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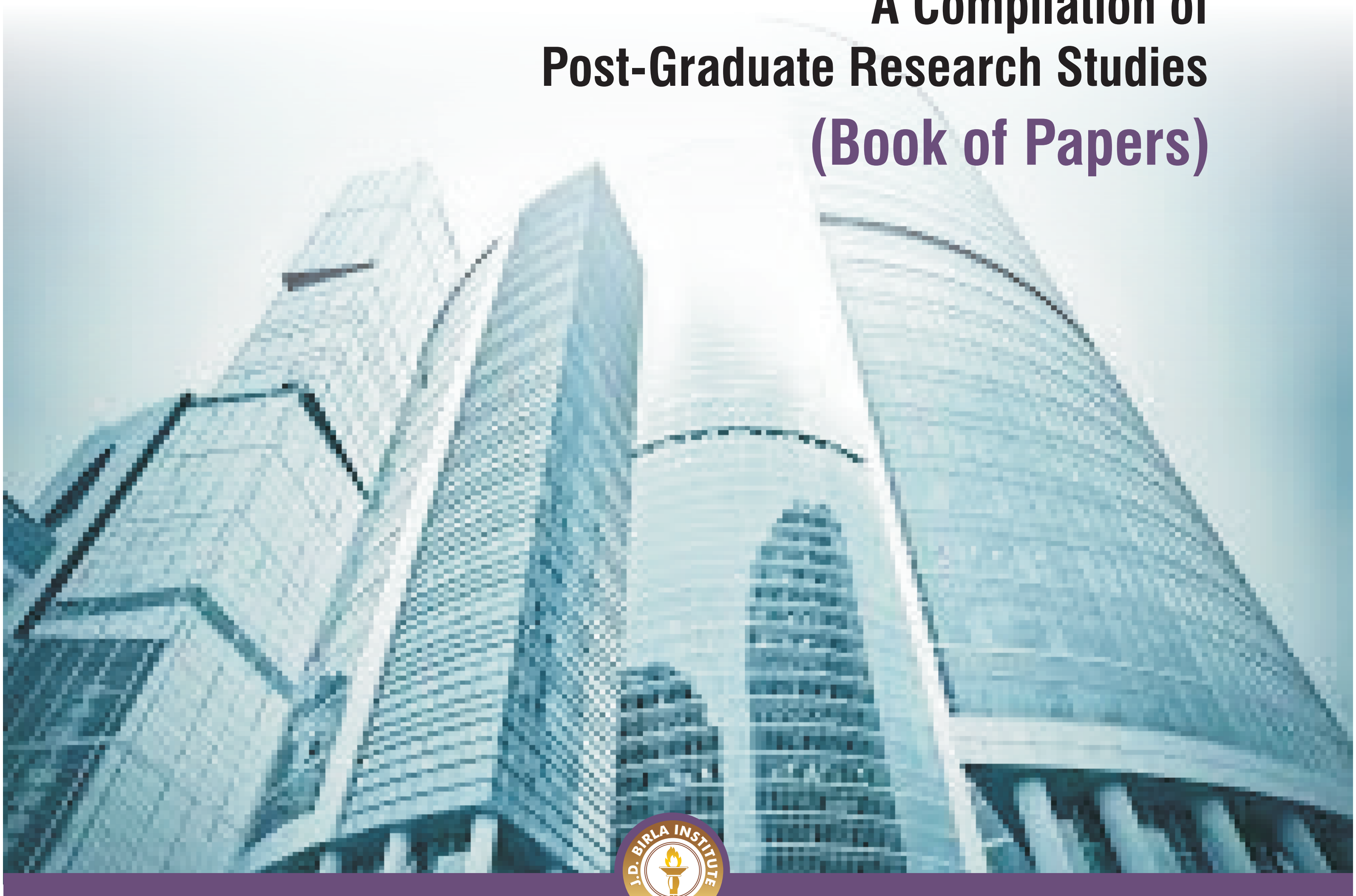

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Department of Commerce

11, LOWER RAWDON STREET, KOLKATA - 700020

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Financial Performance Evaluation of the Construction Industry in India

Tanushree Shah and Basudha Mukhopadhyay

Abstract

The top five companies from each of the three sectors- Housing, Civil and Real Estate are selected as per Market Capitalisation. The paper aims to Evaluate the Financial Performance of the Indian Construction Industry by comparing and ranking companies sector wise and year wise by the factors Net Sales, Total Revenue, Total Expenses and Net Profit. By the use of ANOVA it is determined whether there is significant difference between the sectors in the terms of Liquidity, Leverage, Efficiency and Profitability. A Performance Index is formulated by calculating the Economic, Industrial and Company Performance Score. The scores are calculated with the help of Regression Model. The Company Score is also calculated using Factor Analysis. After obtaining the three scores Performance Index was formulated. Altman's Z-Score Model shows which companies are in distress or in possibility of Bankruptcy. From the fifteen companies, five companies are in the safe zone. This study shows that construction industry has improved over the years but has not progressed in the last financial year.

Keywords: ANOVA, Construction Industry, Factor Analysis, Performance Index, Regression, Z-Score

Introduction

The construction industry is the second largest industry in India after agriculture. It accounts for about 11% of India as GDP. It makes significant contribution to the national economy and provides employment to large number of people. Construction is an essential part of any country's infrastructure and industrial development. Construction industry has its backward and forward linkages with various other industries like cement, steel bricks etc. catalyses employment generation in the country. Broadly construction can be classified into 3 segments which are Infrastructure, Industrial and Real Estate. The Construction Industry as per the Indian Stock Exchange is divided into three sectors: Civil Sector, Housing Sector and Real Estate Sector. Sharma, N (2002)(1) in his Study on financial appraisal of cement industry in India, has found that the liquidity position was decreasing, current ratio and quick ratio showed a decreasing trend and also these ratios varied from time to time. On comparing the current ratio and quick ratio of cement industry, six companies were found higher than the industry average and four companies lower than industry average. The solvency position in term of debt-equity ratio has showed a decreasing trend in the first 4 years of study, after that, it registered an increasing trend. The ratio of fixed assets to total debt always showed more than 100% which indicated that claims of outsiders were covered by the fixed assets of the cement companies.

Sindhasha A, Basheer K (2012)(2) believe that the Liquidity and Profitability are the pre-requisite for the survival of every firm or company. The Finance Manager is always faced with the dilemma of liquidity Vs. profitability as these two concepts conflict in most of the financial decisions. So the Finance Manager has to watch the relationship between operating risk and profitability of a company. The correlation between efficiency and profitability was the highest in this company which shows a high degree of positive correlation. Study shows that the overall performance of India Cements Limited has been quite satisfactory during the study period with certain variations like adverse economic conditions and competition

Rajasekhar, R (2017)(3) says that the Companies in the business of Construction have been impacted with various economic crises. The author takes 100 companies for the time period of 5 years. The main objective of this study is to develop the performance index that evaluates a company's financial current study and financial position within the construction industry considering the economic factors and company size. Authors concludes the performance grades of the Indian construction industry shows 45% companies in safe zone, 5% of companies in Distress zone and remaining 55% companies under grey zone.

Methodology

Sample Size: A Total of Fifteen Companies are selected for financial comparison of the Construction Industry. The Companies selected were on the basis of Market Capitalisation on 17 March, 2019. There are continuous fluctuations but for the purpose of research, those fluctuations are not considered and it is believed that the selected 15 companies as shown in Table 1 remain the Top Companies for the time period.

Table 1: The Selected Companies for analysis of the Construction Industry

Name of the Company	Sector
DLF Real Estate Corporate Company India (DLF)	Real Estate
Godrej Properties (GODREJ)	
Housing and Urban Development Corporation Ltd (HUDCO)	
Indiabulls Real Estate (INDIABULLS)	
Prestige Estate Projects Ltd. (PRESTIGE)	
Gayatri Projects Ltd. (GAYATRI)	Housing
KNR Constructions Ltd. (KNR)	
Ashoka Buildcon Ltd. (ASHOKA)	
NCC Ltd. (NCC)	
Dilip Buildcon Ltd. (DILIP)	
Ashiana Housing Ltd. (ASHIANA)	Civil
Ganesh Housing Corporation Ltd. (GANESH)	
Peninsula Land Ltd. (PENINSULA)	
Ansal Properties And Infrastructure (ANSAL PROP)	
Ansal Housing Ltd. (ANSAL HOUSING)	

Source: Compiled and made by the Author

Duration: Data has been collected for a period of Five Years that is from the Financial Year (FY) 2013-14 to FY 2017-18.

Data Collection Method: Secondary Method has been used. Authorised website like www.moneycontrol.com has been used to select the companies according to Market Capitalisation. In order to collect authentic data of the selected companies, all required information used for analysis has been obtained from Annual Reports of respective companies. Data has been taken from the official websites of respective companies to collect accurate information and remove the possibility of having false or fabricated information.

Hypothesis: To explain the First Objective of the study, second part, following hypotheses are taken to measure whether is any difference between the sectors in the four important criteria-

Hypothesis for Liquidity- Current Ratio:

H_{0a} = There is NO SIGNIFICANT difference between the 3 sectors in terms of Current Ratio. Against

H_{1a} = There is SIGNIFICANT difference between the 3 sectors in terms of Current Ratio.

Hypothesis For Leverage- Total Debt/Equity Ratio

H_{0b} = There is NO SIGNIFICANT difference between the 3 sectors in terms of Total Debt/ Equity Ratio.

Against

H_{1b} = There is SIGNIFICANT difference between the 3 sectors in terms of Total Debt/ Equity Ratio.

Hypothesis For Profitability- Return On Asset Ratio (ROA)

H_{0c} = There is NO SIGNIFICANT difference between the 3 sectors in terms of ROA. Against

H_{1c} = There is SIGNIFICANT difference between the 3 sectors in terms of ROA.

Hypothesis For Profitability- Return On Equity Ratio (ROE)

H_{0d} = There is NO SIGNIFICANT difference between the 3 sectors in terms of ROE. Against

H_{1d} = There is SIGNIFICANT difference between the 3 sectors in terms of ROE.

Hypothesis For Efficiency- Inventory Turnover Ratio (ITR)

H_{0e} = There is NO SIGNIFICANT difference between the 3 sectors in terms of ITR Against

H_{1e} = There is SIGNIFICANT difference between the 3 sectors in terms of ITR

For the Second Objective, for the formulation of Performance Index, while calculating the Economic Performance Score, Multivariate Regression Model is formed to know whether to accept or reject the hypothesis of the factors Interest Rate and Inflation Rate.

Y ˋ1

Where Y= Economic Performance (Dependent Variable), is the intercept or the constant, is Interest Rate (Independent Variable), is the slope or coefficient of Interest Rate, is Inflation Rate (Independent Variable), is the slope or coefficient of Inflation Rate and ˋ1 is denoted for 'error' or those extraneous factors which do impact Y the dependent variable, but they are not taken into consideration in the model. Therefore, it can be written as:

R1: Economic Performance (Se) = + β1 Interest Rate + β2 Inflation Rate + ˋ1

Hypothesis For Lending Interest Rate:
H_{0f} = There is NO SIGNIFICANCE of Lending Interest Rate on Economic Performance Against
H_{1f}= There is SIGNIFICANCE of Lending Interest Rate on Economic Performance

Hypothesis For Inflation Rate:
H_{0g} = There is NO SIGNIFICANCE of Inflation Rate on Economic Performance Against
H_{1g} = There is SIGNIFICANCE of Inflation Rate on Economic Performance

For the formulation of Industry Performance Score, Linear Regression Model is formed with the factor Construction Growth Rate and the Hypothesis formed was:

Y β3 ˇ
Where Y= Industry Performance (Dependent Variable), is the intercept/constant, = Construction Growth Rate (Independent Variable), = slope or coefficient of Interest Rate
ˇ is denoted for 'error' or those extraneous factors which do impact Y but they are not taken into consideration in the model. Therefore, it can be written as:
R2: Industry Performance (Si) = + β3 Construction Growth Rate +ˇHypothesis of Construction Growth Rate:
H_{0h} = There is NO SIGNIFICANCE of Construction Growth Rate on Industry Performance Against
H_{1h} = There is SIGNIFICANCE of Construction Growth Rate on Industry Performance

Method Of Data Processing And Analysis:
For the First Objective, part one, four factors have been compiled and ranked year-wise and sector-wise for each respective company. For The First Objective, part two, ANOVA has been used to test whether there is any difference within the sectors. For the Second Objective, Regression Models are formed and for Company Performance Score, Factor Analysis was used using SPSS Software, Version 19.0 to reduce the factors. Then the combination of all the three Performance Scores formed the Performance Index. For the Third Objective, Z-Score Model was formulated using the Revised Altman's Z-Score Model Formula to ascertain whether the selected companies are in distress or in the verge of going bankrupt. Microsoft Excel, Version 2010 used for Regression Models and ANOVA.

Results and Discussion

For the first objective the important factors are ranked year wise for each sector and then for overall construction industry.

Table 2: Overall Ranking of Construction Industry as per the selected factors

Company	Ranking of Net Sales	Ranking of Total Revenue	Ranking of Total Expenses/ Total Revenue	Ranking of Net Profit
Dlf	2	1	9	2
Godrej	8	8	4	5
Hudco	4	4	1	1
Indiabulls	15	13	6	10
Prestige	5	5	5	3
Gayatri	7	7	13	12
Knr	9	9	7	6
Ashoka	6	6	3	9
Dilip	3	3	8	4
Ncc	1	2	11	7
Ansal Housing	11	11	10	11
Ansal Prop	10	10	14	13
Ashiana	14	15	12	14
Ganesh	12	14	2	8
Peninsula	13	12	15	15

Source: Compiled and Made by the Author

The Part Two of the First Objective measures factors like: Liquidity, Efficiency, Profitability and the Leverage of the company. To measure these important factors, equivalent ratios have been taken to formulate a conclusion and judge the financial performance of the construction industry. To measure the Liquidity, Current Ratio was taken, for Leverage, Total Debt/Equity Ratio, for Efficiency, Inventory Turnover Ratio and for Profitability, Return on Asset and Return on Equity. An average was found for each ratio for the respective year. That data was used to further apply ANOVA in Microsoft Excel, Version 2010. Table 3 shows ANOVA for liquidity position.

