-value >0.50). Hence, the null hypothesis is accepted. Thus importance level of various factors of store location is same for both EBOs and MBOs.

The physical set up is an important decision in retail store management. It involves paying attention to various ambience factors so that a customer gets a lasting impression of the store. Ambience management is critical for any form of retail business. It is important for a retailer to effectively plan and organize all aspects related to ambience as it entices customers to move around the store to purchase more merchandise / products than they might have originally planned.

In order to find out the extent of importance given to various ambience factors, retailers were asked to rate various ambience factors. Table 3 exhibits, at overall level lighting (mean score=4.93), interior decoration (mean score = 4.86), temperature (mean score=4.85), background music and mirrors on the walls with equal mean score of 4.70 are very important factors for a readymade garment retail store having very high mean scores. Further, adequacy of floor space (mean score= 4.44) is an important factor. Facilities viz. rest rooms (mean score= 3.42) and lifts (mean score = 2.60) are somewhat important factors. However, entertainment facility (mean score= 1.73) has turned out to be the least important ambience factor for retailers.

Table 3: Ambience Factors of EBOs and MBOs

Statements	EBO		MBO		Overall		t-value	p-value (2 tailed)
	Mean	S.D	Mean	S.D	Mean	S.D		
Background Music	4.52	.678	4.91	.284	4.70	.564	3.15	.002
Lighting	4.90	.303	4.97	.169	4.93	.251	1.23	.221
Temperature	4.82	.446	4.88	.332	4.85	.392	0.666	.507
Interior Decoration	4.80	.464	4.94	.235	4.86	.379	1.64	.104
Adequacy of Floor Space	4.07	.828	4.85	.355	4.44	.757	5.18	.000
Lifts / Escalators	1.45	.875	3.91	1.54	2.60	1.73	8.64	.000
Restrooms/ Wash Rooms	2.27	1.28	4.47	.741	3.42	1.62	10.02	.000
Entertainment Facility	1.45	.503	2.05	1.57	1.73	1.16	2.31	.023
Mirrors on the Walls	4.52	.816	4.91	.284	4.70	.652	2.68	.009

For EBOs factors viz. lighting (mean score= 4.90), followed by temperature (mean score = 4.82), interior decoration (mean score = 4.80), background music (mean score=4.52) and mirrors on walls (mean score=4.52) have been found to be very important ambience factors. However, EBOs consider lifts/escalators (mean score=1.45) and entertainment facility (mean score = 1.45) as not at all important ambience factors.

MBOs not only concentrate on the factors viz. lighting (mean score=4.97), interior decoration (mean score=4.94), background music (mean score=4.91), mirrors on walls (mean score=4.91), temperature (mean score=4.88) and adequacy of floor space (mean score=4.85), but also consider rest rooms (mean score=4.47) and lifts/escalators (mean score=3.91) as important factors which is not the case with the EBOs. In case of entertainment facility provided by the store MBOs consider it least important (mean score= 2.05). Thus, neither EBOs (mean score= 1.45) nor MBOs (mean score= 2.05) give it importance.

In order to examine the validity of the hypothesis (H_0) that there is no difference in the importance given to various ambience factors between EBOs and MBOs, t-test has been applied. The results of the test reveal that significant differences in mean score exist for six ambience factors viz. background music, adequacy of floor space, lifts/escalators, rest rooms, entertainment facility and mirrors on the walls (p value <0.05). Thus, the null hypothesis has been rejected in case of these factors. In the case of above said six factors MBOs give them more importance than EBOs. However, no significant differences in mean score are found in case of three factors viz. lighting, temperature and interior decoration (p value >0.05). Hence, null hypothesis has been accepted in case of these three factors. This implies that the importance level of these three ambience factors is same for both EBOs and MBOs.

Table 4: Role of Ambience Factors in Case of EBOs and MBOs

Statements	EBO		MBO		Overall		t-value	p-value (2 tailed)
	Mean	S.D	Mean	S.D	Mean	S.D.		
Ambience distinguishes store from other stores in the market	4.45	0.503	4.57	0.50	4.50	.503	1.04	.300
Physical facilities attract new customers to the store	4.02	0.158	4.25	0.44	4.13	.342	3.10	.003
Customers feel more positive about the products	4.05	0.23	4.50	0.50	4.19	.458	4.74	.000
The likelihood of the Product sale to increase	4.05	0.422	4.22	0.23	4.14	.356	2.08	.041
Physical facilities at the store enhance customers' enjoyment while shopping	3.77	0.47	3.77	0.77	3.77	.627	.02	.981

Store ambience is of strategic importance for a retailer. Table 4 exhibits, the role of ambience factors for a retail store. At overall level, retailers strongly agree with the statement that ambience distinguishes a store from other stores in the market. The mean score has been worked out quite high i.e. 4.50 against this objective. Retailers also agree with the various statements viz. customers feel more positive about the products (mean score = 4.19), the likelihood of product sale to increase (mean score=4.14), physical facilities attract new customers to the store (mean score=4.13) and physical facilities enhance customers' enjoyment while shopping (mean score=3.77). This shows that the readymade retail stores consider the role of ambience valuable for their business.

Both EBOs (mean score=4.45) and MBOs (mean score=4.57) have shown high level of agreement with the statement that ambience distinguishes the store from other stores in the market. It implies that ambience is really a distinguishing factor and retailers too concentrate on it. MBOs also strongly agree with the statement that customers feel more positive about the products with (mean score = 4.50). This reflects the strategic importance of ambience for a readymade garment retailer. MBOs also agree with the statements viz. physical facilities attract new customers to the store (mean score=4.25), the likelihood of product sale to increase (mean score=4.22) and physical facilities enhance customers' enjoyment while shopping (mean score =3.77). The above statements imply that MBOs attract customers through physical facilities at the store in order to increase the sale of the products and make shopping an enjoyable experience for customers. On the other hand, the mean score of various statements reflects that EBOs agree with all the statements concerning role of ambience for a retail store.

Further, t-test has been conducted to test the hypothesis that there is no difference in the role of ambience factors between Exclusive Branded Outlets (EBOs) and Multi Branded Outlets (MBOs). The findings indicate that there is a significant between EBOs and MBOs mean score in the case of three statements viz. physical facilities attract new customers to the store, customers feel more positive about the products, and the likelihood of product sale to increase (p-value < 0.05). thus, the null hypothesis has been rejected in case of these three statements.

Higher value in case of MBOs than EBOs regarding each of the above said three statements reflect that ambience enables MBOs more than EBOs to increase the product sale, make customers feel more positive about the product and attract new customers. But t-value turns insignificant for the remaining two factors viz. physical facilities enhance customers' enjoyment while shopping and ambience distinguishes store from other stores in the market (p-value > 0.05). Thus, null hypothesis accepted in case of these two statements. The EBOs and MBOs have expressed same level of agreement with these two statements concerning role of ambience factors for a retail store.

Table 5: Safety and Security Measures in EBOs and MBOs

Statements	EBO		MBO		Overall		t-value	p-value
	Mean	S.D	Mean	S.D	Mean	S.D		(2 talled)
Use of specially designed tags	1.92	1.68	2.14	1.83	2.03	1.75	.54	.594
Electronic devices at entry and exit	1.30	.91	4.08	1.70	2.59	1.83	8.98	.000
Video Cameras	4.82	.384	4.65	.764	4.74	0.49	1.22	.225
Separate entry and exit for staff	1.27	.987	1.91	1.70	1.59	1.24	2.01	.04
Fire Alarms	4.70	1.06	4.65	1.13	4.65	1.09	.168	.867
Tieup with security agencies	4.75	.428	4.94	.235	4.80	.402	2.32	.02
First aid and emergency Numbers	3.30	1.26	3.34	1.30	3.32	1.28	.144	.886

Safety and security is another area of concern these days for retailers, which need lot of care and attention. The menace of shop lifting is a major problem for retailers. With the growing incidents of bomb blasts and terrorism, it has become imperative to take security measures at all the stores. In order to find out the extent of safety and security measures in retail stores, retailers were asked to rate the various variables through the survey. Table 5 presents the findings of the survey for safety and security measures adopted by the retail stores.

At overall level, retailers very often have tie-ups with security agencies (mean score=4.80). Further, retailers also very often make use of video cameras (mean score=4.74) and fire alarms (mean score=4.65). Retailers sometimes use first aid and emergency numbers (mean score = 3.32) and electronic devices at entry and exit (mean score=2.59). But retailers rarely use specially designed tags (mean score=2.03) and separate entry and exit for staff (mean score = 1.59).

Both EBOs (mean score=4.75) and MBOs (mean score=4.94) very often have tie- up with security agencies. Further, in case of EBOs, video cameras (mean score =4.82) and fire alarms (mean score=4.70) have been very often used. However, MBOs too very often adopt the practice of using video cameras and fire alarms with equal mean score of 4.65. This is followed by electronic devices at entry and exit with mean score of 4.08, which is in contrast to practice adopted by EBOs (mean score=1.30). Further, in depth analysis reveals that most MBOs like V-Mart, Chunmun, Ebony, and Ritu Wears etc. use electronic devices at entry and exit. Like EBOs (mean score=3.30) MBOs (mean score=3.34) too sometimes make use of first aid and emergency numbers.

Both EBOs (mean score=1.92) and MBOs (mean score = 2.14) rarely use specially designed tags. A detailed analysis brought out that only a few big MBOs like Shoppers Stop, Pantaloons, Ritu Wears and Westside use specially designed tags. MBOs (mean score=1.91) rarely follow the practice of separate entry and exit for staff but EBOs (mean score=1.27) have not adopted this practice yet.

T-test has been applied to examine the null hypothesis that there is no difference in the usage of various safety and security measures between EBOs and MBOs. The results of t-test represent that difference in mean score is significant for three variables viz. electronic devices at entry and exit, separate entry and exit for staff and tie up with security agencies (p-value < 0.05). Thus, the null hypothesis has been rejected in case of these three safety measures. It implies that the extent of usage of these three safety measures is more in case of MBOs than EBOs. However, t-value turns insignificant in case of remaining four variables (p-value > 0.05). Thus, null hypothesis is accepted in case of remaining for variables. It indicates that both EBOs and MBOs are making use of each of the remaining four safety and security measures to the same extent.

Table 6: Size-wise Mean and ANOVA for Selection of Store Location

Factors	Small Retailers	Medium Retailers	Large Retailers	F-value	P-value
Relevant Custormer Traffic	4.88	4.83	4.92	.427	.654
Transportation Facility	4.92	4.88	4.92	.203	.817
Parking Facility	4.81	4.92	4.68	1.43	.246
Similar Store in the Area	4.92	4.79	4.92	1.03	.363
Land Price/Lease Rent	4.77	4.79	4.60	1.19	.311
Adjoining Stores	4.88	4.83	4.52	4.35	.017
Infrastructure Analysis	4.77	4.88	4.84	.497	.611

Note: All the figures, except F-values and p-values are mean values

Location of the store occupies an important place in defining the marketing strategy for a readymade garment retailer. Table 6 exhibits inter-size comparison of the importance of various factors considered for the selection of store location. From the mean values depicted in the table, it becomes clear that the factors viz. relevant customer traffic, transportation facility, parking facility, similar stores in the area, land price and infrastructure analysis have turned very important for deciding the location of the store irrespective of the size of the store. In order to examine the validity of the null hypothesis (H_0) that there is no significant difference among small, medium and large size retailers regarding the various factors considered while deciding the store location, ANOVA test has been conducted. The results of the test reveal that no significant differences have been found in the mean scores of all these factors among the retailers of different sizes as F-values are found insignificant (p-value > 0.05). Hence, null hypothesis has been accepted in case of these six factors. Whether a retailer is big or small, considers all the above factors while deciding its strategy for selection of location of the store. Null hypothesis is rejected in case of only one factor i.e. adjoining stores. Its F-value (4.35) is significant at 5 percent level, with df being 2/72. On this factor, the highest mean score is accorded by the small retailers (4.88), followed by the medium retailers (4.83) and the lowest mean score (4.52) is obtained in the case of large retailers. It is obvious from the findings that the smaller the retailer, the higher is the importance given to adjoining stores while selecting store location.

Table 7: Size-wise Mean and ANOVA for Ambience Factors of Retail Stores

Factors	Small Retailers	Medium Retailers	Large Retailers	F – value	P - value
Background Music	4.54	4.71	4.88	2.42	.096
Lighting	4.88	4.96	4.96	.744	.479
Temperature	4.81	4.92	4.84	.496	.611
Interior	4.73	4.96	4.92	2.73	.072
Adequacy of floor space	3.92	4.58	4.84	13.27	.000
Lifts / Escalators	1.38	1.83	2.60	76.80	.000
Restrooms/ wash rooms	2.04	3.20	3.37	42.17	.000
Entertainment facility	1.50	1.29	2.40	7.42	.001
Mirrors on the walls	4.46	4.79	4.88	3.08	.052

Note: All the figures, except F-values and p-values are mean values

Ambience of the store is not merely a matter of aesthetics, rather it reflects the image of the store in the minds of the customers too. A glance through table 7 reflects that various factors viz. lighting, temperature, interiors, background music and mirrors on the walls are considered very important by readymade garment retailers. In order to find out that there is no significant difference among the mean scores related to ambience factors across retailers of the three sizes viz. small, medium, and large, ANOVA test has been applied. The results of the test reveal that the F-value is found insignificant regarding each of these factors (p-value > 0.05). Hence, null hypothesis has been accepted in case of these five factors. It implies that there is no significant difference in the mean scores of small, medium and large retailers regarding these factors. Thus, irrespective of the size, all the retailers consider these five factors equally important.

In the factor adequacy of floor space, the highest mean score is accorded by large retailers (4.84), followed by medium retailers (4.58). The lowest mean score is accorded by small retailers (3.92). The F-value (13.27) of this factor is significant (p-value < 0.05). Hence, null hypothesis has been rejected. The above mean values reflect that the bigger the retailer, the higher is the importance assigned to adequacy of floor space.

Further, the highest mean score for lifts/escalators is obtained in case of large retailers (2.60), followed by medium retailers (1.83). The lowest mean score is accorded by small retailers (1.38). In this case the F-value is found to be 76.80, which is significant (p-value < 0.05). Hence, null hypothesis has been rejected. The findings show that lifts and escalators are comparatively more important as well as feasible for large retailers having stores with multiple floors. Small retailers can neither afford nor require lifts/escalators in their stores.

In case of rest rooms and washrooms, the highest mean score is accorded by large retailers (3.37), followed by medium retailers (3.20). The lowest mean value is obtained in case of small retailers (2.04). The F-value for this factor is 42.17, which is significant (p-value < 0.05). Hence, null hypothesis has been rejected. This implies that large retailers accord a higher importance to restrooms and washrooms in comparison to medium and small retailers.

There is significant difference found in the mean score among three sizewise categories of retailers regarding entertainment facility. The F-value for this factor is 7.42, which is significant (p-value < 0.05). Hence, null hypothesis has been rejected. The table shows that the highest mean value is accorded by large retailers (2.40), followed by small retailers (1.50). The lowest mean value is found in case of medium retailers (1.29). The results indicate that small and medium retailers consider entertainment facility significantly less important than the large retailers. Thus, the analysis brings out that the larger the retailer, the higher is the importance assigned to factors viz. adequacy of floor space, lifts/escalators and rest rooms/washrooms.

