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EDITORIAL

With immense pleasure Commerce Forum of Department of Commerce, Assam University, Silchar is going to release the sixth issue of ***HIND BUSINESS REVIEW (HBR)***. The present issue of HBR entails in it research papers covering diverse issues of business. A deliberate attempt has been made to create a broader spectrum by including research papers pertaining to various areas of business because of the inherent nature of business research.

The sole objective of this research journal is to be one of the premier journals of business-related research. I am sincerely thankful to all the contributors for submitting research papers. I have the conviction that the journal will certainly draw the attention of a wide range of researchers in the years to come. The editorial advisory board of HBR has been adorned by academicians hailing from different institutes of higher learning from different parts of India and I must put on record my sincere gratitude to all of them.

All the members of Commerce Forum also deserve special thanks for their consent and support for publishing this journal. I would like to extend heartiest thanks to the Head of the Department of Commerce and Chairman, Commerce Forum for his support from time to time. I take this opportunity to thank all the faculty members for their moral support in this endeavour. Despite relentless effort, there may be some inadvertent flaws in this issue. So, Hind Business Review expects feedback and suggestions in writing from the readers because we believe that improvement is a continuous process and collective wisdom can certainly enrich the forthcoming issues of Hind Business Review.

Dr. Kingshuk Adhikari
Chief Editor

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Impact of Electronic Word-of-Mouth on Attitude and Purchase Intention: A Study with Reference to Fast Food Restaurants of Sylhet City of Bangladesh

Pronab Kumer Saha

Assistant Professor, Sylhet International University, Bangladesh.

Md. Monirul Islam

Professor, Shahjalal University of Science and Technology, Bangladesh.

Abstract

Word-of-mouth (WOM) is a reliable source of information for consumers. With the advent of social media, this form has got new name electronic word-of-mouth (eWOM). The goal of this study was to find theoretical justifications and hypotheses concerning the interrelationships between eWOM and attitudes about fast food restaurants, as well as purchase intentions. The relationships are investigated using a structural equation modeling approach. The research model was put to the test with a sample of 252 respondents. The study revealed that e-WOM is one of the strongest components influencing attitude and purchase intention toward fast food restaurant. This article offers useful information on how to measure e-WOM, attitude, and purchase intent in the food industry.

Keywords*: Attitude, Purchase Intention, Social media, Fast Food Restaurant.*

Introduction

The rise in popularity of social media platforms like Facebook and Twitter has changed how online word-of-mouth is communicated and used in the digital age. Through unique implementations of social networking sites, electronic word of mouth (eWOM) gives more or explores informal product-related recommendations. Consumers want to convince friends, acquaintances, or potential customers to validate their decisions by publishing recommendations and views about a product or service in their profile pages on social networking sites. Because they wish to lower the perceived risk, consumers seek for credible information about items. As a result, eWOM may be regarded as a reliable source of information for most customers, and it has a significant impact on their purchasing intents and preferences (Leskovec et al., 2007). As a result, the social nature of social media is distinct. The use of social networking sites as a setting for studying eWOM behaviors is both fascinating and appropriate (Kudeshia & Kumar, 2017).

Urbanization is a major element that influences consumption habits in most emerging countries. The rise of fast food restaurants began in affluent countries and has gradually spread to developing countries like Bangladesh. Urbanization is a major element that influences consumption habits in most emerging countries. Social and psychological changes, such as hectic lifestyles, the need for more independence and identity, have a substantial impact on people's nutrient consumption and dietary choices. This is especially crucial for intangible things like restaurant services, which can't be judged until after they've been used. The study is concerned with a question- Is there any impact of eWOM on consumers’ attitudes and purchase intentions?

Literature Review and Hypotheses Development

The term "social media" refers to a collection of web-based apps that enable the creation and sharing of user-generated content (Kaplan & Haenlein, 2010). Users can generate material by utilizing a number of social networking website features, such as photographs and videos. This user-generated visual material are mostly anything personal, but brands may also be mentioned and their products and services. In actuality, this highly social atmosphere is seen as a fantastic chance to express comments regarding products, and social media is being used by customers more and more to obtain information (Canhoto & Clark, 2013; Dessart et al., 2015; Tsimonis & Dimitriadis, 2014). The advent of social media, on the other hand, has given eWOM a fresh dimension by allowing users to engage with individuals they already know. People can discuss their opinions of goods or services with their friends and acquaintances on social platform. According to some experts, anonymity is a benefit for eWOM because it encourages customers to give their ideas more freely (Goldsmith & Horowitz, 2006). Other academics, on the other hand, claim that social media sites are more effective for eWOM since the absence of anonymity makes eWOM information more believable. eWOM on social media, according to the latter set of academics, would have a greater impact on consumers' purchase intentions because it happens amongst friends and acquaintances (Chu & Choi, 2011; Moran & Muzellec, 2017; Park et al., 2007).

eWOM and Attitude

Senecal & Nantel (2004) used an experimental investigation of consumers' utilization of online suggestion sources to investigate how e-WOM affects product choice. The numerous platforms that support e-WOM, including as discussion boards and other online communication tools, are rapidly being acknowledged for their impact on product and service uptake and use (Subramani & Rajagopalan, 2003). According to (Gilly et al., 1998), the lack of effective information to differentiate items increases the risk of purchasing. A WOM message will serve as a crucial reference point for consumers as they begin their purchasing decision-making process. eWOM messages, according to certain relevant studies, are a significant tool for consumers to get information about the quality of a product or service (Chevalier & Mayzlin, 2006). Furthermore, this type of messaging can successfully lower the risk and uncertainty that consumers perceive when purchasing items or services, influencing their purchase intention and decision-making (Chatterjee, 2001). Because attitudes act as determinants of consumer behavior toward a product or service (Mitchell & Olson, 1981), attitude is widely recognized as an important concept in marketing research. The study of social psychology gave birth to the concept of attitude.

Attitudes are frequently cited as a factor in why people act the way they do, and they've even been used to forecast consumer behaviour a significant and widespread phenomenon appraisal of an object, topic, or person is characterized as attitude (Ajzen & Fishbein, 1980, 2005; Hill et al., 1977). It's described as a person's proclivity to favour or disfavour a specific entity (Eagly & Chaiken, 2007). "A learnt, worldwide judgment of an item (person, location, or issue) that influences cognition and action," according to (Perloff, 2003). He stressed the social dimension of attitudes, emphasizing that they are produced via interactions with others (Perloff, 2003). Furthermore, Perloff (2003) states that attitude is first and foremost an evaluation, in which a person forms a judgment about certain situations or persons. A person assesses an entity or thing, referred to as an attitude object, which can be abstract or concrete.

On the basis of their strength, attitudes differ. Strong attitudes are more likely to influence judgments and guide behavior than weaker or ambivalent attitudes (Perloff, 2003). Furthermore, internal consistency of attitudes is not always present, implying that a person can feel both positively and adversely about another person or subject (Perloff, 2003). People, on the other hand, are motivated to reconcile inconsistencies in order to create a harmonious state of mind (Perloff, 2003).

H1: eWOM significantly influence consumers’ Attitude towards fast food restaurant

Attitude and Purchase intention

The idea of attitude is especially important in marketing research since marketers want to change consumer behavior by influencing attitudes (Perloff, 2003). Practitioners can explain and foretell an individual's behavior by analyzing his or her attitude (Abd-Elaziz et al., 2015). Similarly, (Rahman et al., 2018) mentioned that a positive attitude about internet shopping has a beneficial impact on intention in their study of consumers' behavioral intentions to use the Internet. Consequently, the factor of attitude has been comprised in this study to look at its impact on behavioral intention. In theory of reasoned action (TRA), attitude toward behavior is considered a factor of behavioral intention (Ajzen & Fishbein, 1980).

As a result, research into the linkages between attitudes and behavioral intention in the context of online buying can aid in the development of marketing advice on how to influence consumer behavior online and persuade consumers. Previous research on internet purchasing has found that one's mindset has a substantial impact on one's behavioral intentions. Bizer et al (2006) discovered that one's attitude regarding online shopping influenced one's real purchase behavior. "A latent disposition or tendency to respond with some degree of favourableness or unfavourableness to a psychological object" is how attitude is defined.

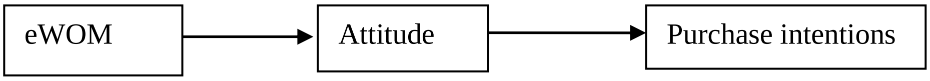
Purchase intention refers to a consumer's intention to acquire a specific product or brand. Purchase intention determines the degree of a customer's eagerness to buy a product. The stronger the buying intention, the higher the intensity. Furthermore, determining consumer purchasing behavior is difficult, and purchase intention is critical in determining consumer purchasing behavior.

The individual's attitude toward a thing is a factor in their judgment of it. A positive mindset leads to a purchasing intention, whereas a bad attitude leads to the opposite. One of the most important drivers of purchase intent is attitude. Several studies have discovered a link between attitudes and behavior. The level of attraction to a particular product can be measured using purchase intention. Furthermore, a higher purchase intention directs a consumer's willingness to purchase a product.

H2: Attitude significantly influence consumers' Purchase intention towards fast food restaurant

Based on the above discussion the following conceptual framework (Figure 1) is developed

Figure 1: Conceptual framework



Methodology

To test research hypothesis, the study has collected data from 252 respondents in Sylhet city, Bangladesh. Measurement items (Table 1) are collected from previous literatures to ensure content validity. Reliability and validity (discriminant and convergent) of measurement scale are tested through SPSS.

Table 1: Constructs and Items

Dimensions	Code	Items	Sources
eWOM	eW1	I often consult with friends on electronic social networks to help to choose a fast food restaurant.	(Bambauer-Sachse & Mangold, 2011; Jalilvand et al., 2013)
	eW2	When I decide to dine, electronic social networks make me confident in choosing to restaurant.	
	eW3	I frequently gather information from friends on electronic social networks before I dine a restaurant.	
	eW4	I often visit electronic social networks to know what restaurant make good impression on others.	
	eW5	To make sure I choose the right restaurant, I often chat with my friend in electronic social networks.	
	eW6	If I do not inform from when I dine to a restaurant, I worry about my decision.	
Attitude	ATT1	I think taking fast food at restaurant is enjoyable	(Bagozzi et al., 1989; Lam & Hsu, 2006)
	ATT 2	I think taking fast food at restaurant is pleasant	
	ATT 3	I think taking fast food at restaurant is desirable	
	ATT 4	I think dine at fast food restaurant is interesting	
Purchase Intention	PI1	I have a plan to dine at fast food restaurant	(Lam & Hsu, 2006; Pratt & Sparks, 2014)
	PI2	I intend to dine at fast food restaurant	
	PI3	I want to take food at fast food restaurant	
	PI4	I will definitely dine at fast food restaurant	

Results and Discussion

Respondents' Profile

Table 2 depicts information about the respondents. 82 percent (205) of the 252 responders were male, while 18 percent (47) were female. The majority of respondents (n=252), or 70.2%, were between the ages of 26 and 30, and most (43.3%) had an income above BDT 40,000. Jobholder accounted for 61.9% of the sample. of the 252 participants, 66.7% had completed graduation. Married respondents made up the majority of the group (73.4%).

Table 2: Respondent profile

Characteristics	Category	Frequency	Percentage
Gender	Male	205	82
	Female	47	18
Age	Below 20	19	7.5
	20-25	27	10.7
	26-30	177	70.2
	31-35	29	11.5
Marital Status	Married	185	73.4
	Single	67	25.4
Profession	Jobholder	156	61.9
	Self-employed	20	7.9
	Student	36	14.3
	Homemaker	26	10.3
Education	Below undergraduate	35	13.9
	Undergraduate	49	19.4
	Graduate	168	66.7
Income	Below 20000	62	24.6
	30000-40000	81	32.1
	40000+	109	43.3

Source: Field Survey

Descriptive, correlation and Discriminant validity

Table-3: Descriptive, correlation matrix and Square root of AVE

Factor	Mean	SD	eWOM	Atti	PI
eWOM	6.06	0.89	**.84**		
Atti	6.02	0.92	.117	**.85**	
PI	5.60	0.81	.130	.63	**.88**

*Sig. at the 0.05 level, **Sig. at the 0.01 level,

Source: SPSS output (Survey data)

The square root of AVE is represented by shaded and bold numerals on the diagonal. Other numbers in corresponding rows and columns reveal that every value was less than the square root value. (Table 3), demonstrating that discriminating validity was not a problem.

Reliability and Validity

Before testing the model and assumptions, the researchers conducted reliability and validity assessments. Cronbach's alpha was employed to determine the measurement scales' reliability (Table 4). Furthermore, the results were sufficient for the study to be completed.

Each object has a Communalities value greater than.50. The average variance extracted (AVE) of each construct was similarly more than 0.50, and the total factor loading was equal to or greater than 0.625. (Table 4) (Bagozzi et al., 1991). As a result, the measurement scale items' convergent validity was established based on the high factor loading of each measurement variable, as well as appropriate AVE values (Anderson & Gerbing, 1988). Composite reliabilities were used to check the measurement scales' internal consistency. Hair et al., (2010) established a threshold level of 0.70 for composite reliability.

Table 4: Reliability and Validity of Scale

Factor	Item Code	Communality	Loading	Eigen values	Cronbach's α	CR	AVE
eWOM	eW1	.785	.856	5.86	0.86	0.90	0.70
	eW2	.779	.878				
	eW3	.664	.795				
	eW4	.668	.811				
Att	ATT1	.881	.892	2.68	0.90	0.91	0.73
	ATT 2	.799	.845				
	ATT 3	.888	.884				
	ATT 4	.789	.801				
PI	PI1	.918	.904	1.27	0.91	0.93	0.78
	PI2	.881	.881				
	PI3	.890	.885				
	PI4	.870	.884				

Source: SPSS output (Survey data)

Model fit Index

The adequacy of fit indices of the proposed model of the study was demonstrated by the CFA findings of the estimated structural model and fit indices offered by AMOS (Table 5).

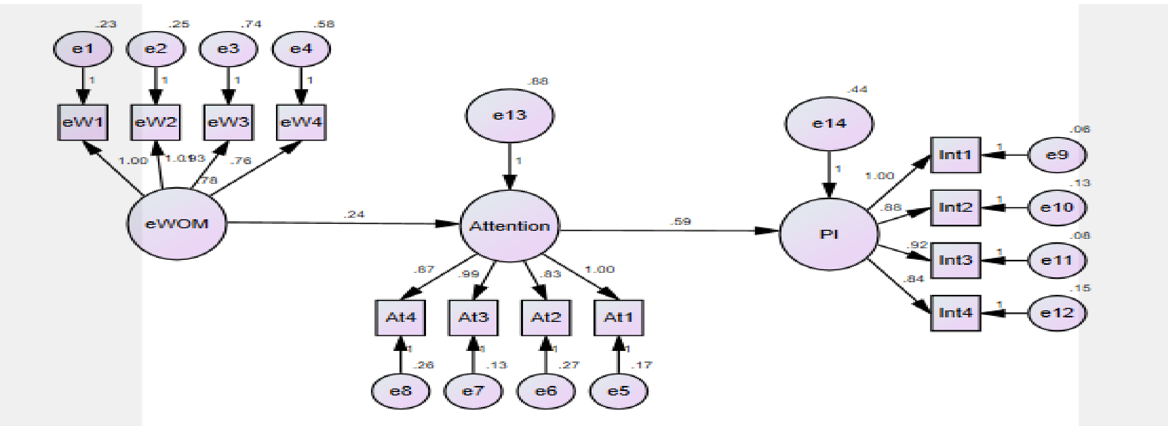
Table 5: Model fit results

X^2	DF	X^2/df	p-value	GFI	AGFI	NFI	CFI	TLI	RMR	RMSEA	LO 90	HI 90
270.49	52	5.20	0.00	0.86	0.80	0.90	0.92	0.90	0.06	0.12	0.11	0.14

Source: AMOS output (primary data)

Testing hypothesis

Figure 2: A Path Analysis



Source: Amos output

Figure 2 and table 6 depict the results of the path analysis. Using the data analysis as a basis, standardized path coefficients are produced. Hypothesis 1, which proposed that eWOM has positively influence attitude, was supported (coefficient value of the path 0.24 and p value .001). Second hypothesis, which proposed that attitude has significantly and positively influence purchase intention which was accepted (coefficient value of the path 0.59 and p value .00).

Table 6: Path Analysis (Hypotheses test)

Hypothesis	Estimate	C.R	S. E.	P-value	Result
eWOM-Att	.24	3.23	0.064	.001	Supported
Att-PI	.59	11.27	0.061	.000	Supported

Source: AMOS output (Survey data)

Discussion:

The purpose of the current study was to examine how eWOM affected consumers' attitudes toward fast food restaurants and their intentions to make purchases. Based on previous research hypothesis was constructed. The study found positive impact of eWOM on attitude. The result was supported by previous studies (Kudeshia & Kumar, 2017 ; Wu & Wang, 2011). An investigation likewise came to the same conclusions (Lee et al., 2008).

Attitude is a strong deciding factor on purchasing intention proved by the current study. Positive buying intentions were stimulated by a more positive attitude. The findings on attitude and buying intent were consistent with earlier research (Kim & Chung, 2011; Spears & Singh, 2004).

Implications

Online WOM communication can influence purchase intent is especially significant for decision makers of restaurant business. Customers can browse product recommendations online for the item in which they are particularly interested in right at the time of purchase, which could have a big impact on their buying preference. Different social media pages are created by consumers. Managers should observe the review of the consumers and take proper strategies to encourage and solve if any dissatisfaction arise.

Limitations and Future Study

Impact of service quality is ignored in this paper; future study can consider the variable and can test the relationship among service quality, eWOM, and purchase intention. The study confined to only Sylhet city. Thus, future study can be undertaken whole country as well as make comparison with foreign countries. The study can be enlarged with more samples. Role of intentions as mediator between eWOM and purchase behavior can be assessed (Bagozzi et al., 1989).

Conclusion

Nowadays eWOM become powerful tool of communication among consumers which influences forming attitudes, and decision making. Our findings suggest that eWOM has a significant impact on attitudes and influences purchase intent, notably in the Food industry. Thus, managers and policymakers of the industry should carefully monitor the eWOM activity of their consumers. They must cautious about food quality, cleanliness, ambience of the restaurant, waiters' behavior in serving food.

References

Ajzen, I. (1985). From intention to actions: A theory of planned behaviour. In J. Kuhl & J. Beckmann (Eds.), Action-control: From cognition to behaviour. Heidelberg: Springer.

Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behaviour. Englewood Cliffs, NJ: Prentice-Hall.

Anderson, J.C. & Gerbing, D.W.(1988) Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach, *Psychological Bulletin*, 103(3), 411-423

Abd-Elaziz, M. E., Aziz, W. M., Khalifa, G. S., & Abdel-Aleem, M. (2015). Determinants of Electronic word of mouth (EWOM) influence on hotel customers' purchasing decision. *Journal of Faculty of Tourism and Hotels, Fayoum University*, *9*(2/2), 194–223.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior.* Englewood Cliffs, NJ: Prentice-Hall. http://www.citeulike.org/group/38/article/235626

Ajzen, I., & Fishbein, M. (2005). *The Influence of Attitudes on Behavior* (D. Albarracín, B. T. Johnson, & M. P. Zanna (eds.)). Mahwah, NJ: Lawrence Erlbaum Associates.

Anderson, C. J., & Gerbing, W. D. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*(3), 411–423. https://doi.org/10.1037/0033-2909.103.3.411

Bagozzi, P., Baumgartner, J., & Yi, Y. (1989). An investigation into the role of intentions as mediators of the attitude-behavior relationship introduction many theories of consumer behavior posit that intentions serve as key mediators of the attitude-behavior relation (e . g ., Engel et al . 1978 ; *Journal of Economic Psychology*, *10*, 35–62.

Bagozzi, R. P., Yi, Y., & Singh, S. (1991). On the use of structural equation models in experimental designs: Two extensions. *International Journal of Research in Marketing*, *8*(2), 125–140. https://doi.org/10.1016/0167-8116(91)90020-8

Bambauer-Sachse, S., & Mangold, S. (2011). Brand equity dilution through negative online word-of-mouth communication. *Journal of Retailing and Consumer Services*, *18*(1), 38–45. https://doi.org/10.1016/j.jretconser.2010.09.003

Bizer, G. Y., Barden, J., & Petty, R. E. (2006). Attitudes. In *Encyclopedia of Cognitive Science*. https://doi.org/10.1002/0470018860.s00483

Canhoto, A. I., & Clark, M. (2013). Customer service 140 characters at a time : The users ' perspective. *Journal of Marketing Management*, *29*(5–6), 522–544. https://doi.org/10.1080/0267257X.2013.777355

Chatterjee, P. (2001). Online reviews: Do consumers use them? *Advances in Consumer Research*, *28*, 129–134. https://doi.org/10.2139/ssrn.900158

Chevalier, J. A., & Mayzlin, D. (2006). The effect of word of mouth on sales : Online book reviews. *Journal of Marketing Research*, *43*(3), 345–354. https://doi.org/10.1509/jmkr.43.3.345

Chu, S. C., & Kim, Y. (2011). Determinants of consumer engagement in electronic Word-Of-Mouth (eWOM) in social networking sites. *International Journal of Advertising*, *30*(1), 47–75. https://doi.org/10.2501/IJA-30-1-047-075

Chu, S., & Choi, S. M. (2011). Electronic word-of-mouth in social networking sites : A cross-cultural study of the United States and China. *Journal of Global Marketing*, *24*(3), 263–281. https://doi.org/10.1080/08911762.2011.592461

Dessart, L., Veloutsou, C., & Morgan-Thomas, A. (2015). Consumer engagement in online brand communities : A social media perspective. *Journal of Product and Brand Management*, *24*(1), 28–42. https://doi.org/10.1108/JPBM-06-2014-0635

Eagly, A. H., & Chaiken, S. (2007). The advantages of an inclusive definition of attitude. *Social Cognition*, *25*(5), 582–602. https://doi.org/10.1521/soco.2007.25.5.582

Gilly, M. C., Graham, J. L., Wolfinbarger, M. F., & Yale, L. J. (1998). A dyadic study of interpersonal information search. *Journal of the Academy of Marketing Science*, *26*(2), 83–100. https://doi.org/10.1177/0092070398262001

Goldsmith, R. E., & Horowitz, D. (2006). Measuring motivations for online opinion seeking. *Journal of Interactive Advertising*, *6*(2), 2–14. https://doi.org/10.1080/15252019.2006.10722114

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis: A global perspective* (7th ed.). Pearson.