Table 3: ANOVA results for the Liquidity Position

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	3.064602	2	1.532301	42.12303	0.000000376	3.885294
Within Groups	0.436522	12	0.036377			
Total	3.501124	14				

Source: Compiled and Made by the Author using Microsoft Excel, Version: 2010.

This Table 3 shows that the P-Value is less than 0.001. To know whether to Accept to Reject the Null Hypothesis, comparison between F Value and Critical F Value is done. Over here, F Value > Critical F Value which signifies that there is a SIGNIFICANT difference amongst the 3 Construction sectors: Civil, Housing and Civil for Current Ratio. Hence, Null Hypothesis is REJECTED at 5% Level of Significance and Alternative Hypothesis is accepted at 5% Level of Significance which means that there is SIGNIFICANT difference between the 3 sectors in terms of Current Ratio.

Table 4: ANOVA results

FACTORS	NULL HYPOTHESIS - NO SIGNIFICANT DIFFERENCE AT 5% LEVEL OF SIGNIFICANCE	ALTERNATIVE HYPOTHESIS- SIGNIFICANT DIFFERENCE AT 5% LEVEL OF SIGNIFICANCE
Liquidity (Current Ratio)	REJECTED	ACCEPTED
LEVERAGE (Total Debt/Equity Ratio)	REJECTED	ACCEPTED
PROFITABILITY (Return On Asset Ratio)	ACCEPTED	REJECTED
PROFITABILITY (Return On Equity Ratio)	REJECTED	ACCEPTED
EFFICEINCY (Inventory Turnover Ratio)	REJECTED	ACCEPTED

Source: Compiled and Made by the Author

For Second Objective first development of Economic performance score (Se) is required. To compile Lending Interest Rate and Inflation Rate for the five years and a multivariate regression equation was formed to know whether these factors have any significant impact on the economic performance. After regression, it was found that Lending Rate has SIGNIFICANT impact whereas, inflation has NO SIGNIFICANCE. Thus, the New Regression Equation formed was Se = 2188.69 - 218.92 (Lending Interest Rate). After putting the value of Interest Rate for each year, Se for all five years was obtained. Then the values were normalized by the formula Se mod. =200*((Se-Semin)/(Semax-Semin))-100.

For the development of Industry Performance Score, construction growth rate was found and a linear multivariate regression equation was formed to know whether to accept or reject the null hypothesis. It was seen that it has SIGNIFICANT value and the equation formed was: Si = - 608.038 + 65.24008 (Construction Growth Rate). After putting the values, Si for the five years was found. Then the Modified Si was found applying the same formula as above.

For the development of the Company Performance Score (Sc), the first step is to find the ratios of all fifteen companies and compile them in 1 table. Then Factor Analysis is done using SPSS Software, Version 19.0 with Principal Component Extraction Method. VARIMAX rotation is used to get better results. From the factor Analysis, the components selected are: Return on Equity, Assets Turnover Ratio, Total Debt/Equity Ratio, Current Ratio, Inventory Turnover Ratio and PBT Margin Ratio.

The second step is to find Zi which is the size factor. Comparing performance of a company with the overall industry average is inappropriate, because the financial composition and characteristics of small companies are different from those of well established, large firms to resolve this problem, Zi is found. The companies are arranged as per their 'Total Asset' and divided into 3 segments high range from 'Below 6000 crores', 'Between 6000-12000 Crores' and 'Above 12000 Crores'. The Size Co-efficient is found by dividing the construction sector median by median of each sector. The collected raw data cannot be used directly as some data have dissimilar units. First, the normalization coefficient (Fni) has to be obtained by calculating the median of each ratio and dividing the max median value by each median value of the six ratios. After this, the Normalised value was to be found by the formula Xni = S √ | | where: Xni= Normalized value of ratio i, Xsi= Standard value of ratio i, S= Sign correction factor Zi= Company size factor, Fni= Normalization coefficient and |Xsi|= Absolute value of standard financial ratio i.

Calculation of Xsi, is done by dividing the Companies according to Total Assets in 3 sectors and compiling the selected ratios of all Companies for all the 5 years. Then the Median of the Each Ratio is found year-wise. Then Xni is found for all the 6 components found as per Factor Analysis. Table 3 shows the calculation for one of the components.

To formulate the Company Performance Score, Regression Analysis is done. The Regression Equation formed is: Sc = □(Ci Xi) where Sc= Company Performance (Dependent Variable), is the intercept, Ci= Regression Coefficient of the respective ratios, Xi= Normalised Standard Value of Ratios which is the Median of Xni for each year and i = 1 to 6 for the 6 ratios that have been selected. Thus the regression equation formed was Sc= 264.3952 + 76.31902 Total Debt/Equity Ratio -14.357 Return On Equity Ratio -21.9282 Current Ratio -75.7362 Inventory Turnover Ratio + 2.976591 Asset Turnover Ratio + 6.758722 PBT Margin Ratio

Table 5: Calculation of Normalized Value of Total Debt/Equity Ratio

Company	Xsi	Zi*Fni*Xsi	Absolute Value of 3	Square Root of 4	S	Xni= S*Square root
1	2	3	4	5	6	7
Below 6000 Crores						
Mar-14	0.62	18.22465	18.22465	4.269034	1	4.269034
Mar-15	0.99	29.10065	29.10065	5.394502	1	5.394502
Mar-16	1.035	30.42341	30.42341	5.515742	1	5.515742
Mar-17	1.015	29.83551	29.83551	5.462189	1	5.462189
Mar-18	0.925	27.19	27.19	5.214403	1	5.214403
Between 6000-12000 Crores						
Mar-14	1.825	26.60684	26.60684	5.158182	1	5.158182
Mar-15	2.065	30.10582	30.10582	5.486877	1	5.486877
Mar-16	1.795	26.16946	26.16946	5.11561	1	5.11561
Mar-17	1.535	22.3789	22.3789	4.730634	1	4.730634
Mar-18	2.14	31.19925	31.19925	5.585629	1	5.585629
Above 12000 Crores						
Mar-14	0.94	45.64036	45.64036	6.755765	1	6.755765
Mar-15	0.96	46.61143	46.61143	6.827256	1	6.827256
Mar-16	1.25	60.69196	60.69196	7.790505	1	7.790505
Mar-17	1.28	62.14857	62.14857	7.883437	1	7.883437
Mar-18	0.56	27.19	27.19	5.214403	1	5.214403

Source: Compiled and Made by the Author

The performance index (PI) is developed by combining the effect of company (Sc), Economy (Se), and Industry (Si) related factors respectively. The combination process was performed based on: macro-economic (35-40%), industry (10-15%), and company related factors (40- 45%). It can be said that PI = 0.5 Sc + 0.375 Se + 0.125 Si. This is shown in Table 4.

For the last objective which is to 'Find out whether the Selected Companies are in Distress.' This can be done by forming a Z-Score Model. Altman is known for the development of the Z-Score formula, which he published in 1968.

Table 6: Calculation of Performance Index

YEAR	Sc	Si	Se	PI	Rank
2013-2014	190.1158	-100	-100	45.05788	5
2014-2015	220.042	-66.6667	-89.2857	68.20552	4
2015-2016	205.9333	-26.6667	-27.5511	89.30165	3
2016-2017	209.6595	33.33333	57.90792	130.7119	1
2017-2018	121.5807	100	100	110.7904	2

Source: Compiled and Made by the Author

The Altman's Z Score can be written as:

Z = (0.717 x A) + (0.847 x B) + (3.107 x C) + (0.42 x D) + (0.998 x E)

where:

A = (Current Assets-Current Liabilities) / Total Assets , B = Retained Earnings / Total Assets, C = Earnings before Interest and Taxes / Total Assets, D = Book Value of Equity / Total Liabilities E = Sales/ Total Assets.

The Zones of Discrimination are if Z' > 2.9 then it is in the Safe Zone, 1.23 < Z' < 2. 9 then the company is in No conformation Zone (Grey zone) and if Z' < 1.23 then the company is in Distress Zone.

Table 7: Z-Score and the Zones

Distress Zone		Grey Zone		Safe Zone	
Company	Z- Score	Company	Z- Score	Company	Z- Score
Indiabull	0.19536	Ashiana	1.25879	Ansal House	3.960737
HUDCO	0.26446	Godrej	1.282762	Ashoka	7.379204
Ansal Prop	0.39797	Ganesh	1.331963	Gayatri	11.25176
DLF	0.6169	NCC	1.355029	Dilip	15.48196
Peninsula	0.80467			KNR	30.85053
Prestige	1.01724				

Source: Compiled and Made by the Author

Conclusion

It can be concluded that as per the Net Sales, NCC is in the best position. As per Total Revenue, DLF is ranked, as per Total Expenses/Total Revenue and Net Profit HUDCO is the first position first as compared to the other fifteen companies. The factors like Liquidity (Current Ratio), Leverage (Total Debt/ Equity Ratio), Efficiency (Inventory Turnover Ratio) and Profitability (Return On Equity) show that there is statistically Significant difference between the 3 sectors of construction Industry at 5% Level of Significance. While, the Profitability factor (Return On Asset) shows that there is statistically No Significant difference between the 3 sectors at 5% Level of Significance. The Performance index shows that there has been growth in the construction industry but in the last year 2017-18, there has been slight fall. The Z- Score model shows that 6 companies are in distress zone, 4 companies are in grey zone while the remaining 5 companies are in safe zone.

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Measuring and Determining Customers Influencing Factors Towards The Buying Decisions of Personal Care and Cosmetic Products

Susmita Saha and Namrata Maheshwari

Abstract

This paper attempts to make an analysis of the factors towards the buying decisions of personal care and cosmetic products in Kolkata city based on questionnaire method and a sample of 200 customers using Random sampling techniques. Hypothesis testing is done by incorporating Regression, Correlation and Chi-Square test.

Keywords: Preference, Brand loyalty, Cosmetics, Personal Care, Consumer Behavior

Introduction

The consumer buying behaviour refers to those activities of persons involved specifically in buying and using economic goods and services. It includes mental as well as physical actions.

In other words it reflects the totality of consumer decisions with respect to acquire, usage and disposal of goods services, time and idea by (human) decision making units. Buying behaviour is the decision making processes and acts of people involved in buying and using of products. Buying behavior of consumer refers to the buying decision of the ultimate consumer. The buying decision making process is related with both individual and groups behavior dynamics. It deals with the characteristics of the individual consumers such as demographics, psychology and behavioral aspects to understand socio-cultural background of the individual while influence on the consumer, it studies the role of groups such as family, friends, reference groups, and society as a whole.

Consumer Behaviour Theories: The thought process that consumers go through to arrive at their decisions is known as the consumer decision making process. Consumers decisions are concerned mainly with questions of how to acquire and when, how much and where from are concerned with the purchase of a product, service or ideas. The major theories of consumer behaviour can be grouped into four different theories (a) economic theories (b) psychological theories (c) psycho-analytical theories and (d) socio-cultural theories. All the consumer behavioural theories are based on the basic law of consumption i.e. when consumers aggregate income increase the consumption also increases accordingly is based on the assumptions like spending habits, political conditions, economic conditions remain normal.

Buyers Behaviour Models: The influence of social science on buyer's behaviour has prompted marketing experts to develop some models for explaining and analysis such behaviour. The following are some models of buyers behaviour discussed-

The Economic Model: The economic model of buyer behaviour believes that the buyer is a rational man and his buying decisions are totally directed by the marginal utility concept. If he has an amount of purchasing power, where a set of needs to be met and a set of products to be chosen from, he will allocate the amount over the rest of products in a very rational manner with the motive of stressing the utility or benefits.

The Learning Model: The learning model is based on the Pavlovian stimulus response theory. The learning theory suggests that the conditioned stimulus used as signal to influence and predict unconditioned stimulus to analyze the consequences of the signal. The theory says that by manipulating the drives, stimuli and responses, the buyer's behaviour can be influenced. The model depends on man and ability at learning, forgetting and discriminating.

The Psychoanalytical Model: According to this model the individual consumer has a set of complex set of deep-seated motives which induce him towards buying decisions. The buyer has a private world with all his hidden fears, suppressed desires and fully subjective unfulfilled needs. His buying action can be influenced by appealing to these desires and longings.

The Sociological Model: The sociological model exerts that an individual buyer is influenced by the society- by the ultimate groups and the social class. His buying is not only ultimately governed by the concept of utility but his desire to emulate, follow and fit in with his immediate environment. Even some of his buying decisions may be governed by societal compulsions. As a part of sociological model, two important models can be considered namely, the Nicosia model and Howard Sheth Model.

The Nicosia Model: The Nicosia Model was developed by Francesco Nicosia in 1966. The model explains how a firm tries to develop the linkages with its consumers and influence in their decision to buy.The messages from the firm first influence the sensitivity of the consumer towards the product and depending on the situation he develops an attitude towards the product. If these steps of the firm have positive impact on consumer, it may result in a decision to buy. The Nicosia model groups these activities into four basic fields and presented in a flow chart. Field I (One) is further sub divided into two sub fields (i) the firms' attributes and (ii) the consumers attribute. An advertising message from the firm reaches to the consumers attributes. Considering the way the message is received by the consumer, a certain attribute of the consumer may develop, and this becomes the input for field II (Two). The field II is the area of search and evaluation of the advertised product and other alternatives. Again if this process motivates to buy, it becomes the input for field III (Three). The field three consists of the act of purchase and the field IV (Four) consists of the use of the purchase item. There is an output of field IV- as feedback of sales results to the firm.

Desai K. (2014) studied consumer buying behaviour of cosmetic products in Kolhapur. His main objective to study the paper is to identify the factors influencing the consumer buying decision of consumers for cosmetic products. Another objective of the research was to study buying process for cosmetic products. Convenient sampling method was used as data collection method. Simple percentage and ranking techniques were used as statistical techniques. He found that the major part of cosmetic market is covered by females. According to his research, quality is the most important factor influencing the consumer buying decision. Television and reference groups are other important factors to influence consumer buying decision.