Table 8: Size-wise Mean and ANOVA for Role of Ambience Factors in Retail Stores

Statements	Small Retailers	Medium Retailers	Large Retailers	F – value	P - value
Physical facilities at the store enhances customers enjoyment while shopping.	3.77	3.63	3.92	1.37	.261
Ambience distinguishes store from other stores in the market.	4.38	4.63	4.52	1.45	240
Physical facilities attract new Customers to the store.	4.03	4.04	4.32	6.39	003
Customers feel more positive about the products.	4.54	4.29	4.04	9.21	000
The likelihood of the Product sales increases.	4.23	4.17	4.04	1.93	152

Note: All the figures, except F-values and p-values are mean values

Table 8 shows the role of ambience factors in the retail stores. In order to examine the validity of the null hypothesis (H_0) that there is no significant difference among small, medium and large size retailers regarding the role of ambience factors, ANOVA test has been conducted. On the statement that physical facilities attract new customers to the store, highest mean value is accorded by large retailers (4.32), followed by medium (4.04) and small retailers (4.03) respectively. The ANOVA results reveal that the F-value (6.39) of this statement is significant (p-value < 0.05). Hence, null hypothesis has been rejected. Thus, the larger the retailer, the higher is the role of physical facilities in attracting customers to the store.

Customers feel more positive about the products due to good ambience is another factor, in case of which F-value (9.21) is found significant (p-value < 0.05). Hence, null hypothesis has been rejected in this case also. Thus, the mean value varies significantly across retailers of three size categories. The highest mean score is accorded by small retailers (4.54), followed by medium retailers (4.29) and large retailers (4.04). The mean values reflect that the smaller the retailer, the more is the influence of ambience in creating positive feeling about the products.

The F-value for each of the remaining three factors mentioned in the table is found insignificant (p-value > 0.05). Hence, null hypothesis has been accepted in case of each of these factors. Thus, each of these three factors plays an equally important role in case of retailers of three size categories.

Table 9: Size-wise Mean and ANOVA for Safety and Security Measures in Retail Stores

Variables	Small Retailers Retailers	Medium Retailers	Large Retailers	F-value	P-value
Use of specially designed tags	1.96	1.50	2.60	2.55	.08
Electronic devices at entry and exit	1.27	2.33	4.52	45.29	.000
Video Cameras	4.65	4.88	4.72	1.30	.277
Separate entry and exit for staff	1.23	1.25	2.48	6.75	.002
Fire alarms	4.69	4.33	4.92	1.81	.170
Tie up with security agencies	4.73	4.75	4.92	1.71	.188
First aid and emergency numbers	3.61	2.75	3.56	3.80	.027

Note: All the figures, except F-values and p-values are mean values

Table 9 exhibits the inter-size comparison of extent of usage of various safety and security measures adopted by retailers. In order to examine the validity of the null hypothesis (H_0) that there is no significant difference among small, medium and large size retailers regarding the use of various safety and security measures, ANOVA test has been applied. It is observed from the mean values given in the table that an electronic device at entry and exit is a security measure that is very often adopted by large retailers (4.52). In contrast to this, small retailers (1.27) do not adopt this security measure at all. However, medium retailers (2.33) rarely use this safety and security measure. The f-value (45.29) is found significant (p-value < 0.05). Hence, null hypothesis has been rejected in this case. Thus, the larger the retailer the more is the usage of safety and security measure in the form of electronic devices at entry and exit.

Similarly, large retailers (2.48) sometimes use separate entry and exit for staff. However, medium retailers (1.25) and small retailers (1.23) don't follow separate entry and exit for staff. The F-value for separate entry and exit for staff is 6.75, which is found significant (p-value < 0.05). Hence, null hypothesis has been rejected. Thus, the larger the retailer, the higher is the usage of separate entry and exit for staff.

Further, for the variable first aid and emergency numbers, the highest mean score is accorded by small retailers (3.61), followed by large retailers (3.56). The lowest mean score is accorded by medium retailers (2.75). The statement has F-value 3.80 which is found significant (p-value < 0.05). Hence, null hypothesis has been rejected in this case. This implies that small and large retailers often use first aid facility and emergency numbers, while medium retailers sometimes use the same.

No significant difference has been found in the mean score of each of the remaining safety and security measures viz. use of specially designed tags, video cameras, fire alarms and tie ups with security agencies among the retailers of different sizes as f-value turn insignificant.

CONCLUSION

The present study has analysed the various factors considered by readymade garment retailers while taking store location, ambience and safety decisions. On the basis of type-wise and size-wise analysis of retailers, 'transportation facility' has been found as the most important factor influencing store location in case of both, exclusive branded outlets and multi branded outlets. Small as well as large retailers consider it as the most important factor. Thus, the new entrants in the readymade garments retail business must take into consideration availability of transportation facility while selecting location for setting up a store. The readymade garment retailers should also analyze the complementary or competitive nature of stores in the adjoining area to understand the extent of synergy they can create or the level of competition they may face from adjoining stores.

MBOs give more importance than EBOs to various aspects of ambience viz. background music, adequacy of floor space, lifts/escalators, restrooms/washrooms, entertainment facility and the mirrors on the wall. Likewise the EBOs should also lay more emphasis on these aspects.

The large retailers assign more importance than the small and medium retailers in so far as the adequacy of floor space, restrooms/washrooms and entertainment facility are concerned. Hence, the small and the medium retailers also need to give more importance to these factors especially because ambience makes customers feel more positive about their products and the likelihood of product sales increases. Regarding safety and security measures the survey brought out that the retail stores have very often tie-ups with security agencies and use fire alarms and video cameras.

In nutshell, transportation facility and nature of adjoining stores are the critical success factors in store location decision of readymade garment retailers. Further, as ambience plays a distinctive role in case of readymade garment retailers, regardless of size and type, they should continuously bring innovative changes in the store ambience related components in order to get a competitive edge over other retailers. Moreover, retailers should also use electronic devices at entry and exit in order to improve the store safety and security.

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E-learning vs Traditional Education:

A Meta Analysis of

Distance Learning Technologies

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ABSTRACT

Providing students with learning opportunities outside the classroom is not a new concept. Since the late 1880's, various educational institutions have made certain courses available through written correspondence. Though relatively narrow in scope and reach, these forays into distance education were an impetus into a way of thinking about the future of delivering education that continues to evolve. Could any of those forward thinking educators have imagined anything near what is available today? Can today's distance educators envision the possibilities that will reveal themselves in the not too distant future?

As society and technology have advanced, so has the evolution of distance education. From radio to television and now to the networked computer, distance education has adapted itself to the most relevant and effective form of delivery available (McIsaac & Gunawardena, 1996). Basing their finding on survey results, the authors present and evaluate three significant distance education modalities (Conventional Labs, Software Simulation, and Remote Labs). This article probes what distance education has to offer by analyzing the strengths and weaknesses of each of these assessed modalities in an effort to help educators and professionals recognize the depth, offerings, and limitations of these emerging technologies.

Key Words: *Remote Labs, Distance Labs, Online Education, On-line Experiments, Software Simulation, Learning Technologies*

INTRODUCTION

A Window into a Different World of Distance Education: Remote Labs

Education and technology has been a perfect match, however, the concept of distance education has yet to be embraced by many educators. Higher education has been reluctant to accept distance education, due to the perception of technology as an inferior surrogate educator, as well as the maturation process necessary to the application of learning theories. In general, distance education is awaiting more in-depth research and analysis before being justifiable to many educators. Coldeway (1982) asserts that the lack of research in distance education can be attributed to the absence of educational researchers during the design of a distance education system, no clear model to use in developing research for distance education, and the avoidance by some institutions to define parameters. Research and statistics aside, the primary reasons that distance education is not widespread are the costs and demands on faculty time (Meisner & Hoffma, 2003), along with the human dimension desired by educators (Keeton, 2004).

Adult learners wishing to take advantage of distance learning have not been so concerned with gathering and analyzing the data before making their decisions. It is estimated that the yearly increase in distance education enrollment could be as high as 33% per year (Pethokoukis, 2002). Considering that in the United States over 60% of households have computers and that nearly 55% of those households also have Internet access, an increase of 108% since 1998, it is then conceivable that the demand for distance education is only just beginning. Particularly interesting is that of those households with a GED or higher education level, the average percentage with Internet access is 61% (U.S. Census Bureau, 2005). As more students seek alternatives to traditional classroom educations and the exponential developments in technology make access more viable for the general public, the potential that distance education plays for lifelong learners who seek a higher degree or career development is tremendous.

Moreover, a technically aware population will not be hesitant to participate in a technically oriented educational program. Several factors will most certainly drive their decision, with time and availability being the primary considerations. With today's schedules and the need for continuing career development, the flexibility that comes with distance education is a benefit that will dominate the thinking of many with regard to this. Also, the increasing cost of travel may begin to change people's behavior and the desire to be in the classroom. These factors, along with ongoing developments in technology, are slowly changing the educational landscape.

The advances in technology are astounding and too numerous to expound upon here. However, some notable advances in streaming audio/video, high-speed connectivity and hand-held devices are certain to have a positive impact on distance learning. The most appealing aspect of technological advancement is its capability to be more interactive, collaborative and inclusive than ever before. On their own, technologies like real-time audio/video, teleconferencing and screen sharing are valuable. Yet, when combined with an intuitive user experience that integrates instructional design and functionality, the result can be truly remarkable.

The possibilities for the future of distance education seem infinite. Yet, the success of distance education must be based on its cognitive merit as well as its technical implementation. According to Piaget (1973):

The basic principle of active methods will have to draw its inspiration from the history of science and may be expressed as follows: to understand is to discover, or reconstruct by rediscovery, and such conditions must be complied with if in the future individuals are to be formed who are capable of production and creativity and not simply repetition.

The use of technology as simply a novelty does not justify itself. However, there is evidence to prove that even the most basic use of technology has had a positive effect upon the learning environment of science classes. In particular, a correlation was found between Internet usage and constructivism (Churach & Fisher, 2001). Technology has been a partner to science for many years, but with the onset of the Technological Age, the bonding of these two partners has become more complex.

The challenge facing distance education is how to maintain the educational goals while utilizing diverse technology to create the instructor-student link (Forinash & Wisman, 2001). That link is the connection between students and teachers as they delve into knowledge and experience, an interaction that is indicative of deeper learning. This necessary link is no more tenuous within distance education than in the area of experimental lab environments where the student moves from a passive to an active learner. Within the realm of distance education, remote labs and software simulations are positioned to be alternatives to the traditional classroom lab environment.

Conventional Labs Vs. Software Simulation Vs. Remote Labs: A Systematic Comparison

Making the user experience engaging and valuable is a vital component to the distance education equation. This is required even more for those areas of study rooted in experience and experiment. With this in mind, distance labs have emerged with the main goal of bringing the student into the technology driven experience of trial and error. There are three distinct approaches to the science lab experience: the classroom lab (CL) which is the traditional form, software simulations (SS) which mimic the classroom lab through purely digital mechanisms, and the remote lab (RL) which combines the physical reality of the experiment with technologically driven components.

Classroom labs are well known to any science or engineering student. This is the traditional way of discovery, the experience of fully engaging in the physical environment with the equipment and first-hand representation between student and teacher. This learning environment has existed for eonsand the methods of experimentation have been built by successful generations of educators. The CL is by most standards the ideal setting for student experimentation.

Software simulation seeks to recreate, in digital form, the reality of CL. The goal of SS is to engage students in active learning through interactive simulations, modeled experiments or virtual reality environment. These simulations appear to be more of an aid in developing the skills that students will use in real labs by focusing on the details of the tools and instruments. Unfortunately, there are limits to what SS can provide in higher level scientific experiments where the value of the hands-on experience is crucial (Meisner & Hoffman, 2003). The ability to design, model and program a simple lab experiment in a virtual environment is relatively cheap, both technically and financially. Yet, add layers of complexity through infinite variables and the challenge becomes daunting. Additionally, hardware and software incompatibility with the user's system, as well as programming flaws due to inadequate design specifications, can cause unexpected problems.

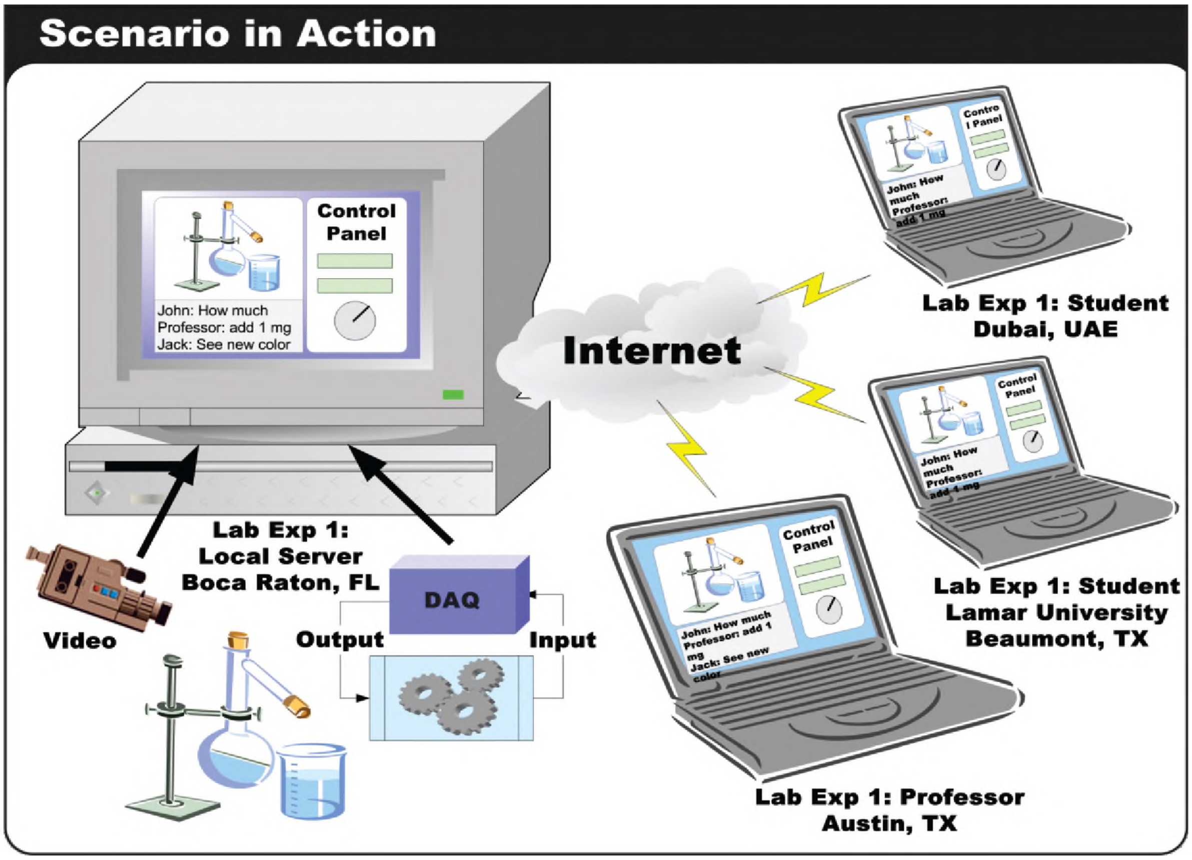
According to its inventors (Alhalabi, Hamza, & Marcovitz, 2001), the remote lab (RL) is a creative step between software simulation and real physical labs. RL has the advantage over software simulation in that real experimentation rather than simulation can take place in actual physical labs. RL can be a substitute of common place labs, especially if the following advantages are being sought: cost reductions in terms of labs maintenance, student safety, and ample flexibility that may provide people with a disability the comfort of experimenting online without having to attend physical laboratories.