Hill, R., Fishbein, M., & Ajzen, I. (1977). Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research. *Contemporary Sociology*, *6*(2), 244. https://doi.org/10.2307/2065853

Jalilvand, M. R., Ebrahimi, A., & Samiei, N. (2013). Electronic word of mouth effects on tourists' attitudes toward islamic destinations and travel intention: An empirical study in Iran. *Procedia - Social and Behavioral Sciences*, *81*, 484–489. https://doi.org/10.1016/j.sbspro.2013.06.465

Kaplan, A. M., & Haenlein, M. (2010). Users of the world , unite ! The challenges and opportunities of Social Media. *Business Horizons*, *53*(1), 59–68. https://doi.org/10.1016/j.bushor.2009.09.003

Kim, H. Y., & Chung, J. E. (2011). Consumer purchase intention for organic personal care products. *Journal of Consumer Marketing*, *28*(1), 40–47. https://doi.org/https://doi.org/10.1108/ 07363761111101930

Kudeshia, C., & Kumar, A. (2017). Social eWOM: does it affect the brand attitude and purchase intention of brands? *Management Research Review*, *40*(3), 310–330. https://doi.org/10.1108/MRR-07-2015-0161

Lam, Ã. T., & Hsu, C. H. C. (2006). Predicting behavioral intention of choosing a travel destination. *Tourism Management*, *27*, 589–599. https://doi.org/10.1016/j.tourman.2005.02.003

Lee, J., Park, D. H., & Han, I. (2008). The effect of negative online consumer reviews on product attitude: An information processing view. *Electronic Commerce Research and Applications*, *7*(3), 341–352. https://doi.org/10.1016/j.elerap.2007.05.004

Leskovec, J., Adamic, L. A., & Huberman, B. (2007). The Dynamics of Viral Marketing. *ACM Transactions on the Web*, *1*(1). https://doi.org/10.1145/1232722.1232727

Mitchell, A. A., & Olson, J. C. (1981). Are product attribute beliefs the only mediator of advertising effects on brand attitude? *Journal of Marketing Research*, *18*(3), 318–332. https://doi.org/10.1177/002224378101800306

Moran, G., & Muzellec, L. (2017). eWOM credibility on social networking sites : A framework. *Journal of Marketing Communications*, *23*(2), 149–161. https://doi.org/10.1080/13527266.2014.969756

Park, D. H., Lee, J., & Han, I. (2007). The effect of on-Line consumer reviews on consumer purchasing intention : The moderating role of involvement. *International Journal of Electronic Commerce*, *11*(4), 125–148. https://doi.org/10.2753/JEC1086-4415110405

Perloff, R. M. (2003). *The dynamics of persuasion: Communication and attitudes in the 21st century* (2nd ed.). Lawrence Erlbaum Associates Publishers. https://doi.org/10.4324/9780429196959

Pratt, M. A., & Sparks, B. (2014). Predicting wine tourism intention: Destination image and self-congruity. *Journal of Travel and Tourism Marketing*, *31*(4), 443–460. https://doi.org/10.1080/10548408.2014.883953

Rahman, M. A., Islam, M. A., Esha, B. H., Sultana, N., & Chakravorty, S. (2018). Consumer buying behavior towards online shopping: An empirical study on Dhaka city, Bangladesh. *Cogent Business & Management*, *5*(1), 1–22. https://doi.org/10.1080/23311975.2018.1514940

Senecal, S., & Nantel, J. (2004). The influence of online product recommendations on consumers ' online choices. *Journal of Retailing*, *80*(2), 159–169. https://doi.org/10.1016/j.jretai.2004.04.001

Spears, N., & Singh, S. N. (2004). Measuring attitude toward the brand and purchase intentions. *Journal of Current Issues and Research in Advertising*, *26*(2), 53–66. https://doi.org/https://doi.org/10. 1080/10641734.2004.10505164

Subramani, M. R., & Rajagopalan, B. (2003). Knowledge-sharing and influence in online social networks via viral marketing. *Communications of the ACM*, *46*(12), 300–307. https://doi.org/10.1145/953460.953514

Tsimonis, G., & Dimitriadis, S. (2014). Brand Strategies in Social Media. *Marketing Intelligence & Planning*, *32*(3), 328–344. https://doi.org/10.1108/MIP-04-2013-0056

Wu, P. C. S., & Wang, Y. C. (2011). The influences of electronic word-of-mouth message appeal and message source credibility on brand attitude. *Asia Pacific Journal of Marketing and Logistics*, *23*(4), 448–472. https://doi.org/10.1108/13555851111165020

On the Status of Child Health in Indian States

Sangeeta Goala

Research Scholar, Department of Statistics, Assam University, Silchar

Dibyojyoti Bhattacharjee

Professor, Department of Statistics, Assam University, Silchar

Abstract

Child nutrition has been one of the most important factors which helps in child development. Inadequate or inappropriate feeding practices, repeated episodes of acute infections, poor access to health care cause a substantial proportion of children to become moderate or severely malnourished by the age of 6-18 months. Child Mortality refers to the number of children who die by the age of five, per thousand live births per year. It is a critical indicator of social and economic progress and a country's commitment to child health and development. Thus, regular monitoring is essential for assessing and designing policies which would ensure improvement of survival rate of children. Unsuccessful implementation of various government policies and unequal distribution of resources etc. are the major issues of the poor child health condition in our country. This study aims to measure the child health facilities available in the various states of India through some indicators of health services based on current literature. This study identified those state which need immediate attention of the government for better child health care facilities.

Keywords: *Multicriteria Decision Making (MCDM), TOPSIS, Entropy, Demography*.

Introduction

Health services are one of the most important aspects of measuring the development of a region. The provision of health care facilities in a community leads to a healthy society. The WHO rightly stressed that the primary goal of a health care system should be to provide better health services in an appropriate manner (WHO, 2000). But to what extent a health system achieves that goal, which is reflected in terms of real health outcomes. The future of a nation depends on children and we must ensure their healthy growth. Newborns and children are particularly vulnerable to malnutrition and various infectious diseases like Malaria, pneumonia, diarrhoea etc. Most childhood illnesses can be prevented if steps are taken in a timely manner. Rashtriya Bal Swasthya Karyakram (RBSK) is one such initiative by the Government launched in February, 2013 which provides arrangement for child health Screening and Early Intervention Services through early detection and management of 4 Ds i.e., Defects at birth, Diseases, Deficiencies, Development delays including disability (Annual Report, 2013-14).

The immunization programme is one of the most important strategies for protecting children from preventable life-threatening diseases. The Expanded Programme of Immunization was established in India in 1978 and gained momentum in 1985 as the Universal Immunization Program (UIP), which was phased in to reach all of the country's districts by 1989-90. In 1992, UIP became a part of the Child Survival and Safe Motherhood Program. Immunization has been an integral part of the National Reproductive and Child health Programme since 1997. Immunization is a significant component of the National Rural Health Mission (NRHM), which began in 2005 and is now part of the National Health Mission (NHM).

In India, an estimated 26 million of children are born every year. As per Census 2011, the share of children (0-6 years) accounts 13% of the total population in the Country (National Health Mission, 2017). Child nutrition is one of the most important factors which helps in child development. It is analyzed that inadequate or inappropriate feeding practices, repeated episodes of acute infections, poor access to health care cause a substantial proportion of children to become moderate or severely malnourished by the age of 6-18 months. Therefore, it is clear that improving the child's nutrition can reduce infant mortality. (Lalneizo & Reddy, 2010).

In India, with the passing of time the quality of health care to children has improved. As per UNICEF data the Child mortality rate (aged 1-4 years) has reduced to 8.9 (2015) from 13.6 (2010) deaths per thousand children aged 1. There has been 13% reduction in Neonatal Mortality rate from 2010 to 2015 (UNICEF, 2016). However, India's position on health parameters in relation to a number of neighboring countries remains dissatisfying. According to the Human Development Report 2015, India has the greatest percentage of malnourished children among its neighbours, including Bangladesh, Nepal, Myanmar, and Bhutan. The Infant Mortality Rate (IMR) in Bhutan and Bangladesh are 29.7, 33.2 per thousand live births whereas that of India is 41.4 per thousand live births. Under five Mortality rate of India is 52.7 per thousand live births followed by Myanmar (50.5), Bangladesh (41.1), Nepal (39.7), Bhutan (36.2) & Srilanka (9.6) (UNDP, 2015).

Infant mortality rate is defined as the number of children between the ages of 0 – 12 months dying per 1000 live births. The under-five mortality rate is the number of children between the ages of 0 – 5 years dying per 1000 live births. Infant Mortality Rate was an indicator used to monitor progress towards the Fourth Goal of the Millennium Development Goals of the United Nations for the year 2015. It is now a target in the Sustainable Development Goals for Goal Number 3 by 2030. (Dwivedi, 2015). The Neonatal Mortality Rate (NNMR) has close connection with maternal factors as well as the quality of health care services while Post-Neonatal Mortality Rate is linked more closely with environmental factors that include diseases like diarrhoea and acute respiratory infections which are some of the major causes of child mortality in India. Over the last 41 years the IMR has declined to 85 points from 129 in 1971 to 42 in 2012. (James, 2014).

The National Family Health Survey (NFHS) provides state and national information for India on fertility, infant and child mortality, the practice of family planning, maternal and child health, reproductive health, nutrition, anaemia, utilization and quality of health and family planning services. The last round of NFHS was completed in 2015-16 and the data related to child health on various parameters are available in the fact sheets. This study has been conducted using the data available in the state wise fact sheet for child immunization, vitamin supplementation and health checkups.

Review of Literature

To understand the pace and magnitude of decline in Infant Mortality Rate (IMR), the trends of Infant Mortality Rate in different decades has been studied by (James, 2014). He found that the post-neonatal deaths have declined faster resulting in faster decline in Infant Mortality Rate (IMR) whereas the neonatal deaths recorded only a modest reduction. (Ravindra & Brinker, 1997) studied the relationship between the level of socioeconomic development and infant and child mortality. The study applies correlation and multiple regression analysis to the NFHS data 1992-93. They suggested that higher levels of population literacy, education of women, urbanization, and child immunizations, and lower level of underweight children under four years lead to infant and child mortality decline. (Acharya, 2005) examines socio-economic determinants of Infant Mortality Rate (IMR) in India using National Family Health Survey (NFHS) data, using multiple regression and correlation, and finds that among the various development factors, household sanitation and safe drinking water facility play an important role in reducing IMR. Many research on child health have been conducted from time to time using various techniques. As a result, it is critical to comprehend the causes of India's current child health situation. Unequal resource distribution is a problem, and it is the study's driving force. Many statistical approaches have been proposed to evaluate India's child health Status, but no effort was made to aggregate the numerous health variables affecting a country's child health status into a single index. The major goal of this research is to investigate the situation of child health services in various Indian states/UTs.

Objectives of the Study

The paper is planned to attain the following objectives:

- To develop a weighted index of child health care to be called as the Composite Indicator for all the parameters taken together
- To categorize the state/UT as per their level of performance in child health care facilities.
- Ranking of the selected state/UT based on the Composite Indicator derived from the parameters

Methodology

The information for this study are collected from the National Family Health Survey (NFHS-4) fact sheets [*http://rchiips.org/nfhs/factsheet_NFHS-4.shtml]*. It is overseen by the Ministry of Health and Family Welfare and coordinated by the International Institute for Population Sciences in Mumbai, and carried out by a collection of survey organizations and population research centres selected through a rigorous process.

Child Health Care Parameters

The following parameters were identified from the data source mentioned above that can be used to assess child health care.

- X_1 - Children who received a health check after the birth from a doctor/nurse/other health personnel within 2 days of birth (%)
- X_2 - Children age 12-23 months fully immunized (BCG, measles, and 3 doses each of polio and DPT) (%).
- X_3 - Children age 12-23 months who have received BCG (%).
- X_4 - Children age 12-23 months who have received 3 doses of polio vaccine (%)
- X_5 - Children age 12-23 months who have received 3 doses of DPT vaccine (%).
- X_6 - Children age 12-23 months who have received measles vaccine (%).
- X_7 - Children age 12-23 months who have received 3 doses of Hepatitis B vaccine (%).
- X_8 - Children age 9-59 months who received a vitamin A dose in last 6 months (%).

Composite Indicator

Within the discourse on benchmarking countries', regions', or institutions' performance, Composite Indicators are becoming increasingly important. In fact, their wide range indicates their popularity as policy evaluation and communication tools. Composite Indicators provide simple comparisons of countries that can be used to illustrate complex and sometimes elusive issues in wide-ranging fields, *e.g.*, environment, economy, society or technological development. (OECD, 2008). Based on the parameters identified to quantify child health Composite Indicators (CI) is calculated for each state/UT.

Weights can have a considerable impact on the total composite indicator as well as the outcomes produced when constructing composite indicators. The weights in the composite indicator quantify the relative relevance of the various components. The weights corresponding to the various parameters are determined using Shannon's entropy measure (C_1 to C_8).

Multi-Criteria Decision Making (MCDM) is a well-known branch of decision-making, analyzing a range of potential alternatives, taking into account different criteria. Technique for Order Preferences by Similarity to Ideal Solutions (TOPSIS) is one of the *distance functions based methods* of MCDM. The Technique for Order Preferences by Similarity to Ideal Solutions (TOPSIS) evaluates two reference points, the ideal and the anti-ideal, in such a way that a preferred solution should have the smallest distance from the ideal and the longest distance from the anti-ideal at the same time. Hwang and Yoon (1981) proposed it.

Formulae

Calculation of Weight (Shannon's Entropy)

Let X_{ij} represents the value of the i^{th} parameter in the j^{th} state/UT; $i = 1, 2,..., m; j = 1, 2,..., n.$

The closeness between X_{ij} and the ideal value d_{ij} is:

$$d_{ij} = (\boldsymbol{x_{ij}/max(x_{i1}, x_{i2}, x_{i3} \ldots\ldots\ldots x_{in}}), \textit{ for positive indicators} \ldots(1)$$

$$d_{ij} = (\boldsymbol{x_{ij}/min(x_{i1}, x_{i2}, x_{i3} \ldots\ldots\ldots x_{in}}), \textit{ for negative indicators} \ldots(2)$$

The entropy of the i^{th} parameter is as follows:

$$\varphi_i = -\sum_j \frac{p_{ij}\ln(p_{ij})}{\ln(n)} \qquad \ldots(3)$$

where, $p_{ij} = {d_{ij}}/{\sum_j d_{ij}}$ and n= *total no of state/UT*

With the help of Shanon's entropy *(φ)*, the weights are calculated as:

$$w_i = \frac{1-\varphi_i}{\sum_i 1-\varphi_i}\ ; 0 < \varphi_i < 1 \qquad \ldots(4)$$

Calculation of Composite Indicator (TOPSIS)

The steps for calculation of Composite Indicator with the help of TOPSIS method are as follows:

Firstly, the two components for Ideal solution *{L (i, IDR)}* and Negative Ideal solution *{L (i, NIDR)}* are computed

$$L(j, IDR) = \sqrt{\frac{\sum_i \{X_{ij} - \max(X_{ij})\}^2 * w_i}{\sum_i X_{ij}^{\;2}}} \qquad \ldots(5)$$

$$L(j, NIDR) = \sqrt{\frac{\sum_i \{X_{ij} - \min(X_{ij})\}^2 * w_i}{\sum_i X_{ij}^{\;2}}} \qquad \ldots(6)$$

and the Composite Indicator *(CI)* for the i^{th} parameter in the j^{th} state/UT is:

$$CI = \frac{L(j, IDR)}{L(j, IDR) + L(j, NIDR)}\ ; 0 < CI < 1 \qquad \ldots(7)$$

A smaller value of *CI* would imply better Ranking of the state/UT in terms of child health.

Classification of the State/UT

For assessment of the Probabilistic Inference, the distribution of *CI* values should be evaluated and thus classification of the state/UT to be performed according to the child's health parameters. For continuous data Kolmogorov-Smirnov test is most suited for testing of hypothetical distribution.

The Kolmogorov- Smirnov test statistics is given by,

$$D_n = max|S_n(x) - F(x)| \qquad \ldots(8)$$

where, $S_n(x)$ = empirical distribution function and $F(x)$ = theoretical distribution function

So, under the null hypothesis the value of D_n is expected to be to be small, while a large value of D_n would indicate violation of the null hypothesis.

Thus, we would: Reject H_o; if observed $D_n > D_{\alpha,n}$; where D_n is the observed value and $D_{\alpha,n}$ is the critical value for a given size of sample for a given level of significance (α). If the number of observations are 35 or more, as the case here ($n=36$), the critical value at 5% level of significance ($D_{0.05,n}$) is $1.36/\sqrt{n}$. Thus, D_n value greater than $1.36/\sqrt{n}$, will indicate that the fitted distribution is significantly different from the theoretical distribution.

As the values of C.I's $\in[0, 1]$, one feasible distribution may be Beta Distribution of Type I with two parameters.

The beta distribution is generally a skewed distribution and its probability density function is given by,

$$f(x) = \frac{1}{B(\alpha,\beta)} x^{\alpha-1}(1-x)^{\beta-1}, 0 < x < 1 \text{ and } \alpha, \beta > 0, \ldots (9)$$

$$= 0\ , \qquad otherwise$$

where, $B(\alpha,\beta) = \int_0^1 x^{\alpha-1}(1-x)^{\beta-1}dx$

The parameters (α, β) are estimated from the data using the method of maximum likelihood (Johnson & Kotz, 1970). The estimated values are given by,

$$\hat{\alpha} = m_1\left[\frac{m_1(1-m_1)}{m_2} - 1\right] \qquad \ldots(10)$$

$$\hat{\beta} = (1 - m_1)\left[\frac{m_1(1-m_1)}{m_2} - 1\right] \quad ...(11)$$

Here, m_1= mean of all CIs and m_2 = variance of all CIs

Once the probability distribution of *CI* is decided, we are to find three real numbers $a,b,c \in [0,1]$ to divide the range of values into four linear intervals namely [*0, a*], [*a, b*], [*b, c*] and [*c*, 1] with the same probability weight of 25%. Thus, the Classification of the state/UT would be as follows:

Table 1: Range of Classification of the State Based on Probability

Range	Probability	Child health status of the state
$0 \leq CI \leq a$	$P[0 \leq CI \leq a] = 0.25$	Very Good
$a \leq CI \leq b$	$P[0 \leq CI \leq b] = 0.50$	Good
$b \leq CI \leq c$	$P[0 \leq CI \leq c] = 0.75$	Poor Level
$c \leq CI \leq 1$	$P[0 \leq CI \leq 1] = 1$	Very Poor

Analysis and Result

Since all the parameters under consideration are of positive dimension, normalization is not done and the data being in percentages, i.e., in the same scale of reference and thus standardization is also not done.

Using the data available from NFHS 4 (2015-16) the calculated weights for the child health parameters are:

Table 2: Weights Corresponding to the Indicators of Child Health

Weighting Technique	W_1	W_2	W_3	W_4	W_5	W_6	W_7	W_8
Shanon's entropy	0.552698	0.098319	0.014694	0.04562	0.041819	0.038318	0.092041	0.116491

Using the formulae, the Composite Indicator for the state/UT are calculated and are being ranked based on the CI Values in ascending order of magnitude. A state/UT with lower CI values has been ranked as 1 and so on. The details are provided in APPENDIX I. From the values it may be seen that Goa, Kerela and Punjab are the Top 3 states and Tripura, Arunachal Pradesh and Nagaland are the bottom 3 states in terms of Child health care.

Using equation (10) and (11) the values of m_1 and m_2 are found out to be m_1= 0.518070 & m_2=0.0389910 and the estimated model parameter are $\hat{\alpha}$ = 2.799320 and $\hat{\beta}$ =2.604042

Also, The K-S test is used to test if the CI values fit to the beta distribution specified by the parameters already estimated from the data. The value of the statistic,

$$D_n = max|S_n(x) - F(x)| = 0.128563$$

The Critical value $(D_{0.05,36})$ =0.2267, indicates that the fitted distribution is insignificant at 5% Level of significance. i.e., the CI values follow Beta Distribution of Type I with parameters (2.799320 & 2.604042).

Next, we compute the value of a,b & c respectively using the classification table for Child health values

$P[0 \leq CI \leq a] = 0.25.$

$$\int_0^a \frac{1}{B(2.799320, 2.604042)} x^{1.799320} (1-x)^{1.604042} dx = 0.25$$

$\Rightarrow a = 0.370904$

$P[0 \leq CI \leq b] = 0.50$

$$=> \int_0^b \frac{1}{B(2.799320, 2.604042)} x^{1.799320} (1-x)^{1.604042} dx = 0.50$$

=> b = 0.520453

P[0 ≤ CI ≤ c] = 0.75

$$=> \int_0^c \frac{1}{B(2.799320, 2.604042)} x^{1.799320} (1-x)^{1.604042} dx = 0.75$$

=> c = 0.667489

The values of *a,b* and *c* thus obtained are needed to classify the *CI* values into the following four level of performance in Child health care.

These intervals shall be used in this study to characterize the various stages of Child health care in the j^{th} state/UT as follows:

Table 3: Boundaries of Composite Indicators

Category of Child health	**Range for CI Values**
Very Good	Less than 0.370904
Good	0.370904 to 0.520453
Poor Level	0.534406 to 0.667489
Very Poor	Higher than 0.667489

Based on the data and calculation involved in this study the results are summarized in a tabular form.