Rameshwari P., Mathivanan R., Jeganathan M., (2016) studied consumer buying behavior of cosmetic products in Thanjavur, Tamilnadu. Main objective of the study is to identify reasons for purchasing cosmetics and to identify factors influencing consumer buying decision for cosmetic products. Convenient sampling method was used as research method. Factor ranking method was used as statistical technique for analyzing data. In this study, it was found that though cosmetic market is dominated by female consumers, male consumers also participate in the same. The working respondents are more focused about their appearance and ready to buy high end products.

Dr. Anandrajan S., Sivagami T. (2016) studied consumer purchase decision behavior towards cosmetic marketing. The aim of the study was to study consumer behavior marketing of personal care products. They also want to know the influence of various media in motivating the consumer on a particular brand of cosmetics. Random sampling technique was used. Sample size was 200. Direct Interview method was adopted to collect data. Simple and bi-variate tables were prepared from information collected. Percentage Analysis was used for analyzing data. It found that reduction in price and attractive promotional schemes can attract more customers. The study concluded that cosmetics are not part of luxury. Manufactures need to identify the need before marketing the cosmetic product.

Methodology

In this study the researcher has set out to explore the customers' perception towards personal care and cosmetics shopping. The purpose of research methodology is to discuss the methodological approaches and how the study was carried out. It helps the readers to understand how data was obtained and how the findings were obtained. It begins with concept of primary and secondary data, sampling method, sample size, time frame of study, places of study and statistical tools used.

A. *Primary Data:* Primary data refers to information that is developed or gathered by the researcher specifically for the research project at hand. Primary data may be collected through surveys and observations. The expenses related to gather such data are higher than gathering secondary data. Time involved in collection of such data is longer than the collection of secondary data.

B. *Secondary Data*: Secondary data have previously been gathered by someone else someone else other than the researcher for some purpose other than the research project at hand. Secondary data may be obtained from internal plus external sources. Internal sources refers to those which are available within the organisation, where as external sources are those information published by other researchers or agencies or institutions accessible in a range of forms. Data collection expenses are relatively low also time needed for data collection is shorter than the time needed to collect primary data.

C. *Sampling Method:* Sampling is concerned with the selection of a subset of individuals from within a statistical population to estimate characteristics of the whole population.

Thus, Random sampling method is used for the research of this particular project.

D. *Sample Size:* The sample size selected for the research is 200 in the area of Kolkata.

E. *Time Frame Of Study:* The time needed for the research and completion of this project are three months.

F. *Place Of Study:* The data was gathered from different areas in Kolkata.

Statistical Tools Used: Various statistical tools such as pie chart and bar graph were used for visual presentation of the survey conducted. Correlation, hypothesis testing and chi-square also has been used.

Framing of hypothesis

1. (H_{01}): There is no significant difference between age and amount spent on personal care Products
2. (H_{02}): There is no significant difference between the income and the amount spent on personal care products.
3. (H_{03}): pattern of consumer behaviour on personal care items is identical gender wise.

Results and Discussion

Test -1 Hypothesis

Accordingly to Table 1 we determine if there is overwhelming evidence at the $\alpha = 0.05$ level of a linear relationship between amount spent on personal care product and age, the null hypothesis is rejected if the P-value <a. There in the above case p- value for age is 0.006195 which is less than 0.05. This means that we will accept the alternative hypothesis () and reject the null hypothesis (). Therefore it can be said that consumers age has a positive impact on how much the consumers are spending.

Test - 2 Hypothesis

Summary Output (Regression Statistics)				
Multiple R	**R Square**	**Adjusted R Square**	**Standard Error**	**Observations**
0.405375963	0.164329671	0.160109114	1.165398734	200

	df	SS	MS	F	Significance F
Regression	1	52.88046662	52.88047	38.93553933	2.60761E-09
Residual	198	268.9145334	1.358154		
Total	199	321.795			
	Coefficients	**Standard Error**	**T Stat**	**P- value**	**Lower 95%**
Intercept	1.706089614	0.171557889	9.944688	0.00371	1.367774466
income	0.574257117	0.092030819	6.239835	0.00260761	0.392770737

The P-Value of Brand image provides the likelihood that it is real result and did not occur by chance. The lower the P-Value, the higher the likelihood that the coefficient or Y- Intercept is valid, a P- Value of 0.00260 for a regression coefficient indicates that there is only a 0.26 % chance that the result occurred only as a result of chance. Accordingly to determine is there is overwhelming evidence at the $\alpha = 0.05$ level of a linear relationship between amount spent on personal care product and income, the null hypothesis is rejected if the P-value is greater than 0.05. There in the above case p-value for age is 0.00260 which is less than 0.05. This means that we will accept the alternative hypothesis () and reject the null hypothesis (). Therefore it can be said that consumers income has a positive impact on how much the consumers are spending.

Test - 3 Hypothesis

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Gender*preference	200	100.0%	0	.0%	200	100.0%

Chi- Square Tests			
	Value	df	Asymp. Sig. (2 – sided)
Pearson Chi- Square	34.271 "	2	.000
Likelihood Ratio	32.927	2	.000
Linear - by – Linear Association	10.609	1	.001
N of Valid Cases	200		
a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 4.00.			

Hypothesis Testing

Pattern of consumer behaviour on personal care items is identical gender wise.

Pattern of consumer behaviour on personal care items is not similar gender wise.

Interpretation

Since the p-value is less than our chosen significance level ($\alpha = 0.05$),we reject the null hypothesis. Rather we conclude that there is enough evidence to suggest an association of gender criteria on preference for personal care products.

Conclusion

As the researcher has shown the comparison between customer buying behaviour regarding Indian and International product in recent time. Since the consumer buying behaviour is the important factor to forecast the sales of any product in a particular area. So company should keep close eye on the market situation. yet, customer were price sensitive, but the changing market trend and customer view and preference shown that customer are now quality sensitive .They want quality product, good services, easy availability of product and better performance by the product.

These days no of customer buying from malls has been increased. Also the frequency to visit the malls has been increased substantially. People are more brands conscious and they are satisfied with the range of products available there.

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Service Quality Gap Analysis: Comparative Analysis of Public and Private Sector Bank in India

Sharon Riya Gomes and Namrata Maheshwari

Abstract

This paper attempts to make a comparative analysis of the service gaps in public and private banks and level of customer satisfaction towards the services provided by State Bank of India and HDFC bank in Kolkata city based on questionnaire method and a sample of 165 customers consisting of respondents using both or either of the respective banks has been selected using purposive sampling technique. The SERVQUAL model analysis is conducted with all its five service dimensions and Gap analysis. Hypothesis testing is done by incorporating Factor Analysis , Paired T test and Chi-Square test .This study concludes that private sector banks are more preferred by majority of the customer as they emphasize more upon relationship building with their clients and are better equipped with modern infrastructure as compared to public sector banks.Service gaps across all dimensions of public sector bank is much more compared to private sector.

Keywords : Banks, Customer satisfaction, Expectations, Gap analysis, Perceptions, The SERVQUAL model, Quality service.

Introduction

Service quality can thus be defined as the difference between customer expectations of service and e perceived service. If expectations are greater than performance, then perceived quality is less than satisfactory and hence customer dissatisfaction occurs (Parasuraman et al., 1985; Lewis and Mitchell, 1990).

'SERVQUAL Model is a multi-dimensional research instrument, designed to capture consumer expectations and perceptions of a service along the five dimensions that are believed to represent service quality. When the SERVQUAL questionnaire was first published in 1988 by a team of academic researchers, A. Parasuraman, Valarie Zeithaml and Leonard L. Berry to measure quality in the service sector, it represented a breakthrough in the measurement methods used for service quality research.

The Gap model of service quality was developed by Parasuraman, Berry and Zeithaml (1985), and more recently described in Zeithaml and Bitner (2003). It has served as a framework for research in services marketing, including hospitality marketing, for over two decades. The model identifies four specific gaps leading to a fifth overall gap between customers' expectations and perceived service.

The banks HDFC and State Bank of India are chosen to identify the service quality gaps and customer perception and satisfaction in respective banks, to identify the factors for poor quality service and provide measures to remove those gaps.

Joshua A J and Moli. P. Koshi (2005) in their study on 'Expectation and perception of service quality in old and new generation banks', observed that the performance of the new generation banks across all the service quality dimensions are better than those of old generation banks.

Dr. Vannirajan & B. Anbazagan (2007) in their study tried to make an assessment of SERVPERF scale in the Indian Retail banking sector by doing a survey in banks at Madhurai. The study found that in public sector banks tangibles and assurance are most important and in private sector banks reliability, responsiveness and tangibles are most important.

Sudesh (2007) revealed that poor service quality in public sector banks is mainly because of deficiency in tangibility, lack of responsiveness and empathy. Private sector banks, on the other hand, were found to be more reformed in this regards. Above all, the foreign banks were relatively close to the expectations of their customers with regard to various dimensions of service quality. Further, the study revealed that there existed service quality variation across demographic variables and suggested that management of banks should pay attention to potential failure points and should be responsive to customer problems.

Statement of the Problem

Providing good service quality is the major concern of banking sector Success or failure of a business is determined by Customer satisfaction. As the exposure, knowledge and awareness of the customers keep on increasing, so does the expectations of the customers. Now the bankers have to meet out the expectations of their customers or else the customer will switch over to other competitor bank that provides better service. This research article studies the difference between the expected service quality and perceived service quality in SBI and HDFC banks in Kolkata city.

Methodology

The research design was used to gain knowledge and information through the primary data and secondary data and data collected through a structured questionnaire.

1. Sampling Method :Purposive Sampling method and SERVQUAL will be used as framework to Illustrate the relationships between all the variables in this study. Expectations and perceptions of SBI, Expectations and perceptions of HDFC, dependent variable customer satisfaction and independent variables age and occupation are the various variables to be analyzed in this study.
2. Sampling Units : Customers of SBI and HDFC banks.
3. Sampling Area: Kolkata City-North, Central and South.
4. Sample Size: Number of respondents is 165. Percentages and simple average are used in making comparisons between two or more series of data.
5. Statistical tools: Bar Graph and hypothesis testing through Paired Sample T Tests and Factor Analysis is used for data analysis which was done through SPSS software.

Hypothesis Formulated

Keeping the objectives in mind, this study intends to test the following hypotheses:

1. (H_{01}): There is no significant difference in the expectations of customers of public and private sector banks.
   (H_{11}): There is a significant difference in the expectations of customers of public and private sector banks.
2. (H_{02}): There is no significant difference in the perceptions of customers of public and private sector banks.
   (H_{12}): There is a significant difference in the perceptions of customers of public and private sector banks.
3. (H_{03}):There is no significant difference between customer perception and expectations of service quality in private sector bank .
   (H_{13}):There is a significant difference between customer perception and expectations of service quality in private sector bank .
4. (H_{04}): There is no significant difference between customer perception and expectations of service quality in public sector bank.
   (H_{14}): There is a significant difference between customer perception and expectations of service quality in public sector bank.
5. (H_{05}): There is no significant difference in customer gap between private and public sector banks.
   (H_{15}): There is a significant difference in customer gap between private and public sector banks.

Results and Discussion

Majority of the respondents were from the age group (26-35 years) followed by (17-25 years) indicating that more of middle aged people were part of this survey and hold accounts in both Public and Private banks that is why majority of the respondents were married (69%). 44% of respondents were postgraduates and 45% were salaried persons showing that more of the working class having adequate education are having accounts in both of the banks with majority having income around Rs. 30000-50000 p.m. 88% of them were males and 77% were females showing men hold more bank accounts than women. 30% of the respondents have bank accounts in public banks, 27% in private banks and rest 43% have accounts in both public and private banks.

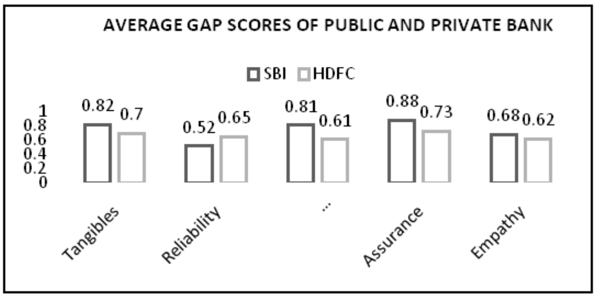

Figure 1: Average Gap score of SBI and HDFC for all five dimensions of service quality.

From the above graph we can see that State Bank of India's gap score is more compared to HDFC in all five dimensions of service quality. It can be said that SBI representing the largest public sector bank in India cannot meet its customers expectations. Customers prefer and perceive the service quality of HDFC bank, a private sector bank better than SBI. Even though SBI has more customers than HDFC, people availing its services think they are less responsive and lack assurance. This could be due to large number of customers and less number of employees to attend them.

Table 1 : Ranking of HDFC bank's top 5 Gap areas from customers perspective.

No.	Attributes	Dimensions	Gap scores	Rank
1	Employees instills confidence in you	Assurance	1.17	I
2	Delivers service at promised time.	Reliability	1.14	II
3	Modern looking equipment and latest technologies	Tangibility	0.87	III
4	Gives individual attention	Empathy	0.86	IV
5	Trustworthy employees	Assurance	0.83	V

From the above Tables 1 and 2, we can see that HDFC and SBI have the highest gap in employees instills confidence in you, but HDFC's gap scores are lesser than SBI. In the 2nd position HDFC has delivered service at promised time (Reliability) and SBI has employees' gives prompt service (Responsiveness). Trustworthy employees is a common gap factor for both where HDFC's gap score is again lesser than SBI. So both SBI and HDFC needs to work on its assurance factor as customers feels the employees are not very dependable. Willingness to help is less in case of SBI while giving individual attention is less in case of HDFC. In the tangibility dimension, both have one major factor each falling in the top 5 gaps of service quality. Overall we can see SBI is considered more reliable and empathetic than HDFC, while HDFC is more responsive towards its customers in which SBI lacks behind.

1. Paired Sample T Test to find out the difference in the expectations of customers towards service quality of public and private sector banks.