The Remote Lab Environment

To facilitate a remote lab environment (RLE) experiment, there are hardware and software setups (see Figure 1.1). A typical setup, as outlined here and used in other RLE experiments (Alhalabi et al., 2001), would include some combination of the following:

- A microcontroller to control the experiment's input
- Various sensors to measure the experiment variables
- A server that is connected to the microcontroller controlling the experiment
- A live web camera located in the lab to help users/students visually see the experiment via the Internet
- A database system to store and retrieve data associated with the experiment
- A discussion forum to enable students to interact with each other as well as with their instructors and teacher assistants; this may include audio/video capabilities
- Software to enable the server to communicate with the experiment's hardware and software components and to serve as the core integration point for process and control of the experiment

Remote Labs Environment (RLE)



THE SURVEY

A survey was conducted at Florida Atlantic University where research into remote labs was pioneered by Hamza and Alhalabi. Though research is ongoing, many RLE experiments are currently being developed and a study is in progress that asks students for their personal opinion regarding the use of RLE as part of their curriculum in comparison to software simulations they have been using. Students from different colleges and levels were asked to complete the survey. Computer science and computer engineering majors comprised 50% of the survey takers (Figure 1). More than 45 out of 90 survey respondents had completed three academic years (Figure 2). A majority of the respondents had never taken an online course (Figure 3). Data analyses and results of the survey were used in assessing and developing all related information technologies (IT) and RLE environments to better serve the needs of the students and to better enhance the world of educational technologies. Approximately 57% preferred to take a lab course on campus; 33% chose to participate through use of a remote lab (Figure 4).

When asked how they preferred to do their lab experiments, student interest was similar in regard to remote labs and software simulation. Remote labs garnered a result of 72.5% compared to 70% interest shown in software simulation. This is very promising for both remote labs and software simulation. However, remote labs were seen more positively when performing lab experiments because software simulation did not represent the real physical lab.

The desire for students to have an environment as close to a real lab as possible is evident from their responses to questions about their learning experience. When students were asked if the experiment stimulated interest in that area of study, both remote labs and software simulation received only 60% positive response, opposed to the 70% received by the physical lab. When asked whether the experimental procedures and purpose were clearly understood, the remote labs received a more favorable result of 75% compared to software simulation at 67.5%. When students were then asked if the lab environment helped in understanding the theory/concept underlying the experiment, 75% felt that remote labs had helped, while only 70% felt that software simulation had helped.

The overall preference was toward using real physical labs, as this approach consistently outscored both remote labs and software simulation. When asked if the environment facilitated in learning the material, the remote labs and software simulation received a 70% positive response from students. Further analysis of student feedback showed positive results toward remote labs. This is explained by student feedback indicating that remote labs held an advantage over software simulation because it was done in the same physical location as the real experiment. Feedback also showed that students felt confident that enhancements to hardware and software in the remote lab environment would make a difference in the lab experience, making it a more viable substitute to physical labs than software simulations.

Of student preferences, as shown in Figure 1.4, 57% of students preferred to take online courses with physical labs, whereas 31% preferred online courses with remote labs. In many cases this choice was justified by the students' assertions that the remote lab option was not widely available in schools throughout the United States. Students also opposed the remote lab idea by claiming that a lab cannot be taught effectively on line because it needed the face-to-face interaction of physical labs. Figure 1.6 shows that more students believed the remote lab environment was more realistic than software simulation. However, many students believed neither remote lab nor software simulation was as realistic as the physical lab. Approximately 57% thought that remote lab was more realistic than software simulation and about 20% thought none was realistic. Out of those who did not choose to go for either of the online courses (remote lab or software simulation), approximately 84% thought there was need for face-to-face interaction.

Further feedback came from a presentation made to students about the topic of remote labs. The response from this group reinforced the survey results and provided more objective input on the concept of remote labs. Reactions to the presentation were reflected in the following statements:

- This technology is relatively new for me. Though I haven't had much experience with RL, I found the presentation to be extremely interesting.
- The only problem with doing experiments outside the classroom is the lack absence of teachers and students. Both are needed for answering questions and demonstrating. As we all know, only a few experiments go well the first time. Often students have no idea what went wrong. A live chat room should be incorporated for those who have questions.
- Use of RL depends on the applications.
- A very important part of understanding the lab is the teacher, TA, or the instruction book. If any of these are lacking, it doesn't matter whether you are using RL, SS or CL.
- Manipulating real lab objects is of more benefit than clicking mouse buttons.
- RL is a good idea, but I feel that the hands-on experience is very important.
- It would be nice to have more experiments on which to base our comments.
- If the online course plus software simulation can offer the real time help, then it could be perfect.
- I never use RL.

RESULTS

A survey was presented to students from different colleges and majors at Florida Atlantic University. The goal was to determine the preference of students for Remote Lab (RL) Environment over Software Simulation and

Table 1: Descriptive Statistics Results for CL, RL, and SS

Question	On Campus			Remote Lab			Software Simulation		
	Mean	S.D.	Medium	Mean	S.D.	Medium	Mean	S.D.	Medium
1	60.98	30.83	67.50	81.93	21.94	99.00	62.3	35.9	65.0
2	55.04	33.84	50.00	74.77	28.96	80.00	83.00	18.89	90.00
3	81.81	31.25	99.50	50.70	33.56	60.00	46.00	30.26	50.00
4	62.15	31.64	75.00	83.77	24.37	98.50	88.50	16.17	95.00
5	49.48	29.48	50.00	76.50	20.14	75.00	51.00	27.26	55.00
6	50.25	29.16	50.00	70.53	23.46	70.00	71.00	30.71	80.00
7	72.02	23.04	75.00	67.17	30.98	70.00	55.80	21.78	50.00
8	54.96	27.94	60.00	86.50	15.21	90.00	70.00	19.58	70.00
9	51.60	26.34	52.50	80.17	19.85	82.50	78.10	17.62	77.50
10	75.15	26.53	80.00	75.10	23.74	80.00	73.50	18.86	77.50
11	61.03	24.33	60.00	76.77	24.03	80.00	73.25	20.62	68.75
12	62.46	28.87	72.50	83.50	16.30	80.00	73.50	17.49	75.00
13	78.56	23.11	85.00	87.83	18.03	100.00	78.00	18.59	82.50
14	60.85	27.04	70.00	79.33	18.32	80.00	64.50	20.74	62.50
15	59.40	23.11	60.00	80.13	20.13	80.00	78.00	18.14	75.00
16	77.25	23.61	85.00	84.40	18.95	96.00	73.60	28.82	82.50

Classroom Based Labs. In brief, Remote Lab Environment lets the real experimentation occur in actual physical labs, rather than in simulated environment. A student can use the Internet from almost anywhere, and have access to the Lab through a server, web camera, chat rooms, and most importantly, a microcontroller that controls the experiment. The hardware setup also includes sensors to measure experiment variables. This setup provides flexibility in schedules of students, just as in the case of software simulations, as well as fills the void of an actual lab.

In the survey, the students were asked to enter numbers from 0 to 100, 0 being the lowest (strongly disagree) and 100 the highest (strongly agree). Table 1 includes descriptive statistics such as mean, median, and standard deviation (S.D.) for the response of survey takers. As we see from Table 1, the remote lab has a higher average in most cases.

Percentages and Proportions of the Responses:

The following results were obtained from the survey

- **Eighty percent** thought that performing the experiment via classroom based lab has facilitated learning the material.
- **Sixty-eight percent** thought that the experiments procedures and purpose were clearly understood using Software Simulation.
- **Seventy-five percent** thought that the experiments procedures and purpose were clearly understood using Remote Lab.
- **Eighty-five percent** thought that the experiments procedures and purpose were clearly understood using a classroom based lab.

Table 2 includes a correlation analysis to study the relationship between variables. For instance we notice a strong positive linear correlation between students who stated that RL as well as SS had stimulated their interest. We also see from Table 2 that the majority of the variables have a statistically significant

Table 2: Correlation Coefficient Analysis

Dimensions	SS has stimulated my interest	CLB has stimulated my interest	RL has facilitated learning material	SS has facilitated learning material	Procedures was clearly understood using RL	RL has helped me understanding Theory/concept
RL has stimulated interest	0.689**	0.180*	0.675**	0.519**	0.507**	0.555**
RL has facilitated learning material		0.118*	0.487**	0.650*	0.319**	0.371**
SS has stimulated interest	0.487**	0.170*		0.674*	0.591**	0.621**
SS has facilitated learning material	0.650**	0.074*	0.674**		0.540**	0.450**
Procedures was clearly Understood using RL	0.319**	0.319*	0.591**	0.540**		0.764**
RL has helped me understand theory/ concepts Underlying the experiment	0.371**	0.169*	0.621**	0.450**	0.7640**	

* Correlation is not significant at the 0.05 level of significance
** Correlation is significant at the 0.05 level of significance

- **Seventy-three percent** of the students preferred to use Remote Lab when performing an experiment.
- **Eighty percent** thought that incorporating lab experiments into an online course enhances the quality of the course.
- **Sixty percent** thought that using Remote Lab has stimulated their interest in this area of study.
- **Seventy percent** thought that performing the experiment via Remote Lab has facilitated learning the material.

relationship at the 0.05 level of significance.

Questions 1, 2 and 3 in the survey measure the preference for each of the three types of laboratories, namely Remote Labs (RL), Software Simulation (SS) and Campus Labs (CLB). We conducted a hypothesis testing procedure to see if there exists evidence of differences in the mean preference of the laboratories. As it can be seen on Table 3, the null hypothesis of equal means cannot be rejected, a clear indication that Remote Lab are considered an option at least as good as Campus Labs. Actually, the mean preference for Remote Labs is greater than the mean preference for both SS and CLB but, as said before, the differences are not statistically significant.

Table 3: Test of Differences Between the Preferences for the Three Types of Laboratories.

Tests	Laboratory			
	RL	SS	CLB	p-value
Mean	67.96	64.51	67.77	0.726
Standard Deviation	30.15	32.68	35.46	

*** denotes 1% significant level**

Questions 6 to 17 can be divided in groups of three questions, each group comparing the opinion of students toward a particular characteristic of laboratories. The characteristics of interest are the following:

1. Using the laboratory has stimulated my interest in the area of study (questions 6, 7 and 8).
2. The laboratory has facilitated the learning of the material (questions 9, 10 and 11).
3. The experiment procedures and purpose was clearly understood using the laboratory (questions 12,13 and 14).
4. Performing the experiment via the laboratory has helped in understanding the theory/concept underlying the experiment (questions 15, 16 and 17).

The results can be seen on Table 4. For characteristics of interest 1 and 2 we could not find a statistically significant difference between the three types of laboratories (we used a level of significance of 0.01). Only for characteristics 3 and 4, we found that CLB is clearly perceived as a superior alternative. We also compared RL versus SS on the basis of these characteristics.

Table 4: Test of Differences Between the Characteristics of the Three Types of Laboratories.

	Laboratory			
Characteristic being evaluated	RL	SS	CLB	p-value
Interest in the area of study	58.46	59.12	68.67	0.024
Learning material being facilitated	66.88	63.79	74.96	0.014
Clear understanding of experiment procedures*	67.49	70.52	81.52	0
Understanding of theory*	67.27	68.18	79.18	0.001

***denotes 1% significant level**

When comparing RL versus SS exclusively we could not find a significant difference between them as seen on Table 5. Visual inspection and comparison of the sample means show mixed results (as said before there are no significant differences so these conclusions should be taken with caution). RL is perceived as superior on the grounds of characteristics 2 and 3 whereas SS is slightly better on characteristics 1 and 4.

Table 5: Test of Differences Between the Characteristics of RL and SS.

	Laboratory		
Characteristic being evaluated	RL	SS	p-value
Interest in the area of study	58.46	59.12	0.878
Learning material being facilitated	66.88	63.79	0.445
Clear understanding of experiment procedures	70.52	67.49	0.419
Understanding of theory	67.27	68.18	0.8

***denotes % significant level**

DISCUSSION

There is no argument that on-campus labs are the most effective in terms of providing students with a full understanding of the experiment theory. It is obvious from the survey and other responses that neither remote labs nor software simulation can replace the physical lab experience (Figure 1.5). At issue, though, is the effectiveness of alternative methods of performing a lab experiment on student learning. The physical lab experience will not always be an option for students, especially for those who need flexibility in their work/school schedule and more importantly for those who find that attending a classroom lab is physically challenging. Remote labs also hold an advantage over a real lab where safety may be a concern, such as working with hazardous chemicals or remote surgical operations.

Fulfilling the students' learning needs is the ultimate goal. It is deciding how to accomplish that goal that can become complicated. In many cases there are multiple options that can be implemented and will be successful. In the case of distance education, and specifically lab experimentation, the discussion has to be centered on the realistic component. This includes such qualities as visuals, interactivity, and communication in an intuitive user experience. This is where the survey held some reassuring data that supports the use of remote labs over software simulation.

Based on the survey results, remote labs have several advantages over software simulations. Students prefer the realism of the remote lab. Because the remote lab experiment and the physical experiment are done in the same place with the same equipment, the remote lab inherently has a realistic quality to it that software simulation does not. In addition, the visibility, via networked video, into the lab gives the student a real-time experience while performing the experiment; thus, the student sees firsthand the results of their actions. This plays into a major drawback to software simulation in that it is still a trial of fitting the experiment variables into close-programmed ones. How close these software variables are from reality, though, depends on the quality of the design and the programming itself.

One of the main criticisms of remote labs was that the technologies used needed improvements, but the belief of those surveyed was that through improved technologies a better learning environment than software simulation would be achieved. As technologies improve (e.g. microcontrollers), RL progressively improve. Therein is the catalyst of change for all of distance education: finding a combination of technology, design and learning theory that creates a balanced experience for the user. Integration should be accomplished with not only the best technologies available, but also the best practices for instructional design.

CONCLUSION

Creating a successful remote lab environment is much the same as creating any successful distance education program: it is grounded in the ability to engage and teach the student. However, despite the need for integrating diverse technology and developing custom tools or software, remote labs are well suited for replacing the classroom lab when it comes to distance education. According to the National Education Association (2002), the most successful programs in distance learning have been targeted toward specific audiences and learning needs. That is exactly what a remote lab does by supplying the access to the traditional lab through remote technology interfaces.