Table 4: Classification of State/UT based on *CI* Values

Level of Child health Care	State
Very Good	Goa, Kerela, Punjab, Lakshadweep, Chandigarh, Puducherry, Chhattisgarh, Tamil Nadu
Good	Odisha, West Bengal, Himachal Pradesh, Andhra Pradesh, Telegana, Maharashtra, Andaman & Nicobar, Sikkim, Jammu & Kashmir
Poor	Karnataka, Haryana, Daman & Diu, NCT Delhi, Jharkhand, Dadra & Nagar Haveli, Madhya Pradesh, Uttar Pradesh, Assam, Rajasthan, Bihar
Very Poor	Gujrat, Uttarkhand, Mizoram, Manipur, Meghalaya, Tripura, Arunachal Pradesh, Nagaland

Discussion and Conclusion

The development of the healthcare system has become a crucial challenge in bringing about beneficial changes in a country's socioeconomic situation. Individuals in a society have more opportunities when a nation's socioeconomic status improves. Child health data is one of the useful factors for assessing the population's demographics and is an essential indication of the country's socioeconomic development and quality of life. Emphasis on child health by the Government is absolutely necessary because it is an investment for future society. With a rapidly growing population, India demands a strong vision that prioritises health care, with a focus on vaccination, prenatal and postnatal care, malnutrition prevention, primary health centres with high-quality medicine, and dedicated doctors. The study suggests that geography and the size of the state/UT have little impact on categorisation. It is mostly determined by different states and the extent to which various government child health initiatives are implemented. There is a need to spread awareness in society about child health care across all states of the country. The disparity in performance between the states/UTs under examination could be due to a lack of access to health-care services. The study sheds light on some number of remarkable trends like other than Assam and Sikkim all other north-eastern states are in alarming zone so far as the child health are concerned. The study is merely indicative and exploratory, providing an insight across the Indian state/UT. However, due to a lack of micro-level studies to understand the nuance, the study is limited in its explanation. Special attention must be given to the last category of state/UT. This gives a scope for future research. A district level analysis of the underprivileged states may be done based on the available data to find the stumbling block and its remedy. The success of such a strategy could serve as a model for improving health in other parts of the world.

References

Acharya, S. (2005). *Socio-economic Determinants of Infant and Child Mortality in India: Illustrations from NFHS* (Vol. 1). Journal of Health & Development.

Annual Report. Department of Health & Family Welfare. (2013-14).

Dwivedi, P. (2015, Aug 13). *Assessment of Maternal and Child Health under the NRHM frame work A Study of four Districts of UP Bahraich Balrampur Varanasi and Lucknow.* Retrieved from http://shodhganga.inflibnet.ac.in/handle/10603/47000

James, K. S. (2014). Recent shifts in Infant Mortality in India-An Exploration. *Economic and Political weekly, XLIX*(3), 14-17.

Johnson, N. L., & Kotz, S. (1970). Continuous Univariate Distributions.. 41-43.

Lalneizo, D., & Reddy, S. (2010). *Health Status of Children in North Eastern States of India.* 37-52: Indian Anthropological.

National Health Mission. (2017). Retrieved from https://nhm.gov.in/.

OECD. (2008). Handbook on Constructing Composite Indicators: Methodology and User Guide. *Oecd, Paris*.

Ravindra, G. A., & Brinker, G. D. (1997). Determinants of Infant and Child Mortality in India. *International Review of Modern Sociology, 27*(2), 1-22.

UNDP. (2015). *Human Development Report 2015: Work for Human Developmen.* Retrieved from http://hdr.undp.org/en/content/human-development-report-2015

UNICEF. (2016). *UNICEF DATA.* Retrieved from https://data.unicef.org/resources/data_explorer/unicef_f/?ag=UNICEF&df=GLOBAL_DATAFLOW&ver=1.0&dq=IND.CME_TMY0+CME+CME_ARR_10T19+CME_ARR_SBR+CME_ARR_U5MR+CME_MRM0+CME_MRY0+CME_MRY0T4+CME_MRY10T14+CME_MRY10T19+CME_MRY15T19+CME_MRY15T24+CME_MRY1T4+CME_MRY20

WHO. (2000). *The World Health Report 2000: Health Systems Improving.* Geneva: World Health Organisation. Retrieved from https://apps.who.int/iris/bitstream/handle/10665/42281/WHR_2000-eng.pdf?sequence=1&isAllowed=y

APPENDIX-I: COMPOSITE INDEX VALUES ALONG WITH RANKING OF ALL THE STATES/UT IN RESPECT OF CHILD HEALTH

Very Good			Good		
Ranking	**Region**	**CI**	**Ranking**	**Region**	**CI**
1	Goa	0.103053772	9	Odisha	0.393198744
2	Kerela	0.162189504	10	West Bengal	0.405243815
3	Punjab	0.171500366	11	Himachal Pradesh	0.439049542
4	Lakshadweep	0.207211405	12	Andhra Pradesh	0.445033297
5	Chandigarh	0.231477187	13	Telegana	0.45851285
6	Puducherry	0.279694435	14	Maharashtra	0.473897042
7	Chhattisgarh	0.349556581	15	Andaman & Nicobar	0.474740067
8	Tamil Nadu	0.373296413	16	Sikkim	0.500711286
			17	Jammu & Kashmir	0.517702094

Poor			Very Poor		
Ranking	**Region**	**CI**	**Ranking**	**Region**	**CI**
18	Karnataka	0.519496571	29	Gujrat	0.654217527
19	Haryana	0.567603831	30	Uttarkhand	0.659650553
20	Daman & Diu	0.568314984	31	Mizoram	0.694132682
21	NCT Delhi	0.58508495	32	Manipur	0.700637056
22	Jharkhand	0.591141153	33	Meghalaya	0.701501134
23	Dadra & Nagar Haveli	0.638962088	34	Tripura	0.71259244
24	Madhya Pradesh	0.642422675	35	Arunachal Pradesh	0.880720852
25	Uttarpradesh	0.642467304	36	Nagaland	0.960879143
26	Assam	0.646818637			
27	Rajasthan	0.647782706			
28	Bihar	0.650028133			

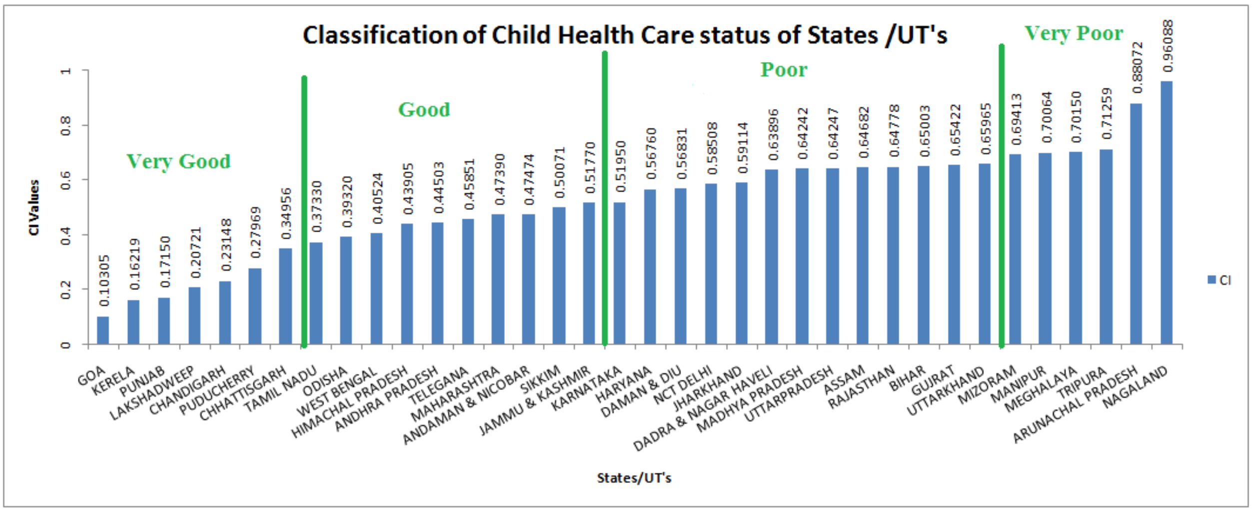


Fig 1: Classification of Child Health Care Status of State/UT

Environmental Governance in India: Concepts and Evolution

Prantik Roy
Associate Member, The Institute of Cost Accountants of India, Kolkata, India
Parag Shil
Professor, Department of Commerce, Assam University, Silchar, India

Abstract

Global profile of environmental issues has risen significantly during the past few decades. The incidents of Bhopal Gas Tragedy (1984) and the Exxon Valdez Oil Spill (1989) have drawn much attention around the world long back. Today, population growth followed by intensifying tendency of urbanisation has brought about new challenges. In India, at this moment in time, development is having an increasing impact on the environment. For India, challenges of arresting the pace of degradation of environment are redoubtable due to the imperatives of maintaining, inter alia, high economic growth. The problem of environmental sabotage in an increasingly small world concerns all countries. Realising that planetary environment is indivisible, Environmental Governance has assumed significance. In this backdrop, the present study made an attempt to explore the origin of modern Environmental Governance in India and also highlighting the gradual evolution thereof. The study is conducted mainly based on existing secondary sources of data. The study, in brief, finds that Environmental Governance is a wide and rapidly evolving dynamic area. However, the 1972 UN Conference on the Human Environment marked a watershed in the evolution of humanity's relationship with the earth and global concern about the environment. The conference's motto of "One Planet" became iconic for the modern environmental movement. In India, although the Constitution and country's structure of polity provide possibility for a multi-tiered Environmental Governance system, yet this possibility has not been sufficiently explored. In India, indeed, Environmental Governance had emerged in the seventies and has assumed public appeal in the subsequent years.

Keywords: Environment, Environmental Sabotage and Environmental Governance

Background

Global profile of environmental issues has risen considerably during past few decades. The incidents of Bhopal Gas Leak (1984) and the Exxon Valdez Oil Spill (1989) have strained the world community long back. Today, unprecedented urbanisation and rapid industrialisation have altogether brought about new challenges. NASA JPL researchers very recently in January this year discovered a huge hole of 1000 feet deep in the West Antarctica Glacier. As estimated by the NASA JPL researchers approximately 14 billion tons of ice has turned to liquid under the Glacier over the last three years. This signifies how fast the earth's surface temperature is rising. Pollution has become one of the greatest threats to the environment. The problem of environmental pollution concerns all countries.

India, for the most part, lies within Indomalaya ecozone, is one of the richest countries in the world in terms of bio-diversity. It hosts 4 bio-diversity hotspots: the Himalayas, the Western Ghats, the Indo-Burma region and the Sundaland (includes Nicobar Group of Islands) out of 35 bio-diversity hotspots in the world[1]. Moreover, India is one of the 17 mega-biodiverse countries in the world. With only 2.4 percent of the earth's land area, it accounts for 7-8 percent of the world's recorded species. It is home to 96000 species of animals, 47000 species of plants and nearly half the world's aquatic plants[2]. This natural variation in life is also reflected in the demography of the land, although the causes behind bio-diversity and demographic-diversity are different. India's management of its natural resources is crucial in protecting the global bio-diversity[3].

However, the human population of the land has depended on bio-diversity in many ways for a long time and most significantly the excessive human population in our country led to a survival pressure on the bio-diversity. Moreover, industrial boom that hit India a few decades ago, created problems due to frightening management of industrial wastes and chemicals. Wetlands and lakes are being hit hard. India's coastlines have also come under attack from this environmental sabotage.

In India, however, at this moment in time, development is having an increasing impact on the environment. The environmental issues are increasing on the agenda of government, corporations, non-governmental agencies and citizens. In this backdrop, the present study seeks to explore the true origin of Environmental Governance in India and gradual evolution thereof.

Objectives

- To explore the genesis of modern Environmental Governance in India.
- To analyse gradual evolution thereof.

Research Questions

The present study looks at modern Environmental Governance and Indian experience. The key research questions include: What actually the concept of Environmental Governance may mean? When and how the journey of modern environmental diplomacy began? What was the event that laid foundation for modern Environmental Governance at International level? When the concept of Environmental Governance did *factually* emerge in India? How has the concept evolved over time?

Research Methodology

The methodology adopted for the purpose of this study is a *doctrinal method*. However, the present work is an analytical construct. Data for the present study have been collected from diversified sources which include existing *secondary* sources such as, research papers, reports and publications of relevant national and international organisations and other published web-based resources.

Data collected from various sources have been summarised before processing. However, the study, *inter alia*, was conducted based on the review of data so collected. The present study, indeed, provides answers to the research questions so framed.

Environmental Governance: A Conceptual Outline

The expression "Environmental Governance", in ordinary parlance, refers to the processes of decision-making involved in the management and control of the environment and natural resources. Environmental Governance is the means by which society determines and acts on goals and priorities related to the management of environment and natural resources. Environmental Governance is a concept that advocates sustainability as supreme consideration for managing all human activities - political, social and economic. It views environment and natural resources as the global public goods, belonging to the category of goods that are not diminished when shared, *e.g.*, everyone benefits from a breathable atmosphere, stable climate and stable bio-diversity.

International Union for Conservation of Nature defines "Environmental Governance" as:

"The multi-level interactions (i.e., local, national, international/global) among, but not limited to, three main actors, i.e., State, market, and civil society, which interact with one another, whether in formal and informal ways; in formulating and implementing policies in response to environment-related demands and inputs from the society; bound by the rules, procedures, processes, and widely accepted behavior; possessing characteristics of the 'good governance'; for the purpose of attaining environmentally-sustainable development"[4]

Thus, Environmental Governance is a broad, dynamic as well as a complex concept that seeks to improve the state of the environment while supporting sustainable development. It covers a wide range of stakeholder and informal arrangements, such as voluntary codes of conduct for private businesses and partnerships between governments and major groups and stakeholders, including non-governmental organizations (NGOs).

Further, United Nations Environment Programme defines "Environmental Governance", as follows:

"Environmental Governance comprises the rules, practices, policies and institutions that shape how humans interact with the environment[5]

Good Environmental Governance takes into account the role of all actors that impact the environment. It is through good Environmental Governance that sustainable development can be achieved in a fair and effective manner. Good governance includes [5]:

Participation: Good governance needs to be participatory. Participation can happen directly or through legitimate intermediate institutions or representatives.

Rule of Law: Good governance requires fair legal frameworks that are enforced impartially.

Transparency: Transparency means that decision-making processes as well as enforcement of decisions follow rules and regulations. Information thereon needs to be freely available.

Responsiveness: Good governance requires that the institutions and processes try to respond to all stakeholders within a reasonable time frame.

Consensus Oriented: Good governance requires that different interests within the society be taken into account and that decisions follow the objective of reaching a broad consensus on what is in the best interest of the whole community.

Equity and Inclusiveness: Good governance does not only serve the interests of mainstream of society, but includes also its most vulnerable and minority groups.

Effectiveness and efficiency: Good governance means that processes and institutions produce results that meet the needs of society while making the best use of resources at their disposal. The concept of efficiency in the context of good governance also covers the sustainable use of natural resources and the protection of the environment.

Finally, Accountability is a key requirement of good governance.

Moreover, environmental issues may be regulated by the regional or global agreements. Some issues such as, air and watercourse pollution or protection of migratory species, may affect several States, and would require regional actions. Other issues may concern all States, such as climate change or the depletion of the ozone layer, raising the need for global cooperation. Even issues that may be perceived as domestic concern might be regulated by an international agreement because of their qualification as a common concern of the humankind. Thus, appropriate legal frameworks on the global, regional, national and local level as well, are a prerequisite for good Environmental Governance.[6]

The Beginning of Modern Environmental Diplomacy and India

The United Nations (UN) is the most important institution for global cooperation and as such, it has played a major role in the development of international environmental law and policy. The UN provides the principal universal forum for international cooperation in all kinds of thematic fields, including environmental issues, through its organs and specialised agencies.

As the principal policy-making organ of the UN, General Assembly has played a major part in the development of International Environmental Governance. The UN General Assembly has identified environmental concerns as issues of peace and security, therefore, allowing them to fall within the UN mandate. The major UN environmental conferences convened to date include[7]**:**1972 UN Conference on the Human Environment (UNCHE, Stockholm) • 1992 UN Conference on Environment and Development (UNCED, Rio-de-Janeiro) • 2002 World Summit on Sustainable Development (WSSD, Johannesburg) • 2012 UN Conference on Sustainable Development ("Rio+20", Rio-de-Janeiro).

The 1972 UN Conference on the Human Environment (commonly, *Stockholm Conference*) was the first UN's major conference on international environmental issues, and marked a turning point in the development of International Environmental Governance and eventually led the States to respond to emerging environmental challenges in a concerted manner. The conference, *inter alia*, evolved the principles and action plan for controlling and regulating environmental degradation.

In India, although the Constitution and the country's structure of polity provide possibility for a multi-tiered Environmental Governance system, yet this possibility has not been sufficiently explored on account of decades of centralised governance of natural resources in the country, which in turn was largely prompted by the indifference of "development starved" provincial governments towards environmental concerns. In India, indeed, Environmental Governance had emerged in the seventies and has assumed public appeal in the subsequent years. India being a participant and signatory to the Stockholm Conference has established authorities and employed a range of regulatory instruments for protection and improvement of environment and also for safeguarding forests and wildlife of the country.

Gradual Evolution- A Snapshot

Firmly speaking, Environmental Governance in India, the institutional and regulatory framework, evolved and shaped largely by certain major events, a series of judicial pronouncements and by the necessity of fulfilling commitments to Multilateral Environmental Agreements.

The Stockholm Conference as noted above was a watershed event in the modern environmental movement worldwide. Immediately following the conclusion of conference proceedings and as part of commitments thereto, Government of India formed the 1972 National Committee on Environmental Planning and Co-ordination in the Department of Science and Technology, as apex advisory body for all matters concerning environmental protection and improvement. Further, the Central Pollution Control Board was set up in 1974 followed by State Boards.

However, the National Committee on Environmental Planning and Co-ordination which was formed in 1972 as noted above was soon found inadequate and as a result, a High Powered Committee -*"Tiwari Committee"*- was set up to take a fresh look at the administrative and legislative aspects of environmental protection. On the recommendations of the Empowered Committee, a separate Department of Environment (DOE) under the Ministry of Science and Technology was established on November 01, 1980 followed by State Departments.

After a month of Bhopal Gas Leak disaster on December 03, 1984, DOE which was working under the Ministry of Science and Technology was expanded into a full-blown Ministry of Environment and Forest (currently, *Ministry of Environment, Forest and Climate Change*) for developing a more comprehensive and effective institutional framework to respond to the growing scale of environmental challenges.

The Ministry is the nodal agency in the administrative structure of the Central Government for the planning, promotion, co-ordination and also overseeing the implementation of India's environmental and forestry policies and programmes. The Ministry also serves as the nodal agency in the country for the United Nations Environment Programme (UNEP), South Asia Co-operative Environment Programme (SACEP) etc. The broad objectives of the Ministry include**:** conservation and survey of flora, fauna, forests and wildlife; prevention and control of pollution; afforestation and regeneration of degraded areas; protection of the environment; and ensuring the welfare of animals[8]. These objectives are supported by a range of legislative and regulatory measures.

Since 1972 an extensive network of environmental legislation has grown in India including 1976 landmark Constitutional (Forty-second Amendment) whereby "protection and improvement of environment and safeguarding of forests and wildlife" was included in the Directive Principles of State policy[9] and further to "protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures" was made a fundamental duty of every citizen of India[10]. Prior to 1972, various existing enactments such as the Indian Penal Code, Code of Criminal Procedure, Factories Act, Indian Forest Act etc., however, contained some provisions for regulation and legal action concerning environmental pollution. Nonetheless, these were scattered, inadequate and not effectively applicable for checking environmental sabotage.

Besides the legislative measures, 1992 National Conservation Strategy and Policy Statement on Environment and Development; 1988 National Forest Policy; 1992 Policy Statement on Abatement of Pollution; and 2006 National Environment Policy also guide the Ministry's work.

Further, certain principles of law concerning the protection and improvement of environment were also laid down by the judiciary as and when the cases relating thereto have brought before it. The judiciary stepped into the domain mainly through orders passed by the Hon'ble Supreme Court in Public Interest Litigations, barring some cases where *suo moto* notice was taken. The present study, therefore, identifies some of such instances as listed hereinunder.

In 1986, in the *Oleum Gas Leak* case[11], the Hon'ble Supreme Court laid down the principle of absolute liability for hazardous units. In 1991, the Hon'ble Supreme Court in *Bhopal Gas Leak* case[12] expanded the scope for judicial action in environmental matters by interpreting the right to life under Article 21 to include healthy and pollution free environment as a fundamental right. In 1996, in the *Forest* case[13], the Hon'ble Supreme Court reinterpreted the Forest Conservation Act, 1980 to extend its application to forests as per dictionary meaning. Hon'ble Court in this case evolved the concept of continuing mandamus to pass a series of orders for forest conservation. Court also set up monitoring mechanisms such as Central Empowered Committee under its own supervision and created the Compensatory Afforestation Fund Management and Planning Authority with the mandate to decide the utilisation of funds for compensatory afforestation collected by the States over the years, which had been lying unutilised. In 1996, in the *Indian Council for Enviro-legal Action vs. Union of India*[14] case, the Hon'ble Supreme Court upheld the "polluter pays" principle and directed that the person carrying out a hazardous activity is liable to make good the loss caused by this activity irrespective of whether he had taken reasonable care. The Court made the polluting industry "absolutely liable for compensation". In 1996, in the *Vellore Citizens Welfare Forum vs. Union of India*[15] case, the Hon'ble Supreme Court made the concept of sustainable development, including the principle of inter-generational equity as described in the Brundtland Report an integral part of the law of the land. It based its orders on the "precautionary principle" and the "polluter pays principle" of the Rio declaration of the UN Conference on Environment and Development, 1992. In 1999, order of the Hon'ble Supreme Court in the *Motor Vehicle Pollution* case[16], prescribed stricter emission standards based on international norms (Euro-I and Euro-II) and led to the introduction of a number of measures such as catalytic convertors, CNG, and lead free and low sulphur diesel. In 1999, Hon'ble Supreme Court pronounced in the *Andhra Pradesh Pollution Control Board vs. M.V. Nayudu*[17] case that there is a need for separate environment courts and asked the Law Commission to undertake a study on the issue. In 2000, in the *Narmada Bachao Andolan vs. UOI*[18] case, the Hon'ble Supreme Court observed: "water is the basic need for the survival of human beings and is part of the right to life and human rights as enshrined in Article 21 of the Constitution of India …"

Recently in *Felling of Trees in Aarey Colony* case, the Bombay High Court on a petition filed before it, had on October 4 refused to declare Aarey Colony as forest and declined to quash the Mumbai municipal corporation's decision to allow felling of over 2600 trees to set up a metro car shed in the zone for a metro project. The Supreme Court, however, has taken *suo moto* cognizance of the matter on a letter addressed to CJI and held an urgent hearing of the case. The Court on October 7 passed an order that no more trees be cut and *status quo* to be maintained until further order. Moreover, Ministry is supported by a number of institutions with varying degrees of autonomy, which include[19]: Pollution Control Boards, Botanical Survey of India, Zoological Survey of India, Indira Gandhi National Forest Academy, Dehradun, Forest Survey of India, Indian Council for Forestry Research and Education, Indian Institute of Forest Management, Wildlife Institute of India, National Biodiversity Authority, National Tiger Conservation Authority, National Ganga River Basin Authority, etc.