Table 2: Test of Hypothesis 1

Paired Samples Test	
Private-Public	
Mean	0.380
Std. Deviation	0.319
t value	12.52
Sig. (2-tailed)	0.000

Paired Samples Statistics					
		Mean	**N**	**Std. Deviation**	**Std. Error Mean**
Pair 1	Private	4.07	110	.28	.027
	Public	3.69	110	.35	.034

In the above case, Sig (2-Tailed) value is 0.000 which is less than 0.05. This means we will accept the alternative hypothesis (H_1) and reject the null hypothesis (H_0).Therefore it can be said that there is a statistically significant difference between customer perception and expectations of service quality in private sector bank. Since our Paired Samples Test box revealed that the Mean private expectation was greater than the Mean public expectation by 0.38, we can conclude that expectations of customers from private bank is significantly more than the expectations of customers of public bank.

2. Paired Sample T Test to find out the difference in the perceptions of customers towards service quality of public and private sector banks.

Paired Samples Statistics					
		Mean	**N**	**Std. Deviation**	**Std. Error Mean**
Pair 1	Private	3.44	110	.27	.026
	Public	2.90	110	.26	.025

Table 3: Test of Hypothesis 2

Paired Samples Test	
Private -Public	
Mean	0.533
Std. Deviation	0.328
t value	17.06
Sig. (2-tailed)	0.000

In the above case, Sig (2-Tailed) value is 0.000 which is less than 0.05. This means we will accept the alternative hypothesis (H_1) and reject the null hypothesis (H_0).Therefore it can be said that there is a statistically significant difference between customer perceptions of service quality in public and private sector banks. Since our Paired Samples Test box revealed that the Mean private perception was greater than the Mean public perception by 0.53, we can conclude that perception of customers from private bank is significantly more than the perception of customers from public bank.

3. Paired Sample T Test to find out the difference in the perception and expectation of service quality in private sector bank.

Paired Samples Statistics					
		Mean	**N**	**Std. Deviation**	**Std. Error Mean**
Pair 1	Private	4.07	110	0.28	0.03
	Public	3.44	110	0.27	0.026

Table 4: Test of Hypothesis 3

Paired Samples Test	
Expectation-Perception	
Mean	0.638
Std. Deviation	0.235
t value	28.46
Sig. (2-tailed)	0.000

In the above case, Sig (2-Tailed)value is 0.000 which is less than 0.05. This means we will accept the alternative hypothesis (H1) and reject the null hypothesis (H0).Therefore it can be said that there is a statistically significant difference between customer perception and expectations of service quality in private sector bank. Since our Paired Samples Test box revealed that the Mean expectation was greater than the Mean perception by 0.62, we can conclude that expectations of customers from private banks is significantly more than the perception of customers.

4. Paired Sample T Test to find out the difference in the perception and expectation of service quality in public sector bank

Table 5: Test of Hypothesis 4

Paired Samples Test	
Expectation-Perception	
Mean	0.770
Std. Deviation	0.279
t value	31.06
Sig. (2-tailed)	0.000

Paired Samples Statistics					
		Mean	**N**	**Std. Deviation**	**Std. Error Mean**
Pair 1	Private	3.67	127	.35	.03
	Public	2.89	127	.25	.02

In the above case , Sig (2-Tailed)value is 0.000 which is less than .05. This means we will accept the alternative hypothesis (H1) and reject the null hypothesis(H0).Therefore it can be said that there is a statistically significant difference between customer perception and expectations of service quality in private sector bank. Since our Paired Samples Test box revealed that the Mean expectation was greater than the Mean perception by 0.77, we can conclude that expectations of customers from private banks is significantly more than the perception of customers.

5. Paired Sample T Test to find out the difference in customer gap between private and public sector banks

Table 6: Test of Hypothesis 5

Paired Samples Statistics					
		Mean	**N**	**Std. Deviation**	**Std. Error Mean**
Pair 1	Private	.74	20	.28	.06
	Public	.66	20	.23	.05

Paired Samples Test	
Private-Public	
Mean	0.08
Std. Deviation	0.311
t value	21.15
Sig. (2-tailed)	0.000

In the above case, Sig (2-Tailed) value is 0.00 which is less than 0.05. This means we will accept the alternative hypothesis (H_1) and reject the null hypothesis(H_0).Therefore it can be said that there is a statistically significant difference between customer gap of service quality in public and private sector bank. Since our Paired Test Statistics box revealed that the Mean service gap of public bank was greater than the Mean service gap of private bank by 0.08, we can conclude that customer gap from public banks is significantly more than the customer gap from private banks.

Conclusion

The results from the test showed that there is significant difference in expectations of customers from public and private banks and that expectations from private banks is more than public banks. There is a significant difference in perceptions of customers towards service quality of public and private banks and perceptions of customers is more for private banks than public. There is a significant difference between expectations and perceptions of both public and private banks and the expectations of customers is more than its perceptions about service quality for both the banks. Lastly there is a significant difference between customer gaps of public and private banks and customer gap of public banks is more than private banks.

This research survey concludes the service quality gap analysis is having more gaps between customer expectation and perception of service quality in State bank Of India. The bank has to reduce this gap giving individual personal attention to understand the customer specific needs and in HDFC bank, more gap is identified for Reliability. Banks may follow a feedback system to know the customer expectations for improving the level of customer satisfaction to maximum level. Remarks on service reliability ,responsiveness and empathy should be continuously obtained from customers. This will enhance their service quality to a large extent.

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The Impact of Online Customer Reviews on Customer's Perceived Risk Associated with Online Hotel Bookings

Shubhika Agarwal and Namrata Maheshwari

Abstract

As online shopping is widely used in the hospitality industry, research in this field constantly strives to understand the customer behavior in online purchasing activities. The overall aim of this study is to analyse the impact of online customer reviews on customer's perceived risk associated with online hotel bookings. The other objectives include identifying the reasons considered by customers for online hotel booking, analysing the impact of customer's demographics on the factors considered while booking hotel online and identifying the relationship between customers' attitude and perception towards online customer reviews. Based on convenience sampling, data was collected from by circulating questionnaire. One way ANOVA, Correlation and Regression Analysis were carried out to analyse the objectives of the study. The results of the study show that online reviews are having a significant impact on the perceived risk associated with online hotel bookings. It was also found that most of the customers booked hotel online because of the offers and discounts available while booking hotel online. The results also revealed that the demographics of the customers affect the online booking intentions and the customer's Performance, Financial, Functional, Physical as well as Social attitude and perception towards online hotel booking is highly correlated.

Keywords: Online customer reviews, Online hotel bookings, Perceived risk, Perception

Introduction

It has been more than a decade since business-to-customer e-commerce was firstly introduced into the hospitality industry. Moreover, consumer generated media are now a critical component of corporate publicity in the tourism industry, routinely informing and influencing individual travel purchase decisions. Online customer reviews, as the major source of word-of-mouth used by consumers, allow people to exert both informational and normative influences on the product evaluations and purchase intentions of fellow consumers. Due to the intangibility of hospitality or tourism and the nature of online booking, risk perception is considered as one of the most important factors that impact the buyer's decision. Thus, it is constructive to investigate the effect of online customer reviews in the context of consumer perceived risk associated with online leisure hotel booking to understand how reviews affect the decision process and seek solutions for the hotel marketers to improve their service as well as the online commenting system.

Chan Cheng Chu I. & et.al. (2017) stated that due to the experiential nature of travel-related products, online reviews have become an increasingly popular information source in travel planning and have a profound effect on consumers' buying decisions, particularly in hotel booking.(1)

Ghosh T. (2017) validated a research framework that gave key insights into the influential role played by salient characteristics of online reviews, namely helpfulness, i.e. how helpful a review is and advocacy, i.e. whether the review explicitly approves or rejects the brand, on consumers' attitude toward the review and the hotel about which the review is written.(2)

Kim Yeon S. & et.al. (2017) developed a research model which consists of perceived value, trust toward a third party online booking site, and trust toward hotels. They found that the perceived value, which was affected by both price and quality, was positively related to individuals' intention to book.(3)

Zhao Roy X. & et.al. (2015) investigated the impacts of online review and source features upon travellers' online hotel booking intentions. This study developed a research model and empirically examined the model by collecting data from business travellers. A significantly negative relation between negative online reviews and online booking intentions was identified, whereas impacts from positive online reviews upon booking intentions were not statistically significant.(4)

Lien Hui C. & et.al. (2015) examined the direct and mediating effects of brand image, perceived price, trust, perceived value on consumers' booking intentions and compares the gender differences in online hotel booking. Brand image, perceived price, and perceived value are the three critical determinants directly influencing purchase intentions.[5]

Yang B. (2013) demonstrated a method which investigates the relationship between consumers' perceived risk associated with online leisure hotel shopping and different types of online customer reviews. By evaluating perceived risk associated with online leisure hotel booking caused by different hotel attributes, he addressed the importance of online customer reviews on various hotel attributes and therefore provided information for e-marketers to fine-tune their e-business strategies in terms of managing proper online customer reviews.[6]

Methodology

On the basis of nature of information, this study is qualitative in nature and the method of research used is survey research. The major source of findings is primary data which is collected through a structured questionnaire.

Sampling: Convenience sampling technique has been used in this study. The target population of the study were residents of India. The target population size was 200 respondents but 187 responses were collected which gave a 94% response rate.

Data Collection: Primary data was collected through a well structured questionnaire. Responses were collected online through e-mails and social media tools including Whatsapp and Facebook and hard copy of the forms were also circulated. 137 responses (73%) were collected online and the remaining 50 responses (27%) were collected offline. A structured questionnaire with 13 questions was used in the survey that was conducted to obtain primary data. The questionnaire had a mixture of rating and category type of close-ended questions. The first 5 questions addressed the demographic characteristics and the remaining 8 questions addressed the objectives of the study.

Hypothesis Testing

The following 3 hypotheses were used in this study:

Hypothesis 1: There is an impact of customer's demographics (gender, age, marital status, educational qualification and monthly family income) on the factors considered while booking hotel online (Performance, Functional, Financial, Physical and Social risk factors).

H_0: The customer's demographics are not having a significant impact on the factors considered while booking hotel online.
H_1: The customer's demographics are having a significant impact on the factors considered while booking hotel online.
Hypothesis 2: There is a relationship between the various dimensions (Performance, Functional, Financial, Physical and Social) of customer's attitude and perception towards online customer reviews.
H_0: There is no significant relationship between the various dimensions of customer's attitude and perception towards online customer reviews.
H_1: There is a significant relationship between the various dimensions of customer's attitude and perception towards online customer reviews.
Hypothesis 3: There is an impact of online customer reviews on various dimensions of perceived risk (Performance, Functional, Financial, Physical and Social risk) associated with online hotel booking.
H_0: There is no significant impact of online customer reviews on the various dimensions of risk associated with online hotel booking.
H_1: There is a significant impact of online customer reviews on the various dimensions of risk associated with online hotel booking.
Statistical Tools: The analysis of the primary data was done using IBM SPSS software. The representation of the data has been done using tables, pie charts and column graphs. Further the testing of hypothesis was conducted using Correlation, One way ANOVA and Regression Analysis.

Results and Discussion

Demographic Findings: Table 1 represents the Demographic findings of the respondents of the study. Most of the respondents are male (52%) and most of them are married (58%). Majority of the respondents belong to the age group 20-29 (38%). This relates to the educational qualification of the respondents where most of them are graduate (43%), followed by post graduate (39%) and the least are under graduate (18%). Furthermore, the majority of the respondents' monthly family income (in Rs.) is 75000 and above (70%).

Table 1: Demographic Findings

Demographics	Frequency	Percentage
Gender		
Male	98	52%
Female	89	48%
Total	187	100
Marital Status		
Single	78	42%
Married	109	58%
Total	187	100
Age Group		
Under 20	8	4%
20 - 29	70	38%
30 - 39	61	33%
40 - 49	38	20%
50 - 59	10	5%
Total	187	100
Educational Qualification		
Under Graduate	33	18%
Graduate	80	43%
Post Graduate	74	39%
Total	187	100
Monthly Family Income (in Rs.)		
25000 - 50000	16	9%
50000 - 75000	40	21%
75000 and above	131	70%
Total	187	100

Other Findings

Most of the respondents (93%) read online reviews while only few respondents (48%) post online reviews of the hotels they stay at.

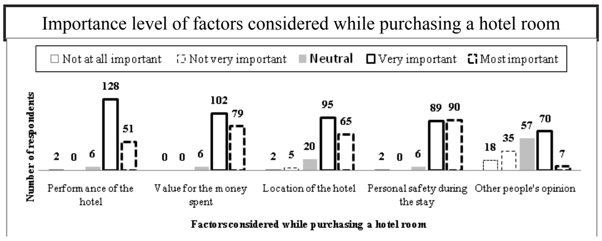

Figure 1: Importance lev el of factors considered while purchasing a hotel room

All the respondents book hotel online due to one or more of the following reasons, i.e., Multiple choices, Payment facilities, Less time consuming, 24*7 accessibility, Offers and discounts, More trustworthy and other reasons. Majority of the respondents book hotel online due to the available Offers and discounts (84%), followed by the reason that it is Less time consuming (71%), there are Multiple choices (56%), there is 24*7 accessibility (54%), there are various Payment facilities (51%), it is More trustworthy (43%) and other reasons like Recommendations (1%).

Figure 1 represents the importance level of factors considered by the number of respondents while purchasing a hotel room. Majority of the respondents considers the factors, Performance of the hotel, Value for the money spent, Location of the hotel and Personal safety during their stay as very important and most important, very few respondents are neutral regarding the importance of the same factors and comparatively even fewer or none of the respondents consider the same factors as not very important and not at all important. While most of the respondents consider the factor, Other people's opinion to be very important at the same time a considerable number of respondents are neutral regarding the same factor. Very few respondents consider the factor to be most important and many of them consider it to be not very important and not at all important.

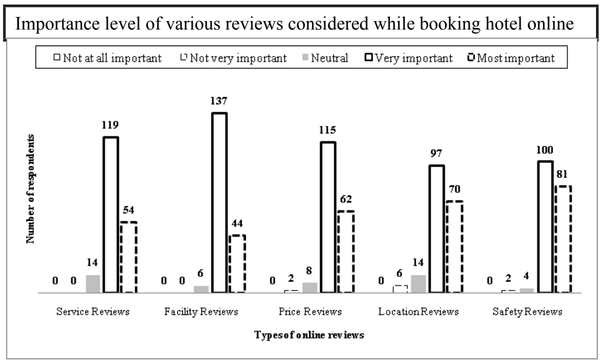

Figure 2 : Importance of reviews in online hotel booking

Figure 2 represents the importance level of the various types of online customer reviews considered by the respondents while booking hotel online. Most of the respondents consider all the types of reviews, i.e., Service reviews, Facility reviews, Price reviews, Location reviews and Safety reviews to be very important and most important, very few respondents are neutral regarding the importance of the reviews and comparatively even fewer or none of the respondents considers the factors to be not very important and not at all important.