Remote labs require that the technology components of input, process and output are orchestrated to create the appropriate learning environment. Forinash and Wisman (2001) listed three criteria a remote lab needed for it to compare to a classroom lab:

- Sufficient control of remote equipment is mandatory (start, stop, adjust)
- Difficulty of experiment must not be exceed that of the physical environment
- Feedback is crucial for the student-instructor relationship

Though these criteria set good qualitative goals, they are still ambiguous as to what that means to the development of remote labs. Windschitl (1998) calls for deeper investigation into whether the use of a given technology helped the student or had instructional potential. Because remote labs are a combination of instructional design and technology, there will need to be a continuous loop of research, data analysis and redesign to reach the educational potential that remote labs hold. Inevitably the viability of remote labs, and all distance education, will be based on whether or not the students' needs are being met. Mergendoller (1996) states that the need is to understand better the relationship between technology, pedagogy, project-oriented curricula, and student learning. Of interest for distance learning is the essential role that experimentation plays in scientific investigation. The main elements of design and data analysis must be supported by the ability to handle error and manipulate input (Forinash and Wisman, 2001). In other words, the more lifelike the experiment is, the more engaged the student will be. To make this leap from a physical lab environment to a distance lab environment will require the collaboration of multiple disciplines. In order for students to gain the greatest potential from technology, the dependencies between information technology, pedagogy and learning must be examined (Windschitl, 1998).

Creating and maintaining a remote lab environment is a challenge for people in both the education and technology fields. Only a sincere, serious and well-guided approach to research in this area will produce a promising development for our education system. It is not only the physical environment that makes classroom labs appealing, but also the student-teacher interaction and the communication toward deeper inquiry (Keeton, 2004). By focusing on the principles that emphasize learning and the interchange between educators and students, remote labs can achieve the same goals as classroom labs, and in some cases, perhaps even better ones.

For further research, one might target the following areas:

- Gender preferences in using an online remote lab;
- Significant relationships between student performances when taking online courses via remote labs and when taking courses using campus labs;
- Possible ways to encourage students to use remote lab;
- Use of more powerful statistical techniques, such as logistic regression and discriminate analysis, to study the relationship between students' preferences among CL, RL, and SS, versus several set of explanatory variables, such as gender and students performances in the courses;
- Use of a larger sample size and more representative sample of students who have more online experience for more significant results, and higher percentage of students' preferences to use remote lab.

As online distance education continues to improve and develop, there will a continuous need for research development, statistical analyses, and updated technologies, for remote labs to be able to compete with the conventional labs. This is a step forward, however, that might help us explore a new way of teaching and learning, while maintaining an objective, quality assurance. ontinues to improve and develop, there will a continuous need for research development, statistical analyses, and updated technologies, for remote labs to be able to compete with the conventional labs. This is a step forward, however, that might help us explore a new way of teaching and learning, while maintaining an objective, quality assurance.

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APPENDIX

Pareto Chart for Students Majors

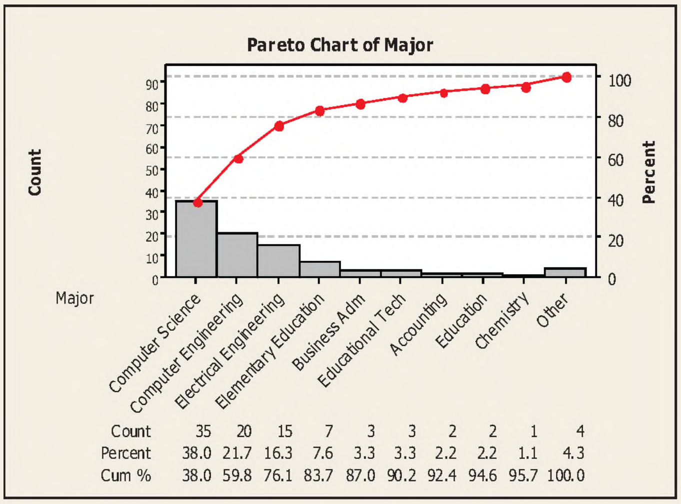

Figure 1

Histogram for the Academic Years completed

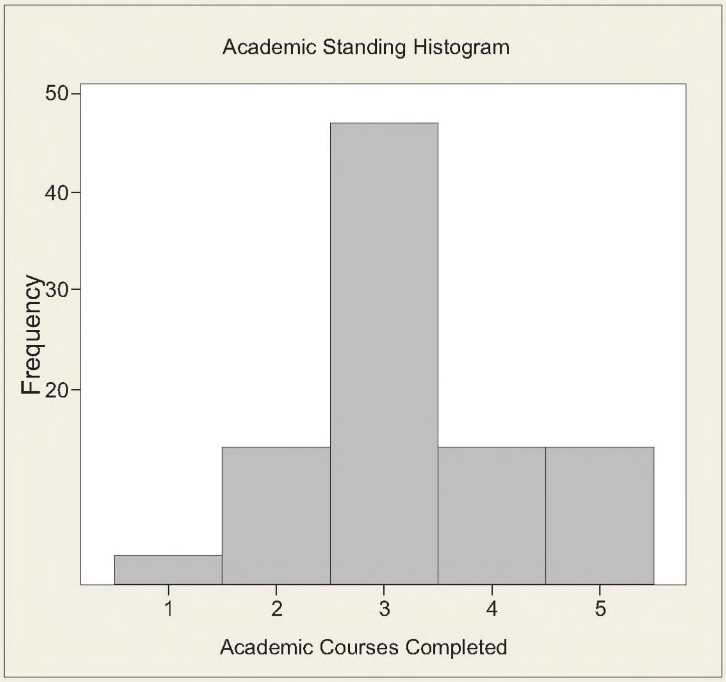

Figure 2

Histogram for the Umber of online Courses Taken

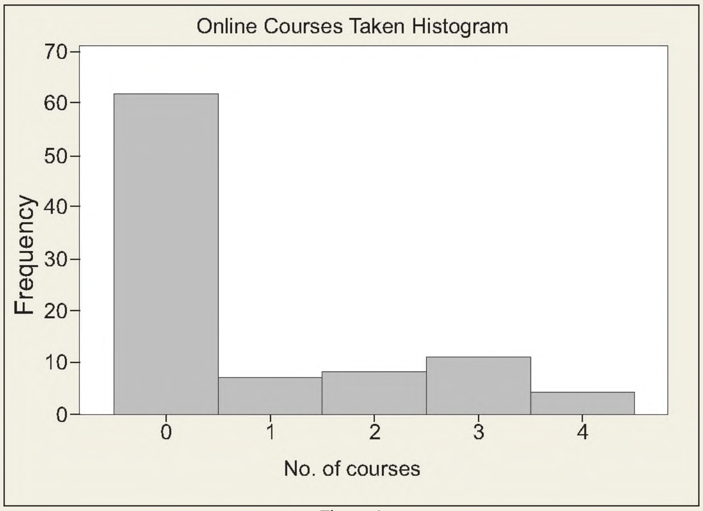

Figure 3

Pie Chart of Students Preferences

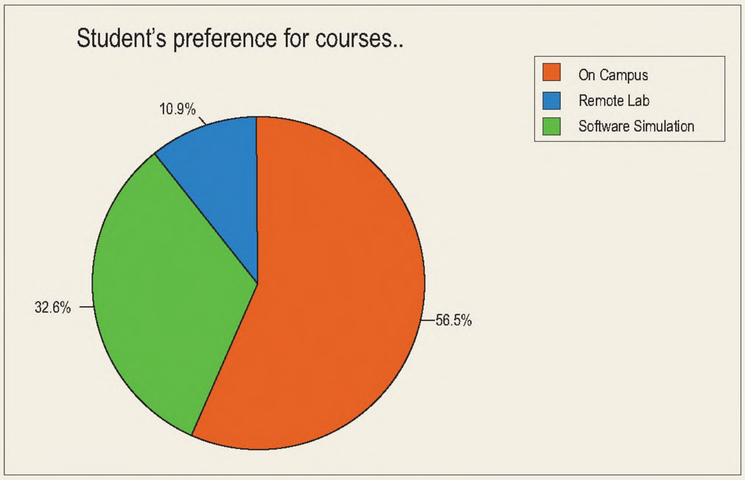

Figure 4

Pie Chart Why students Did Not Select Online Course

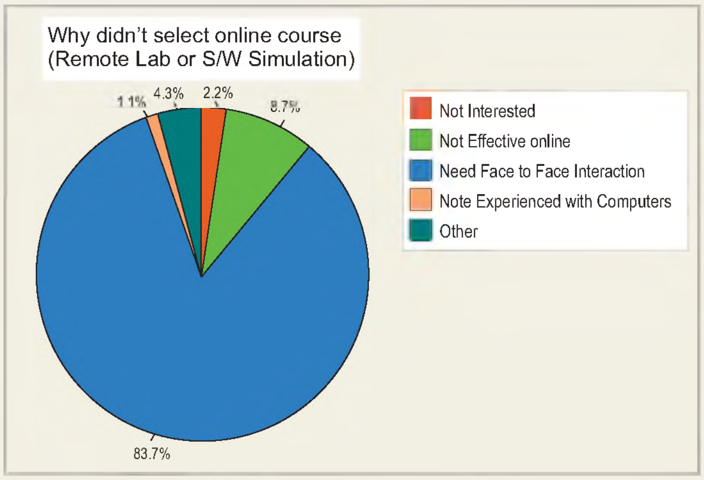

Figure 5

Pie Chart "Remote La or Software Simulation"

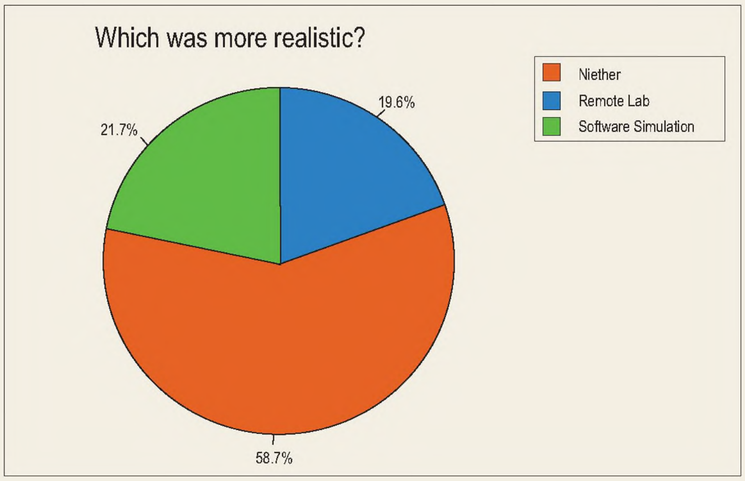

Figure 6

Doctoral Abstracts

Analysis of E-business Models and Business Process Simulation for Internet Banking

Neeru Maheshwari

INTRODUCTION

In the new millennium, the single most dominant event which has completely changed the world is the birth of Internet. It has changed the outlook of whole set of industries and markets and has already had a great impact on consumers and is all set to have a very exciting future. It has helped companies improve services, reduce costs, open new channels and transform the competitive landscape. The arrival of internet is revolutionizing the way business is carried out and is having a tremendous impact on all industries- the way they work and how they provide services to the customers. The internet and the technology enabling have helped companies to create an altogether new channel of business, collectively called e-Business. e-Business is primarily any kind of transaction done partly or completely over a network. However, it is not only buying and selling of goods and services over the internet, but also servicing customers, collaborating with business partners so as to create new markets. e-Business has changed the way many companies do business. To them, e-Business is no longer an alternative but an imperative. However, many companies are struggling with the most basic problem of identifying the best approach for establishing and doing business in the digital economy. Some companies are transforming their businesses entirely to the web. Some are establishing subsidiaries, and then spinning them off as separate online business. Others are investing in or merging with online startups. The bottom line is that there is no simple prescription and almost no such thing as an established e-Business model for companies even within the same industry.

The opening of Indian economy in 1990's brought in its wake forces of market competition in small measures in the economy and all sectors including Banking sector were exposed to such forces for the first time. IT is playing an active role in improving the productivity in banking industry. Perhaps no other sector has been affected as much as banking and financial services. It has become the most important factor for dealing with the intensifying competition and the rapid proliferation of financial innovations. The liberalization in the banking sector in 1991 necessitated the need for bringing measures to cut down cost, to increase efficiency, to provide better, value added, customized and cost effective services to the customers. In this study the banking sector has been chosen for study because of its unique potential to be a very large user of e-Business and given the kind of changes banking industry in India is experiencing, a thorough study on IB and a framework to analyze the critical success factors and strategic issues involved in e-business transaction was felt appropriate.

SCOPE OF THE STUDY

The aim of the work is to analyze and compare various e-Business models so as to identify appropriate metrics for assessing the particular business model. It is proposed to take up the case study of Indian Banking sector and identify factors which contribute to the improved performance of the Internet banking operations. With almost all the major banks in India migrating (or in the process of migration) to full fledged Internet banking, Computer simulation studies are planned to study the factors which may enable a successful migration of traditional banking business to e-Business.

OBJECTIVES OF THE STUDY

- To study, analyze and compare various e-Business models and identify appropriate metrics for assessing business models.
- To analyze the profitability and productivity of Internet Banking in India.
- To investigate the factors for the successful reengineering of various banking processes and process simulation for the migration of traditional business to an e-Business.

RESEARCH METHODOLOGY

- Since the research focuses on more than one aspect of Internet banking, the objectives are multiple and varied. Subsequently, the research methodologies adopted are a mix of various statistical and econometric tools including mathematical modelling, econometric toolkits, TSP, univariate analysis, questionnaires, interviews etc.
- The study focuses on analyzing the productivity and profitability aspect of Internet banking. For which a thorough study on IB has been done with respect to performance, cost efficiency, and other characteristics. The search was executed to collect information from the Internet using a combination of knowledge of banks web sites by using Uni variate statistical analysis. Further to analyze the productivity of banks a Cobb-Douglas production function approach is employed. The methodology adopted for analyzing the Banking Sector is primarily based on secondary data available from various sources including annual report of Reserve Bank of India (RBI) on banking, annual report of various private sector banks, web sites of major banks, other economic and banking reports, journals and newspapers, sites on the net related with banking like Indian Banking Association, National Institute of Bank Management, bankersindia.com etc.
- To analyze the use of business model in Indian banking sector major components derived from the literature review of the research has been taken and is evaluated using Likert's scale. A series of interviews were conducted that aimed at investigating the relevance of business model research and exploring possible uses of the business model concept in various banks.
- Further to investigate and analyze the factors for reengineering of various processes followed at banks a

simulation tool (iGrafx) has been used which can generate reports regarding the duration of each transaction, costs, resource utilization, etc. This tool was used in many BPR projects for simulation as it plays a vital role to analyze the existing business processes, to develop a new one removing the unnecessary cardinalities, and to make qualitative and quantitative estimations that would help to decide whether to implement the process or not. In this different banking processes like account opening, loan process in general and car loan process has been studied. For the purpose of re-engineering, the AS IS model is critically analyzed to know the pros and cons of the activities. After considering the AS IS model as a base model, efforts are also made to re-engineer the necessary activities so that the cost related to the activity gets reduced and on the other hand the benefits for the customer and the bank increases. This reengineered model is referred as "TO BE model".

CONCLUSIONS

If we look back to the objectives behind the present study, the primary aim was to analyze the various e-Business models and evaluate the performance of Internet banks in India with a special emphasis on new generation private sector banks in the post liberalization era and through a study of the e-business investments and other technology initiative in the field of banking, suggest an ideal e-Banking model, which will find it competitive in the New Millennium. Internet banking in India has completed more than four years and it was an opportune time to test the efficacy of these initiatives by Indian banks.

1. The review of literature in E-Business provides business models with diverse components and parameters which are not sufficient to conduct effective and successful e-Business practices in the current business environment as there is no standardization of a business model definition and its components.