Six regional offices of the Ministry are entrusted with the responsibility of monitoring and evaluation of the on-going forestry development projects and follow up of implementation of the conditions and safeguards laid down while granting environmental clearance of projects[20]. For the attainment of its objectives, the Ministry also provides aid to various autonomous institutions, statutory bodies, centres of excellence, registered societies etc.

At last, National Green Tribunal *(Green Court)* constituted under 2010 National Green Tribunal Act is a specialised body equipped with the necessary expertise to handle environmental disputes involving multi-disciplinary issues. Tribunal provides for expeditious disposal of cases brought before it relating to environmental protection and conservation of forests and other natural resources, including enforcement of any legal right concerning environment, and giving relief and compensation for injury to persons and property, and for matters connected therewith or incidental thereto[21].

Conclusion

Thus, the UN Conference on the Human Environment marked a watershed in the evolution of humanity's relationship with the earth and global concern about the environment. While most of the conference's accomplishments were mainly metaphoric, its ultimate success was that environmental policy became a universal concern within international diplomacy, and the conference's motto of *"One Planet"* became iconic for the modern environmental movement.

Environmental Governance is a wide, expanding and rapidly evolving dynamic area. In India, at present, development is having an increasing impact on the environment. However, the environmental issues are increasing on the agenda of the government, corporations, non-governmental agencies and citizens as well. Since the beginning of the journey in India, in 1970's, the scope of Environmental Governance has been expanding gradually. The major and foremost actors which have significantly contributed in shaping the Environmental Governance framework in India include the Central Government, the Supreme Court and the Civil Society. However, State Governments and Local bodies such as, Municipal Corporations, Nagar Panchayats etc., have general responsibilities to ensure compliances and enforcements of national laws and policies. Responsibility is, thus, shared between the centre and the states.

References

1. *Global Biodiversity Hotspots with Special Emphasis on Indian Hotspots*, Envis Centre on Floral Diversity (Mar. 9, 2019, 11:00 PM), http://bsienvis.nic.in/Database/Biodiversity-Hotspots-in-India_20500.aspx.
2. *India Biodiversity Awards 2018*, United Nations Development Programme India (Mar. 9, 2019, 11:00 PM), http://www.in.undp.org/content/india/en/home/climate-and-disaster-reslience/successstories/IBA2018/.
3. Ibid.
4. *Legal Frameworks for Ecosystem-Based Governance*, International Union for Conservation of Nature (Mar. 8, 2019, 10:00 AM), https://www.iucn.org/sites/dev/files/content/documents/juan_carlos_sanchez-iucn.pdf.
5. *Environmental Governance*, United Nations Environment Programme (Mar. 8, 2019, 8:00 AM),https://wedocs.unep.org/bitstream/handle/20.500.11822/9972/EnvironmentalGovernance.pdf?sequence=1&isAllowed=y.[1]
6. *Introduction to Environmental Governance,* United Nations Environment Programme (Mar. 8, 9:00 AM) https://globalpact.informea.org/sites/default/files/documents/International%20Environmental%20Governance.pdf.
7. *Governance and MEAs*, International Union for Conservation of Nature (Mar. 13, 2019, 9:00 PM), www.iucn.org/theme/environmental-law/our-work/governance-and-meas.
8. Introduction to Environmental Governance, *supra* note 6.
9. *About the Ministry*, Ministry of Environment, Forest And Climate Change (Mar. 10, 2019, 9:00 PM), www.moef.nic.in/about-ministry/about-ministry.
10. India Const. art. 48A .
11. India Const. art. 51A , cl. g.
12. M.C. Mehta vs. UOI, (1987) 1 SCR 819.
13. Charan Lal Sahu vs. UOI, AIR 1990 SC 1480.
14. T.N. Godavarman Thirumulpad vs. UOI, (1997) 2 SCC 267.
15. AIR 1996 SC 1446.
16. AIR 1996 SC 2715.
17. M. C. Mehta vs. Union of India, (1999) 6 SCC 12.
18. (1999) 2 SCC 718.
19. (2000)10 SCC 664.
20. *Strategic Plan*, Ministry of Environment, Forest And Climate Change (Mar. 10, 2019, 7:00 PM), http://www.moef.nic.in/downloads/public-information/Strategic_Plan_MoEF.pdf.
21. *National Green Tribunal,* Ministry of Environment, Forest And Climate Change (Mar. 13, 2019, 07:00 PM), http://envfor.nic.in/rules-regulations/national-green-tribunal-ngt.

Financial Performance of Companies in Indian Telecom Industry: An Analysis

Poonam Das

Research Scholar, Department of Business Administration, Assam University, Silchar

Amit Kumar Das

Assistant Professor, Department of Business Administration, Assam University, Silchar

Abstract

Performance measures are either financial or operational where financial performance measures such as profit maximization, maximizing profit on assets, and maximizing shareholders' benefits are the core of the firm's effectiveness. The study attempts to analyse the financial performance of seven telecom companies operating in Indian telecom industry for a period of 2007-08 to 2016-17. The study represents year wise value of all the profitability ratios along with their percentage of growth and decline. The profitability ratios used in the study are Operating Profit Ratio, Net Profit Ratio, Return on Equity Ratio and Return on Assets Ratio. It has been found that Bharti Airtel Limited has maintained its efficiency in financial performance with the maximum average value in operating profit ratio, return on equity and return on total assets. Whereas MTNL has represented all the negative profitability ratios indicating flaws in operation as well as improper management of resources.

Keywords: *Profitability, Trend Analysis, Financial Performance, Telecom Companies*

Introduction

Financial performance measures such as profit maximization, maximizing profit on assets, and maximizing shareholders' benefits are the core of the firm's effectiveness. Operational performance measures, such as growth in sales and growth in market share, provide a broad definition of performance as they focus on the factors that ultimately lead to financial performance. Every business wants to maintain a good financial performance on a continuous basis. For the purpose of the analysis of financial performance the quantitative calculations in the form of various profitability ratios can be used.

Telecom industry is one of the largest industries of the world and holds the predominant place for development of any nation. In India, the demand for telecom service has been growing significantly. The continuous expansion of telecom industry is strongly supported by its uninterrupted revenue generation strategies. Various strategies like differentiation, reduced number of plans, strategy for market and pricing have been taken to ensure long term survival in the market. Not only these strategies, but also an optimal combination of capital structure for all the telecom companies operating under the industry also plays an important role to ensure their long-term survival. The primary motive of this study is to analyse the profitability of the companies in terms of various ratios, which can be beneficial for the suppliers to assess the credibility of the companies, shareholders to analyse the financial risk, investors for taking their investment decisions and ultimately for the management in taking financial decisions.

Capital structure has been an important focus in the literature since Modigliani and Miller started publishing their research about it in 1958. Various research work has been done on various dimensions of capital structure to understand its impact on business. The objective of every business is to achieve the optimal level of capital structure to minimize the cost of capital and maximizing the value of the firm (Ata Takeh, 2015). The use of leverage in total capital mix brings the advantage of tax benefit which encourages financial managers to increase the level of debt in their capital structure to enjoy the benefit of leverage (Mazumder, 2010), (Singh, 2016), (Nasimi (2016), (Julius B. Adesina et al., 2015). But Excessive use of debt to enjoy tax advantage in the total capital structure can deteriorate the returns since bankruptcy costs exist (Habimana, 2014). On this ground various studies have been conducted to analyse the impact of capital structure on the financial performance of business operating in different industries. The outcome of most of the studies revealed that there lies a significant relationship between the capital structure and the financial performance of the companies (Nimalathasan, 2012), (Mahfuzah Salim, 2012), (Julius B. Adesina et al., 2015), (Gharaibeh, Ahmad Mohammad Obeid, 2015), (Otekunrin et al., 2018), (Rao and Suryanarayana, 2018). Contradicting to these outcomes, studies conducted by Aruvel. K (2013), Habimana (2014), Kariuki and Kamau (2014), Mittal and Madan (2018) found that there lies a negative and insignificant relationship between capital structure and financial performance. However, the pattern of capital structure varies with significantly among the industries considering their different business objectives and non-identical business environment (Ilyas.P.c 2017).

Methodology

The present study represents the financial performance of seven telecom companies operating in Indian telecom industry i.e., Vodafone Group PLC, Idea Cellular Limited, Reliance Communications, Bharti Airtel Limited, BSNL, Tata Teleservices Limited and MTNL for a period of ten years i.e., 2007-08 to 2016-17. All the data have been obtained from the annual reports of the selected companies. The analysis and presentation of financial performance of the selected companies have been done through trend analysis for the selected period of ten years. For the purpose of the analysis, various profitability ratios such as Operating Profit Ratio, Net Profit Ratio, Return on Equity Ratio and Return on Total Assets Ratio have been selected. The study represents year wise value of all the profitability ratios along with their percentage of growth and decline. Further an average percentage of profitability ratios and a comprehensive analysis of the average values of firms' profitability ratios have been calculated to better examine the financial performance of our studied companies.

Analysis and Findings

Among all the companies, Bharti Airtel limited had the highest average operating profit ratio under the period of our study.

Table 1: Operating Profit Ratio and its Percentage Changes of the Select Companies

Descriptive Statistics	Vodafone Group PLC		Idea Cellular Limited		Reliance Communications		Bharti Airtel Limited		BSNL		Tata Teleservices Limited		MTNL	
	OPR	Growth	OPR	Growth	OPR	Growth	OPR	Growth	OPR	Growth	OPR	Growth	OPR	Growth
Mean	12	-21	14	-4	18	-0.11	19	-3	-16	-5	9	-134	-20	-208
SD	11	107	4	28	9	27	6	17	17	110	18	1471	115	513

Source: Compiled on the basis of the data collected from the annual reports of the companies available in their website.

The average value of operating profit ratio was highest with the mean score of 19 in case of Bharti Airtel Limited which means that the company was efficient enough in producing its products and have a good amount of resources to pay for the cost required for running the business. On the other hand, BSNL and MTNL were having very low operating profit ratio with negative mean score of -16 and -20, which indicates that the companies were inefficient in their production. The standard deviation of MTNL, Tata teleservices, BSNL and Vodafone Group PLC was maximum (115, 18, 17, 11 respectively). The maximum scores of standard deviations means that those companies were not consistent in generating their operating profits throughout the years. On the other hand, Idea Cellular Limited, Bharti Airtel limited and Reliance Communications were having a minimum standard deviation score (4, 6 and 9 respectively) implying that those companies were enjoying their operating profit at a consistent rate.

The analysis of net profit ratio and its percentage changes of the select companies (Table 2) have found that Vodafone Group PLC reported a highest average value of net profit ratio under the period of our study.

Table 2: Net Profit Ratio and its Percentage Changes of the Select Companies

Descriptive Statistics	Vodafone Group PLC		Idea Cellular Limited		Reliance Communications		Bharti Airtel Limited		BSNL		Tata Teleservices Limited		MTNL	
	NPR	Growth	NPR	Growth	NPR	Growth	NPR	Growth	NPR	Growth	NPR	Growth	NPR	Growth
Avg	19	0	16	0	29	0	24	0	9	0	-7	0	12	0
SD	8	-58	9	-44	27	-7	21	-13	2	-78	-9	29	5	-58

Source: Compiled on the basis of the data collected from the annual reports of the companies available in their website.

The average value of net profit ratio was maximum for Reliance Communications with a mean score of 29 followed by Bharti Airtel Limited and Vodafone Group PLC with mean score of 24 and 19 respectively.

This value indicates that throughout the years, those companies were capable of reducing its cost effectively and provided services at a price which were higher than its costs. On the other hand, Tata Teleservices have an extremely low value of average net profit ratio i.e., -7, which indicates that the company is struggling with inefficient management and weak pricing strategies. The standard deviation of Tata Teleservices Limited and BSNL witnessed a low value, implying that these companies were consistent in generating their net profit throughout the years. But the companies like Reliance Communications and Bharti Airtel Limited had a very high value of standard deviation (27 and 21 respectively) indicating that those companies were extremely inconsistent in generating their net profit.

The analysis of return on equity and its percentage changes of the select companies (Table 3) have found Bharti Airtel Limited reported the maximum average value of return on equity among all the companies followed by Vodafone Group PLC, Idea Cellular Limited and Reliance Communications. MTNL represented a wide fluctuation in the values of return on equity throughout the year.

Table 3: Return on Equity and its Percentage Changes of the Select Companies

Descriptive Statistics	Vodafone Group PLC		Idea Cellular Limited		Reliance Communications		Bharti Airtel Limited		BSNL		Tata Teleservices Limited		MTNL	
	ROE	Growth	ROE	Growth	ROE	Growth	ROE	Growth	ROE	Growth	ROE	Growth	ROE	Growth
Average	12	888	9	-9	5	-43	13	-7	-7	-21	-10	120	-1044	594
SD	26	2894	6	53	7	96	9	39	6	179	23	468	3327	2407

Source: Compiled on the basis of the data collected from the annual reports of the companies available in their website.

Bharti Airtel Limited and Vodafone Group PLC had the maximum return on equity with a mean value of 13 and 12 respectively. Such high value of ROE indicates that those companies were utilizing their investment financing efficiently to grow their business. On the other hand, MTNL reported the lowest value of ROE with a mean value of -1044 which implies that the company was losing its shareholders rather than gaining them. Not only MTNL, the companies like Tata Teleservices and BSNL also represented a negative value of ROE with mean score of -10 and -7 respectively. On the other hand, the standard deviation of Idea Cellular Limited and BSNL was comparatively low with a value of 6, indicating that those two companies were quite consistent with their ROE pattern. While MTNL represented an inconsistent pattern in ROE with a high value of standard deviation.

The analysis of return on asset and its percentage changes of the select companies (Table 4) have found that all the companies had represented quite a fluctuating pattern in the values of return on total assets. Bharti Airtel Limited stood out to be the highest in generating return on its assets with an average value of 10% followed by Idea Cellular Limited and Vodafone Group PLC with 7% and 4%. Among all the companies BSNL and MTNL had maximum flaws in operation and reported a negative return on assets with -4% and -2% respectively.

Table 4: Return on Asset and its Percentage Changes of the Select Companies

Descriptive Statistics	Vodafone Group PLC		Idea Cellular Limited		Reliance Communications		Bharti Airtel Limited		BSNL		Tata Teleservices Limited		MTNL	
	ROA	Growth	ROA	Growth	ROA	Growth	ROA	Growth	ROA	Growth	ROA	Growth	ROA	Growth
Average	4	-31	7	-5	4	-14	10	-6	-4	29	3	-62	-2	-138
SD	3	100	2	31	2	31	4	21	5	174	7	1269	15	323

Source: Compiled on the basis of the data collected from the annual reports of the companies available in their website.

Bharti Airtel Limited among all other companies was showing the maximum value of ROA with a mean score of 10. The companies like Idea Cellular Limited, Vodafone Group PLC, Reliance Communications and Tata Teleservices had a positive ROA value (7, 4, 4 and 3 respectively) which implies that the companies were performing well against the investment made in their assets. On the other hand, BSNL and MTNL were having negative value of ROA with a mean score of -4 and -2 respectively, indicating that the investments made in the assets of these companies were unable to generate positive return. The standard deviation of Idea Cellular Limited and Reliance Communications were showing a low value of 2, indicating that those two companies were more consistent with their ROA values throughout the years. On the other hand, companies like BSNL, Tata Teleservices and MTNL had higher standard deviation values (5, 7 and 15 respectively) implying an inconsistent pattern of maintaining their ROA value.

Table 5: Comprehensive Analysis of the Average Values of Financial Performance Ratios

Name of the Company	Operating Profit Ratio	Net Profit Ratio	Return on Equity	Return on Total Asset
Vodafone Group PLC	12%	19%	12%	4%
Idea Cellular Limited	14%	16%	9%	7%
Reliance Communications	18%	29%	5%	4%
Bharti Airtel Limited	19%	24%	13%	10%
BSNL	-16%	9%	-7%	-4%
Tata Teleservices Ltd.	9%	-7%	-10%	3%
MTNL	-20%	-12%	-1044%	-2%

Source: Compiled on the basis of the data shown from TABLE 1 to TABLE 4

The above Table 5, has represented that Bharti Airtel Limited had the maximum average value for operating profit ratio which is 19% indicating that the company was efficient enough in producing its products and had a good amount of resources to pay for the cost required for running the business. On the other hand, BSNL and MTNL were having very low operating profit ratio with negative mean score of -16 and -20, which indicated the inefficiency of the companies. The average value of net profit ratio was maximum for Reliance Communications with a mean score of 29 followed by Bharti Airtel Limited and Vodafone Group PLC with mean score of 24 and 19 respectively. This value indicates that throughout the years, those companies were capable of reducing its cost effectively and provided services at a price which are higher than its costs. On the other hand, MTNL, Tata Teleservices and BSNL were having extremely low value of average net profit ratio (-12, -7 and 9 respectively) which indicates that those companies were struggling with inefficient management and weak pricing strategies. The companies like Bharti Airtel Limited and Vodafone Group PLC had the maximum return on equity with a mean value of 13 and 12 respectively. This higher value of ROE indicates that those companies were utilizing their investment financing efficiently to grow their business. On the other hand, MTNL reports the lowest value of ROE with a mean value of -1044 which implies that the company was losing its shareholders rather than gaining them. Bharti Airtel Limited among all other companies showing the maximum value of ROA with a mean score of 10. The companies like Idea Cellular Limited, Vodafone Group PLC, Reliance Communications and Tata Teleservices also had a positive ROA value (7, 4, 4 and 3 respectively) which implies that the companies were performing well against the investment made in their assets. On the other hand, BSNL and MTNL were having negative value of ROA with a mean score of -4 and -2 respectively, indicating that the investments made in the assets of those companies were unable to generate positive return.

Conclusion

The present study has tried to represent the financial performance of seven telecom companies operating in Indian telecom industry for a period of ten years i.e., 2007-08 to 2016-17. For the purpose of the study various profitability ratios have been used. The present study concludes that Bharti Airtel Limited has maintained its efficiency in financial performance with the highest average value in operating profit ratio, return on equity and return on total assets and it is suggested that the company should try to maintain this ratio. Whereas MTNL has represented all the negative profitability ratios indicating abnormal flaws in operation as well as improper management of resources. It is suggested that MTNL should try to increase the profitability ratios and also the high fluctuation can be controlled by efficient management and adequate utilization of resources.

References

Abdul Basit, Nur Fasirah Irwan. (2017). The Impact of Capital Structure on Firms Performance: Evidence From Malaysian Industrial Sector - A Case Based Approach. *International Journal of Accounting & Business Management, 5 (No. 2)*, 131-148.

Adegbola Olubukola OTEKUNRIN, Tony Ikechukwu NWANJI, Barnabas Olusegun OBASAJU. (2018). Capital Structure and Profitability of Selected Agriculture and Agro-Allied Firms on Nigerian Stock Exchange: Post International Financial Reporting Standard Analysis. *International Journal of Civil Engineering and Technology*, *9*(13), 1615-1625.

Ata Takeh, J. N. (2015). Capital Structure and It's Impact on Financial Performance of Indian Steel Industry. *International Journal of Management (IJM)*, 29-38.

B Navaneetha, S. A. (2017). A Study on Capital structure Analysis of TATA motors limited. *International Journal of Commerce and Management Research*, 48-52.

Bhushan Singh, M. S. (2016). Impact of Capital Structure on Firm's Profitability: A Study of Selected Listed Cement Companies in India. *Pacific Business Review International*, 46-54.

Habimana, O. (2014). Capital Structure and Financial Performance: Evidence from Firms Operating in Emerging Markets. *International Journal of Academic Research in Economics and Management Sciences*, 159-166.

Hussain Muhammad, Bahadur Shah, Zia ul Islam. (2014). The Impact of Capital Structure on Firm Performance: Evidence from Pakistan. *Journal of Industrial Distribution & Business*, 13-20.

Ilyas.P.c, R. (2017). Capital Structure Pattern of Companies in India: With Special Reference to the Companies Listed in National Stock Exchange. *International Journal of Finance Research Review*, 67-75.

Mahfuzah Salim, D. R. (2012). Capital Structure and Firm Performance : Evidence from Malaysian Listed Companies. *Procedia - Social and Behavioral Sciences*, 156-166.

Mazumder, D. B. (2010). The Impact of Capital Structure on Profitability of Listed Indian Infrastructure Companies. *IOSR Journal of Business and Management (IOSR-JBM)*, 06-10.

Nasimi, A. N. (2016). Effect of Capital Structure on Firm Profitability (An Empirical Evidence from London, UK). *Global Journal of Management And Business Research: C Finance*.

Nimalathasan, B. (2012). Capital structure and Its impact On Profitability: a Study Of Listed Manufactiring Companies In sri Lanka. *Revista Tinerior Economist (The Young Economists Journal)*, 7-16.

Purnima Rao, Satish Kumar, Vinodh Madhavan. (2019). A study on factors driving the capital structure decisions of small and medium enterprises (SMEs) in India. *IIMB Management Review*, 37-50.

Sheluntcova, Maria. (2014). Capital Structure of Private Pharmaceutical Companies in Russia. *International Journal of Economics and Management*, 315-325.

Sukhdev Singh, Rajni Luthra. (2013). A Comparative Study of Trends in Corporate Capital Structure Pattern of Refinery and Metal Industry. *Asia Pacific Journal of Marketing and Management Review, 2 (6)*, 11-21.

Tawiah, Vincent Konadu. (2014). Trend In Capital Structure; A Comparative Study of Companies In Ghana and India. *International Research Journal of Business Sciences, 2*, 205-2012.

Trapti Mittal, Pankaj Madan. (2018). Impact of Financing Patterns on Profitability of e-Startups in India: A of Selected Organisations. *International Journal of Research in Economics and Social Sciences, 8*(3), 390-399.