Interpretation: One way ANOVA to analyse the impact of customer's demographics on the factors considered while booking hotel online.

Table 2: F-Statistic and significance value

	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.
Performance Risk	.755	.386	.937	.444	1.115	.292	2.957	.054	1.306	.273
Financial Risk	1.960	.163	1.678	.157	.470	.494	5.851	.003	2.177	.116
Functional Risk	.048	.827	6.484	.000	7.084	.008	2.788	.064	.784	.458
Physical Risk	.404	.526	1.064	.376	.321	.571	.852	.428	4.507	.012
Social Risk	11.074	.001	4.382	.002	2.638	.106	11.150	.000	1.235	.293

Table 2 represents F-Statistic and significance value from One way ANOVA results of impact of customer's demographics on factors, i.e. Performance risk, Financial risk, Functional risk, Physical risk and Social risk, considered while booking hotel online.

The gender of the customers is having a significant impact on Performance risk, Financial risk and Social risk factors whereas it is not having a significant impact on Functional risk and Physical risk factors. The marital status of the customers is having a significant impact on Performance risk, Functional risk and Social risk factors whereas it is not having a significant impact on Financial risk and Physical risk factors. The age, educational qualification and monthly family income of the customers are having a significant impact on all the factors considered while booking hotel online.

Correlation Analysis to identify the relationship between the customer's attitude and perception towards online customer reviews.

Table 3 represents the correlation coefficient and p-value of Correlation analysis between the various dimensions of customer's attitude and perception, i.e. Performance, Financial, Functional, Physical and Social towards online customer reviews.

The value correlation coefficient between all the dimensions of customer's attitude and perception is > 0.30 but < 0.70. This means that the customer's attitude and perception towards online customer reviews are moderately correlated, i.e. neither too strongly nor too weekly correlated. The p-value for all the variables is 0.00 which is < 0.01 at 1% level of significance, so null hypothesis (H0) will be rejected and the alternative hypothesis (H1) will be accepted for all the variables. This means that there exists significant relationship between all the dimensions of customer's attitude and perception, i.e. Performance, Financial, Functional, Physical and Social towards online customer reviews.

Table 3: Correlation coefficient and p-value from Correlation Analysis

		Correlation coefficient	P-value
Performance Attitude	Performance Perception	0.484	0.000
Financial Attitude	Financial Perception	0.452	0.000
Functional Attitude	Functional Perception	0.520	0.000
Physical Attitude	Physical Perception	0.437	0.000
Social Attitude	Social Perception	0.340	0.000

Regression Analysis to analyse the impact of online customer reviews on various dimensions of perceived risk associated with online hotel booking.

Table 4: R2, Adjusted R2, F-Statistic and significance value from Regression Analysis

	R2	Adjusted R2	F	Sig.
Performance Risk	0.118	0.094	4.847	0.000
Financial Risk	0.117	0.093	4.798	0.000
Functional Risk	0.156	0.133	6.698	0.000
Physical Risk	0.253	0.232	12.246	0.000
Social Risk	0.106	0.081	4.271	0.001

Table 4 represents R^2, Adjusted R^2, F-Statistic and significance value of Regression Analysis of the impact of online customer reviews, i.e. Service, Facility, Price, Location and Safety reviews on various dimensions of perceived risk, i.e. Performance, Financial, Functional, Physical and Social risks associated with online hotel booking.

The F-Statistic is greater than the significance value for all the perceived risk factors, so the null hypothesis (H_0) will be rejected and the alternative hypothesis (H_1) will be accepted. This means that the online customer reviews is having a significant impact on the Performance, Financial, Functional, Physical as well as Social risk associated with online hotel booking.

Conclusion

The overall scope of the study was to analyse the impact of online customer reviews on customer's perceived risk associated with online hotel bookings. The empirical findings and results of the study show that online reviews are having a significant impact on the Performance risk, Financial risk, Functional risk, Physical risk as well as the Social risk associated with online hotel bookings. The other objectives of the study included identifying the reasons considered by customers for online hotel booking. It was found that most of the customers booked hotel online because of the offers and discounts available while booking hotel online. The other reasons for booking hotel online included the various payment facilities available, that it is less time consuming, it is accessible 24*7 and it is more trustworthy. Another objective of the study included analyzing the impact of customer's demographics on the factors considered while booking hotel online, the factors including Performance, Financial, Functional, Physical as well as Social factors. The demographics of the customers do affect the online booking intentions. So the hoteliers should consider the demographics of the target market before planning the promotional and marketing strategies. One of the objectives of the study was also to identify the relationship between customer's attitude and perception towards online customer reviews. It was found out that the customer's Performance, Financial, Functional, Physical as well as Social attitude and perception towards online hotel booking is highly correlated.

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A Study on Customer Behaviour Towards Make My Trip.Com

Amarah Shakil and Namrata Maheshwari

Abstract

Gone are the days when one went about calling multiple agents for travel information. Today, the World Wide Web allows one to access a plethora of information, 24/7, from the comfort of his/her home. So, whether it is information on hotel, tickets, local travel or even the sights and sounds of a particular destination, it's all available at just the click of a button. Across the world, consumers are increasingly turning to the internet to satisfy their travel needs. From trip research and price comparison to shopping and booking, consumers are finding the convenience of the web vital to their personal and business travel needs. The constantly evolving consumer has mandated travel companies today to perpetually re-invent themselves. The emergence and power of the internet has made it vital for travel companies to have an online and mobile presence as well as market themselves through the medium. No wonder, the online travel industry has grown by leaps and bounds in the last ten years. This research paper is a study and analysis of the effectiveness of travel websites with reference to MakeMyTrip.com. An attempt has been made to study the current status of online marketing globally as well in India. In India E-commerce is being driven by the growing online travel industry and online travel bookings have increased substantially after the entry of low cost carriers. Primary Research has been conducted to estimate the consumer satisfaction from the online portal. Various parameters linked to the services provided by this website have been included in the research. The research what are the strong points of the company and the key areas that are to be focused on the near future.

Keywords: Attribute, Brand loyalty , Consumer Behaviour, Online travel, Tourism

Introduction

India offers myriad flavours mingling in the steam of a country coming of age. Teeming with over a billion people who voice over a million concerns in fifteen hundred different languages, India is where people live with variety, thrive on diversity and are too familiar with largeness to let it boggle them. Travelers and tourists to India may however not find it so undoubting. Mud huts and mansions face off across city streets and lurid luxury and limp living are inhabitants of the same lane. Just like in the 'masala' box in every Indian kitchen, measures of Calm and "Kaam" (work) craft the people of India. In this beautiful and bountiful land that is India, events, experiences and sensations heap themselves on the tourist at every step. India will be one of the most stimulating places you'll ever visit.

The tourism industry is now one of the largest sectors earning foreign exchange. In the face of many benefits, many countries have started assigning due weight age to the tourism industry in their national development agenda. Tourism is one of the world's fastest growing industries at present and holds the status of the world's no. 1 industry. The industry creates a job every 2.4 seconds with every one of those direct jobs creating another 11 indirect ones. The tourism industry as a whole is presently estimated to earn over US$ 3.5 trillion Worldwide. India's share of the total market is a pittance at 0.51%. The non-tourist countries like Malaysia and Indonesia get much more tourists than India.

The Tourism industry's foreign exchange earnings in India are around $3.2 billion. Tourism is the highest foreign exchange earner if we consider the fact that net value addition in Gems and jewelery is less than 30% whereas, in tourism it is more than 90 %.Use of the Internet by travelers to plan and book their trips continues to grow at a rapid rate. In the United States, according to the Travel Industry Association (TIA 2007), more than 75 million online travelers used the Internet in 2006 to get information on destinations or to check prices and schedules, while growth of the online traveler market has slowed, the number of online travelers who actually use the Internet to plan trips has remained relatively stable. A majority (67%) of online travelers say they consult the Internet to get information on destinations or to check prices or schedules. Not surprisingly, nearly all online travel planners say that some of the trips planned on the Internet in the past year were for pleasure, vacation, or personal purposes. Three in ten say some of the trips planned on the Internet were for business or convention purposes. For online travel planning, online travel agency websites (such as Microsoft Expedia, Travelocity, YATRA.COM, and MAKEMYTRIP.COM, ETC), search engine websites, and company owned websites (airlines, hotels, etc.) are the most popular types of websites used. A majority of online travel planners also use destination websites. Tourism Industry in India is one of the most lucrative industries in the country and contributes substantially to foreign exchange earned. In fact during 2008, four million tourists visited India and spent US $8.9 billion, thus making India one of the major global tourist destinations. Augmented tourism in India has created jobs in a variety of associated sectors, both directly and indirectly. Tourism is one of the success stories of the 20th century and is concerned more with the satisfaction of individual rather than with the scientific and technological achievements. Almost 20 million people are now working in India's Tourism Industry. India's tourism is thriving, owing to a huge flow in both business and leisure travel by foreign and domestic tourists and is expected to generate approximately US$ 275.5 billion by 2018. Tourism has been a major social phenomenon, which is motivated by the natural urge of every human being for new experience, adventure, education and entertainment.

According to Payal Ganguly, (ET Bureau May 28, 2014) the deep discounts offered by domestic airlines have come as a windfall for online ticketing websites, such as MakeMyTrip, Yatra and Goibibo, which have seen sales go up by as much five times. The latest offers were timed in with Indian Premier League, by cutting down the prices by as much as half. The increase in sales varies as per the level of discount in each sale. The normal rate of cancellation being around 5% but during such flash sales the rate increases to 8-9 %, because the purpose of flash sales is to capture impulse bookings, hence cancellation rate is higher (Business Today Online Bureau Jul 30, 2012). MakeMyTrip entered it to an pact with online payment facilitator PayPal to offer its overseas customers an additional option to pay for their international flight bookings to India. MakeMyTrip's integration of PayPal as the payment partner for its website offers customers a trusted and safe payment option. The offer is valid only for PayPal account holders registered outside of India. The company offered an inaugural discount as well. With PayPal as their digital wallet, consumers are not required to enter sensitive financial information such as bank account or credit card number each time they transact online.Customers based abroad can now use PayPal as a safe way to pay for their dream Indian holidays and enjoy a hassle-free booking experience.

(Shankar, Smith & Rangaswamy, 2003) Consumer behaviour in online environments (as well as offline) is related to customer satisfaction and loyalty, which are also factors that affect purchase intention or recommendation which in turn are affected by the characteristics of the websites themselves mentioned previously.

(Van Iwaarden et al, 2004) Businesses in both service and product related industries are using e-commerce to enhance sales. Along with pricing, electronic service quality now plays a major role in consumers' responsiveness Since a website is a component of the relationship between a company and its customers, it is apparent that it must mirror the quality efforts that are in place throughout the company.

Methodology

In this study I have set out to explore the customers' perception towards make my trip.com to determine the extent of customers' convenience on online travelling booking. The purpose of research methodology is to discuss the methodological approaches and how the study was carried out. It helps the readers to understand how data were obtained and how the findings were obtained. It begins with concept of primary and secondary data, sampling method, sample size, time frame of study, places of study and statistical tools used.

Primary Data: Primary data refers to information that is developed or gathered by the researcher specifically for the research project at hand. Primary data may be collected through surveys and observations. The expenses related to gather such data are higher than gathering secondary data. Time involved in collection of such data is longer than the collection of secondary data.

Secondary Data: Secondary data have previously been gathered by someone else someone else other than the researcher for some purpose other than the research project at hand. Secondary data may be obtained from internal plus external sources. Internal sources refers to those which are available within the organisation, whereas external sources are those information published by other researchers or agencies or institutions accessible in a range of forms. Data collection expenses are relatively low also time needed for data collection is shorter than the time needed to collect primary data.

Sampling Method: Purposive sampling method is used where purposely a part of population is cancelled.

Thus, non-probability sampling method is used for the research of this particular project.

Sample Size: The sample size selected for the research is 150 in the area of Kolkata.

Time Frame Of Study: The time needed for the research and completion of this project are two months.

Place Of Study: The data was gathered from different areas in Kolkata.

Framing Of Hypothesis

H_{01}: There lies no relationship between company reputation and performance

H_{11}: There lies a relationship between company reputation and performance

H_{02}: There lies no relationship between performance and service provided

H_{12}: There lies a relationship between performance and service provided

H_{03}: There lies no relationship between performance and easy registration

H_{13}: There lies a relationship between performance and easy registration

H_{04}: There lies no relationship between company reputation and service provided

H_{14}: There lies a relationship between company reputation and service provided

Results and Discussion

Test - 1 Hypothesis

Table 1: ANOVA Analysis

	Sum of square	df	Mean square	F	Sig
Between Groups	15.350	2	7.67	34.402	.000
Within Groups	21.640	97	.223		
Total	36.990	99			

A One-Way ANOVA was conducted to compare the relationship that company's reputation has on service provided.

The analysis of the variance showed that the effect of company's reputation on performance, F(2, 97) = 34.402, p=0.00. Therefore, null hypotheses is rejected (0.00 <0.05) and hence there lies a relationship between company's reputation and performance.

Test - 2 Factor Analysis

Table 2: Correlation Matrix

		Overall experience	User interface	Additional service	Festive offers	Booking option	Payment security option
Correlation	Overall experience	1.000	0.543	0.586	0.589	0.471	0.450
	User interface	0.543	1.000	0.484	0.431	0.513	0.499
	Additional servicve	0.586	0.484	1.000	0.411	0.498	0.223
	Festive offers	0.589	0.431	0.411	1.000	0.460	0.578
	Booking option	0.471	0.513	0.498	0.460	1.000	0.691
	Payment security option	0.450	0.499	0.223	0.578	0.691	1.000

The above table shows the correlation between different attributes of make my trip.com

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.753
Bartlett's Test of Sphericity	Approx. Chi-Square	268.645
	df	15
	Sig.	0.000

KMO measure of sampling adequacy is an index used to test appropriateness of the factor analysis. The minimum required KMO is 0.5. The above table shows that the index for this data is 0.753 and the chi- square statistics is significant (0.00<0.05). This means the principal component analysis is appropriate for this data.