2. The Private, Public and some foreign banks in India started offering or are likely to offer various financial services to the customers through Internet banking because it is a cheaper and quicker mode.

3. The increased IT investment and e-initiatives in Indian banking system is not only enabling the banking system in the country to increase their productivity but also to gain competitive advantage and earn higher profits than they would have otherwise made.

4. Reengineering and migration from traditional form of business to Internet business is helping banks to save cost, time, human and other resources.

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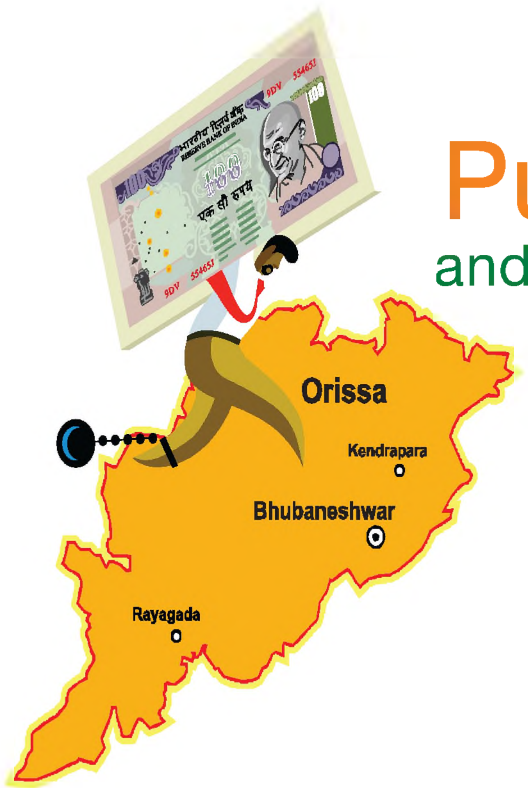


Public Debt and its' Sustainability: Perspective for a Backward State in India

A case study of Orissa.

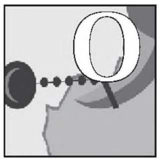
Snigdha Tripathy

INTRODUCTION

Orissa, despite being a land with rich natural and human resources with 4.74% of India's total land mass and 3.5% of the total population of the country, has remained one of the poorest states in the country to-day. Nearly 48.06% of its population still lives below the poverty line against the all India average of 35.9%. The growth rate of Gross State Domestic Product (GSDP) of Orissa is not remarkable in spite of the heavy borrowing. The GSDP at constant prices (93-94) of Orissa has increased from Rs. 18,536.66 crore in 93-94 to Rs. 33,042.10 crore in 2005-06, registering an annual compound growth rate of 4.93% (The economic survey of Orissa 2006-07). The per-capita GSDP of Orissa by the end of 2005-06 was Rs. 13,744 as against the all India average of Rs. 60151 (by measuring GSDP at constant prices, 99-00 as the base year) with the per-capita gap at Rs. 6990.

The total outstanding debt as on 31.3.2006 is of the order of Rs. 36456.46 crore (Orissa Budget at a Glance 2007-08, published by the Department of Finance, Govt. of Orissa). In terms of Debt to GSDP ratio too, the state Govt. of Orissa had registered an annual growth rate of 16% over the period 1990-91 to 2005-06. This critical debt ridden condition of the state is due to the slow, secular deterioration in the fiscal health of the state. The deterioration in the state's fiscal health has started from the year 1990-91. The revenue surplus state of the 80s has gradually been converted into a revenue deficit state by the end of the 2000. Towards the late 90s, the fiscal situation of the state Govt. of Orissa had become very critical leading to debt to GSDP ratio of 68%. Not only the debt but also the debt servicing in terms of interest payment had increased. The interest payment as a proportion of total revenue receipt was also very high at 40% during 1990-91 to 2005-06.

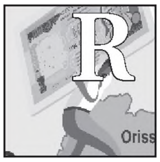
As the state government had to borrow continuously to cover the fiscal imbalances, there is a legitimate concern over the sustainability of its public debt. As per the recommendations of The 12th Finance Commission, the state govt. can approach the market directly for the 70% of the loan component of Central Assistance of the State Plan. The sustainability of the additional borrowing has become a critical issue in the present context because, if the financial market will perceive the debt stock of any Govt. as un-sustainable then the further lending to the Govt. will be difficult.



OBJECTIVES OF THE STUDY

At the backdrop of the above mentioned problem the objectives of the present study have been outlined.

- To study the dimensions of the fiscal imbalances of the state Govt. of Orissa.
- To assess the fiscal sustainability of the state Govt. of Orissa, by assessing the solvency and sustainability of public debt.
- To suggest some remedial measures for policy prescription.



RESEARCH METHODOLOGY

For developing this study, the data has been obtained through the secondary source i.e. from the govt. documents and documents published by R.B.I .Solvency and sustainability criteria are developed from Domar's model. For the growth rate of GSDP and the outstanding public debt, the semi log model of econometrics is applied.

FINDINGS OF THE STUDY

Findings of the study are presented in five sections.

SECTION – I

Relative Position of Orissa vis –a- vis other Major General Category States.

India, a home to more than one billion people, is a federation of 28 states and 7 Union territories. The growth and development of the Indian economy depends upon the fiscal performance of the constituent states and the union territories. The gradual deterioration in the fiscal performance of the states had put a negative impact on the growth of the Indian economy. The fiscal crisis which started around 1985-86 among the states, aggravated further during the post reform period. The R.B.I report for the year 2002 points out that GFD as a % of NSDP had increased in almost all states. The states' own revenue as a proportion of their aggregate expenditure had gone down from 43.5% to 41.5% between1990-91to 2000-01. Interest payment showed a sharp rise from 13% of RR(revenue receipt) in 1990-91 to 22.7% in 2001-02. The debt to GDP ratio, which had declined during the 1990s till 1996-97, started rising again continuously. The primary deficit of the states had deteriorated from 1.8%of GDP in the year 1990-91 to 2.4% by 1990-2000. In other words, until 2001, almost all indicators suggested worsening of the fiscal situation in all major states [RBI 2002]. This chapter has attempted to measure the states (General category) as per their fiscal performance. An effort has been put to assess the relative position of the state "Orissa" vis-à-vis other major general category states.

For the interstate comparison different fiscal parameters are taken into the consideration such as the ratio of Revenue deficit and Fiscal Deficit to their respective GSDPs to find out the relative position of Orissa in comparison to other major general category states, and in both the categories, the situation of Orissa is found to be very grave. The trend analysis is done by taking the time series data from the year 1993-94 to 2004-05.

To probe into such high unfavorable fiscal stance, the other fiscal parameters were also studied, such as

- Own Tax Revenue as a percentage of GSDP.
- Revenue Expenditure as a percentage of GSDP.
- Capital Expenditure as a percentage of GSDP.
- Interest Payment as a percentage of Total Revenue Receipt.
- Pension as a percentage of GSDP.
- Outstanding debt as a percentage of GSDP.

The trend analysis is done by taking three averages over three different time periods; for (1993-96), (1997-2000) and (2001 – 2004). In all the categories the situation of state govt of Orissa was found to be worse than most of the other general category states.

Only in the capital expenditure category the state govt. of Orissa was found to have shown some improvements during the year 2001- 02 to 2004-05 in comparison to other states.

In the category of revenue expenditure as a % of GSDP the state govt. of Orissa was found to be with the highest ratio; it is even more than those of Bihar and West Bengal.

In the category of pension as a percentage of GSDP the state govt of Orissa has shown an increasing trend during the late 90s and onwards, mainly because of the revision of the pay scale of the state govt. employees according to the Central Govt. payment structure as per the V^{th} Pay Commission.

In the category of IP/TRR, Orissa is found to be a state with a very high ratio other than U.P, Rajasthan, and West Bengal.

In all the above said fiscal indicators, the situation of Orissa was found to be worse than most of the general category states. To measure the impact of this critical situation, debt to GSDP ratio was also taken and the comparison was made between two average periods; for 1993-96 and for 2000-2003. During the period 2000-2003, it was found out that Orissa was the state with the highest debt to GSDP ratio with 68.63%, an increase of 27.47%over these two average periods.

From the above analysis, the fiscal crisis that is faced by the govt of Orissa is clearly revealed. In this chapter an attempt has also been made to find out the relative position of State Govt of Orissa vis-à-vis other 14 major general category states by applying an index. The index is known as "Composite Fiscal Performance Index" developed by Archana Dholakia. This index is made up of the following indices:

Deficit Index (DI) : It consists of the following three indicators.

- GFD/TEX (Gross Fiscal Deficit/Total Expenditure)
- R.D/F.D (Revenue Deficit/Fiscal Deficit)
- C.O/F.D (Capital Outlay/Fiscal Deficit)

Own Revenue Effort Index(OREI) : It is constructed out of the two indicators

- OTR/REX (Own Tax Revenue/ Revenue Expenditure)
- ONTR/REX (Own Non Tax Revenue/Revenue Expenditure)

Expenditure and Debt Repayment Index (EDRI): It is constructed out of the following three indicators.

- NDRE/RR (Non Developmental Revenue Expenditure as a proportion of revenue receipt)
- IP/RR (Interest Payment as a proportion of Revenue Receipt)
- DR/CFT (Debt Repayment as a proportion of central fiscal transfer)

All these indicators are calculated by applying the following formula:

Indicators	Best-Value	Wrost-Value	Formula
F.D/TEX	V = (V'-1)	W	(w-x) (w-v)*100
R.D./F.D.	V = (V'-1)	W	(w-x) (w-v)*100
C.O/F.D	V = (V'+1)	W	(x-w) (v-w)*100
NDRE/RR	V = (V'-1)	W	(w-x) (w-v)*100
IP/REX	V = (V'+1)	W	(w-x) (w-v)*100
DR/CFT	V = (V'+1)	W	(x-w) (v-w)*100
OTR/REX	V = (V'+1)	W	(x-w) (v-w)*100
ONTR/REX	V= (V'+1)	W	(x-w) (v-w)*100

V = the best value
V' = the actual best value.
W = worst value
X = the actual value of an indicator for a given state.

To aid this calculation, the best values are adjusted by one unit point.

By applying this index, the states were ranked for the years 2001-02 to 2004-05, and it is found that the rank of Orissa is last but one in comparison to other 14 major general category states, which made it imperative to study the sustainability of the fiscal situation of Government of Orissa.

SECTION –II

Public Debt and Gross Fiscal Deficit - A Theoretical Analysis

In this section introduction of the working area has been made. As the working area is the sustainability of public debt, proper understanding of the concept of debt (public debt) and the proper definition of public debt is a pre-requisite for the required analysis.

As sustainability is usually examined by comparing the growth rate of income and average rate of interest on debt, proper measurement of debt plays a very important role. In this chapter proper definition of debt has been outlined according to the definition of Gross Fiscal Deficit.

Usually there are two ways to finance the GFD of a government; either through monetization (creation of liquidity) or through the additional borrowing. In case of a state govt., it does not have access to the seigneorage. So, the scope for monetization is very much limited or virtually nil. Hence, the additional public borrowing of a state has got a close link with the Gross Fiscal Deficit.

So for the correct definition of the outstanding liability, not only the proper definition of GFD is required, but also the different methods by which the GFD of a state is financed is required to be found out. For this, the different definitions which are followed by the three apex bodies such as R.B.I, CAG and Govt. of Orissa were scrutinized and it is found that there is a difference in the R.B.I actual and R.B.I textual. After studying the three different definitions, the GFD definition has been outlined as below.

GFD = R.D + C.O + N.L- NDCR

GFD = Gross Fiscal Deficit
R.D = Revenue Deficit.
C.O = Capital Outlay.
N.L = Net Lending.
NDCR = Non Debt Capital Receipt.

In the budget document, the items which are recorded in the Miscellaneous Capital Receipt are usually the non debt capital receipts, Accordingly the definition of GFD can be rewritten as follows:

GFD = R.D + C.O + N.L - MCR

After scrutinisation of the above three definitions it was found out that, there is a difference in the R.B.I actual and R.B.I textual. Because, in the calculation of GFD, RBI usually does not consider the value of MCR, as, usually, in most of the years MCR value is zero. But the proper definition of GFD cannot be found out by neglecting the MCR. However, it was found out that the State Govt of Orissa follows the right definition, and accordingly, once again the GFD of the State Govt. of Orissa is computed for 16 years; from the year 1990-91 to 2005-06.

As a state govt. mainly borrows to finance the GFD, the strong link between GFD and the debt of a state is explained by the help of the following analytics.

$D_{t+1} = D_{t+}+\Delta D_{t+1}$
ΔD_{t+1}= Debt finance deficit of the year D_{t+1}
$D_{t+1} = D_t + DFD_{t+1}$

As, $GFD_{t+1} = DFD_{t+1} + MFD_{t+1}$

$\Rightarrow DFD_{t+1} = GFD_{t+1} - MFD_{t+1}$

$\Rightarrow D_{t+1} = D_t + (GFD - MFD)_{t+1}$

The increase in debt in the time period t+1 i,e
$\Delta D_{t+1} = GFD_{t+1} - MFD_{t+1}$

From the above analytics it is concluded that, the correct definition of debt can be found out by analyzing the different components through which GFD is financed. In order to have a comparable definition as per the international standard the different definitions of international bodies such as IMF, IASC (International Accounting Standard Committee) were also studied simultaneously. To make the definition comparable across the countries, different definitions which are followed by different countries such as U.S.A, Canada, United Kingdom and Australia were also studied.

By studying all these definitions it was understood that the concept of public debt or the liability need proper definition for avoiding confusion and erroneous use. The concept should be according to the analytical framework for its effective use in policy making. The most important use of debt or liability is to access the sustainability of it. In this study, sustainability is tested according to Domar's equation. According to Domar's equation, sustainability of debt is studied by comparing the growth rate of GSDP with the rate of interest. The absolute amount of interest does not vary irrespective of the total value of the debt but the rate of interest depends upon the absolute value of the debt. So, a broader definition of debt is expected to yield a smaller interest rate. Hence, a definitional mistake might change the result of the sustainability of public debt.

By scrutinizing all the definitions provided by the different bodies, in this study, it is finally concluded that all those items which are accumulated due to the govt. operation in the past and which are extinguished by the govt. operation in future should be included in the calculation of debt. The direct financial obligations which are serviced through the interest payment should also be included .

From the above conclusion, the new definition of debt was found out as per the following equation:
Outstanding Liability = MFD + DFD

= Internal Borrowing + loans from the centre+ Small savings + deposit and advances
+ contingency fund + WMA and OD from R.B.I

In this study it was found out that the definition of debt which is followed by the Govt. of Orissa is not proper as it does not take into account many items from the above. So, by using the above said definition, the outstanding liability of the Govt. of Orissa was calculated once again for the 16 years; from the year 1990-91 to 2005-06.