Performance of Equity Based Mutual Fund Schemes of Select AMCs: A Comparison

Nitashree Barman

Assistant Professor, Department of Accountancy, Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Tulungia, Bongaigaon, India

Kingshuk Adhikari

Assistant Professor, Department of Commerce, Assam University, Silchar, India

Nikhil Bhusan Dey

Former Professor, Department of Commerce, Assam University, Silchar, India

Abstract

The present study compares the performance of SBI and ICICI banks with regard to their equity mutual fund service for the period of five years from 2008-09 to 2012-13. During the study period, none of the sample schemes has shown consistent growth performance, and particularly, ICICI prudential discovery fund performed worst as it had a negative growth rate in each year of the study. Further, it is found that the ICICI equity mutual fund has a higher Sharpe ratio, Treynor ratio, and Jensen's Alpha than that of the SBI equity mutual fund. Therefore, it is suggested to invest in ICICI prudential equity mutual fund schemes for earning higher returns with a lower level of risk.

Keywords: *Mutual Fund, SBI equity mutual fund, ICICI prudential mutual fund, Sharpe ratio, Treynor ratio and Jensen's Alpha*

Introduction

The banking system spurs economic efficiencies by mobilizing savings and allocating them to high return investment avenues. Banks are considered the dealers in the economy and the leaders of development. The origin of Indian Banking history can be traced during the Vedic times and the modern banking system in India between the eighteenth and the beginning of the nineteenth centuries. With the comprehensive liberalization and deregulation prevalent, the Indian financial sector becomes vibrant and competitive, and also, the banking sector is not free from those effects. To gain the competitive advantage, the banks have been moving towards more multidimensional activities and diversified in different areas of functions other than the primary functions of banks: deposit mobilization and lending fund. At present, Indian banks perform a wide variety of banking and ancillary functions. Banks, through mutual fund service, pool investors'savings for collective investment in a diversified portfolio of securities. Through this business, banks provide an opportunity for investors to have access to expensive stocks. Besides, the banks diversify the investors' risk as well as access to crucial corporate information which individual investors cannot access.The Indian public sector banks got the license to launch Mutual Fund in 1987. Moreover, in the year 1993, the SEBI formulated a regulatory framework for mutual funds and allowed private sector banks and other financial institutions to cater to mutual fund services.

Review of Literature

Ahmed (2001) tried to forecast the correlation among mutual funds meant for implementing the diversification strategy of investors successfully and found that estimate of future correlation from the Multi -Style Index, Dynamic and Fama –French 3 Factor model have the lowest prediction error. *Duggimpudi et al. (2010)* evaluated diversified Indian equity mutual fund and found a positive relationship between risk and return of the sample mutual funds and they are less volatile than the market index. *Koulis et al. (2011)* suggested that management of the mutual funds asset should become more substantial so that the return of their portfolio to be more attractive than the expected market return to attract new domestic and foreign investors. *Prajapati and Patel (2012)* examined the performance of five top asset management companies and found that all the selected mutual fund companies have a positive return and are less volatile than the

BSE SENSEX. Sharma *(2013)* evaluated the performance of Indian equity mutual funds and concluded that the influence of market factor on the funds return is significant. *Narayanasamy and Rathnamani (2013)* evaluated Indian large-cap equity mutual funds and observed that the performance of the market index has impact on the performance of all the selected funds and funds perform well in the high volatile market movement.Zaheeruddin et al. (2013) assessed the performance of select mutual funds and found that ICICI mutual fund performed better than other funds and ranked top as it has the highest return with a lower level of risk. Besides, some studies are based on investigating the determinants of mutual fund performance, such as *Chen et al. (2004)* and *Ferreira et al. (2012)* etc. Those studies concluded that fund size or scale erodes fund performance because of the interaction of liquidity and organizational diseconomies as well as liquid stock market and strong legal institutions boost the mutual fund performance.

Objectives of the Study

1. To analyze the growth of return of sample equity mutual fund schemes and market index over the study period.
2. To make risk and return analysis of sample equity mutual fund schemes and market index.
3. To evaluate the performance of sample equity mutual fund schemes and compare against benchmark performance.
4. To classify the sample equity mutual fund based on their performance.

Scope and Methodology of the Study

The present study is empirical and secondary data based. The study is confined to the performance of the growth-oriented–open ended-equity mutual Fund of select Indian commercial banks for the period from 2008-09 to 2012-13(i.e. 60 months).

Mutual Fund Houses: The present study has purposively selected SBI Mutual Fund and ICICI Prudential Mutual Fund to compare the performance of two largest banks of different ownership groups, viz. State Bank India and ICICI bank, based on their equity mutual fund service.

Sample of Schemes: The sample size of the equity mutual fund schemes is six (6) and the selection of the schemes is based on the criteria of the scheme having the highest Average Asset Under Management during the last quarter of the year 2012-13 in each category of equity mutual fund and at least one year of operation made from the launch date of the scheme. The list of mutual fund schemes considered under the study is stated as below:

Table 1: List of sample Equity Mutual Fund Schemes

Name of Categories	SBI Mutual Fund	ICICI Prudential Mutual Fund
Small and Mid Equity Schemes	SBI Emerging Businesses Fund	ICICI Prudential Discovery Fund
Diversified Equity Schemes	SBI Contra Fund	ICICI Prudential Exports and Other Services Fund
Large Cap Oriented Equity Schemes	SBI Magnum Equity Fund	ICICI Prudential Top 200 Fund

Source: Author's Compilation

Data sources: The requisite secondary data have been collected from various sources such as the website of Association of Mutual Fund in India (www.amfiindia.com), RBI (www.rbi.org.in), Bombay Stock Exchanges (www.bseindia.com), and National Bombay Stock Exchanges (www.nseindia.com).

Tools of Analysis: The tools used to evaluate the performance of the equity mutual fund schemes are briefly explained below

Portfolio Return: Under the present study,, the monthly portfolio return is calculated as

$$R_p = \frac{NAV_{(t)} - NAV_{(t-1)}}{NAV_{(t-1)}} \times 100$$

Where,

R_p = *Return on portfolio*
NAV = *Net Asset Value of the Fund*
t = *time period*

Market Return: Under the present study, S&P BSE SENSEX has been considered as market index. It is calculated on a free-float market capitalization methodology. The base year of the index is 1978-79. This index gauges the booms and busts of the Indian equity market (www.bseindia.com). The market return is calculated as

$$R_m = \frac{MI_{(t)} - MI_{(t-1)}}{MI_{(t-1)}} \times 100$$

Where,

R_m = *Market Return*
MI = *Market index*
t = *time period*

Risk: Risk is the variability of the investmnet return. The standard deviation of returns calculates the total risk. Risk measures the fluctuation of net asset value compared to the schemes' average returns during a particular period. A higher standard deviation implies the returns of the Fund is more unstable and risky than Fund having a lower standard deviation. It is calculated as follows

$$\sigma=1n-1t=1nR_t-(\overline{R})^2$$

Where,

σ=*Standard Deviation*
n = *number of monthly returns*
R_t= *Monthly return of the Mutual Fund*
$\overline{R}$ = *Mean return of the Mutual Fund*

According to William Forsyth Sharpe, variance explained by the index could be referred to as the systematic risk and the unexplained variance is called unsystematic risk. Sharpe suggested that systematic risk and unsystematic risk can be measured as follows

Systematic risk or Market risk $= \beta^2 X Var (R_m)$

Unsystematic risk $= Var (R_p) – [\beta^2 X Var (R_m)]$

Beta: Beta measures Fund's volatility as regard to market index. It estimates systematic risk inherent to the entire market and cannot be diversified away. If the covariance between the fund return and market return exactly equals the variance of market return then β= 1which means that the Fund moves in lockstep with the market. When β >1, the Fund is more volatile than the market, and when β <1 the Fund is less volatile. Beta is an important component of analysis because high beta indicates higher returns than the benchmark in up markets and lower returns in down markets while the exact opposite would be the case for low beta. Thus, it is calculated as follows:

$$\beta = \frac{Cov(R_p , R_m)}{Var(R_m)}$$

R^2*:* R-squared measures the relationship between a portfolio return and market return. It can be used to ascertain the significance of a particular beta. A higher R-squared value will indicate a high degree of correlation between portfolio return and market return and a more useful beta figure. The inverse result means the beta value is less significant to the Fund's performance.

Risk free rate: It measures the compensation for systematic risk, which cannot be eliminated by holding a diversified portfolio. Under the present study, average weekly yield of 91 days Treasury bills have been taken as a risk-free rate.

Sharpe Ratio: William Forsyth Sharpe (1966) developed a ratio referred to as the reward-to-variability ratio, which measures the excess return over the risk-free rate per unit of total risk in a mutual fund. This ratio is used to characterize how well the return of an asset compensates the investor for the risk taken; the higher the ratio, the better the performance. In contrast, a negative Sharpe ratio indicates that a risk-less asset would perform better than the security being analyzed.

$$S_p = \frac{R_p - R_f}{\sigma_p} \quad ; \quad S_m = \frac{R_m - R_f}{\sigma_m}$$

Where,

S_p=*Portfolio's Sharpe ratio;* S_m= *Benchmark's Sharpe ratio*
R_P= *Portfolio Return;* R_m= *Market Return*
σ_p=*Standard Deviation of Portfolio;* σ_m= *Standard Deviation of Market index*
R_f =*Risk free rate*

Treynor Ratio: Jack Treynor (1965) devised a ratio of portfolio performance measure called as reward to volatility ratio. It measures excess return over the risk-free rate per unit of systematic risk. This ratio is used to measure how well an investment has compensated its investors given its level of risk.The higher ratio implies that the Fund has a better risk-adjusted return than that of another fund with a lower ratio. It is calculated as follows:

$$T_p = \frac{R_p - R_f}{\beta} \qquad T_m = R_m - R_f$$

Where,

T_p=*Portfolio's Treynor ratio;* T_m= *Benchmark's Treynor ratio*
R_P= *Portfolio Return;* R_m= *Market Return*
β= *Beta Coefficient of the Portfolio Return measured against Market Return*
R_f= *Risk-free rate*

Jensen's α*:* Jensen (1968) developed a risk-adjusted performance measure used to assess portfolio performance relative to a benchmark. It measures the difference between an investment's actual returns and its expected return, given its level of risk as measured by beta. A positive alpha indicates the portfolio manager performed better than was expected based on the risk the manager took with the Fund as measured by the Fund's beta. A negative alpha means that the manager actually did worse than the given required return of the portfolio. It is calculated as

$$\alpha = \text{Portfolio Return} - \text{CAPM Return}$$
$$= R_p - [R_f + \beta (R_m - R_f) + \varepsilon$$

Where,

R_p= *Portfolio Return*
R_m= *Market Return*
β= *Beta Coefficient of the Portfolio Return measured against Market Return*
R_f= *Risk free rate*
ε = *Error Term (generally minimal)*

Results and Discussion

This section provides analysis and discussion relating to the performance of SBI Equity Mutual Fund schemes and ICICI Prudential Equity Fund schemes. It includes descriptive analysis, growth analysis, risk and return analysis and analysis of some well-established ratios generally used to evaluate the performance of Mutual Fund. Furthermore, the funds have been compared and classified based on their performance. Table 2 deals with the descriptive analysis of returns of select mutual funds and market index. The return of the mutual funds is derived by averaging the returns of the sample schemes for the period of 60 months. From the table, it is observed that both the funds earned a higher return than the market index, but ICICI prudential equity mutual fund is comparatively better in total risk management as it has a lower standard deviation and Coefficient of Variance. The minimum earnings of both the funds are lower than the minimum earning of market index, but SBI equity mutual fund earned a maximum of 30.4286 percent, which is higher than that of ICICI prudential mutual fund and market index during the study period. Moreover, the return distribution of SBI equity mutual fund is leptokurtic while it is platykurtic in the case of ICICI equity mutual fund and market index. Both the funds as well as market index are negatively skewed.

Table 2: Descriptive Analysis of Returns of Mutual Funds and Benchmark Index

Descriptive Statistics	SBI Equity Mutual Fund	ICICI Prudential Equity Mutual Fund	Market Return
Number of Observation	60	60	60
Mean	0.357	0.647	0.328
Standard Deviation	8.358	7.925	8.156
Coefficient of Variance	23.395	12.245	24.854
Minimum	-27.705	-26.532	-24.746
Maximum	30.429	21.968	25.698
Kurtosis	3.562	1.894	1.830
Skewness	-0.009	-0.349	-0.050

Source: Author's calculation

Table 3 depicts the compound annual growth performance of sample mutual fund schemes return as well as market return. In 2008-09, ICICI prudential top 200 fund performed best indicated by the highest growth rate of 3.47 percent compared to other schemes as well as market index. In 2009-10, all the sample schemes showed negative compound growth performance, but the performance of the SBI contra fund was comparatively better than that of other schemes and market index.

Table 3: Compound Annual Growth Analysis of Returns of Mutual Fund schemes and Benchmark Index

Schemes	2008-09	2009-10	2010-11	2011-12	2012-13
SBI Emerging Business Fund	2.80	-8.15	5.13	1.27	-201.49
SBI Contra fund	3.21	-6.27	-210.66	-194.75	9.10
SBI Magnum Equity Fund	1.72	-7.30	-221.96	-195.75	-5.88
ICICI Prudential Discovery Fund	-3.18	-12.83	-0.65	-12.20	-198.87
ICICI Prudential Exports and Other Services Fund	1.67	-11.33	8.57	2.20	-190.39
ICICI Prudential Top 200 Fund	3.47	-9.05	10.04	-34.97	3.61
Market Return	2.80	-8.15	5.13	1.27	-201.49

Source: Author's calculation

In the year 2010-11, the performance was improved to some extent, and during that period, ICICI prudential top 200 fund performed well with a comparatively highest growth rate of 10.04 percent while SBI contra fund and SBI magnum equity fund performed worst. The performance deteriorated over the next two years. Thus, during the study period, none of the sample schemes has shown consistent growth performance, and particularly, ICICI prudential discovery fund performed worst as it had a negative growth rate in each year of the study.

Table 4: Risk and Return Analysis of sample mutual fund schemes

Schemes	R_p	σ_p	R_m	σ_m	β	R^2	Systematic Risk	Unsystematic Risk
SBI Emerging Business Fund	0.478	10.155	0.328	8.156	1.109	0.820	81.753	21.368
SBI Contra fund	0.119	7.640	0.328	8.156	0.881	0.916	51.674	6.690
SBI Magnum Equity Fund	0.475	7.733	0.328	8.156	0.898	0.928	53.645	6.154
ICICI Prudential Discovery Fund	1.144	8.330	0.328	8.156	0.929	0.956	57.416	11.974
ICICI Prudential Exports and Other Services Fund	0.317	8.118	0.328	8.156	0.936	0.914	58.254	7.642
ICICI Prudential Top 200 Fund	0.481	7.700	0.328	8.156	0.897	0.932	53.527	5.768

Source: Author's calculation

Table 4 portrays the risk and return analysis of sample mutual fund schemes for the average period of 60 months (i.e., five years). In regard to earning, ICICI prudential equity mutual fund schemes have outperformed the SBI equity mutual fund schemes in each category of equity schemes. Further, it is noticed that all the equity schemes of both the funds have been able to earn higher than the market index except the diversified equity schemes of both the funds viz., SBI contra fund and ICICI prudential exports and other services fund. In regard to the risk, SBI emerging business fund is involved with the highest percentage of systematic risk as well as an unsystematic risk than the other schemes and more volatile than the market as the beta value is more than one. Thus, the scheme needs to be more diversified in order to avoid unsystematic risk. Out of the sample schemes, the SBI Contra fund is the least volatile and has the least systemic risk, while ICICI prudential top 200 fund has the least unsystematic risk.

Table 5: Year and Scheme wise comparative Analysis of Sharpe Ratio

Year	SBI Mutual Fund			ICICI Prudential Mutual Fund			Benchmark
	SBI Emerging Business Fund	SBI Contra fund	SBI Magnum Equity Fund	ICICI Prudential Discovery Fund	ICICI Prudential Exports and Other Services Fund	ICICI Prudential Top 200 Fund	
2008-09	-0.865	-0.870	-0.829	-0.804	-0.973	-0.871	-0.951
2009-10	0.262	0.084	0.114	0.437	0.199	0.164	0.163
2010-11	-0.959	-1.334	-1.277	-1.382	-1.059	-0.975	-0.906
2011-12	-1.628	-1.571	-1.531	-1.239	-1.337	-1.321	-1.525
2012-13	-1.469	-0.020	-1.759	-2.164	-6.151	-1.576	-1.740

Source: Author's calculation

Table 5 presents year and scheme-wise comparative analysis of Sharpe ratio of sample schemes and market index. The performance of all the sample schemes, as well as the market index in regard to earning excess return over the risk-free rate per unit of total risk, is not consistent over the study period. The performance of the ICICI prudential discovery fund was best in 2008, 2009 and 2011 compared to the other schemes. The performance of ICICI top 200 funds and SBI contra fund has led the others in 2010 and 2012. Apart from that, 83.33 percent, 66.67 percent, 100 percent and 50 percent of sample schemes outperformed the market in 2008, 2009, 2011 and 2012. In 2010, no single scheme had been able to perform better than the benchmark performance.

Table 6: Year and Scheme wise comparative Analysis of Treynor Ratio

Year	SBI Mutual Fund			ICICI Prudential Mutual Fund			Benchmark
	SBI Emerging Business Fund	SBI Contra fund	SBI Magnum Equity Fund	ICICI Prudential Discovery Fund	ICICI Prudential Exports and Other Services Fund	ICICI Prudential Top 200 Fund	
2008-09	-11.205	-6.786	-10.624	-10.589	-12.493	-10.978	-10.762
2009-10	3.000	0.904	1.203	4.786	2.098	1.748	1.541
2010-11	-7.681	-9.681	-9.061	-10.316	-7.686	-6.707	-5.423
2011-12	-13.105	-11.075	-10.674	-9.275	-9.472	-9.210	-9.544
2012-13	-8.408	-9.812	-8.631	-11.517	-8.883	-7.827	-7.569

Source: Author's calculation

Table 6 shows a year and scheme-wise comparative analysis of the Treynor ratio of sample mutual fund schemes and market index. The performance of all the schemes and market index based on the excess earnings over risk-free rate per unit of systematic risk is not consistent over the study period. SBI contra fund, SBI emerging business fund, ICICI top 200 funds, ICICI prudential discovery fund, and again ICICI top 200 funds has led the performance of other schemes in the consecutive study period. Besides, 50 percent, 66.67 percent and 50 percent of sample schemes have been able to outperform the market index in 2008, 2009 and 2011. The performance of all the sample schemes was worst in 2010 and 2011 as any one of the schemes could not outperform the benchmark index.

Table 7: Year and Scheme wise comparative Analysis of Jenson's α

Year	SBI Mutual Fund			ICICI Prudential Mutual Fund		
	SBI Emerging Business Fund	SBI Contra fund	SBI Magnum Equity Fund	ICICI Prudential Discovery Fund	ICICI Prudential Exports and Other Services Fund	ICICI Prudential Top 200 Fund
2008-09	-0.523	-0.258	0.130	0.162	-1.631	-0.197
2009-10	1.532	-0.520	-0.273	2.673	0.421	0.138
2010-11	-1.717	-3.075	-2.349	-2.722	-1.714	-1.056
2011-12	-2.148	-1.260	-0.913	0.239	0.066	0.323
2012-13	-0.718	-1.727	-0.920	-2.635	-1.043	-0.254

Source: Author's calculation

Table 7 provides year and scheme-wise comparative analysis of alpha (α) of the sample equity mutual fund schemes. A positive α indicates superior performance, while a negative value is interpreted as inferior. In 2008-09, all the schemes except SBI magnum equity fund and ICICI prudential discovery fund had negative α. In the next year, the ICICI prudential equity mutual fund schemes outperformed the SBI equity mutual fund schemes. But in 2010-11, all the sample schemes had negative values. The following year, ICICI prudential mutual fund schemes improved performance, but SBI equity mutual fund schemes could not improve as expected. Again, in 2012-13, both the funds' performance is inferior as they have negative α values.

Table 8: Classification of Sample Equity Mutual Funds

Measures	SBI Equity Mutual Fund		ICICI Prudential Equity Mutual Fund	
	Rank	Classification	Rank	Classification
Return	**1**	(R_p=0.357>R_m=0.328)	**1**	((R_p =0.647> R_m =0.328)
SD	**0**	(σ_p=8.358> σ_m=8.156)	**1**	(σ_p =7.925< σ_m=8.156)
Sharpe Ratio	**0**	(S_p=-0.910<S_m=1.010)	**0**	(S_p=-1.270<S_m=1.010)
Treynor Ratio	**0**	(T_p=-7.442<T_m=-6.351)	**0**	(T_p=-7.088<T_m=-6.351)
Jensen’s α	**0**	(α=-0.983)	**0**	(α = -0.482)

Source: Author’s calculation
Note: 1 stands for good performance, and 0 stands for poor performance

Table 8 classify the select mutual funds into two groups, good performer and poor performer, based on their overall performance obtained by averaging the performance of their respective schemes, compared against the benchmark performance. The table shows that both the funds have performed well in respect of earning a monthly average return and thus scored with 1. ICICI Prudential mutual fund scored with "1" is least involved with total risk than SBI equity mutual fund scored with "0" as compared to standard deviation of the market index. Further, during the study period, both the funds have performed poorly in earning excess return over risk-free rate per unit of the total as well as systematic risk. Thus, their poor performance is indicated by “0”. Besides, both the funds could not earn more or equal to the expected earnings evidenced by their negative α value, and thus, they have been scored with “0”. Thus, it is to conclude that though the funds have quite similar performance compared to the benchmark performance, ICICI bank performs better than the SBI in providing equity mutual fund service as the former has higher return with a lower level of risk, higher Sharpe ratio, higher Treynor ratio, and higher Jensen's α compared to the latter.

Conclusion

The present study aims to assess and compare the performance of SBI and ICICI bank based on their equity mutual fund service for the period of five years (i.e., 60 months) from 2008-09 to 2012-13. For the study, three schemes from each Fund have been considered, and performance is evaluated through Sharpe ratio, Treynor ratio and Jensen's Alpha. During the study period, no one of the sample schemes showed consistent growth performance. The ICICI prudential discovery fund performed worst as it showed negative growth rate in each year of the study. The degree of correlation between the return of ICICI Prudential Discovery Fund and the market index is highest, with R2 value of 95.6 percent. The SBI emerging business fund is involved with the highest percentage of systematic risk, and unsystematic risk than the other schemes and more volatile than the market as the beta value is more than one. Further, out of the sample schemes SBI Contra fund is the least volatile and has the least systemic risk, while the ICICI prudential top 200 fund has the least unsystematic risk. It is also found that ICICI equity mutual fund offers better returns with a lower level of risk and has a higher Sharpe ratio, higher Treynor ratio, and higher Jensen's than that of SBI equity mutual fund. Therefore, it is suggested to invest in ICICI prudential equity mutual fund schemes for earning higher returns with a lower level of risk.