The table of communalities shows how much of the variance(i.e. the communality value which should be more than 0.5 to be considered for further analysis. Else these variables are to be removed from further steps in factor analysis) in the variables has been accounted for by the external factors.

Table 4: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.483	58.054	58.054	3.483	58.054	58.054
2	.865	14.422	72.476			
3	.618	10.293	82.770			
4	.502	8.364	91.134			
5	.338	5.639	96.773			
6	.194	3.227	100.000			
Extraction Method: Principal Component Analysis.						

In the above table the Eigen Value actually reflects the number of extracted factor whose sum should be equal to the number of items subjected to factor analysis.

The next item shows all the factors extractable from the analysis along with their Eigen Values.

The Eigen Value table has been divided into three sub-sections, i.e. Initial Eigen Values, Extracted Sums of Squared Loadings and Rotation of Sums of Squared Loadings. For analysis and interpretation purpose only Extracted Sums of Squared Loadings are being considered.

Table 5: Component Matrix

Component Matrixa	
	Component
	1
Booking option	0.799
Overall experience	0.799
Festive offers	0.760
Payment security option	0.759
User interface	0.759
Additional service	0.691
Extraction Method: Principal Component Analysis.	

The above factor analysis extracted using the SPSS software. The dimensionality of scale was assessed through principal components analysis method of factor analysis. The criterion followed for the extraction of the factors was to have an Eigen Value higher than 1. The items having factor loadings less than 0.5 were eliminated. The extraction method used is Principal Component Analysis. More than 0.5 values have been considered and considered adequate. Thus from the above table it has been derived that various sub factors whose values are more than 0.5 are considered and placed accordingly under the appropriate factor.

Test -1 Hypothesis

Table 6: Chi-Square

Pearson Chi-Square	2.665[a]	2	0.264
Likelihood Ratio	2.656	2	0.265
Linear-by-Linear			
Association	.848	1	0.357
N of Valid Cases	150		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.67.

As the Pearson chi-square value is more than 0.05 so there is no significant impact between people who are using make my trip or not will further use it. This shows that they are not brand loyal.

Conclusion

The survey was conducted with one hundred respondents of different age group and sex and all are residents of Kolkata. It was seen that 55% of the population were males and 45% of them were females. This means that there both female and male users are present. The age group were mainly dominated between 20-35 year old respondents (76.7%). There are mainly youth and educated class of people who use this website. 67% of the population has visited the website while the rest still haven't. This means that makemytrip.com has captured a good market and most of the population know about it. Majority of the respondents have rated convenience as the factor which leads them to choose online travel booking. More 92% of the population agrees that information on the website is well organized and they fine all the information they require on the website while few(8%) are neutral about it. The company should focus on CRM (Customer Relationship Management) as 18% of the consumer are not satisfied.

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Performance Analysis of Automobile Industry in India: A Case Study of Key Players

Divya Jain and Monojit Dutta

Abstract

The study represents the figures of Indian Automobile Industry during the period 2011 to 2019. The study has been conducted considering the segments such as passenger vehicle, commercial vehicle, utility vehicles, multi-purpose, two wheelers and three wheelers. Each section concisely explains the current and future market trends, and developments in the Indian automobile market. The methodology used to find the trends and the market share of the Indian automobile industry. The research takes into account the past and current trends in an economy, and more specifically in an industry, to bring out an objective market analysis. Despite economic slowdown, the Indian automobile sector has shown high growth. The economic sustainability and increasing living standards and purchasing powers of the Indian customer's automobile sector has a bright coming future. The Industry is recording increasing growth rate in sales, but still there are loop holes in the automobiles industry and these needs to be considered by the auto mobile industry to overcome.

Keywords: Automobiles, passenger vehicle, commercial vehicle, utility vehicles, multi-purpose and two wheelers and three wheelers

Introduction

The automobile industry today is the most lucrative industry. Due to the increase in disposable income in both rural and urban sector and easy finance being provided by all the financial institutes, the passenger car sales have increased at the rate of 38% per annum in June 2017-18 over the corresponding period in the pervious year. Further competition is heating up in the sector with a host of new players coming in and other like Porsche, Bentley, Audi, and BMW all set to venture in the Indian markets. One factor that could help the companies in the marketing of their product is by knowing and creating a personality for their brands. This research attempts to answer some of the questions regarding brand personality of selected cars in India by conducting the market research. This personality sketching will help in knowing what a customer (or a potential customer) thinks about a given brand of car and what are the possible factors guiding a possible purchase. Similarly, the idea of measuring the customer satisfaction will serve the same purpose of determining the customer perception. Thus, by measuring the "willingness of existing users of a car to recommend it to others" will help the car manufacturers to chalk out the entire Customer Buying Behavior. This research will be helpful for the new car entrant companies in India to find out the possible gaps between the customer expectations and the present market offerings. It will be mainly a primary research and the information will be gathered from both primary and secondary research. The research will analyze the applicability of existing research concepts, theories, and tools for evaluating consumer satisfaction.

RNCOS, Indian Automobile Industry - An Analysis (2006) - Similar to the previous report, this one also takes into account the survey period between 2005 and 2010, with the added benefit of better exploring some more vital points and opportunities that the Indian automobile industry might represent in modern times, such as useful information for prospective investors and the points they should keep in mind while investing in the automobile market.

KPMG, The Indian Automative Industry Evolving Dynamics (2010) - As per readings of reports by KPMG, it can be ascertained that the Indian automobile industry was gearing up to experience major upward growth in the following years to come. From this specific report, various actionable points could be taken up to so as to better take advantage of emerging trends in the future.

Becker, D. The Indian Automobile Industry (2013) - A more up to date report based on KPMG's previously mentioned study, this survey analyzes the financial performance of selected Indian automobile companies at the time, so as to appreciate the increasing growth rate and the overall performance it has shown in the recent past. Furthermore, it validates that these companies are strong financially while exhibiting a good potential to grow stronger in the future.

M. Krishnaveni& R. Vidya, Growth of Indian Automobile Industry (2015) - This specific paper highlights the global position of the Indian automobile industry as one of the largest in the world, with it being a key sector of the country's economy as well providing favorable conditions for further growth through the presence of more foreign brands looking to invest capital in India as a result. This significant increase was calculated in this study through the measuring of FDI in the automobile sector as well as workarounds to increase overall efficiency.

Kumar, Neeraj. Changing Structure of Indian Automobile Industry (2015) - All of the aforementioned current upward trends and development trajectories, however, are better understood with context of the past. Which is where this 2015 paper comes in handy. It traces the evolution of the automotive industry from its beginning to the present day and identifies the important policies made by the Indian government as a result. It also studies the influence of important policies on the development of the industry. Additionally, it also analyzed the industry between the period of 2005 to 2010 and categorically notes how the Indian automobile industry had been able to sustain itself during the tough period of recession and produce record breaking sales growth.

Methodology

The present study is descriptive study. The analysis is based on Secondary data collected from various organizational databases, websites, newspapers and other necessary official records, books & magazines. Monthly closing prices have been taken for technical analysis purpose from year 2009 to 2013. Statistical measures like mean, deviation, correlation moving averages have been used to find out the conclusion. Besides Tables & Charts are used to present and analyze data. The aim of this research is to know the financial performance of the companies and the industry as a whole. Stock market has been the focus of study for many of the researches and this research based on the secondary data would try and find out the trends prevailing in the automobile industries. The companies taken into consideration for the research are: Mahindra and Mahindra Limited, Maruti Suzuki India Ltd, Tata Motors Limited.

The data analysis has been done using the top down approach and following are the subheadings used for the data analysis:

Economic analysis: Following annual indicators have been used for year 2016 to year 2018- GDP Analysis, Inflation rate Analysis, FDI Flow

Industry analysis: Following indicators have been used: Annual Sale, Net profit, Market share

Technical analysis: Correlation using graphs

Scope of the research: It aims to study the automobile industry in India and how the Indian are playing an important part in the market shares.The paper studies the importance of the growth of Indian Brands in the Indian Automobile Industry.

(1) GDP Growth rate

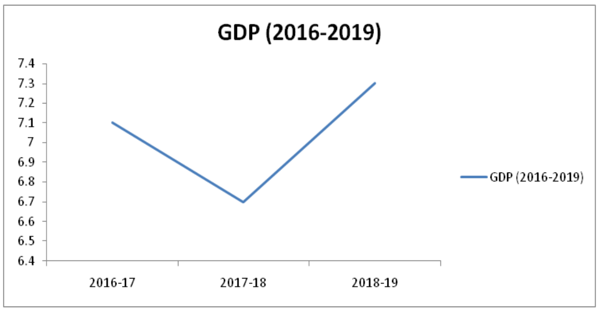

Figure 1: Movement of the GDP growth of India

There is a dip shown during the period of the economic slowdown during 2017-18. India also suffered, but unlike many other countries, India did quite well and recovered quickly. Slow pace of GDP affects negatively all the industries and auto sector is not an exception. Average GDP was from 7.1% to 7.3% in the year 2016 to 2019 and it was the period for the Indian automobiles sector as well but fortunately after 2017 there has been a sharp increase in GDP rising to 0.6%. The reason for slow growth rate has been many e.g. lack of political stability, high interest rate, high import duty, and high inflation rate.

ii) Inflation rate: The rate has always been above the comfort level but recently has shown some signs to come down. The biggest contributor to this rate is the inflation in thefood grains which are increasing at a drastic level. High inflation coupled with high growth rate makes positive impact on the economy but the recent years the real GDP which is nominal GDP loss inflation has been negative.

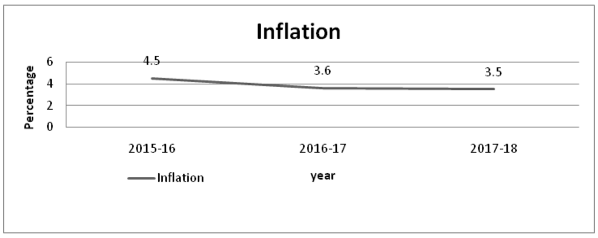

Figure 2 : Inflation rate in India. Source: www.global-rates.com

i. FDI Flow

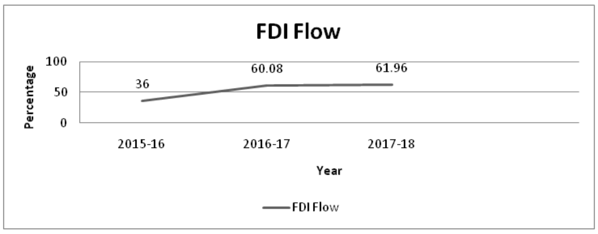

Figure 3 : FDI Flow of India

In the financial year 2015 to 2018, the service sector has shown the maximum level of the FDI flowing in. Now however, the field is more equally distributed. Manufacturing sector has taken a slight lead on the maximum level of FDI. The inflow has also increased over the years but a dip recently in the year 2018.

Industry Analysis

Annual sales: From the above analysis we come to a conclusion that Maruti Suzuki has done the highest sale from 2014 to 2018, sales in 2018 being 83025 Cr, as compared to Tata Motors being the 2nd highest with 58831.41 Cr in 2018 and followed by Mahindra with the lowest sales of 2529.33 Cr in 2018. The major reason of why Maruti has achieved this goal is mainly to do with passenger cars like Uber and Ola.

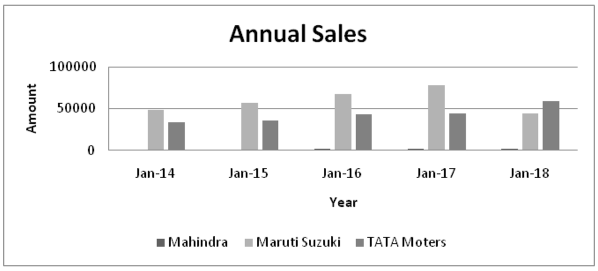

Figure 4: Annual Sales Graph

Net profit: Comparing the profitability of these companies we see that TATA motors being the 2ndhighest sellers amongst the 3 companies is still not making profit to the company.

Maruti Suzuki is making a annual net profit amounting to Rs 7500 Cr. in the year 2018. And Mahindra giving a below average profit of only Rs. 35 Cr.

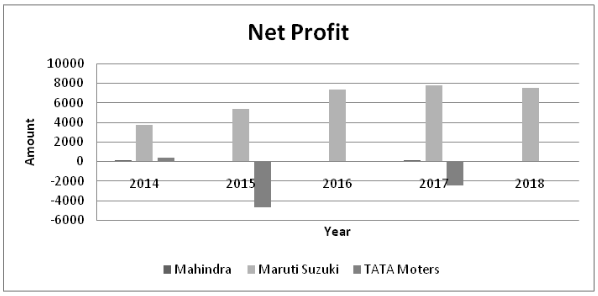

Figure No 5 Graph Showing Net Profit of the companies from Mar 14- Mar 18

Market share: Comparing the market share of the companies we get the results that Maruti Suzuki is taking the majority of the market share with 51%, followed by TATA Motors India With 7% and Mahindra and Mahindra with 7.3 %.

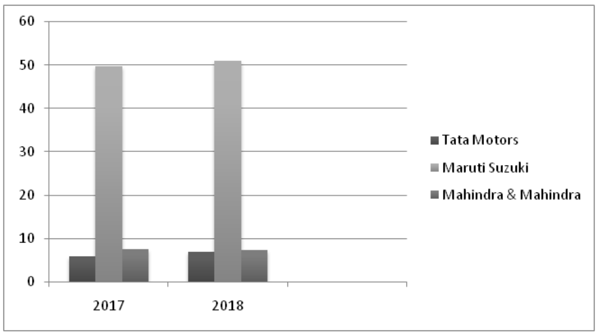

Figure 6: Market share of the companies for the year 2017& 18

Technical analysis

Correlation using graphs: Correlation is the tool for finding the similarities in the movements of the stock indexes. In the paper we have five indexes (three companies and an auto plus Sensex index). Following are the findings of the same:

Correlation between Auto Index and Tata Motors is 79.98% which is very high and shows that the Tata motors stock index is very similar to the auto index and the movement of one can be predicted by using the other.