SECTION –III

Analytics of Debt Sustainability

This section attempts to assess the fiscal health of the State Govt. of Orissa by taking different indicators. As the study is developed to assess the sustainability of public debt, the indicators required according to sustainability perspective are specially chosen. Those indicators are as follows:

a) Debt/GSDP (Debt to GSDP ratio)
b) F.D/GSDP (Fiscal Deficit to GSDP ratio)
c) P.D/GSDP (Primary Deficit to GSDP ratio)
d) IP/TRR (Interest payment to Total Revenue Receipt)
e) RE/TE (Revenue Expenditure to Total Expenditure)
f) RE/RR (Revenue Expenditure to Revenue Receipt)
g) RD/FD (Revenue Deficit to Fiscal Deficit)

Debt to GSDP ratio

As per the FRBMA, the targeted Debt to GSDP ratio was fixed at 28%. It is found out that the ratio for Orissa throughout the study period is always more than 40% and it has reached to a height of 62.7%during the year 2005-2006, showing the critical condition of the state

GFD/GSDP ratio

For this study the GSDP data of CSO has been taken. CSO provides two time series data based on two different base years. One is from the year 93-94 up to the year 2004-05(93-94 as the base year). Another is from the year 1999-00 to 2006-07 (99-00 as the base year). To maintain the consistency of the data, all these ratios are taken from the year 1993-94 to 2004-05. FRBMA has targeted to reduce this ratio up to 3% but it was found that in case of Orissa it was very high at around 6%.

P.D/GSDP ratio

In this category Orissa has shown some improvement. The ratio value went on increasing from1.16% during the year 93-94 to 6.48% by the end of the year 1999-2000. But from the year 2000- 01 onwards it went on decreasing and it was converted to a primary surplus state by the end of the year 2004-05. Orissa has shown the right kind of improvement only in this category.

R.D/GSDP ratio

In this category, the situation of Orissa is as bad as other indicators. This ratio has been showing a continuously increasing trend up to the year 2001-02. During the year 2001-02, this ratio was quite high with 6.75%, however, it has been reduced to 2.6% and 3.7%during 02-03 and 04-05 respectively due to various expenditure rationalization and revenue augmentation measures implemented by the state govt. since 1999-2000.

IP/TRR

The ratio had continuously increased from the year 1990-91 to 2005-06 from 16.8% to 29.27%. As per the requirement of the FRBMA, it should have been at 15% of the TRR (total revenue receipt) of the state. This increasing amount of the interest has put pressure on the revenue expenditure of the state, and in turn has further widened the revenue deficit leading to more borrowing.

RE/TE

This indicator has been taken to measure the pressure of revenue expenditure on total expenditure. As revenue expenditure represents the unproductive expenditure of the state, if the major portion of the expenditure of the state will go towards this unproductive expenditure, then it will hamper the growth of the economy and subsequently the debt burden will be unsustainable. And in this category it was found that the situation of Orissa is very critical over these 16 years as the ratio is very high at around 70% to 80%.

RE/TRR

This ratio has been taken to know what proportion of TRR (Total revenue receipt) of the state t goes towards revenue expenditure. It was found that revenue expenditure of the state is more than the TRR of the state and is almost 120% over these 16 years which shows that revenue expenditure only is more than 100% of the TRR. That means, the state govt. has to borrow to cover the maintenance expenditure of the state.

All these above indicators had shown that the ratios are unfavorable for the state govt. of Orissa leading the state govt. into a debt ridden condition.

SECTION –IV

Solvency and Sustainability of Public Debt

This section focuses on the solvency and sustainability of the debt of State Govt. of Orissa. Solvency and sustainability are closely related as an unsustainable time path of debt will ultimately threaten the solvency of the state. So, solvency and sustainability are required to be studied together. These criteria have been derived from the famous Domar's equation.

The public debt of the govt. will be sustainable provided that the borrowed fund is invested for the developmental purposes and the growth thereby generated helps in further growth of the GSDP. Then only, the govt. can generate sufficient liquid asset to meet the current obligation. This sustainability will be achieved only when the rate of interest "r" is less than "g", the growth rate of GSDP.

$=r<g$ ……………..………………….. (1)

Solvency of the public debt will be there provided that , the growth rate of the public debt will be less than equal to the rate of interest . As solvency is a term related to the ability of the state to discharge its obligation in the long term, if the public debt will grow at a higher rate than that of the rate of interest, then it will be difficult on the part of the state to discharge its obligation in the long run. So, for the solvency of the public debt the following criteria should be fulfilled.

"the growth rate of the debt (k) should be less than equal to the rate of interest (r)"

$= k \leq r$ ………………………………………. (2)

If we combine the equqtion (1) and equation(2) we can get the solvency and sustainability criteria of the public debt as follows:

$= k \leq r < g$ ……………………………………..(3)

The above said equation is derived in this study from the Domar's equation.

For the calculation of "g" and the "k" i.e. the annual growth rate of GSDP and Debt respectively, the econometrics semi log model has been adopted. To maintain the consistency of the data of GSDP, the GSDP data from the year 93-94 to 2004-05 have been taken for the study. Accordingly, it was found out that over these 12 years

"g" = 9.94%
"k" = 16%
"r" = 10.44%
From the above findings it is clear that
$k > r > g$

The major finding of the present study over these 12 years is that the public debt of Orissa was neither solvent nor sustainable.

SECTION –V

Deficit, Debt and Economic Growth – Problems and Prospects

In this section an attempt has been made to explore the causes of such debt ridden condition of the State Govt. of Orissa. The major causes are as follows:

- The frequent visit of natural calamities has forced the state to resort to debt and has made the debt more and more debt prone.
- The disproportionately high employment by the state has made the salary and pension bill unsustainable for the state.
- Salary, pension and interest bill has made the committed expenditure of the state unsustainable as it has exceeded the Total Revenue of the State.
- As per the recommendation of the 12th FC, the state govt. had to approach the market for the 70% of the loan component of the central govt. But in this study it was found out that the average rate of interest on GOI loan was 12.35% and on open market loan was 14%. So, increasing dependence on open market loan had made the state more debt ridden.
- The unfavorable approach by the different Finance Commissions, in particularly by the 11th Finance Commission, has made the state more and more dependent on the R.B.I. in terms of W&MA and OD which is more costly.

In this section, along with exploring the causes of the debt ridden condition of the Govt. of Orissa, an attempt has been made to suggest some remedial measures for policy prescription. The following are some of the remedial measures.

- The state has to improve both own tax and non–tax revenue buoyancy.
- The state has to take care of unproductive revenue expenditure by the implementation of different revenue rationalization programme.
- Restructuring of the high cost debt.

Some of the institutional reforms are also suggested in this study, such as putting comprehensive cap on the state borrowing, bringing reforms in negotiated loan from financial institutions, and also in cash management, by which the dependence on W&MA and OD from R.B.I. can be systematized and interest burden can be reduced.

As per the FRBM Act, the state govt. of Orissa is required to achieve the targets of reducing F.D to GSDP level to 3%, Debt to GSDP ratio to 28%, Interest Payment to TRR ratio to 15% and R.D to GSDP ratio to 0% for getting some debt relief and other central govt. incentives. The present task before the govt. is to maintain the present rate of economic growth with the achievement of the desired ratios. Otherwise, the additional funding through borrowing by the state govt. will be reduced.

By looking into the trend of the interest rate on open market loan, in the era of reducing rate of interest on market loan, it is further suggested to restructure the loan of the GoO (Govt. of

Orissa) and to convert it into more and more market loan. When a state govt. will be dependent on the market for loan, market will study the sustainability of the fiscal situation of the govt. In this respect, to increase the creditworthiness of the Orissa state govt., the above- said fiscal as well as institutional reforms are to be undertaken by the State Govt. of Orissa on an urgent basis.

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A Study of Patients' Satisfaction Measurement in Hospital Services of Selected Health Care Facilities

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INTRODUCTION

A change has continuously taken place in the Science and Technology (S&T) related to health care services. Such development is witnessed by success of science in curing various diseases and providing satisfaction to patients. But still there are instances, which really compel the health care providers to improve their quality of services. The satisfaction or dissatisfaction of patients depends upon the behavior of doctors, and the quality of services as being provided to them by medical staff, quality of services provided by administration and the factors related with house keeping of hospitals.

If we look at the history of mankind, we find that society has been suffering a lot due to some communicable diseases. With the development of S & T, large numbers of diseases are now under the control of medical science. Earlier, there were many kind of diseases regarded as incurable, Viz., T.B., Big-Chiken pox, Typhoid, Alsur, Malaria etc., has now become easily curable. But, such win over on such diseases have given rise to other new diseases too which poses new challenges to S &T.
In the 21st century, S & T is still struggling to find cure of few major diseases Viz., "HIV-Aids", "Cancer", etc. It is most likely to happen that in near future other such even few diseases may emerge and this process is likely to continue on and on. The important thing that takes place during such process is that the society gets certain benefits Viz., improved medicines; good treatment; and ultimately improved patients' satisfaction.

If one observes the business practices of various companies including health care service providers, it appears that few of them have begun to adopt concept of providing satisfaction to its customers through cultivation of the marketing culture. But there are still some questions remain pending whose answers involves doubts and uncertainty.

Whether the patients today are satisfied with the quality of medical and response behaviour of doctors"?
Whether the patients are satisfied with the quality of Paramedical services provided to them by Paramedical staff in various hospitals? Whether the patients are satisfied with the quality of the administrative services delivered to them by administrative and supporting staff in various hospitals"? Whether Personal, Psychological factors influences patients' overall reported satisfaction or not? If it is not easy to find answer of above-mentioned questions, there exist a need to develop a business strategy for satisfying patients by hospitals and other health care service providers. It calls for developing an effective business plan, programs, policies and practices by the hospitals and other health care providers.

Now, with the development of new technology, the patients are able to get medical services of varying specialists in specific field of medical treatment. The advancement and improvements in communication technologies have lead to increased awareness among the patients. It is therefore necessary to measure the reported resultant overall satisfaction or dissatisfaction of patients in various types of hospitals.

SCOPE OF THE STUDY

The scope of study was restricted to selected hospital services as provided to patients by doctors, paramedical staff, and also administrative staff amongst selected hospitals such as Government hospitals (GHs); Trust hospitals (THs); as well as Private hospitals (PHs); located in the Baroda City of the State of Gujarat, India.

OBJECTIVES OF THE STUDY

The research study was undertaken mainly keeping in mind following major objectives.

- To measure patients' overall satisfaction /dissatisfaction as experienced and reported by selected patients on selected hospital services;
- To collect selected patients' opinion on selected criteria on hospital services, and
- To evaluate the actual experience of selected patients' on selected hospital services.

HYPOTHESES OF THE STUDY

- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the selection of a given type of hospital (GHs; THs; and PHs), is equal (Q. No.07).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the various medical services provided to him/her by doctors' of the given type of hospital (GHs; THs; and PH)s, is equal (Q. No. 08-01 to 08-17).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the various services provided to him/her by paramedical staff of the given type of hospital (GHs; THs; and PHs), is equal (Q. No.08-18 to 08-33).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the various services provided to him/her by administrative staff of the given type of hospital (GHs; THs; and PHs), is equal (Q. No.08-34 to 08-46).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the environment (physical facilities) of the given type of hospital (GHs; THs; and PHs), is equal (Q. No.08-47 to 08-64).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the tangible facilities of the given type of hospital (GHs; THs; and PHs), is equal (Q. No. 08 -16, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, and 60).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the reliability of service provided in the given type hospital (GHs; THs; and PHs), is equal (Q. No. 08 -04, 11, 12, 21, and 22).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the responsiveness of services providers of the given type of hospital (GHs; THs; and PHs), is equal (Q. No. 08 -02, 14, 19, 27, 28, 32, 33, 34, 35, 37, 38, 39, 40, and 41).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the assurance from the hospital services of the given type of hospital (GHs; THs; and PHs), is equal (Q. No.08 -01, 06, 07, 18, 23, 24, and 25).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the empathy experienced from the hospital services of the given type of hospital (GHs; THs; and PHs), is equal (Q. No. 08 -03, 05, 08, 09, 10, 15, 20, 36, 45, and 46).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the dignity maintained by the services providers of the given type of hospital (GHs; THs; and PHs), is equal (Q. No. 08 - 13, 26, 29, 30, 31, 42, 43, and 44).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the accessibility / affordability of the hospital services of the given type of hospital (GHs; THs; and PHs), is equal (Q. No. 08 -17, 61, 62, 63, and 64).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the overall satisfaction with selected criteria of the given type of hospital (GHs; THs; and PHs), is equal (Q. No. 09).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the overall satisfaction with the given type of hospital (GHs; THs; and PHs), is equal (Q. No.-10).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' post-purchase behaviour vis-a vis the given type of hospital (GHs; THs; and PHs), is equal (Q. No.-11).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses medical services (best services) of the given type of hospital (GHs; THs; and PHs), is equal (Q. No.-12).
- The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for medical service (worst services) of the given type of hospital (GHs; THs; and PHs), is equal (Q. No. 13).
- Mean of patients' view about selected type of hospital is equal in terms of decision regarding selection of hospital and an alternative hypothesis is at least one mean is

different from other.

- Mean of patients' view about selected type of hospitals is equal in terms of medical services and an alternative hypothesis is at least one mean is different from other.
- Mean of patients' view about selected type of hospitals is equal in terms of paramedical staff services and an alternative hypothesis is at least one mean is different from other.
- Mean of patients' response about selected type of hospital is equal in terms of Administrative services of hospital and an alternative hypothesis is at least one mean is different from other.
- Mean of patients' responses about selected type of hospital is equal in terms of Environment (Physical facilities) related criterion of the hospitals and an alternative hypothesis is at least one mean is different from other.
- Mean of patients' responses about selected type of hospitals is equal in terms of tangible facilities of hospitals and an alternative hypothesis is at least one mean is different from other.
- Mean of patients' responses about selected type of hospital is equal in terms of Reliability criterion of hospital and an alternative hypothesis is at least one mean is different from other.
- Mean of patients' responses about selected type of hospital is equal in terms of Responsiveness criterion of hospital and an alternative hypothesis is at least one mean is different from other.
- Mean of patients' responses about selected type of hospital is equal in terms of Assurance criterion of hospitals and an alternative hypothesis is at least one mean is different from other.
- Mean of patients' responses about selected type of hospital is equal in terms of Empathy criteria of hospitals and an alternative hypothesis is at least one mean is different from other.
- Mean of patients' responses about selected type of hospital is equal in terms of dignity criterion of hospitals and an alternative hypothesis is at least one mean is different from other.
- Mean of patients' responses about selected type of hospital is equal in terms of Accessibility/Affordability Criterion of hospital and an alternative hypothesis is at least one mean is different from other.

RESEARCH METHODOLOGY

Sources of Information & Data

The researcher has made possible efforts in order to collect available information from various secondary sources that have been outlined in brief as follows.

Secondary Data

The researcher has collected Secondary data mainly from various sources, such as, Business Newspapers; various magazines; Research Journals; few Published Reports, and also used Internet and few of the search engines to collect data and information on this study.

Primary Data

The Primary data were collected by the researcher, during September to December 2007, from the total number of 519 patients who were hospitalized and had availed hospital services from amongst selected Government Hospitals, Trust hospitals and Private Hospitals located in the city of Baroda in the State of Gujarat. (The list of the name of the hospitals from which patients' were selected is given in Appendix XXI).Out of total number of 519 responses 500 responses were finally considered for data analysis and interpretation. The Structured Non-Disguised Questionnaire was also thereafter translated in Gujarati language to help patients to better understand and to respond to it.

It consisted of total number of fifteen questions, apart from questions related to profile of respondents viz., personal aspects on patients' selected background variables viz., types of hospitals from where selected patients had availed hospital services; duration of hospitalization; type of medical treatment availed by selected patients; availability of supporting medical facilities nearby hospitals; issues related to selection of hospitals by the patients; overall opinion on selected statements on selected criteria of hospitals pertaining to actual experience as reported by selected patients; and suggestions to improve hospital services.