References

Ahmed, Parvez (2001), 'Forecasting correlation among mutual funds', *Journal of Banking &Finance,* Vol. –, No. 25, p.1187.

Chen, Joseph et al. (2004), 'Does Fund Size Erode Mutual Fund Performance? The Role of Liquidity and Organization, *The American Economic Review*,Vol. 94 No. - , December, p.1300

Duggimpudi, Rajesh R et al. (2010), 'An evaluation of equity diversified mutual funds: the case of the Indian market, *Investment Management and Financial Innovations*, Vol. 7, Issue 4, p. 83.

Ferreira, M. A. et al. (2012), 'The Determinants of Mutual Fund Performance: A Cross-Country Study', *Review of Finance,* p.43.

Jensen, M. (1968), 'The performance of Mutual Funds in the period 1945-1964, *Journal Of Finance,* Vol. 23, No. 2, pp.389-416.

Koulis, Alexandros et al. (2011),'An Assessment of the Performance of Greek Mutual Equity Funds Selectivity and Market Timing', *Applied Mathematical Sciences*, Vol. 5, No. 4, P. 169.

Narayanasamy, R. and Rathnamani, V. (2013), 'Performance Evaluation of Equity Mutual Funds (On Selected Equity Large Cap Funds)', *International Journal of Business and Management Invention*, Volume 2, Issue 4, April, p.23.

Prajapati , Kalpesh P and Patel , Mahesh K *(2012), '*Comparative Study on Performance Evaluation of Mutual Fund Schemes of Indian Companies,*Journal of Arts, Science & Commerce,* Vol. III, Issue 3, July, p. 59.

Sharma, Dhanraj (2013), 'Performance Evaluation of Indian Equity Mutual Funds', The Indian Journal of Commerce, Vol. 66, No. 2, April-June, p. 38.

Sharpe, W.F. (1966), 'Mutual Fund Performance', *Journal of Business,* Vol. 39(S1), pp.119-138. doi: 10.1086/294846

Treynor, J.L. (1965), 'How to Rate Management of Investment Funds', *Harward Business* Review, Vol. 43, No. 1, pp. 63–75.

Zaheeruddin, Mohamed et al. (2013), 'Performance evaluation of mutual funds in India with special reference to selected financial intermediaries, *Journal of Business and Management*Vol. 7, Issue 2, Jan. - Feb., p.39.

www.amfiindia.com

www.bseindia.com

www.nseindia.com

www.rbi.org.in

A Study of Investment Behaviour with Special Reference to Mutual Funds

Indica Kaur

Research Scholar, Department of Commerce, Gauhati University

Gour Gopal Banik

Associate Professor, Department of Accountancy, Gauhati Commerce College

Abstract

Investment means allocating money in different avenues to get future returns from them. Investments can be made in different forms like investment in stocks, bonds, mutual funds, real estate, gold, etc. Mutual funds have become a promising sector of investment in India. The advantages of dealing in mutual funds, is explained herein, along with the returns from investment in mutual funds in order to create a wider investment base for mutual funds in India. This paper aims to study investment behaviour of people with special reference to mutual funds.

Keywords: *Investment portfolio, risk management, Net assets value, investment behaviour.*

Introduction

Investment is made by an individual with the objective to earn a certain amount of revenue or return from the different avenues available in the financial market. There is a vast range of investment avenues available in the market. A mutual fund is a financial vehicle which runs on the savings brought together from a number of investors having the same financial goals. The profit earned from the mutual funds is divided among the investors according to their investment proportion. Mutual funds are regulated by the Securities and Exchange Board of India (SEBI) and hence the mutual funds must be registered under SEBI. An investor should be well aware of the fact that the mutual fund, he/she is investing in, is duly registered, in order to have a safeguard from fraudulent companies, which are increasing day by day. Also, common men are seen fearing while investing in mutual funds, mainly because it is market-oriented.

Literature Review

Rathnamani, V. (2013) analyzed to what extent mutual fund is effective as an investment mode and also studied the growth of mutual fund industry in India. Preference for higher returns at low levels of risk along with safety and liquidity over others was observed. Kaur, R. (2014) studied the risk associated with investment in mutual funds. The returns from the mutual funds were observed and it was found that average return of the schemes were less than benchmark indicators. Pasalkar, N.V (2015) compared investment in mutual funds with investment in equity shares. The preferences of individual investors were also studied regarding investment in mutual funds. It was found that people prefer to invest more in equity rather than in mutual funds. Mane, P. (2016) studied the general awareness and preferences of the masses as regards mutual funds. It was observed that most of the people were not much in favor of investing in mutual funds.

Objectives of the Study

1. To study the evolution of mutual funds.
2. To study the effects of market fluctuations on mutual funds and the resultant effects on the investor behavior.

Methodology

The research paper is based on primary data which are collected from 100 respondents by distributing questionnaires to them. The study area consists of people residing in Guwahati only. The research is also based on secondary data which are collected from articles, research papers, internet etc and the authors as well as the sources have been duly acknowledged in the reference section.

Evolution of the Concept of Mutual Funds

The evolution of mutual funds can be dated back to the early 1770s due to the financial crisis that staggered Europe at that time. The British East India Company borrowed heavily during the preceding boom years to support its colonial interests. At the same time, the Dutch were seen exploring the world just like the British did and taking risks, which were again parallel to the banking crisis of 2008. Against this backdrop, a Dutch merchant, *Adriaan Van Ketwich*, thought to form an investment trust which led to the setting up of world's first mutual fund in 1774.Two more funds were also set up in Netherlands which increased the importance of diversification in order to reduce risk and which were centered to even small investors, with minimum capital.

The initial mutual fund schemes were closed-ended. The first open-ended mutual fund was launched in the year 1924. Mutual fund, thus made a revolutionary change in which many small investors, for the first time, could pool their resources in a professionally managed investment. Several ups and downs were observed throughout the years especially during the 1960s, 1990s, 2000 and 2008. Mutual funds offer a number of benefits to the people interested in investing in mutual funds, whether in the form of SIP's or lump sum investment. Some of the advantages are professional portfolio management provided to investors, risk management through diversification, both international and domestic investment opportunities are directly accessible to investors, investors with limited knowledge can also make world-class investments that too tension-free.

On the other hand, it has been observed that a caution notice is always given in any mutual fund advertisement that investment in mutual fund is subject to market risk. But here, again comes a differentiating factor. Mutual funds are divided into mainly three types: Mutual Funds-Equity, Debt and Hybrid. The type of mutual fund opted for actually differentiates the effect on the investors during stock market volatility. Decisions may be made by the investors depending upon the period of time they want to invest in mutual funds for better results. The investment period can be divided into three: short-term, medium term and long-term. If the period is short-term, then it is best to avoid investing in mutual funds. Alternatively, debt funds must be opted for. If the period is medium term, the debt: equity allocation of mutual funds must be 40:60 for better returns. And, if the period is long-term, allocation of debt: equity should be 30:70 for better results. Thus, though mutual funds are feared by general people for negatively affecting the investment returns, but actually investing in mutual funds keeping in mind the goals can safeguard and ensure the investors of better returns in future. Now, comes in mind, the second thoughtful question as to what is the right age of investing in mutual funds. There is no reason as to why one should delay one's investment, except, of course, if there is no money with the person concerned. The moment one starts earning and saving, one can start investing in mutual funds. Mutual funds have many different schemes suitable for different purposes. Whatever, stage of life a person is, mutual funds have solutions for all. Thus, as observed it is never too late to make an investment in mutual funds. But, it is very important for the investor to bear in mind the implications that different schemes have on his financial plan in different stages of life, and if required to seek the help of a financial planner too, as it will make the entire investment process a lot simpler and quicker.

Investment of an individual generally starts from the time period he/she starts earning, i.e., in the 20's. An attempt has been made by the authors in the form of a table to illustrate the balance between the age of an individual and how he/she should invest in mutual funds in order to have optimum results.

Table 1: Age-wise investment in mutual funds

Age	Risk appetite	Risk profile	Proposed investment in mutual fund (%)
20	Very high	Very aggressive	Equity-75 Debt/Balance-25
30	High	Aggressive	Equity-60 Debt/Balance-40
40	Medium	Moderately aggressive	Equity-40 Debt/Balance-60
50	Low	Moderate	Equity-35 Debt/Balance-65
60	Very low	Conservative	Equity-20 Debt/Balance-80

Source: www.fundguru.sbimf.com

As illustrated in the table, investors in the 20's are young and their risk appetite is very high so they can definitely manage to be very aggressive as regards investment in mutual funds i.e. equity: debt/balance ratio as 75:25. Again in the 30's, people become more or less stable in their career and other life perspectives and their risk appetite is high which again suggest investment in mutual fund in the ratio 60:40. At 40's, people become more family-oriented and the dependents increase and hence risk appetite becomes medium which suggests equity: debt/balance ratio as 40:60. In the 50's, people are becoming slowly older and nearing super-annuation and hence the risk appetite becomes low and so investment in mutual fund should be equity: debt/balance in the ratio 35:65. Again at 60's, i.e., retirement age, investment should be only in less risky options of mutual funds if at all adhered to, i.e., in the ratio of equity: debt/balance 20:80.

Investment Mechanism of Mutual Funds

Mutual fund investment mechanism is a rather simple one which involve gathering of financial resources by issuing fund units to the investors and further investing their funds in the market. Investors in mutual funds are called unit holders and the profits/losses are shared by the investors in proportion the value of their investment. A self-attested identity and address proof along with filled mutual fund application form and passport size photograph for KYC compliance is needed to be submitted before investing in mutual funds. The person in-charge of investing this money is called Fund Manager. The three broad types of mutual funds are described below:

- Equity or Growth funds: They invest in equities, i.e. shares of companies. They have the potential to generate higher returns and are the best for long-term investments. The sub-types are large-cap funds, mid-cap funds, small cap funds, multi cap funds, thematic funds, tax-saving funds, etc.
- Income or Bond or Fixed Income funds: They invest in fixed income securities like Government securities or bonds, debentures, treasury bills, etc. They are relatively safer instruments to invest. Examples are gilt funds, dynamic bonds, etc.
- Hybrid funds: They invest in both equities and fixed income, thus offering the best of both, growing potential as well as income generation along with safety. Examples are Pension Plans, Monthly Income Plans, Balance Funds, etc.

Figure 1: Investment mechanism of mutual funds

Source: www.rbcgam.com/types of mutual funds

Mutual funds have become rapidly common among the masses in the recent years. This is primarily due to the diversification of funds they offer, professional management and liquidity. But it is observed to be popular among only the high class or upper middle class strata of the Indian society mainly because of the lack of financial resources to invest of the lower middle class people and others down the economic ladder, lack of proper knowledge and awareness and also lack of ability to take risk with the limited resources they have. Mutual funds though have evolved in India since 1964 but still it is not much a popular or sought to investment device among the Indian masses. The measures which can be imbibed here to make the mutual funds popular among the masses are by arranging proper financial literacy programs both online and offline and also by more and more marketing of mutual funds. With the decreasing returns the banks provide to the investors in return for the fixed deposits, recurring deposits, etc., mutual funds can be opted more by the investors for more returns that too in manageable amount of risk depending upon the type of mutual fund invested into. Either the investment can be made in lump sum just like Fixed deposits in banks or in Systematic Investment Plans or Systematic Withdrawal Plan which are more or less similar to bank's recurring deposits but have the advantage of better returns than that offered by banks and also the tax benefits. So, exploring this investment opportunity is really one of the best options for the investors.

Investment Behavior with special reference to mutual funds

Investment behavior simply depicts the behavior exhibited by individuals prior to and while making investment in the different investment instruments. The behavioral aspects include all the steps right from researching for the investment instruments available in the market to the final investment in the product and reviewing the investment decisions from time to time in order to ensure good returns. Mutual funds, over the years have grown as a promising aspect of making investments and hence studying the investment behavior of individuals with respect to mutual funds has become important.

In this research paper, a study was conducted on 100 residents of Guwahati through questionnaire and the data collected have shown the following results.

Table 2: Awareness and investment in different investment avenues(in percentage)

	Aware (In Percentage)			Invested (In Percentage)		
	Male	Female	Total	Male	Female	Total
FD	99%	100%	99.4%	91.1%	94.9%	92.5%
NSC	83.2%	68.6%	77.8%	35.6%	25.4%	31.9%
PPF	72.3%	78.8%	74.7%	41.1%	44.1%	42.2%
OPOS	61.9%	65.3%	63.1%	22.3%	13.6%	19.1%
GOVT	62.4%	60.2%	61.6%	18.8%	15.3%	17.5%
ULIP	58.4%	66.9%	61.6%	23.8%	28%	25.3%
SHARES	70.3%	71.2%	70.6%	34.2%	32.2%	33.4%
MUTUAL FUNDS	80.2%	81.4%	80.6%	48.0%	42.4%	45.9%
DEBENTURES	56.4%	60.2%	57.8%	13.4%	11.9%	12.8%
BONDS	65.8%	63.6%	65%	24.3%	16.9%	21.6%
PF	78.2%	77.1%	77.8%	44.1%	37.3%	41.6%
CHIT	55%	50.8%	53.4%	6.4%	2.5%	5%

Source: Primary data.

Inference: Out of the 100 respondents, most of the respondents invested in (92.5%) Fixed Deposits. While, almost half of the total respondents invested (45.9%) in mutual funds. The least number of respondents invested (5%) in chit funds.

Table 3: Topmost objective while making investment in mutual funds

		Gender		Total
		Male	Female	
What is your topmost objective behind making investment in mutual funds?	Wealth creation	42.6%	51.7%	45.9%
	Tax saving	25.2%	22.9%	24.4%
	Earning income	23.3%	14.4%	20.0%
	Future expenses	8.9%	11.0%	9.7%
Total		100.0%	100.0%	100.0%

Source: Primary data.

Inference: Out of the 100 respondents, most of the respondents (45.9%) had wealth creation in their minds while investing in mutual funds while least number of respondents (9.7%) had future expenses in their minds while investing in mutual funds.

Table 4: Frequency of review of investment in mutual funds

	Review Frequency				Total
How frequently do you review your investment in mutual funds?	Quarterly	No specific time	Only when you have a financial emergency	Never	Total
	37.8%	56.9%	3.4%	1.9%	100.0%

Source: Primary data

Inference: Out of the 100 respondents, most of them (56.9%) had no specific time of review of investment in mutual funds while least number of respondents never (1.9%) reviewed their investment in mutual funds.

Table 5: Topmost source of gaining investment advice in mutual funds (in percentage)

In percentage		Gender		Total
		Male	Female	
Topmost source of gaining investment advice.	Newspaper	18.8%	20.3%	19.4%
	News channel	28.2%	26.3%	27.5%
	Family and friends	22.3%	19.5%	21.3%
	Internet	23.3%	23.7%	23.4%
	Financial advisors	5.5%	10.1%	8.6%
Total		100.0%	100.0%	100.0%

Source: Primary data

Inference: Out of the 100 respondents, most of them (27.5%) gained investment advice through news channels while least of them (8.6%) gained investment advice through financial advisors.

Table 6: Consultation while making investment in mutual funds (in percentage)

		Gender		Total
		Male	Female	
Whom did you consult while making investment in mutual funds?	Entirely by yourself	42.1%	38.1%	40.6%
	Consult your family	30.2%	28.8%	29.7%
	Consult your relatives	3.0%	5.9%	4.1%
	Consult wealth management or financial planning team	3.0%	4.2%	3.4%
	Both own decision and consulting family	6.4%	4.4%	5.6%
	Consult your friends	15.3%	18.6%	16.6%
Total		100.0%	100.0%	

Source: Primary data

Inference: Out of the 100 respondents, most of them (40.6%) made the investment decision entirely by themselves while least of the respondents (3.4%) consulted wealth management or financial planning team.

Summary of Findings and Conclusion

Mutual funds have recently gained popularity in the financial market. Mutual funds are only opted by approximately 50% of the respondents for investment. Wealth creation is the topmost objective for making investment in the mutual funds. Most of the respondents (56.9%) had no specific time of review of investment in mutual funds. News channels (27.5%) are the topmost source of gaining investment advice for making investment. Most of the respondents (40.6%) made the investment decision entirely by themselves. Investment is the essence of life. There is no individual who has not made any investment from his earnings. Every person has this innate urge to save and build a corpus for his/her future. With the variations in one's behavior, the choice of investment avenues also differs. Mutual funds are a great option for investment. But, it is very important for the investor to bear in mind the implications that different schemes have on his financial plan in different stages of life, and if required to seek the help of a financial planner too, as it will make the entire investment process a lot simpler and quicker. Mutual funds turn out to be a better investment avenue as compared to bank FD and RD both return-wise and tax-benefit wise. So, an investor in mutual fund can be said to be never in a loss if done prudently according to the life financial goal one has. The investors also have easy access to a large number of mutual fund agents and distributors in the market from where they can seek advice and make their financial decisions.

References

www.Moneycontrol.com. July 2, 2012, 12:10 PM, IST.

www.Moneycontrol.com. July 3, 2012, 4:11 pm, IST.

www.investopedia .com.

www.mutualfundssahihai.com .

www.investopedia.com,Nov 3, 2015, 12:21 PM, EST.

Sunil Dhawan (2016): "When investing in mutual funds, here is what you should know". ET Online, May,11, 2016, 5:34 PM, IST.

A Conceptual Study on Forensic Accounting in Indian Context

Md Sadam Ahamed

Research Scholar, Department of Commerce, Assam University Silchar

Rajat Sharmacharjee

Assistant Professor, Department of Commerce, Assam University Silchar

Abstract

Financial sectors are prone to frauds and scandals, these frauds are not easy to investigate or detect by traditional auditors or investigators. To investigate such frauds, special accounting technique is required i.e., forensic accounting. Forensic accounting is a technique which requires the application of accounting skill, auditing skill, investigative skills and other relevant skills. The term 'forensic' is literally means 'suitable for use in a court of law'. Forensic Accounting is helpful for detecting financial frauds and helps in the investigation of financial issue related. Forensic Accounting is not same as auditing because auditing is just a process of checking for the compliance of a company's book of account to GAAP (Generally Accepted Accounting Principles), Accounting Standards and also the company policies. Whereas, forensic accounting is the process of in-depth analysis of financial transactions to discover the true picture of financial transactions, also it helps in settling legal disputes; forensic accountant and its report is used as witness and evidence in court of law respectively. Forensic Accountants need to have a special skill and knowledge in financial investigation. This paper is an attempt to highlight the genesis and modus operandi of forensic accounting. The study also aims at identifying the problems of forensic accounting.

Keywords: *Auditing, Forensic Accounting, Investigative Accounting*

Introduction

Forensic accounting includes the process of understanding, detecting, identifying and communicating the fraud patterns and style to relevant authority, for enhancing investigation activity. Peterson O.K. (2015). Forensic accounting is the use of investigating techniques, accounting skills and auditing skills, to develop info and opinions to use as evidence by professional in court of law. Chilver (2000). Forensic Accounting is an application of accounting knowledge and techniques to solve legal financial problems. Dhar and Sarkar (2010). Forensic accounting helps in preparing evidences for court of law, which are importance to the banking sector. Forensic accounting may be one of the most efficient and effective ways to detect and prevent fraudulent acts in the financial institutions as it is mainly concerned with the evidence of accounting information and as a practical field concerned with accounting fraud, auditing and risk assessment for detection of financial mis-representation. Skousen and Wright, (2008).

Recently, forensic accounting has become an indispensable tool for financial investigation in India due to rapid increase in financial fraud and other white-collar crimes, and our law enforcement agencies do not have wide expertise or time to uncover such financial frauds. Some of the scams like Satyam, 2-G Spectrum, ABG banks fraud, Railgate scam, Tatra Truck scam, Chopper scam, PNB frauds and other frauds and scams in India has enhanced the scope and significance for forensic accounting. According to Report released by Transparency International, the Corruption Perception Index of 2018, India's rank stood at 78th among 180 countries.

Conceptual Framework

The general meaning of Forensic accounting is the use of accounting, investigation, and auditing skills to investigate fraud and embezzlement to analyze financial information for use in legal proceedings. Forensic accounting is a technique which requires the application of accounting skill, auditing skill, investigative skills and other relevant skills. The term 'forensic' literally means 'suitable for use in a court of law'.

Forensic accounting professionals should have the skill of quantifying and determining the damages and losses occurred in an entity. They have been using the basic skills of forensic investigation such as collection of data, preparation of data, presentation of data, analysis of data, summarizing and reporting of the finding. The tasks of the forensic accountants include examining of recorded data, analyzing of historical data, checking for irregularities in business transaction, checking in journal entries, identifying historical trend, tracing and tracking the flow of funds, communicating and interacting the relevant parties, identifying digital data and performing an overall evaluation. Also, the forensic accountant can act as a consultant or become an expert witness. Also, if the situation requires, they may collaborate and work with other experts.

Fraud: Fraud is an act of dishonesty with the organisation to gain personal benefits. It can be done by concealing the truth or by mislead the facts. Therefore, financial fraud in any organisation is more harmful than financial errors. Errors may be due to omission, commission, error of principle, compensating error or error of duplication. These errors may be intentional or unintentional, but fraud is an intentional act. Fraud may be of different types, some of most committed type of frauds are misappropriation in cash transaction; misappropriation in goods transit and manipulation in financial statement and accounts;

Beside these, as the development of advance technology, sophisticated tools are used for cyber frauds and other digital frauds. Due to use of sophisticated tools, it's not an easy task to detect such frauds by traditional auditors or accountants.

Auditing: Auditing is the process of verifying and checking of accounting information to identify the correctness and authenticity of accounting statements with the accounting standards and pre determined policies of the entity. Checking of financial information requires a careful identification of data provided to the auditors as evidence of recorded financial transactions. The auditor evaluates organization's financial data, that is, recorded vouchers, financial statements and financial transactions. Thus, the process of auditing is mainly required checking of data correctness, authenticity, and completeness of information to act as proof of financial transactions of an entity.