Correlation between Auto Index and Maruti is 53.41%. This is fairly high but not as good as the Tata index. This medium correlation shows that Maruti is not sharing the movements of the auto index.

Correlation between Auto Index and M and M in 92.87%. This is the highest level of correlation coefficient out of the three and talks about high positive similarities in the movements of the two indexes. With a good level of confidence, one can talk about the movements of one by looking at the other index.

Conclusion

The industry has recorded phenomenon growth during the last decade. A market trend is growing at a faster rate. According to CAGR the market will further grow in years to come. The opening of the Indian automobile market for foreign companies the competition is expected to enhance further. The opportunities can be grabbed through the diversification of export basket in untouched foreign destinations. Thus strict quality standards, services and use of latest technology can provide an edge over competitors across the globe.

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A Study of Rural Consumers Behaviour and Attitude Towards FMCG Products

Naina Goel and Namrata Maheshwari

Abstract

Rural India accounts for more than 40% consumption in major FMCG categories such as personal care, fabric care, and hot beverages. The growing incline of rural folks for FMCG products will be mainly responsible for the growth in this sector, as manufacturers will have to deepen their concentration for higher sales volumes. Moreover, FMCG products are that sold quickly are relatively low cost. Fast Moving Consumer Goods have a short shelf life. Among the different factors influence rural consumers to make purchasing decision of FMCG products, 'Price, Quantity and Quality'. The next important factor influence rural consumers to make purchasing decision of FMCG products is 'Life style Factor'. It may be recommended that the producers or marketers should frame ethical advertising strategies keeping in mind that rural people are fond of electronic and print media advertisements. On the other hand the retailers should be provided with skills and incentives to convince the consumers for purchase of a particular brand or product.

Keywords: ethical advertising, life style factor, growing incline, price, quantity, quality

Introduction

Thrust on rural development since 1950 eventually made India into an attractive rural market. Increased awareness along with rise in income levels influenced the rural marketing environment in the country. Other factors that contributed to the growth of rural markets are access of media, rising aspiration of rural people and good packaging of products. Rural market is not all about low price point and PR building. With penetration of TV advertisement and other informative media, the awareness level of rural people is increasing gradually. The urban markets got saturated with products and brands which forced marketers to turn towards rural markets.

Fast Moving Consumer Goods have become a basic necessity in human life. In this paper, an attempt has been made to find out the rural consumers awareness and buying behaviour towards FMCG. Items in this category include all consumables (other than groceries/pulses) people buy at regular intervals. Rural areas expected to be the major driver for FMCG, as growth continues to be high in these regions. Rural areas achieved a 16 per cent, as against 12 per cent rise in urban areas.

Major Categories in FMCG Sector

The following are essential goods that are needed to the human in today's environment:

- Household care fabric, bath soap, laundry soap, and synthesis detergent;
- Household cleaner, VDish / wash cleaners, toilet cleaners, mosquito repellents;
- Cake, biscuit, chips, chocolate, ice cream, tea, our, coffee;
- Soft drink, branded rice, canned fruits;
- Vegetables, dairy products, personal care product, oral, hair, skin care product etc. A shampoo, toothpaste, shaving products, shoe polish, packaged foodstuff, and extends to certain electronic goods.

Some of the most important factors influencing consumer behaviour are as follows: A. Marketing Mix Factors B. Personal Factors C. Psychological Factors D. Social Factors E. Cultural Factors.

Aggarwal.B (2014) suggested that Consumer behaviour research is the scientific study of the processes consumers use to select, secure, use and dispose of products and services that satisfy their needs. Firms can satisfy those needs only to the extent they understand their customers. The main objective of this paper is to study the demographic differences in consumers' "buying behaviour of persons living in Madhya Pradesh and when they buy FMCG products.

Yuvarani. M (2013) analysed that liberalization of the Indian economy had far reaching consequences, which led to the free entry of global brands in Indian markets. The study focuses mainly on the rural consumer behaviour towards selected FMCG products, but with the prevailing trend it is necessary to focus on the essence and emergence of vibrant rural marketing efforts of FMCG companies. Thus, with more number of companies entering into the rural market, with a variety of products, it is must for companies to study the rural consumer behaviour over FMCG products.

Katiyar. A (2014) "An Empirical Study of Indian Consumer Buying Behaviour of FMCG Products (With Special Reference of Bathing Soap)", assessed that bathing soap are fast moving consumer goods that have seen a surge in their sales in the past few decades in India more and more people are opening up to the idea of experimenting and trying out newer bath soap. This study is attempt to cover the various factors that influence the buying decision of consumers who plan to purchase and or used bath soap.

Agarwal and Sindhwani assessed that rural markets are going to be the fuel for the growth & expansion of FMCG sector in India. As the income of the rural household consume increases, the demand for a variety of FMCG products will also rise. In order to capture and fulfil this demand, FMCG companies in India need to pay special attention to the rural markets. As depicted in the study, rural consumers are not just looking for cheap products in market; but they are looking for value products which can satisfy their needs. Also, channel selection is another important factor while marketing products in rural areas. The emergence of various promotional platforms, innovative advertising, mobile phones etc. is empowering rural consumers to have a better standard of living. This trend is going to rise in the near future too.

Methodology

Sources of Data:

- Data collection: the data used will be primary in nature. The primary data will be collected from a survey which will be conducted by a questionnaire. The structured questionnaire will be prepared in English and Bengali
- Time Period: The time period of data collected is May 2019
- Sampling Technique: The sampling technique to be used is convenience sampling.

Statistical tools:
The representation of socio-economic details was carried out using pie chart, column graphs, bar diagrams, two way table and subdivided bar diagram. Further the testing of hypothesis was conducted using statistical techniques of F-test, two tailed T-test and ANNOVA and Chi-square. The results were represented using tables and analysis was done using MS-Excel 2010, software. The interpretation was done by the researcher based on the results revealed through the graphical representations and statistical test results.

Results and Discussion

How often do you buy FMCG products in a month?

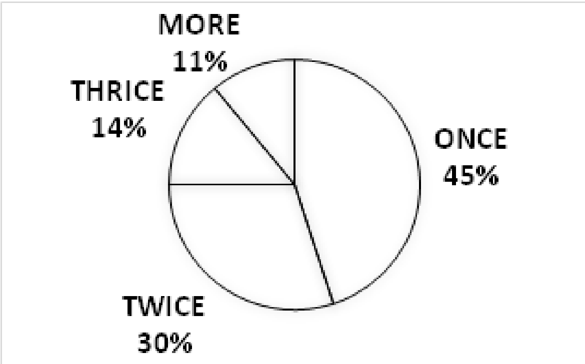

Figure 1: Frequency of buying FMCG products in a month

Interpretation: The respondents majorly purchase FMCG products twice in a month, while 30 respondents agree that they purchase such FMCG products once in a month. Fewer respondents said that they purchase thrice a month while only 15 respondents agree they purchase such FMCG products more no of times in a month. How did you get to know about any new / existing but unaware product?

Figure 2: Awareness Level modes

Interpretation: Since in rural area people trust more on their relatives and friends. Thus the above question explains the fact that people in rural area come to know about new brand or product through neighbours and friends but most importantly from their retailers since they are in constant contact with their retailers and they always are updated with the brands and products in the market. While some of the respondents agree that visit to town and cities also help them in knowing about new products.

Factors that influence your buying decision of a product?

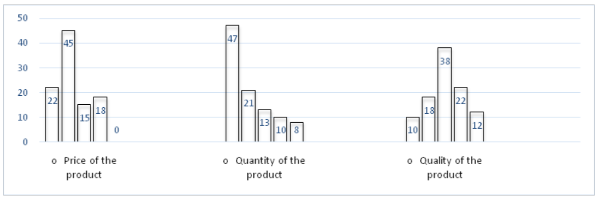

Figure 3: Influencing factors

Interpretation: The above factors show that price and quantity of a product are important factors for buying a product. Rural consumers still think that quantity should be the first criteria over price. Whereas no consumer feels price is not at all important but 8 consumers feel quantity is not at all an important concern for them. Most f the consumers are neutral about the fact for quality of a product. But according to the response we can understand that now-a-days quality of a product is becoming an important concern for many.

What makes you buy FMCG products from your retailer?

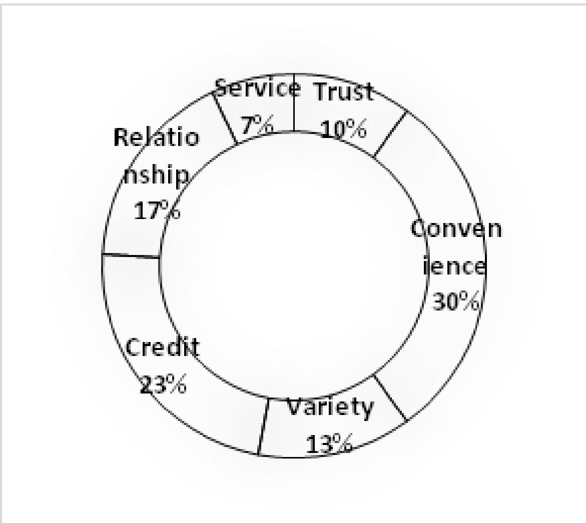

Figure 4: Retailers selection reasons

Interpretation: As we have seen in the earlier question the respondents believe that convenience and credit facility are the most important criteria for them thus the above question explains the same as here majority of the respondents have chosen convenience and credit over others. After these two variety and relationship is what matters for the consumers. Trust is not that important for the rural consumers whereas service of the retailer is not considered important for them as well.

How is a brand chosen by the retailer?

Figure 5: Brand selection process

Interpretation: The retailers are smart enough to look for their own profit first and then provide customer what they want. As the above question states that the retailers would firstly keep those brand in their store where they get maximum profit and then look which brand is most accepted by the rural consumers. Range of products and availability of them are the secondary concerns for them.

Why do the retailer feel customers purchase from their store?

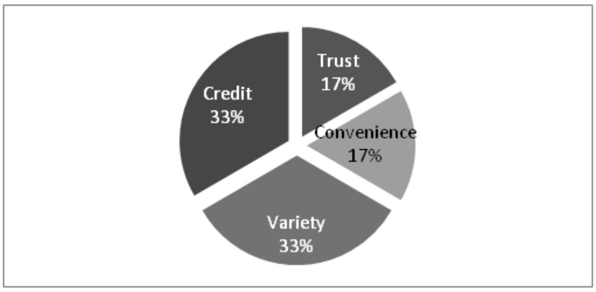

Figure 6: Retailers opinion for purchase

Interpretation: We can see that for the consumers it was convenience and credit that was important for choosing a retailer but when the same question was asked to the retailer they believe that the consumers choose their retailers on the basis of variety was products available and credit facility given to them.

Testing:

Hypothesis I:

H_0: There is no significant impact of brand and product awareness on buying decision

H_1: There is significant impact of brand and product awareness on buying decision

Table 1: Awareness and buying decision

	awareness	*buying decision*
Awareness	1	
Buying decision	0.145385	1

Interpretation: The result to the correlation testing has an output of 0.145385 which is less than 0.3. Thus the correlation between the dependant and the independent variable i.e., the impact on buying decision by the member and the awareness about brand and product respectively is very weak. This also explains that we accept Ho which states that awareness about brand and product has no significant impact on the buying decision of the member. This can also be understood by the analysis of the respondents that the customers being uneducated and also not much interested in switching their product, the consumer won't get affected with the fact that they are or not aware about the product. They would still buy that product which they are being using.

Hypothesis II:

H_0: There is no significant impact of price and quantity on buying decision

H_1: There is significant impact of price and quantity on buying decision

Table 2: Regression Analysis

Regression Statistics	
Multiple R	0.211538048
R Square	0.044748346
Adjusted R Square	0.025052435
Standard Error	1.226047259
Observations	100

ANOVA					
	Df	**SS**	**MS**	**F**	**Significance F**
Regression	2	6.830387498	3.415194	2.271961279	0.108570847
Residual	97	145.8096125	1.503192		
Total	99	152.64			

Coefficients	**Standard Error**	**t-stat**	**P-value**	**Lower 95%**	**Upper 95%**	**Lower 95.0%**	**Upper 95.0%**	
Intercept	3.58	0.34	10.35	2.31	2.89	4.26	2.89	4.26
Price	0.11	0.12	0.91	0.36	-0.13	0.35	-0.13	0.35
Quantity	-0.19	0.09	-2.02	0.04	-0.37	-0.00	-0.37	-0.00

Interpretation: The results show that the p-value of the price with buying decision is greater than 0.05 i.e., 0.36 > 0.05 which states that the null hypothesis is accepted. The null hypothesis implies that there is no significant impact of price on the buying decision of the customers. Whereas the p-value of the quantity with buying decision is less than 0.05 i.e., 0.04 < 0.05 which states that the null hypothesis is rejected and the alternative hypothesis is accepted. The alternative hypothesis implies that there is significant impact of quantity on the buying decision of the customers. It was also shown through the survey that it's more important for the customers to buy product in quantity. They are ready to pay for products which has a good deal of quantity in the package. Thus the regression test proves that there is no significant impact of price on the buying decision of customers but quantity has significant impact on buying decision of the customers.

Hypothesis III

H_0: There is no significant impact of age, gender and education on the buying decision

H_1: There is significant impact of age, gender and education on the buying decision.

Table 3: Chi Square Analysis (Case Processing Summary)

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
age * Buying frequency	100	100.0%	0	.0%	100	100.0%
Gender * Buying frequency	100	100.0%	0	.0%	100	100.0%
Education * Buying frequency	100	100.0%	0	.0%	100	100.0%

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.884a	6	.092
Likelihood Ratio	11.043	6	.087
Linear-by-Linear Association	2.863	1	.091
N of Valid Cases	100		

Interpretation: The result for the test applied through chi square whether age has a significant impact on buying decision, has an output of 0.092 as the p-value. Since the p-value is greater than 0.05 i.e. 0.092 > 0.05, thus this implies that the null hypothesis is accepted which proves the statement that age is not a significant factor in determining the buying decision of the customer.