Sampling Decisions

In view of available time and other constraints being faced by the researcher, it was decided to conduct a sample survey, to measure selected patients' overall satisfaction / dissatisfaction based on evaluation of his/her own actual experience, using structured non-disguised questionnaire which was put to use based on a pilot study conducted in the city of Baroda.

A representative sampling unit was defined as a patient who was actually hospitalized, amongst any of the Government Hospital, Trust Hospital and Private Hospital, and had availed hospital services located in the Baroda. The non-probability sampling approach was put to use based on convenience sampling method supported with Personal interviews for drawing of sampling units.

The hospitals were selected based on sources such as, Directory of Medical College of Baroda as well as available information from Baroda Municipal Corporation and also through various other sources such as Yellow Pages of the Telephone Directory, and a Guide to Medical Services in Baroda City.

IMPLICATIONS OF THE STUDY

The results of this research study indicated that a high degree of variance in selected patients' satisfaction with regard to hospital services that were delivered to them in terms of different characteristics of services. These characteristics were related with quality of care and needs due recognition by all involved in the process of providing healthcare services.

The overall implications of this research study for GHs, THs, and PHs are given as follows.

Implications of Study for GHs

- The patients of GHs appeared to be more concerned with the accessibility and affordability of services which included three major criteria, namely, nearby location of hospital; economy, and easy availability of drugs. This provides an understanding to the GHs that nearby location, economy and easy availability of drugs are the criteria which have greater impact on attracting the patients in the hospitals. Hence, with due recognitions to these criteria, the GHs should be able to attract and maintain the regular flow of patients in the GHs.
- But, still variations in GHs patients' responses were observed and patients rated some characteristics of service delivery as poor, which needs improvement because GHs carries adverse implications on ability of GHs to provide satisfactory services to its patients.
- The first characteristic which needs improvement is related with dignity to be maintained by GHs while dealing with patients, which included two criteria, viz., patients should be treated by doctors with dignity by maintaining privacy and convincing patients before performing any kind of test on the patients.
  Less recognition to these two criteria have an adverse impact on impressions patients have developed in their minds about doctors of GHs. Hence, it gave an understanding that maintaining dignity with patients by ensuring privacy with patients and convincing patients before performing tests on them, would help in developing positive impression for GHs. Further, administrative staff of the GHs would be able to create positive impression in the minds of patients by giving personal attention and by welcoming them and through implementing their good suggestions.
- Other characteristics for which patients of GHs have reported unfavorably is accessibility / availability of doctors in emergency. The non-availability of doctors in emergency causes an adverse impact on level of satisfaction of patients. Hence, the due recognitions in making doctors' availability in emergency at the GHs would help it in improving the level of patients' satisfaction.
- Other characteristics for which patients' of GHs reported unfavorably was responsiveness criterion that affects the patients' positive word of mouth in favour of GHs. The selected criteria viz., the doctors' cooperation and making patients comfortable while asking questions; easy availability of nurses in emergency; prompt service by nursing and sanitation staff; no overcrowding and good grievance handling system reflects a proper responsiveness of hospital and would be able to create a positive word of mouth amongst the patients' GHs.
- For the tangible facilities, amongst the patients' of the GHs reported adversely in some of the criteria that had a direct impact on level of comfort felt by the patients. The good quality of food; parking arrangements, and regular availability of doctors should certainly increase the level of comfort of patients and would act as key inputs in improving the level of patients' satisfaction.
- The assurance on the experience of people performing tests on the patients causes an impact on trust and confidence of patients on hospital services, hence the due recognition on training of people who perform such tests on patients would help in not only winning their trust and confidence, but would affect the patients' post-behaviour.
- The empathy as experienced by patients of the GHs appeared to be capable of improving the patients' satisfaction by showing good concern for patients' family members and visitors; by developing simple billing procedures, and by removing the complexity in the hospital procedure.
- The responses of patients for reliability criterion of the GHs have an impact not only on patients' future visits in the GHs but also on the patients' intention to recommend GHs to others in future. So, due recognition by doctors in diagnosing the patients' diseases, and in prescribing good drugs would help in strengthening reliability criterion for the GHs amongst the patients.

Implications of Study for THs

- The patients' of THs appeared to be more concerned with the references or recommendations made by their friends and relatives for availing hospital services from THs. So, this provides an understanding to the THs that by providing good overall services to patients, the hospital would be able to get more patients based on references provided by its satisfied patients.
- But, still variation in THs patients' responses was observed. Though, compared to GHs, the THs patients showed better responses for croteria viz., empathy, dignity, tangible facilities, accessibility and affordability, assurance and responsiveness of hospital services, but, still variation in trust hospital patients' responses were observed and patients' rated some characteristics of service delivery as poor which needed improvement as it causes an adverse impact on ability of THs to provide satisfactory hospital services to its patients.
- The patients' feedback on empathy criterion experienced by them in case of the THs calls for an improvement in the delivery of patients' satisfaction with regard to maintaining confidentiality, giving individual consideration to patients and putting efforts to meet patients' expectations.
- Due recognition in making doctors' availability in emergency would help the THs in improving patients' satisfaction.
- The research study provided an understanding, based on confirmatory evidence, that maintaining dignity with patients of trust hospitals, with regard to convincing the patients by doctors before applying tests on them; and also giving personal attention on them by welcoming and implementing patients' suggestions by administrative staff, would help in creating positive impression for THs.
- The responsiveness of paramedical service providers in terms of providing prompt services and remaining present in emergency can be helpful to THs in creating a positive word of mouth amongst the patients.
- For the tangible facilities in the trust hospitals, the patients reported unfavorably with regard to presence of flies and mosquitoes in the THs. So due care must be taken by the THs.

Implications of Study for PHs

- The patients of PHs appeared to be more concerned with the past performance of hospitals and doctors; reputation of hospital; kind of specific medical treatment facilities available in hospitals and sanitation of hospital. It means that providing better treatment to patients and taking care of house keeping can create a positive opinion in the minds of patients and would gradually improve reputation of hospitals, which in turn will help the hospitals in attracting and maintaining regular flow of patients in PHs.
- Though, the patients of PHS expressed better responses for assurance, responsiveness, empathy, reliability, dignity and tangible facilities of the hospital services, but, still variation in patients' responses were observed that calls for an improvement as it adversely affects ability of PHs in providing satisfactory hospital services to its patients.
- The accessibility of services with regard to reasonable charges of private hospitals can be helpful in improving level of satisfaction of the patients. Due care in providing hospital services would help the private hospitals in improving patients' satisfaction.
- Due care by doctors in showing impartial attitude to its patients would help in developing feeling of reliability about hospital services amongst the patients and it would further lead to recommendation of PHs by patients to others.
- The empathy experienced by patients from the service provider in the PHs appeared to be capable to improve the level of patients' satisfaction with regard to making patients felt comfortable during doctors' examinations; simple checking and billing procedures.
- The assurance on the experience of doctors and paramedical staff and their knowledge and efficiency in performing their duty has positive impact on trust and confidence of patients on hospital services of PHs. Hence, the due recognition by doctors and nurses in utilizing their experience and in enhancing their knowledge and efficiency would be helpful not only in winning trust of patients but, it would also affect the patients' future intention in visiting hospital again for illness in future ass the case may be.
- The responsiveness of paramedical staff in providing information to patients about side effects of treatment provided; and responsiveness of administrative staff in developing speedy, easy procedure for admission and discharge of patients from PHs, would help the PHs in creating the positive word of mouth in favour of PHs.

CONCLUSIONS

The earlier concept of hospital was giving importance to traditional custodian functions but today the hospital is recognized as a social institution as the today's customers considered to be critical and enthusiastic towards high standard quality of services. The only reason for existence of hospital is patient who needs services which should be reasonably and readily available at all the times, and such patients' needs should become a focal point in the rapidly changing dynamic environment. In such a situation, hospitals should strive for providing maximum satisfaction to patients and show patient-orientation in providing services as it shall provides confidence to them in facing the diseases. To become successful the hospitals', healthcare organizations, should monitor patients' perceptions about the hospital services to improve hospital's performance.

The hospital management should use identified areas of concern and plan its action plan in a right direction. There would not be any scope to improve the hospital services unless such bold steps of measuring patients' satisfaction are perused. Repeating study related with measuring patients' satisfaction will always be useful guide for managerial intervention in the hospitals.

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A Study on Online vs. Offline Shopping Activities: of Female Internet Users in Selected Cities of Gujarat.

Bijal Zaveri

INTRODUCTION

E-Marketing is defined as using Internet and other Interactive Technologies to create and mediate dialogue between the firm and identified customers. The consumer goods company or professional service organization develop an Internet based system to actively communicate and interact with its target customers and clients. E-Marketing is characterized as being dependent on technology to enable interactivity and thus differs from other marketing practices.

A key factor for Internet marketing is the involvement of the Internet users. The level of consumer involvement in a product category or service is a major determinant of online shopping and buying behavior. Different involvement levels of customers indicate clusters differences in responses related to it. Thus, the degree of customer involvement in an electronic marketing effort determines Consumer behavior. The response dimension is a function of the type of involvement generated and the situations confronted. There are three response factors viz., Search, Information Processing, and Purchase Process. However, a variety of variables are associated to precede and influence the user involvement.(Shwu Ing wu,2006)

Internet has affected marketing in multiple ways. Some businesses have already found successful ways of advertising; marketing, and distributing its products and services. Due to the increased use of personal computers and the reduction in prices, the online or e-services have become attractive to many more people since it could be applied to majorities of the products and services.

Internet has changed the way in which consumers search for information about products and services. Online shopping has offered new and varied opportunities to consumers, but it has also posed new threats. Therefore, to attract and retain customers; e-marketers need to have a clear knowledge on online shoppers' expectations &experiences. They need to pay heightened more attention to the needs of two major types of users. Online shoppers, who use Internet as a means of shopping or buying of product or services; and Information searchers, who use Internet solely as a source to collect information for products or services. Customers are frequently using different channels at different stages of shopping. They collect product information, such as price and style information using Internet, and may buy product from traditional retail stores. Those who buy products and services from the traditional retail stores can be called as offline shoppers.

The Internet is also becoming an increasingly popular medium for making possible information search, choice, and purchase. The degree to which shoppers are now turning to the Internet as a shopping channel underscores the need to better understand and predict consumers 'online shopping behaviours.

SCOPE OF THE STUDY

The study focused exclusively on female Internet users having active e-mail ID, for the use of Internet to avail online services & for purchase of products belonging to selected Cities viz. Ahmedabad, Surat, Baroda, Rajkot in the State of Gujarat. It has attempted to those provide information and data on Internet related activities as well as results concerning online shopping activities of selected female online shoppers as well as non-online shoppers drawn from the selected cities of the State of Gujarat.

OBJECTIVES OF THE STUDY

The objectives of the research study were as follows:

- To collect information from selected female online and offline shoppers' on selected background variables viz., age; income; education; occupation, and marital status to relate it with selected criteria of female online shoppers and offline shoppers Internet related activities.
- To collect primary data from selected female online and offline shoppers' on selected criteria viz. benefits of online and offline shopping as well as their motivations behind online and offline shopping, and perceived risk of online and offline shopping;
- To identify, analyze, interpret and report on selected criteria concerning online and offline shopping of tangible products and also availing of e-services using Internet by selected female Internet users in the state of Gujarat.

HYPOTHESES OF THE STUDY:

An attempt has been made by the researcher to formulate and test various statistical hypotheses derived from review of literature. An illustrative list of selected hypothesis has been given as follows.

- The Average Opinion of Selected Female Online Shoppers' on Selected Criteria Used to measure responses on Convenience Criterion as a Benefit of Online Shopping vis-a vis Selected Female Online Shoppers' demographic variables viz.Age; Income; Occupation and Education is equal.
- The Average Opinion of Selected Female Online Shoppers' on Selected Criteria Used to measure responses on Security Criterion as a Benefit of Online Shopping vis-a vis Selected Female Online Shoppers' demographic variables viz.Age; Income; Occupation and Education is equal.
- The Average Opinion of Selected Female Online Shoppers' on Selected Criteria Used to measure responses on User Expereince Criterion as a Benefit of Online Shopping vis-a vis Selected Female Online Shoppers' demographic variables viz.Age; Income; Occupation and Education is equal.
- The Average Opinion of Selected Female Online Shoppers' on Selected Criteria Used to measure responses on Efficiency Criterion as a Benefit of Online Shopping vis-a vis Selected Female Online Shoppers' demographic variables viz.Age; Income; Occupation and Education is equal.
- The Average Opinion of Selected Female Online Shoppers' on Selected Criteria Used to measure responses on Price Concious Criterion as a Benefit of Online Shopping vis-a vis Selected Female Online Shoppers' demographic variables viz.Age; Income; Occupation and Education is equal.
- The Average Opinion of Selected Female Online Shoppers' on Selected Criteria Used to measure responses on Social Experience Criterion as a Benefit of Online Shopping vis-a vis Selected Female Online Shoppers' demographic variables viz.Age; Income; Occupation and Education is equal.
- The Average Opinion of Selected Female Online Shoppers' on Selected Criteria Used to measure responses on Emotions Criterion as a Benefit of Online Shopping vis-a vis Selected Female Online Shoppers' demographic variables viz.Age; Income; Occupation and Education is equal.
- The Average Opinion of Selected Female Online Shoppers' on Selected Criteria Used to measure responses on Identity Criterion as a Benefit of Online Shopping vis-a vis Selected Female Online Shoppers' demographic variables viz.Age; Income; Occupation and Education is equal.
- Average Opinion of Selected Female Internet Users as Online and Offline Shoppers on benefits of Online Shopping viz., Security; Inconvenience; Impersonality; Perceived Stress; Convenience; Personality; User Experience are equal.

RESEARCH METHODOLOGY

Sources of Information and Data

The information for the study has been collected from both primary and secondary sources. Secondary data were mainly collected from various published sources viz., Business Newspapers, Business and General Magazines and Research Journals related to the area of the study.

Collection of Primary Data

The Primary data was collected from the total number of 680 female Internet users online and offline shoppers who were also having active e-mail ID in the year 2008,. They had either purchased online a physical product and or had also availed an online service Internet at least once. The primary data was collected using field survey research supported with personal interviews of female Internet users-cum-online shoppers and offline shoppers in order to examine their overall opinion & experience towards online and offline shopping .The survey population was defined as female Internet users. Structured Non-Disguised Questionnaire was administrated for the collection of primary data.

Out of the total numbers of 700 responses finally, total number of 650 responses were considered by the researcher for the purpose of Data Analysis and Interpretation. The Structured Non-Disguised Questionnaire consisted of 21 Questions designed to collect information and primary data from the female Internet users. It included of total number of 21 questions, excluding questions related to profiling of respondents concerning personal aspects of female Internet users selected background variables vis-à-vis their uses of Internet, average time spent on Internet each time, uses of Internet for, problems being faced by female Internet users while using Internet; perceived importance of online shopping on selected criteria, preferred mode of payment in case of online shopping of products and a services, overall opinion of selected female online shoppers on selected items on online and offline shopping as well as their overall experiences concerning online and offline shopping.