Forensic Accounting and Auditing: Forensic Accounting is not same as auditing because auditing is just a process of checking whether the entity has followed the proper recording and standard procedure while preparing account and financial statements. The standard procedures checked by auditors are such as; GAAP (Generally Accepted Accounting Principles), Accounting Standards and also the predetermined company policies. Whereas, forensic accounting is the process of in-depth analysis of financial transactions to discover the true picture of financial transactions, also it helps in settling legal disputes; forensic accountant and its report is used as witness and evidence in court of law respectively.

Distinction between forensic-accounting and auditing are given below:

Forensic-Accounting and Auditing

Basis	***Forensic Accounting***	***Auditing***
Meaning	It is an in-depth analysis and investigation is conducted for establishing a specific fact.	It is the process of verifying the book of accounts and financial statements of an entity and reporting on it.
Legal binding	Not compulsory	Compulsory under the Companies Act, 2013
Time	As per requirement	Annually
Performed by	Experts	Chartered Accountant
Nature of task	Critical and in-depth examination	General examination
Documents	It considers the audited accounts	It does not consider the audited or investigated accounts

Source: Compilation from different journals and books

Literature Review

Cendrowski at el. (2007) has defined "forensic accounting as a comprehensive form of fraud deterrence. According to them, Fraud deterrence is the proactive identification and removal of the causal and enabling factors of fraud. Fraud deterrence is based on the premises that fraud is not a random occurrence, fraud occurs where the conditions fit for it to occur. Deterrence of fraud targets the root causes of fraud and its enablers, this analysis helps to reveal the potential fraud opportunities, but it is performed on the premises that organizational procedures are improved to reduce or eliminate the factors of fraud is the best preventive measure against fraud". Bhasin, et al. (2007) worked on Forensic Accounting: A New Paradigm for Niche Consulting. In their study, it is found that the tasks of forensic accountants and its requirement are increasing mainly in the field of financial investigation, financial dispute settlement, and financial fraudulent and other relevant activities. Okunbor, et al. (2010) studied on the effectiveness of the forensic accounting. The study found that forensic accounting deployed in the organization of Nigeria is not effective to determine fraudulent activities. Ozkul, Pamukcu, et al. (2012) studied on Fraud Detection and Forensic Accounting. The study concluded that financial fraud includes: "the duplication or misrepresentation of financial records, voucher, or business transactions; intentional false recording, misrepresentation of events, transactions from which financial statements are prepared; knowingly misinterpretation and wrong application of accounting standard, principles, policies and methods used to measure, recognize, and report economic events and business transactions; intentional omissions and disclosures or presentation the use of aggressive accounting techniques such as illegitimate earnings management strategies; and the manipulation of accounting practices under rule-based or principle-based accounting standards that allows the organization to hide their economic performance". Ozili Peterson K (2015) studied the significance of forensic accounting. The study found that the importance of forensic accounting is increasing significantly in the field of financial investigation, fraud detection and prevention, also among academics.

Objectives of the Study

The objective of this study is to highlight the genesis and modus operandi of forensic accounting in India. The study also aims at identifying the problems of forensic-accounting.

Methodology of the Study

The nature of the study is based on exploratory and the source of data is exclusively based on secondary sources. Secondary-data are collected from different books, journals, newspapers, reports issued by GOI, RBI and research papers.

Genesis of Forensic Accounting in India

The word 'Forensic Accountant' was coined by Maurice E. Peloubet in 1946, but the forensic accounting can be traced back to ancient age. "The Archaeological findings reveal that, in Egypt during 3300-3500 BC; accountants were involved in the prevention and detection of fraud". Chakrabarti Manas (2014).

In India, Kautilya was considered to be the first person who mentioned about financial mis-appropriation and mis-representation in his famous book 'Kautilya Arthashastra'. Traditional auditors and experts were used in India to identify such misappropriation or fraud. Usually, the Chartered-Accountants are called upon to take up such investigative task. It is not suitable to continue this practice of assigning this task with chartered accountant due to increase in financial fraud and the use of sophisticated tools by the fraudsters, it is difficult to detect and prevent such fraud. To deal with such fraud, use of Forensic Accounting and training institute for Forensic Accountant should be developed in India. Forensic Accountants use the skills of auditing, investigating and accounting. After several financial scam and frauds, the significance of forensic accountant profession are highlighted in this field. As the general accountants or auditors are not efficient and effective to discover financial frauds and prevent it. The significance of forensic accountant can be cited with recent example of AGB shipyard fraud case, where the incident was unearthed by the forensic accounting firm.

Modus Operandi of Forensic Accounting

Forensic Accountant not only investigates the company accounts, but also reviews employee records, views the physical plant, interviews employees, monitors cash and inventory flows and uses various methods to determine how items in the financial statement of the company came to be. Forensic Accountant does not start his work suspecting every employee, but the chief suspect is a person who controls major transactions. The nature of fraud varies from company to company so therefore, there cannot be any standard method for Forensic Accounting.

The Forensic Accountant uses some tools and technique, such as:

1. Benchmarking: It is the process of comparison of financial data with the performance of different centre or organization units, also comparing the organization overall performance with its pre decided standards.
2. System Analysis: It is the analysis of whole system to identify weak spot or loopholes, which may be opportunities for the fraudster.
3. Data mining process: It is a systematic technique to analyze large volume of data to identify hidden information.
4. Ratio Analysis: It is the computation of data into ratio. Such as financial Ratios analyse which is helpful for the organization to identify its financial health, also it help to identify the financial mis-appropriation and frauds.
5. Specialist Software: Computer-Assisted-Auditing-Tools (CAAT) is a computer software which is use by an auditor in audit procedures.

Problems of Forensic Accounting in India

Though Forensic Accounting is an indispensable technique to detect and investigate financial frauds, it faces certain problem in its implementing in India:

1. Forensic Accounting field is in developing stage in India
2. There is lack of educated and trained forensic accountants.
3. If there is an involvement of politician in a financial fraud case, then it will be difficult to investigate such cases.
4. Due to new economic reforms of 1991, foreign investors have increased in India. It is difficult to proceed foreigners who involved in financial fraud.
5. Due to continuous development and adoption of new technology in financial fraud, it is difficult to investigate by forensic accountant.
6. As per Companies Act, 2013 the appointment of auditor is compulsory whereas Forensic Accountant is not compulsory in a Company.
7. Lack of specific guideline or legislation on forensic-accounting.

This branch of accounting lacks wide range of recognition in India. The work of Forensic-Accountants is undertaken by CA (i.e., Chartered Accountants), who usually take part in traditional auditing practices under the Companies Act, 2013. The C.A. or C.W.A’s are suitable to deploy in forensic accounting profession as they have acquired well knowledge and skills. Their skills can be enhanced by providing supplement qualification or diploma-degree with skills of investigation and Forensic-Accounting practices. However, due to increase in financial fraud cases, Govt. of India set up Serious-Fraud-Investigation-Office (SFIO) under Ministry-of-Corporate-Affairs. This step of the central government can be regarded as first step to recognize the importance of forensic accounting in India.

Suggestions

Some steps for the improvement of forensic accounting in India:

1. Reform judicial system and develop legislation or guideline for forensic accounting like auditing.
2. Develop skills and knowledge for forensic accountant. Conferences, seminars and training centres can be organized to improve the knowledge and skills of traditional-accountants in forensic issue.
3. Update academic curriculum, Higher education institution should integrate forensic accounting knowledge.
4. Like auditors, there should be mandatory process to recruit a forensic-accountant like company auditors in the public sectors companies.
5. There should be a regulatory body for forensic accounting like ICAI who regulate C.A in India.
6. Training institute should be developed for forensic accountants.

Conclusion

Forensic Accounting plays an important role for detecting financial frauds and preventing it. Forensic Accounting knowledge need to be improved in India. It should be integrated as part of Indian academic curriculum at undergraduate and post-graduate level. It will help in increasing the knowledge and awareness of forensic-accounting. And it will help to increase forensic accountants in the country. As a positive signal for forensic accounting profession in India, SEBI has come forward to support this technique and it created forensic-accounting division in its organization, which will help to deal with reliability of financial-information disclosed and to detect financial irregularities. Also, RBI has instructed the banks in India to follow forensic accounting technique while auditing.

References

Ahmed, M. H., Ahmed, R. A. & Hayder, O. K. (2018). The role of forensic accounting and its relationship with taxation system in Iraq. Academy of Accounting and Financial Studies Journal, 22(4).

Bhasin, M.L. (2007). Forensic accounting: A new paradigm for niche consulting. *The Chartered Accountant Journal*,1000-1010

Bhasin, M.L. (2008). Corporate governance and role of the forensic accountant. *The Chartered Secretary Journal*, 38(10), 1-14

Bhasin, M.L. (2016). Survey of creative accounting practices: An empirical study. *Wulfenia,* 23, 143-162.

Cendrowski H, Martin J.P. & Petro L.W. (2007). *The handbook of fraud deterrence*. New Jersey,USA: John wiley & Sons Inc.

Chakrabarti M. (2014). Problems and prospects of forensic accounting profession in India. *International Journal of Informative & Futuristic Research,* 2(1), 1-9.

Das S. (2012). Forensic accounting: A tool of detecting white collar crimes in corporate world. *Indian Journal of Research,* 1(2), 1-3.

Emma I., Okoye, & Akamobi, N. (2009). The role of forensic accounting in fraud investigation and litigation support. *The Nigerian Academic forum*, 17(1), 39-44.

Jugurnath, B., Bissessur, R., Ramjattan, Y., Soondrum, H. & Seedoyal, A. (2017). Forensic accounting and fraud investigation: An empirical study from Mauritius. *International Journal of Management and Applied Science*, 3(7), 1-5.

Lama, P. & Chaudhuri B. (2018). Forensic accounting: A study of its role in investigating corporate frauds and scams in India. *ICSTM*-18.

Odelabu A.T., Tabitha N., Willy M. (2016). The relationship between forensic accountants' skepticism and audit expectation gap among Nigerian money deposit banks. *Journal of Finance and Accounting,* 4(1), 9-17.

Rezaee, Z., Dorestani, A. & Aliabadi, S. (2018). Application of time series analyses in forensic accounting. *International Journal of Forensic Sciences*, 3(3), 1-11.

Simeunovic, N., Grubor, G. & Ristic, N. (2016). Forensic accounting in the fraud auditing case. *The European Journal of Applied Economics*, 13(2), 45-56.

Singh, P. (2012). Forensic accounting concept in India. *International Journal of Trade and Commerce*, 1(1), 100-105.

Simeunovic, N., Grubor, G. & Ristic, N. (2013). Integrated forensic accounting investigative process model in digital environment. *International Journal of Scientific and Research Publications*, 3(12).

Verma, R., & Singh, U. (2017). Barriers in the implementation of forensic accounting in India: An Analysis of Academicians' Perception. *Journal of Advance Management Research,* 5(5), 1-18.

Websites

http://www.researchgate.net

http://www.paperdue.com

http://abcacademies.org

http://www.scholar.utc.edu

http://www.shodhganga.inflibnet.ac.in

http://www.conferenceworld.in

Customer Satisfaction and its impact on Customer Loyalty: A Study on Grocery & Food Retail Chains in Kolkata

Diptendu Simlai

Assistant Professor, Department of Commerce, Dum Dum Motijheel Rabindra Mahavidyalaya, Kolkata

Abstract

The Indian Retail industry has gone through an astronomical amount of change particularly in the last five to ten years. This huge metamorphosis is distinctly visible once we see the small kiranas gradually getting replaced by huge super markets in the vicinity. This aspect is more visible particularly in the metros and tier one towns with a very huge population base. This study reveals that one of the main reasons for the customers to opt for these organized retail outlets was the availability of all their daily needs under one roof. The objective of this paper is to construct the framework of customer satisfaction and its impact on the customer loyalty in retail grocery sector. After selecting two retail chains in the city of Kolkata a survey had been conducted in 16 stores from diverse locations which might eventually lead to the generation of a holistic picture regarding the consumer behaviour.

Keywords: *Organised Retail, Satisfaction, Retail Chain, Grocery Sector, Loyalty.*

Introduction

The Indian retail sector has evolved to be one of the dynamic industrial sectors mainly due to the entry of a number of new players. It accounts for more than 10 per cent of India's Gross Domestic Product (GDP) and almost 8 per cent of the employment. India today is considered to be the fifth-largest global retail market in the world. According to the report - 'Retail 2020: Retrospect, Reinvent, Rewrite' published by Boston Consulting Group and Retailers Association of India, the overall retail market is expected to grow at 12 per cent per annum, modern trade would expand twice as fast at 20 per cent per annum and traditional trade at 10 per cent. Online retailing is expected to catch up with the physical stores within the next five years. India is expected to become the world's fastest growing e-commerce market, driven by robust investment in the sector and rapid increase in the number of internet users. According to some industry experts by 2025 India's e-commerce market is expected to have around 530 million shoppers with a gross merchandise value (GMV) of 220 billion US$. This growth had been possible due to the factors like - faster and reliable telecom networks, adoption of online services among the customers along with variety as well as convenience. According to the reports on Indian employment by the Economic Times, in the new future Retail Sector of India will come up to be the second biggest sector of employment after agriculture.

With the growth in family income levels where both the male and the female members had stepped out of home to earn and lead a better quality of life, their associated viewpoint and perception also changed a lot. Therefore, the average consumer started to think about shopping not only for necessity but also for pleasure. This change of consumer habits propelled the growth of Supermarkets and shopping malls in different parts of the country particularly close to the established and also growing urban pockets where the retailers could get a huge pool of ready customers who also had buying power (Bajaj, Tuli and Srivastava, 2005). Thus, people today who shop from this modern state of the art retail formats are not only well aware of their choices and preferences but they also expect high standards of service delivery which are at par with the international level.

Customer Satisfaction in Retail Sector

Customer Satisfaction is a complex phenomenon for both the marketers as well as researchers. Basically, it can be stated as a measure of how the products and services supplied by a company meets or surpasses customer's expectation. In today's competitive business scenario, the different retail organizations need to retain existing customers and also target new customers for their survival and growth. So, having a clear idea about this particular aspect has become indispensable for any retailer. Customer satisfaction provides a leading indicator of consumer purchase intentions and loyalty as well. With the growing popularity of organised retail sector in India, competition is also intensifying with every passing day. Here, each and every player is desperately fighting it out in the market with each other to maintain their existing client base and also adapting new measures and innovations to gain more customers. Competition in this sector has become multi-dimensional in the recent times. It might come from retail stores of similar types, price wars and discounts between the different retailers, special value-added service offers, special sales drive during the festive seasons and so on. The basic criteria of all these mentioned measures are to counter market competition and take the business forward and away from the ever-increasing aggressive tussle between the players. Today the different consumers are well educated, better informed, more sensitive and critical about the offered price-value relationships, more selective and more individualistic in their personal tastes and preferences than our previous generations. The boom in communication sector has also helped the customer with more news and information regarding any particular product or brand through different channels like advertising and media, peer groups and friends, market literature etc. Consequently, the shoppers today are very clear about what, when and how they want. While going for any buying decision the shoppers walk in to a retail point with certain expectations in mind and the quality-of-service delivery helps them to make a judgement on whether their perceptions and expectations have met, surpassed or mismatched negatively. It is always desirable that the customer perceptions and expectation should either meet or surpass in a positive way to make the customer satisfied or delighted. Else a dissatisfied or unhappy customer can prove to be extremely injurious to the development of a proper store image which might also have long term implications like loss of revenue, dwindling market share, erosion of customer base and damaged market reputation on part of the retailer.

Customer Loyalty in Retail Sector

Customer Loyalty is another extremely important aspect of the modern organised retail sector. It is a positive outcome of a structured and long-term marketing effort and satisfactory service delivery undertaken by the retailer to induce customers for exhibiting repeat purchase and thus building a long-term association. Customers revealing loyalty are consistently found to go for repeat purchase of certain products or brands over a long period of time. In this case they might choose to select a particular shop or buy one particular product or brand rather than selecting different shops and using different products and brands. Building a loyal customer base is of prime importance as it often leads to higher business growth considering the habit of loyal customers tending to bank more on the goodwill of a store or brand they already trust upon. The loyal customer base can be retained or the loyalty factor can be nurtured by the retailer using diverse strategies like rewarding the loyal customer, sending special messages or "thank you" notes, attending their queries and grievances with equal importance and on priority basis, try continuously to excel in the service delivery part and take special drives to over deliver in the service aspect, increasing the retailer's credibility and accessibility whenever and wherever needed, staying in constant touch with the valued customer, focussing on customers' comfort and convenience as the top priority, establishing a strong and efficient "Customer Grievance Cell", speak in the customers' language and showing a kind and caring attitude to the customer pool. These endeavours should be considered absolutely mandatory from the retailer's end to survive and excel in today's cut throat competitive environment which if applied properly and professionally will help the retailer not only to get the customer but also retain him for a lifetime.

Study of Existing Literature

Customer Satisfaction in Retail Sector

Zeithaml, Parasuraman and Berry (1993) proposed that customer satisfaction obtained from the assessment of service quality basically depends on a framework of three levels of customer expectations in the form of the service desired or wanted by the customer, the adequate service which the customers are ready to take and the predicted service which the customers expect or believe to be offered. Davis and Heineke (1998) tried to study the customers' satisfaction level with respect to the service waiting time in fast food retail sector. It revealed that for customers in general the actual and perceived waiting time along with the disconfirmation between expected and perceived waiting time are all inter-related and it influences the customers' satisfaction level at the service point. Gupta, McDaniel and Hearth (2005) proposed a model through their study that could have been helpful for judging the association between practices that nurture the Total Quality Service (TQS) philosophy and customer satisfaction. In the same year Forbes, Kelley and

Hoffman (2005) conducted a study on customer satisfaction in case of the people who are attuned to shop from e-retailers. This literature provides vital inputs on the strategies that the e-retailers should undertake to recover from their business slump and try to create tactics that help to increase the satisfaction level. Ubeja and Bedia (2011) revealed information about eleven factors that were extremely important with respect to the amount of satisfaction derived from shopping in the modern retail formats, the results showed a clear inclination on part of the younger consumers' preference to go for organized retailing as the activity of shopping today is more pleasure driven and recreational. Gupta, Dubey and Patani (2012) also carried out a study on the comparative levels of customer satisfaction obtained from unorganized and organized retail formats in the same geographical area. They opined that in a complex scenario like India both the traditional and modern retail formats can flourish and peacefully co-exist. Apart from that research also proposed that although modern retail is gaining popularity with leaps and bounds, however it will not be able to demean the importance of the unorganized retail sector. Dineshkumar and Vikkraman (2012) made a similar study in Erode district in south India and it showed that the modern customers are getting higher levels of satisfaction from the organized retail sector due to factors like better service quality, diverse range of products and brands, friendly retail personnel, bigger savings and comfortable shopping environment. It also showcases the reasons for which organized retail has become popular in metros and upcoming metros across the country. Another study undertaken by Rosita and Kumar (2014) also came up with similar viewpoints on the aspect of customer satisfaction in organized retail along with mentioning of certain parameters and operational yardsticks which the service providers need to focus on for augmentation of their services and enhancement of brand image. Sameera (2015) highlighted the importance and need of utmost customer satisfaction in organised retail sector considering the cut throat competition between the different players of the sector struggling amongst themselves for higher market share.

Customer Loyalty in Retail Sector

The importance of Customer Satisfaction in retail sector has already been discussed and explained by quite a number of researchers through their respective literatures earlier. It eventually leads to the subject of 'Customer Loyalty' which is the most important criteria for any business activity and more particularly for the service sector where an unhappy or discontented customer has plenty of options today to switch over to a new service provider with so many available options. Some of the existing literatures on this major area are being mentioned below for reference.

Beneke, Hobson and Mia (2012) conducted a study in South Africa where they tried to find out the influence of various service quality dimensions on customer loyalty of shoppers from the supermarkets. The study showed that for shoppers in that region, the retailer must focus on clean shopping premises, orderly and systematic store layout and friendly attitude from the store personnel with frequent training exercises if needed. Kumar and Gopinath (2012) tried to find out the factors that influence the loyalty level of customers in retail stores across Hyderabad region. Here, factors like store location, price perceptions etc. did not have much influence on store loyalty, however some other factors like store image, value and trust perceptions were found to be significant determinants of retail store loyalty. Li et al. (2012) through their research endeavour undertaken in Taiwan had established that customer relationship, price deals, shopping frequency, easy accessibility and product assortments of different prices to suit every pocket were some of the key features that control customer loyalty. Sasikala (2013) revealed that Age, Marital Status and Income had an association but Education did not have that much influence on Customer Loyalty. Afande and Kang'arua (2015) had studied the factors influencing customer loyalty in the supermarkets across Nyeri town in Kenya. They opined that repetitive service dealings between the customer and retailer develops a condition of trust and commitment to the service provider. Other factors like store image, switching costs, choices & preferences and market competition also plays a vital role at times. Waal and Heijden (2016) highlighted on the behavioural aspect of the company personnel that influences the customer loyalty factor. The study showed that - high performance levels, customer intimacy, congenial store atmosphere and friendly attitude from store personnel are having significant influence on customer loyalty.

Research Gap

The earlier studies obtained from available literature have shown a considerable amount of work has been done in the retail sector by some earlier researchers in other states and cities of India. However, not much work has been done regarding the factors like satisfaction and loyalty of customers from the so-called organized retail stores in the context of West Bengal in general and Kolkata in particular. This study had therefore been conducted to focus on the aspects of customer satisfaction and consequently finding the impact of satisfaction on customer loyalty in some prominent retail outlets within the city of Kolkata.

Objective of the Study

The main objective of the proposed research work is to construct the framework of customer satisfaction and its impact on the customer loyalty in retail sector.

Scope of the Study

This study had therefore been conducted to focus on the demographic attributes that are influencing consumers' brand preferences while they are buying their daily needs like groceries and food items from the organised retail outlet. Apart from that the study also focuses on identification of the key service dimensions that are considered to be prime in case of organised retail and how these dimensions are impacting or influencing the aspects of Satisfaction and Loyalty for an existing customer. Finally, on a critical analysis of the Service Gap Index the researcher makes an endeavour to highlight on those areas of service on which the retailer needs to focus for improving and augmenting his service.

The study had been conducted on a pool of 240 respondents across 16 different outlets from two of the popular retail chains - Big Bazaar and Spencer's only within the city of Kolkata. The entire exercise of data collection, study and analysis had been done during the period of 2018-19.

Research Methodology

The proposed study had been focussed on customers who visit the outlets of organised retail players spread across different parts of Kolkata for procuring their daily needs. Among the large retail players who are thriving well in the Kolkata grocery and food retail market, some of the most popular brands are *Big Bazaar* from the Future Retail Group, *Spencer's Retail* from RP-Sanjiv Goenka Group, *More* from Aditya Birla Group and *Reliance Fresh* from Reliance Retail. Among them Big Bazaar is having 15 outlets in the city, Spencer's maintains 18 outlets, More has 11 outlets and Reliance has 10 stores in different parts of the city. It is quite clear that by sheer number of operating outlets Big Bazaar and Spencer's together take care of almost 60 % of the entire market. Hence, this study had primarily been confined to the customers of two major retail players Big Bazaar and Spencer's only. To eradicate the problem of locational bias, respondents had been chosen from the outlets of Big Bazaar and Spencer's from diverse locations which might eventually lead to the generation of a holistic picture regarding the consumer behaviour of the customers shopping from these retail chains.

Sampling Plan

This research work had been focussed on the customers of the organised retail sector particularly in grocery sector only. Among the Big Bazaar Retail outlets and Spencer's Retail outlets, eight (8) stores each had been selected for data collection. From each of these stores 25 customers had been selected by "Mall Intercept Model" and they have been given a pre-framed set of questionnaires for the research purpose. In this case every 5th customer leaving the retail outlet had been selected for interaction. Out of the 200 customers approached from the selected Big Bazaar outlets, only 127 properly filled questionnaires had been received back with all the adequate information. Out of 200 approached customers from the selected 'Spencer's' outlets, only 113 properly filled questionnaires had been received back with all the adequate information. Thus, a total pool of "240" respondents had been taken as a sample for the course of this study.

Sample Selection

For the study, every 5th customer leaving the retail outlet had been selected for interaction and the technique used for the customer interaction was by "Mall Intercept Model". In this kind of quantitative research technique, the researcher had intercepted every fifth customer leaving the outlet and thereafter interacted with him or her in the retail premises to gather the requisite data needed for conducting the study.

Sampling Method

Here, the researcher had chosen to work on only two of the most popular retail outlet chains thus the focus had been on that part of the population only who shop from either Big Bazaar or Spencer's. Thereafter, the researcher had used Simple Random Sampling method for the sample selection at the store level. In this case there are plenty of customers shopping from a retail point at one particular point of time and their probable time of exit from the retail counter is not pre-decided. Any member from the customer pool who have gathered at the outlet for shopping can leave any time and everyone thus stands to have an equal chance to get selected as a sample unit. Here, every 5th customer leaving the retail outlet can be anybody from the assembled group of customers so every individual shopper can be chosen to be a part of the sample. In this way by choosing every fifth customer who is leaving the retail premises had been approached and a total number of 25 such customers had been selected from each outlet. With 8 retail points or outlets from each of the two respective retail brands a total pool of {(25) Customers x (8) Outlets x (2) Retail Chains}= 400 Customers had been approached for conducting the survey. After this, each member of the selected 400 individuals had been given a set of pre-framed questionnaire for collating their valued response.

Sample Size

Out of the 400 questionnaires distributed among the 400 individuals selected to be a part of the sample, it was observed that only 127 respondents from the Big Bazaar outlets had provided complete information according to set of questions. Among the customers selected from Spencer's only 113 individuals had finished the complete exercise of the given questionnaire. Thus, a total sample of {(127) + (113)} = 240 respondents had been attained whose views and responses had been instrumental in gaining vital information for this research work.

Formulation and Testing of Questionnaire

In case of this proposed research work the questionnaire had been framed by referring some earlier researches and then fine tuning it further with the help of inputs from the guide as well as few industry experts. After the framing of questionnaire, the same had been pretested by conducting a pilot survey on 25 respondents who had provided a first-hand impression about the efficacy of the framed set of questions. The obtained responses not only provided a trend about the response pattern of the individuals but it also helped to examine various important aspects of the questionnaire like its content, the sequence of questions, the structure, layout etc. Basically, on a broader sense it provided an idea if the questions asked had been systematic and comprehensive. Based on the responses the questions had been fine-tuned and refined further with the help of academic experts which ultimately assisted to create the reframed set of questions for the final pool respondents.

Statistical Tools and Techniques

After the collection of data from the filled-up questionnaires received from the respondents, the entire information had been processed through SPSS statistical software package (Version 21) to go through a detailed analysis of the obtained data in constructing the framework of customer satisfaction and finding its impact on the customer loyalty aspect had been done by *Multiple Regression Analysis.*

Data Analysis & Interpretation

Table 1: Factors representing Service Delivery Dimensions

Factors	Variables	No of Items	Cronbach's alpha
Store Physical Aspects	V1, V2, V3	3	0.944
Store Reliability	V5, V6, V7, V8	4	0.925
Customer Grievance Handling	V9, V10, V11, V12	4	0.903
Store Policy	V14, V16	2	0.683

The derived factors represent different dimensions of Service delivery that leads to customer satisfaction from the original 16 scale response items given. Referring to above Table 1, it is evident that people associate the perception of satisfaction to these different factors:

(i) Store Physical Aspects
(ii) Store Reliability
(iii) Customer Grievance Handling and
(iv) Store Policy.

Impact of Attributes of satisfaction on Overall Customer Satisfaction

Table 2 provides the R and R^2 values. The R value represents the simple correlation and is 0.937, which indicates a high degree of correlation. The R^2 value indicates how much of the total variation in the dependent variable, Customer Satisfaction, can be explained by the independent variables, (i) Store Physical Aspects (ii) Store Reliability (iii) Customer Grievance Handling (iv) Store Policy. In this case, 87.8% can be explained, which is very large. The Durbin-Watson value determines the presence of autocorrelation within the model. Since the value is between the range of 1.5 - 2.5 it indicates no autocorrelation in the model.

Table 2: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.937[a]	.878	.876	.21790	1.989

Table 3 is the ANOVA table, which reports how well the regression equation fits the data (i.e., predicts the dependent variable) and is shown below:

Table 3: ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	80.809	4	20.202	425.488	.000[a]
	Residual	11.205	236	.047		
	Total	92.014	240			

a. Predictors: (Constant), F4 (Store Policy), F3 (Customer Grievance Handling), F2 (Store Reliability), F1 (Store Physical Aspects)
b. Dependent Variable: CS

Table 3 indicates that the regression model predicts the dependent variable significantly well, thus indicating the statistical significance of the regression model. Here, p is < 0.0005, consequently being less than 0.05 also. This indicates that on an overall basis, the regression model statistically and significantly predicts the outcome variable (i.e., it is a good fit for the data).

Table 4: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.289	.125		2.317	.021		
	F1 (Store Physical Aspects)	.664	.028	.763	23.484	.000	.488	2.048
	F2 (Store Reliability)	.162	.029	.167	5.517	.000	.565	1.770
	F3 (Customer Grievance Handling)	.097	.025	.104	3.944	.000	.743	1.347
	F4 (Store Policy)	-.010	.024	-.010	-.413	.680	.968	1.033

a. Dependent Variable: CS

From table 4 we can infer that the factors Store Physical Aspects, Store Reliability and Customer Grievance Handling significantly contribute to the model but the factor Store Policy is not significant and so is not included in the model for explaining the dependent variable Customer Satisfaction. The Variance Inflation Factor for all the predictor variables is less than 2 which indicates no multi-collinearity in the model. For the factor Store Physical Aspects it is marginally above 2 that indicates very low multi-collinearity and is included in the model.

The Final Regression Equation can be expressed as:

Customer Satisfaction = 0.763 * Store Physical Aspects + 0.167 * Store Reliability + 0.104 * Customer Grievance Handling

The above equation indicates the contribution for Store Physical Aspects is higher in predicting Customer Satisfaction.

Impact of Customer Satisfaction on Customer Loyalty

Overall Customer Loyalty is explained by Customer Satisfaction. The table 5 below indicates about 75% of the total variance in Customer Loyalty is explained by the Customer Satisfaction, which is very large. The Durbin-Watson value is between the range of 1.5 - 2.5 it indicates no autocorrelation in the model.

Table 5: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.865[a]	.748	.747	.36455	1.585

Table 6 shows how well the regression equation fits the data (i.e., predicts the dependent variable). It indicates that the regression model predicts the dependent variable significantly well. Here, $p < 0.0005$, which consequently is lesser than 0.05, indicates that in an overall manner the regression model statistically and significantly predicts the outcome variable (i.e., it is a good fit for the data):

Table 6: ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	94.087	1	94.087	707.951	.000[a]
	Residual	31.763	239	.133		
	Total	125.850	240			

a. Predictors: (Constant), CS

b. Dependent Variable: CL

From table 7 it can be inferred that Customer Satisfaction significantly contributes to the model. Customer Loyalty is highly correlated to Customer Satisfaction.

Table 7: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.022	.148		-.148	.882		
	CS	1.011	.038	.865	26.607	.000	1.000	1.000

Dependent Variable: CL

The Final Regression Equation can be expressed as:

Customer Loyalty = 0.865*Customer Satisfaction and the model is 75% fit.

Conclusion

From the Regression Analysis performed during the course of the study, it has been observed that the R^2 value in the model is having a value of .878 which indicates that that 87.8% of the dependent variable, Customer Satisfaction, can be explained by the independent variables, (i) Store Physical Aspects (ii) Store Reliability (iii) Customer Grievance Handling (iv) Store Policy.

The Regression Model reveals that the respective values or coefficients against the service quality dimensions - (i) Store Physical Aspects (ii) Store Reliability (iii) Customer Grievance Handling and (iv) Store Policy are: 0.763, 0.167, 0.104 and -0.010 respectively. So, it can be inferred that the factors Store Physical Aspects, Store Reliability and Customer Grievance Handling significantly contribute to or impacts on the model but the factor Store Policy is not significant and so is not included in the model for explaining the dependent variable Customer Satisfaction.

From the Regression Analysis performed during the course of the study, it has been observed that the R^2 vale in the model is having a value of .748 which indicates that that almost 75% of the dependent variable, Customer Loyalty, can be explained by the independent variable, Customer Satisfaction.

The Regression Model reveals that the respective value or coefficient against the Customer Satisfaction is 0.865. So, it can be inferred that Customer Satisfaction significantly contributes to or impacts on the factor Customer Loyalty.

References

Afande, F. O., & Kang'arua, J. (2015). Factors affecting customer loyalty of supermarkets in Nyeri town, Kenya. *Journal of Marketing and Consumer Research*, 11(2), 1-13.

Aleda, V. R., & Velde, M. V. (1991). Operations as marketing: A competitive service strategy. *Journal of Operations Management*, 10(3), 303-328.

Ali, M. S., & Raja, M. (2014). An analysis of consumer perception towards retail brands in big bazaar, Chennai. *Indian Journal of Applied Research*, 4(2), 1-3.

Arora, R., & Anderson, C. H. (1995). Customer satisfaction in the property and casualty Automotive Insurance Industry. *Journal of Customer Service in marketing and Management*, 1(1), 115-129.

Babakus, E., & Boller. G. W. (1992) An empirical assessment of the SERVQUAL scale. *Journal of Business Research*, 24(3), 253-268.

Babakus, E., Bienstock, C. C., & Van Scotter, J. R. (2004). Linking perceived quality and customer satisfaction to store traffic and revenue growth. *Decision Sciences*, 35(4), 713-725.

Beneke, J., Hobson, R., & Mia, Z. (2012). Examining the effect of retail service quality dimensions on customer satisfaction and loyalty: The case of the supermarket shopper. *Research Journal - Acta Commercii*, 27-43.

Berry, L. L., & Parasuraman, A. (1992). Prescription for a service quality revolution in America. *Organizational Dynamics*, 13(4), 5-15.

Bhatt, A., & Bhanawat, D. S. (2016). Service quality in retail - A literature review. *International Journal for Research in Business, Management and Accounting*, 2(3), 2735.

Boshoff, C., & Tait, M. (1996). Quality perceptions in the financial services sector: The potential impact of internal marketing. *International Journal of Service Industry Management*, 7(5), 05-31.

Brown, S.W., & Swartz, T.A. (1989). A gap analysis of professional service quality. *Journal of Marketing*, 53(4), 92-108.

Buttle, F. (1996). SERVQUAL: Review, critique, research agenda. *European Journal of marketing*, 30(1), 8-32.

Carman, J. M. (1990). Consumer perceptions of service quality: An assessment of the SERVQUAL dimensions. *Journal of Retailing*. 66(2), 33-55.

Choudhary, S. (2014). Organised retailing - The pathway in India. *International Journal of Research in Engineering, IT & Social Sciences*, 4(8), 15-29.

Chow-Chua, C., & Komaran, R. (2002). Managing service quality by combining voice of the service provider and voice of their Customers. *Managing Service Quality*, 12(2), 77-86.

Chowdhary, N., & Prakash, M. (2007). Prioritizing service quality dimensions. *Managing Service Quality*, 17(5), pp. 493-509.

Chowdhury, M. K. (2016), FDI in Indian retail sector: An analysis. *International Journal of Application or Innovation in Engineering & Management*, 5(4), 9-13.

Cronin, J. J., & Taylor, S. A. (1994). SERVPERF versus SERVQUAL: Reconciling performance-based and perceptions-minus-expectations measurement of service quality. *Journal of Marketing*, 58(1), 125-131.

D. Jain, & M. Talreja, (2013). Changing consumer perception towards organised retailing from unorganised retailing - An empirical analysis. *International Journal of Marketing, Financial Services & Management Research*. 2(6), 73-85.

Daniel, P., Kumar, P. V., & Narayana, M. S. (2016). An empirical study on customer preferences and buying patterns towards organised retailing. *International Journal of Commerce and Management Research*, 2(5), 1-4.

Davis, M. M., & Heineke, J. (1998). How disconfirmation, perception and actual waiting times impact customer satisfaction. *International Journal of Service Industry Management*, 9(1), 64-73.

Dutta, S., & Deb, D. (2013). Restructuring of Indian retail panorama: A candid amalgamation of kirana & organised retail formats. *Indian Journal of Management Science*, 3(1), 84-89.

Edvardsson, B. (2005). Service quality: beyond cognitive assessment. *Managing Service Quality*, 15(2), 127-131.

Forbes, L. P., Kelley, S. W., & Hoffman, K. D. (2005). Typologies of e-commerce retail failure recovery strategies. *The Journal of Services Marketing*, 19(5), 280-287.

Gabbott, M. (2000). An empirical investigation of the impact of non-verbal communication on service evaluation. *European Journal of Marketing*, 34(4), 384-398.

Ghoshal, M. (2014). Impact of foreign direct investment on unorganised retail sector of India: A research report. *The SIJ Transactions on Industrial, Financial & Business Management*, 2(1), 1-8.

Goel, B., & Dewan, B. (2011). Factors affecting consumer's preferences of shopping from organised retail stores in Punjab. *Journal for Engineering, Science and Management Education*, 4(2), 44-49.

Gupta, A., McDaniel, J. C., & Hearth, S. K. (2005). Quality management in service firms: sustaining structures of total quality service. *Managing Service Quality*, 15(4), 389-402.

Gupta, H., Dubey, N., & Patani, P. (2012). Effect of organised retail on unorganised retail in Indian retail market. *Research Journal of Management Sciences.* 1(1), 7-13.

Gupta, S., & Singal, R. (2012). A shifting paradigm of consumer preference for organised retail outlets: A case study of Hisar city. *International Journal of Computing and Business Research*, 3(3), 20-36.

Gupta, S., Kim,H. & Sharma, M. (2011). Customer switching to organized retail in semiurban markets: A study in an Indian context. *Journal of International Consumer Marketing*, 23(2), 314-328.

Hosseini, Z., Sreenivasan, J., & Chinnasamy, M. (2014). Store image and its effect on customer perception of retail stores. *Asian Social Science Journal*, 10(21), 223-235.

Jackson, W. E., Nandakumar, P., & Roth, A. V. (2002). Market structure, consumer banking. optimal level of service quality. *Review of Financial Economics*, 12(1), 49-62.

Jain, S. K., & Gupta, G. (2004). Measuring service quality: SERVQUAL vs. SERVPERF scales, *Vikalpa,* 29(2), 25-37.

Jih, W. K., Lee, S., & Tsai, Y. C.(2007). Effects of service quality and shared value on trust and commitment: an empirical study of 3cs product customers in Taiwan. *International Journal of Business Studies*, 15(2), 83-95.

Johnston, R., & Heineke, J. (1998). Exploring the relationship between perception and performance: Priorities for Action. *The Service Industries Journal*, 18(1), 101-112.

Jose, A., & Castelo, P. (2000). An empirical examination of the antecedents of customers of loyalty in retail banking in Spain. Universidad Compultense de Madrid, Spain, 1-15.

Kesari, B., & Atulkar, S. (2014). A review of customer preference towards organized retail stores. *IRC's International Journal of Multidisciplinary Research in Social and Management Sciences,* 2(3), 24-28.

Kumar, M. V., & Gopinath, M. (2012). Influencing factors on retail stores - A case study of twin cities in Andhra Pradesh. *International Journal of Marketing and Technology,* 2(7), 238-254.

Kumar, P., & Kavita, S. (2016). A journey of growth of FDI in Indian retailing. *International Journal of Social Sciences and Management,* 3(2), 129-134. 42.

Kumar, S., & Ahmad, F. (2007). Need of changing lifestyle of customer through high performance retail. *Asian Mirror - International Journal of Research,* 1(3), 56-63.

Kumar, U. D., & Vikkraman, P. (2012). Customers' satisfaction towards organized retail outlets in Erode City. *IOSR Journal of Business and Management (IOSRJBM),* 3(4), 34-40.

Kusuma, B., Prasad, N. D., & Srinivasa Rao, M.(2013). A study on organised retailing and its challenges and retail customer services. *Innovative Journal of Business and Management,* 2(5), 97-102.

Lanjewar, J. (2014). Study of customer perception towards big bazaar. *Abhinav National Monthly Refereed Journal of Research in Commerce & Management,* 3(12), 38-42.

Li et al. (2012). Customer loyalty: Influences on three types of retail stores' shoppers. *International Journal of Management and Marketing Research,* 5(1), 1-19.

Malik, N. S. (2015). Store image attributes affecting retail shopping preference : An empirical study. *Journal of Advances in Business Management*, 1(3), 237-246.

McKechnie, D. S., Grant, J., & and Bagaria, V. (2007). Observation of listening behaviours in retail service encounters. *Managing Service Quality*, 17(2), 116-125.

Mei, A. W., Dean, A., & White, C. J. (1999). Analysing service quality in the hospitality industry. *Managing Service Quality*, 9(2), 136-143.

Munoz, J. M., Dianne, P. R., & Welsh, H.B. (2006). Retail service quality expectations and perceptions among Philippine small/medium enterprises. *Journal of Developmental Entrepreneurship*, 11(2), 145-147.

Parasuraman, A. (2002). Service quality and productivity: a synergistic perspective. *Managing Service Quality*, 12(1), 6-9.

Parasuraman, A., Zeithmal, V. A., & Berry, L. L. (1993). The nature and determinants of customer expectations of service. *Academy of Marketing Science*, 69(1), 415-420.

Prasad, A. P. (2016). Retail landscaping in india challenges and strategies. *International Journal in Management and Social Science*, 4(11), 24-34.

Raja, V. A. (2015). A study on consumer behaviour towards big bazaar, Chennai. *International Journal of Management* (IJM), 6(7), 01-09.

Rajasekar, D. (2013). Consumer preference towards organized retailing purchase at big bazaar, Vadapalani: An analysis. *International Journal of Scientific Research*, 2(10), 1-3.

Robledo, M. A. (2001). Measuring and managing service quality: integrating customer expectations. *Managing Service Quality*, 11(1), 22-31.

Rosita, S., Kumar, E. A. (2014). Customers' perception & satisfaction in organised retail sector in India. *International Research Journal of Management & Commerce*, 1(5), 19-28.

Sameera P. (2015). A study on the customer satisfaction in the organised retail outlets. *EPRA International Journal of Economic and Business Review*, 3(1), 238-244.

Sasikala, D. (2013). Impact of demographics on service quality, customer satisfaction and loyalty in the Indian Banking sector in Vellore district. *Asia Pacific Journal of Marketing & Management Review*, 2 (6), 102-116.

Schneider, B., Parkington, J.J., & Buxton, V.M. (1980). Employee and customer perceptions of service in Banks. *Administrative Science Quarterly*, 25(2), 252-267.

Selvaraj, U. (2015). A study on consumer perception towards private labels in organized retail stores. *Paripex - Indian Journal of Research*, 4(7), 382-384.

Shashikala R., & Gangatkar, A. (2015). A study on comparative analysis of consumer perception towards supermarkets and provision stores in Bangalore. *International Journal of Engineering and Management Sciences*, 6(3), 149-154.

Sikri, S., & Wadhwa, D. (2012). Growth and challenges of retail Industry in India: An analysis. *Asia Pacific Journal of Marketing and Management Review*,1(1), 1-14.

Singh, A., & Agarwal, P. K. (2012). Study on shifting consumer preferences from unorganised retailing vis-a-vis to organised retailing in Noida. *Bookman International Journal of Accounts, Economics & Business Management*, 1(2), 69-79.

Svensson, G. (2004). Interactive service quality in service encounters: empirical illustration and models. *Managing Service Quality*, 14(4), 278-287.

Thomas, D. (1978). Strategy is different in service business. *Harvard Business Review*, 56(4), 158-165.

Tih, S., & Ennis, S. (2006). Cross-industry analysis of consumer assessments of internet retailers' service performances. *International Journal of Retail & Distribution Management*, 34(5), 290-318.

Ubeja, S. K., & Bedia, D. D. (2011). A study of customer satisfaction from organised retailing (with reference to Indore city). *Prestige International Journal of Management and Research*, 4(2), 1-9.

Voon, B. H. (2006). Linking a service driven market orientation to service quality. *Managing Service Quality*, 2006, Volume: 17(6), pp. 595-619.

Waal, A., & Heijden, B. V. (2016). Increasing customer loyalty and customer intimacy by improving the behaviour of employees. *Journal of Strategy and Management*, 9 (4), 74. 492-510.

Wong, A., & Sohal, A. (2003). Assessing customer-salesperson interactions in a retail chain. Differences between city and country retail districts. *Marketing Intelligence & Planning*, 21(5), 292-304.

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