Population for the Study (Area of Study)

The population of study was termed to the extent of the selected four major cities of the Gujarat State as mentioned earlier was decided considering aspects like adequacy; feasibility, and availability of data from amongst identified as online and non-online shoppers

Sample Size of the Study

The researcher estimated sample size on the basis of "India online 2008-Survey" which was conducted by Juxt-Consultant Online Research & Advisory Organization. These surveys were conducted in the year 2007 and 2008.

Table 1: Percentages of Samples Drawn by the Juxt Consultant Online Research

Sr.No.	Selected Cities of Gujarat State	Samples were taken by the Juxt Consultant Online Research	
		2007(In Per cent)	2008(In Per cent)
1	Ahmedabad	1.30	1.00
2	Baroda	0.70	0.50
3	Surat	0.30	0.50

Source: www.juxtconsultant.com

Table 2: Region-wise Break-Ups the Samples

No.	Regions of India	Female Respondents (In Percentages)	Number of Respondents
1	North India	19.2	603
2	East India	17.8	560
3	South India	37.5	1177
4	West India	25.2	801

From the above mentioned tables, It was found that 19.2 per cent of female respondents were selected from the North region; 17.8 percent from East- region; 37.5 per cent from South region, and 25.6 per cent from west region of India. It indicates that 804 females were selected from the Western region of India. 700 females were drawn as sample from the State of Gujarat for this research study. In all number of 700 dully filled up questionnaires from the Female Internet Users were collected and edited, tabulated but out of the total number of received questionnaires, the researcher had finally considered 650 questionnaires for the purpose of Data analysis and Interpretation.

Total Number of Female Online Shoppers and Offline Shoppers who were contacted for the collections of primary data were 700 drawn as follows.

- 200 female Internet users from Ahmedabad;
- 175 female Internet users from Baroda;
- 175 female Internet users from Surat, and
- 150 female Internet users from Rajkot

KEY FINDINGS OF THE STUDY:

The purpose of this research study was to examine Internet usage activities and attitudes toward online and offline shopping by female Internet users and to also develop their profiles that would assist marketers in introducing and promoting consumer adoption for online shopping in selected cities of Gujarat in near future.

- 65 per cent of female Internet users' availed services using the Internet. Above 20 per cent of them purchased products by using the Internet. In Rajkot city people purchased only 5 per cent of products via internet.
- The primary use of Internet for Information Search; Sending and Receiving e-mail, and for Entertainment Activities; for Business purpose; Educational Activities; Financial Services; Travel Services; Collecting Information on different aspects such as Astrology; Weather; Politics, and Entertainment activities.
- The result of the study indicates that the use of Internet for purchasing the services was higher than the purchase of products over the Internet.
- More than 50 per cent of female respondents' availed services using Internet except 35 per cent in Rajkot city.
- Female respondents prefer more search for the products over the Internet. Experience products whose physical inspection and real life shopping experience are described as experienced products. Selected respondents indicated less preference for experience products in selected cities of Gujarat.
- Online shopping preference was comparatively higher than offline shopping for the products viz., Books and Personal Computers etc.. It was found that the search respondents prefer experience shopping for the products like Clothing; Shoes; Electronic Appliances and Jewellery.
- Most popular services that female respondents buy via Internet were Railways Tickets; Transfer of funds between accounts; to check account balance; Banking Services over the Internet.
- Female respondents were more interested in collecting detailed information about products and services during pre purchase stage of products and services and to visit frequently asked Question sections over the Internet. They always use Internet to get benefits on products and services during the purchasing stage; to show interest in company's sale promotion offer.
- These findings provided a general indication that the purchasing from the Internet, services shoppers are still highly dependent on human interactions. Female respondents' preferred offline channel instead of online channel. The heightened perceived risk and product variability perceptions

that found to be associated with offline services still persist on the Internet.

- The data analysis indicated that female offline shoppers indicated more agreement on following dimensions viz., Social experiential; Efficiency; Emotions and Convenience. Female respondents' indicated functional benefits of online shopping such as Economy; Convenience, and Efficiency acts as a facilitator for women's online shopping, whereas Social Experiential concerns are a very important barrier.
- The results of the study indicated that female online shoppers respondents showed agreement on benefits associated with online shopping on following dimensions viz., Convenience; Security; and indicated less agreement on following dimensions, Price Consciousness; Social Experiential; Emotions and Perceived Risk which were the aspects disadvantages associated with online shopping.
- On the basis of the findings of the study shoppers can be categorized on the basis on their Internet usage activities' and their preference toward online shopping and offline shopping. In case of Ahmedabad city two groups were identified Adventure seekers and Technocrat users; In case of Baroda city groups two different categories were identified viz. Fun seekers and Shopping Adopters; in case of Surat city groups viz., Suspicious Learners and Shopping Avoiders and in case of Rajkot Fearful Shoppers and Technology Muddlers.

OVERALL IMPLICATIONS OF THE STUDY:

Online and Offline environments cause different shopping perceptions even when the same products are available for purchase. This study has presented empirical findings of Online shopping versus offline shopping by female respondents in of selected cities of Gujarat State comparing the online and offline shoppers.

- A variety of marketing opportunities exist among the different segments. Profiling market segments is of little use unless they vary in their attractiveness to marketing practitioners.
- Shopping Adopters and Adventuresome Explorers are buying online now and could well be the opinion leaders needed to convert and train others, particularly Suspicious Learners and Fearful shoppers, to be more comfortable with online shopping.
- Technocrat Users were less likely than these to be online shopping advocates, as their online activity was driven by professional needs rather than personal ones.
- Technology Muddlers had computer training hurdles so substantial as to make them unattainable online retailers in the near term, and Fun Seekers have values consistent with online searching activities rather than online shopping.
- Marketer must demonstrate to offline shoppers that interactive shopping is convenient, safe and simple to use. In the selected cities of Gujarat, expensive goods like Home Electronic Appliances; Jewellery; Furniture; Clothing, and Shoes are not ready for Internet selling. The monetary risks involved in buying Consumer durable products. These products also require more than visual inspection. This reflects some of the Electronic retailers should focus on computer related products which allow trial sampling or those that are high on information content. Examples of these include Computer Software, CDs, Online newspapers, Online Videos; Music; Online financial, and Stock information.
- The search costs for product information through the Internet are low, buyers can easily compare similar such products across different Internet Websites companies with a click of the mouse. The results revealed that the respondents' high level of search activities does not necessarily lead to similar purchase levels. Thus, online retailers should develop an effective website that has attributes that not only attract shoppers to visit it but also encourages them to follow through with purchases from the Internet websites.

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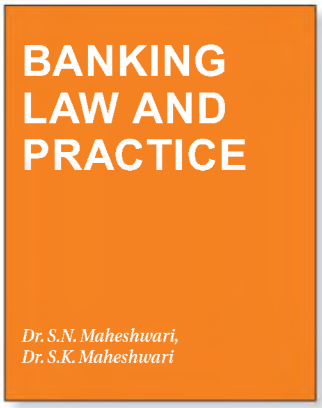

BANKING LAW AND PRACTICE

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The banking sector in modern times has witnessed a revolutionary transformation from 'armchair and lazy banking' to 'crazy banking'. Various social, economic and global changes have challenged the indoctrinated practices used in banking and have forced institutional changes in their working patterns. It has resulted in a stupendous growth of banking industry. In the book “Banking Law & Practice” the authors have tried to offer paramount information for operational, tactical and strategic purposes in banking, on a single platter.

The bandwidth of the book ranges right from evolution of banking institutions & banking system to the functioning of nationalized banks, apex banks, public sector banks & privatized banks, of modern age. The book has been divided into eight comprehensive sections.

The introductory section explicates the genesis of banking as business and its classifications. The elaborated information furnished by the author in a colloquial language and the theories of liquidity & credit creation can help even a novice in learning banking functions, sources & application of funds. It also introduces the readers with the Banking Regulation Act 1949 with all its latest amendments, which is the backbone of banking laws applicable to the operations of Research Bank of India, private sector banks, public sector banks & co-operative banks.

Negotiable instruments enact as lubricant in an economic engine and propel trade & commerce activities in an economy. Section II entails not only the detailed information on Promissory Notes, Bill of Exchange, Cheques etc. as negotiable instruments used all over the world, but also speaks of the legal connotations with regard to their presentment, ownership, transference & discharge in enforcement of negotiations.

Banks are connecting link between the users & producers of financial services, so to understand the nature of relationship between a banker & a customer becomes inevitable. Section III acquaints the readers with various new banking services along with traditional ones, which are being offered by the modern banks. The performance of a banker will definitely get improved when he has a thorough understanding of different types of deposit accounts and special types of customers to deal with. The ancillary services provided by the modern bank have also been explained for up to date knowledge.

A professional approach for rapid growth & profitable survival lies in judicial employment of bank's funds and ability to ward off frauds. Unit IV & Unit V elaborates the various types of advances, securities, modes of granting advances by banks and provision of indemnity & guarantee to boost up trade and commerce. Similarly various supporting policies & detailed information regarding various financial institutions have been discussed which facilitated an upsurge to export sector, agricultural sector, small scale sector & other priority sectors in our economy.

Venture capital funding by banks to high risk and high reward projects fosters growth along with technological advancement is another commendable step that has been taken up by the commercial banks. The book has highlighted that aspect beautifully by providing valid & up to date information on various credit policies and banking policies. It also throws light on the significance & need for proper documentation, follow up and recovery of advances.

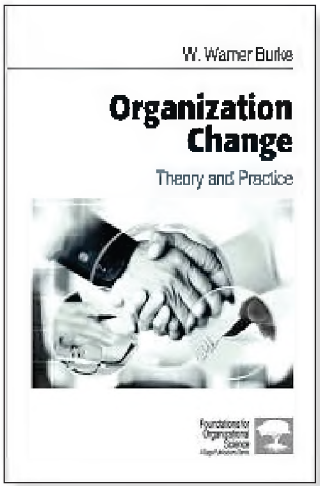
Section VI deals with the most crucial aspect of banking i.e. Credit Management. It also mentions about cautions to be taken against frauds and significance of audits in banking. Various financial tools like analysis of financial statements, ratio analysis, funds flow and cash flow statements have been discussed with numerous practical problems in sections VII. Abundant practical problems, their corresponding answers and solutions given for these tabulated questions and problems not only espouse readers to attempt finding semblance to their work situation, but also help in spotting gaps in their own answers.

Each section of this book gives a glimpse of author's rich experience by providing test questions and especially practical problems to 'soul search' the learning, the readers have had through this book. The theories, facts and formulae here help in improving one's attitude and skills to become an excellent banker in real world.

The language used in the book is lucid and simple. In fact the author has simplified the jargonistic terminology of banking and law not only for the benefit of students of banking, but also for readers of different forums and platforms. The clear concepts and logical discussion are helpful in easy comprehension and grasping of the essence of the subject along with etching them in the mindsets of readers.

To me the book appears to be an extraordinary documentation of contemporary banking practices as it includes amendments of Reserve Bank of India Act 2006 the Banking Regulation Act 2007and the Monetary Policy for the year 2009-10 by Reserve Bank of India.

With all its detailed and rich content this book 'Banking Law and Practice' is definitely a must for students & a navigational aid for budding bankers. It is likely to be a leading advanced work as well as readable reference among banking literature and the authors deserve kudos for their splendid efforts.



ORGANIZATION CHANGE THEORY AND PRACTICE

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Change is the law of nature. We can observe change in every walk of our life be it is business, profession or personal life. Way of doing business is changing drastically due to globalization, privatization, and liberal government policies etc.. To survive in this highly dynamic and competitive environment it is of great importance for all to know what is change, how to manage it. Warner Burke very beautifully explained the process of organizational change and how to manage it in his book titled, "Organization Theory and Practice".

The change that occurs in the organization is, for the most part, unplanned and gradual. Planned organization change, especially on a large scale, affecting the entire system, is unusual: not exactly an everyday occurrence. Revolutionary change-a major overhaul of the organization resulting in a modified or entirely new mission, a change in strategy, leadership, and culture-is rare indeed. Most organization change is evolutionary. These two distinctions; planned versus unplanned and revolutionary versus evolutionary, represent core themes of this book. To be unequivocal here at the outset, the emphasis is more on planned and revolutionary change. The reason for this emphasis in based on the clear and present need for a greater depth of understanding regarding organization change. This need is based on current and future trends that emanate from the external environment in which organization function.

The book is divided in twelve comprehensive chapters. Chapter ONE deals with the process of rethinking organizational change which explains the concept of change and how it is implemented in organizations, its levels, types, extant theories and various models of change. This gives an insight to the executives, managers and administrators those wants to turn the organization in another direction, to fundamentally modify the way "we do things" to overhaul the structure-the design of the organization for decision making and accountability, and to provide the organization members a whole new vision for the future.

We often forget our origins, we let go of history, not giving it enough importance, but here the author has not forgotten the roots, he gives us strong foundation in form of various theories from Taylors Scientific management, Sensitivity training, Coercion and confrontation to many others in the SECOND chapter of the book. He continues to build the foundation for the book until the next chapter which gives us deeper understanding of Organization Change how external environment has an effect on it; chapter THREE also tells us how life sciences reflect in organizations. How an organism is compared with an organization through its logic of survival through interdependency.

In the next chapters (Four, Five and six) author comprehensively explains; evolutionary, revolutionary change, individual, group and organizational change, and various recent approaches, cases and theories to change for the deeper understanding of the managers and administrators those who are on the way to planned organizational change.

The organizational theory literature is about continuity and stabilization. Such literature exists, and much of it is cited in this book. In addition to using theoretical references, author has also relied on models of organization that come from organization change literature. Models are important because they help to link theory with practice. In next four chapters (Seven, Eight, Nine and Ten) author has diligently explained the conceptual models, integrated models for understanding organizational change and Burke-litwin causal model of performance and change, and finally the application of Burke-Litwin model. For clear understanding the utility of the model, two case studies BBC and Dime Bancorp have been explained. The models relevance has also been shown in transformational and transactional dimensions. Transformational factors show the effect of external environment, organizational culture, mission and strategy, along with individual and organizational performance along with leader in bringing about organization change; here the change is discontinuous and revolutionary. In transactional factors we see leadership does not have an important role, also this kind of change is more evolutionary, continuous and not sweeping.

Chapter ELEVEN provides a practical guide for leading organization change by outlining the various phases of organization change (e.g., prelaunch, launch, post-launch, sustaining the change) and the actions that leaders must take in order to ensure success within each phase. This chapter has been well structured where the journey of Organizational Change from a leader's perspective has been described; it is for the leaders, guiding them through the change process in their organization

The concluding chapter TWELVE of the book is not a synthesis of all the above given chapters In this chapter a new concept is introduced from Malcolm Gladwell's book The Tipping Point, which deals with how viruses spread to become an epidemic or how a fashion trend starts and becomes a fad. He identifies three characteristics

- Contagiousness
- small causes can have big effects and
- change occurs at one dramatic moment

This book is a useful resource for MBA students of organizational change, organization psychology, industrial psychology, and organizational behavior for gaining the basic understanding of the topic, its implications and applicability of change in the organizations.

It will also benefit professionals and consultants in need of a reference for analyzing organizations. Further, it establishes the experiences and insights of some of the founding scholars in this field so that new entrants in the profession can broaden their understanding of the topic.

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