Table 4: Chi-Square Tests for gender

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.631a	3	.085
Likelihood Ratio	6.854	3	.077
Linear-by-Linear Association	0.295	1	.587
N of Valid Cases	100		

Interpretation: The result for the test whether gender has a significant impact on buying decision has an output of 0.085 as the p-value. Since the p-value is greater than 0.05, i.e. 0.085 > 0.05, thus this implies that the null hypothesis is accepted which proves that gender is not a significant factor in determining the buying decision.

Table 5: Chi-Square Tests for educational qualification

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.738a	12	.204
Likelihood Ratio	18.051	12	.114
Linear-by-Linear Association	.511	1	.475
N of Valid Cases	100		

Interpretation: The result for the test whether education has a significant impact on buying decision has an output of 0.204 as the p-value. Since the p-value is greater than 0.05, i.e. 0.204 > 0.05, thus this implies that the null hypothesis is accepted which proves that education is not a significant factor in determining the buying decision.

Conclusion

Once the rural consumers found that certain brands are suitable to them, they do not change it easily due to influence of friends/social group and lack of availability of their usual brands. In case of non-availability of their brand at the store where they purchase regularly, they often go to another retail store to get their preferred brand and do not compromise easily. SED Variables, motive, attitude and store attributes apart from the product attributes significantly influences the rural and semi-urban consumer behavior towards FMCG. Local retailers were found to play a vital role, especially when the respondents are illiterate. These store keepers introduce and inform them about the brand, its benefits and also about the promotional offers. Hence the marketer has to develop a good rapport with the local retailers to reach the illiterate rural consumers. FMCG are such a market where the level of loyalty remains low and this is because of many reasons. Quantity is the most influencing factor in the purchase decision while price is also an important for purchase decision. Schemes always attract more and more consumers towards particular brand. It shows newspaper as the media to promote the product in the market. People are not much aware of the schemes which continue in the market it may be because of the present stock of the product at their place.

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Impact of Media Violence on Children

Surbhi Jain and Papia Mitra

Abstract

Children today grow up in a world saturated with media use. Media has proved to be a very useful tool in the fields of education, arts, science, sports, and culture. Children and adolescents spend a considerable portion of their time watching television, movies, playing videogames and on the internet. Media violence poses a threat to public health as much as it leads to an increase in real-world violence and aggression. In recent times we have noticed that media violence and violent video games have had a very negative impact on children and their day to day behavior. The present study focuses on the relationship between media violence and its effects on children's aggressive behavior which they portray by observing violent material directly or indirectly.

Keywords: Aggressive behavior, Media violence poses threat, Negative impact

Introduction

When we talk about violence, we take it to mean any anti-social behavior with the intention to harm a living being. The most common form of violence is physical violence but we must also include verbal abuse, intimidation, aggressive humor and other forms of aggression. All these types of violence are watched on many television programs that children are exposed. Media Violence Affects Children's Violent Behaviors Learning theory of criminology suggests that exposure to media violence influences children's violent or aggressive behavior by demonstration (modeling), reward (reinforcement) and practice (rehearsal). Aggression, antisocial behaviors and violent activities are learned behaviors.

Even if the media violence is not the only and most important cause of violent behavior, it is the most pressing public concern on the contribution of television, movie and video game violence to the perpetration of actual violence in society. A remarkable number of studies have been conducted on media violence and aggressive behavior. Studies showed that there is a strong association between media violence and the learning of aggression. Children's perceptions of the world are influenced by what they see on television. When they are continually exposed to violence on television, it is not surprising that they may view their world as a fearful and crime-ridden place.

Disruptive Behavior - All children misbehave at times, and it is perfectly normal for a child to have an occasional outburst. However, repeated disruptive behavior may signal a behavioral problem. Disruptive behavior may include repeated tantrums, arguments, hostility toward parents or authority figures, and bullying behavior such as picking on small or younger children. It also includes causing or threatening harm to pets, other people or themselves. In older children and teens, early sexual activity, smoking, alcohol and drug use can be signs of a problem. Skipping school and lying may also indicate a behavioral problem.

Video Games: Violent video games have recently surpassed violent music videos and even violent TV as a matter of concern to parents and policy makers. There are several reasons for this. First, children are spending increasingly large amount of time playing video games. Second, a large portion of these games contain violence. Third, because the children playing these games are active participants rather than observers, they may be at in-creased risk of becoming aggressive themselves. The impact of exposure to violent video games has not been studied as extensively as the impact of exposure to TV or movie violence. They found that short-term effects were greater for adults and long-term effects were greater for children. A stated that research on violent television, films, video games, music and internet reveals unequivocal evidence that media violence increases the likelihood of aggressive and violent behavior in both immediate and long-term contexts. Short-term expo-sure increases the likelihood of physically and verbally aggressive behavior, aggressive thoughts, and aggressive emotions.

Groebel. J, (1998) assessed that depending on the personality characteristics of the children, and depending on their everyday-life experiences, media violence satisfies different needs: It 'compensates' one's own frustrations and deficits in problem areas. It offers 'thrills' for children in less problematic environments. For boys it creates a frame-of-reference for 'attractive role models'. There are many cultural differences, and yet, the basic patterns of the media violence implications are similar around the world.

Anderson & Karen E. Dill, (2006) analyzed that Study 1 found that real-life violent video game play was positively related to aggressive behavior and delinquency. The relation was stronger for individuals who are characteristically aggressive and for men. In Study 2, laboratory exposure to a graphically violent video game increased aggressive thoughts and behavior. In both studies, men had a more hostile view of the world than did women.

Terry. L (2017) has found associations between childhood exposure to violent media and an array of problems in adulthood. For example, men who were "heavy viewers" of TV violence as children were twice as likely to physically abuse their spouses, compared to those who watched less violence as children. The message is that violence is painless and a desirable problem-solving tool. Again, the negative effects of media violence are multiplied for children with frightening and traumatic backgrounds. Their anger, fear and lack of self-control are easily triggered.

Appel M. and Jodlbauer S. (2015) studied that Media violence research has been criticized for a number of issues. Most of the research on violent acts in the media has focused on the question to what extent they may evoke similar thoughts, feelings, and behavior in the observer. However, when violent acts are followed by harm, pain, and sadness of victims, audience members may process media violence from a victim perspective and not exhibit aggression.

Methodology

Sources of Data:

- Data collection: the data used is primary in nature. The primary data was collected from a survey which was conducted by a questionnaire online. The structured questionnaire was prepared in English.
- Time Period: The time period of data collected is May 2019
- Sampling Technique: The sampling technique to be used is convenience sampling.

Statistical tools: The representation of socio economic details was carried out using pie chart, column graphs, bar diagrams, two way table and subdivided bar diagram. Further the testing of hypothesis was conducted using statistical techniques of F-test, T-test and ANNOVA and Chi-square. The results were represented using tables and analysis was done using MS-Excel 2010, software. The interpretation was done by the researcher based on the results revealed through the graphical representations and statistical test results.

Results and Discussion

According to the response collected in the data it is observed that 50% respondents belong to 20-35 age group and 20% respondents belonging to 36-45 age group. Only few belongs to age group above 50. The response also proved that most of the respondents were well educated with graduation and post gradation education whereas only few of them were only higher secondary passed. 25% respondents were into business and homemakers equally and few were unemployed and into business whose income belonging to above 50000 and since most of them were homemakers they did not have any income. 50% of the respondents were married and most out of the rest were single.

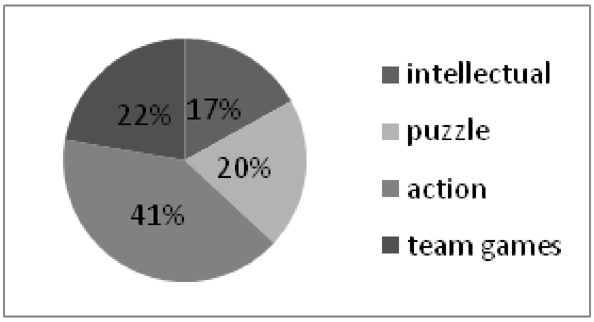

Figure 1: Kind of activities children prefer

Interpretation: The above fig explains that most of the respondents said that their children prefer more of action activities over other activities and some agree that their child like puzzle and team activities. As we are aware that the media is available with more of action cartoons and also some characters that might not have a good impact on today's kids. As a result since most of the respondents have 1 or 2 child thus they tend to spend more time on television or smart phones as the trend attracts them there. This result shows that the media showing such activities for kids have a huge impact on them.

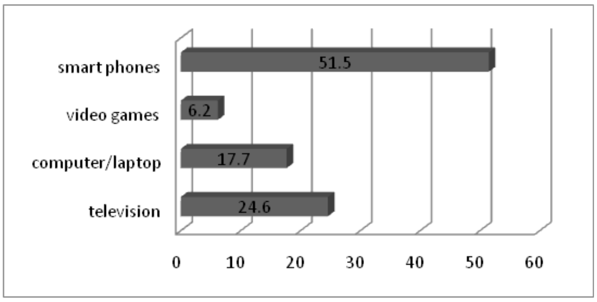

Figure 2: Medium for children to be exposed to media

Interpretation: In today's world smart phones has become a part of our lives. Thus children are also more indulged in games and videos they get access through phones. According to the results we can see that 50% of the respondents feel that their child are exposed most to such media through smart phones and 25% believe that television is the most exposed media for their children.

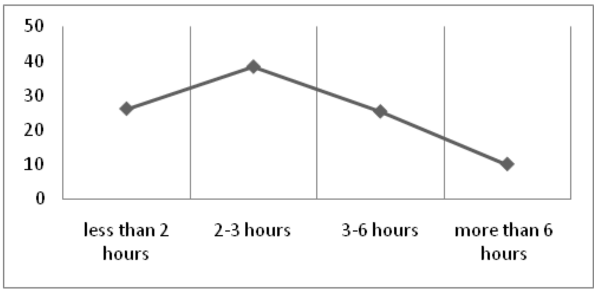

Figure 3: Time spend by children on digital media

Interpretation: We can see in this result that children spend ample time in digital media since 40% of the respondents said that their child spend 3 hours on digital media and 25% said that their child spend 3-6 hours on social media which is too much for a kid. This could also be the result of single child or working parents and also maybe because their parents don't spend much time with their child. This shows the result why children prefer spending more time on such media rather than their family and friends.

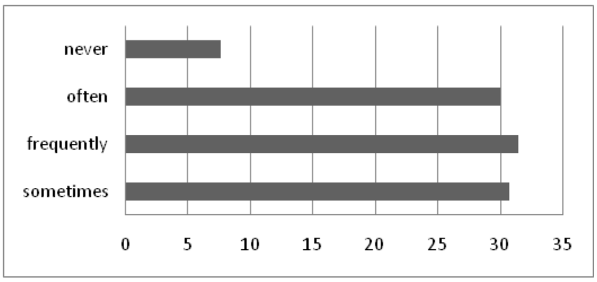

Figure 4: Time spend playing with their children

Interpretation: According to the results we can see that parents do spend time playing with their children which is very important for the better growth. Most of the respondents said that they often or sometimes spend time with their child while only few said that they never spend time with their child. This could also be the effect of working and single mom. Also it can be understood with the result that since parents are impatient and can't handle kids can be the reason behind parents not spending much time with children and also that children spend more time in watching different sources of media.

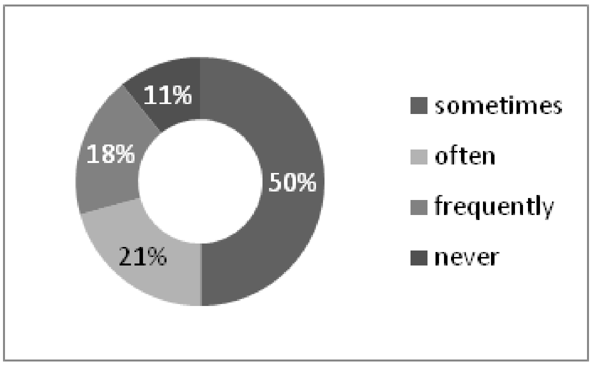

Figure 5: Response on aggressive behavior of their children

Interpretation: We have seen that most of the respondents said that their childlike action games more than other activities and also that they sometimes imitate the characters they watch or hear. Thus this behavior of their child can also result in aggressive behavior as said by the respondents that their child does behave aggressively. Whereas only 10% of the respondents believe that their child doesn't behave aggressively.

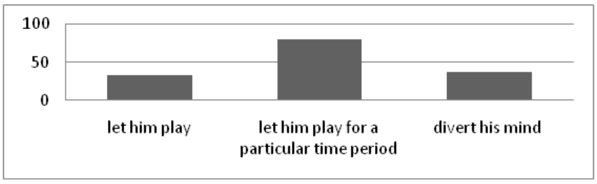

Figure 6: Reaction of parents when their child insist to play action game

Interpretation: In previous questions we have seen that parents agreed due to lack of patience they allow their children for interaction with such media, thus this question also explains the result that the parents can't stop their child to play or watch such media thus 80 of the respondents said that they let their child play for a while. Whereas approximately 40 respondents said that they try and divert their mind in something else which is the right thing to do.

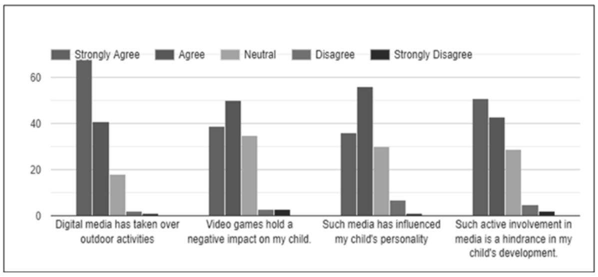

Figure 7: Children Opinion

Interpretation: From the response we can understand that somewhere or the other parents or the respondents agree or are neutral for the four different facts like digital media has taken over the outdoor activities, video games hold a negative impact on children, such media has influenced children personality and active involvement in media is a hindrance in child development. Parents strongly agree to the statement that digital media has taken over outdoor activities and very few respondents disagree t these four statements.

Hypothesis framing

H_0: There is no significant relation between the media violence and child development, child personality and outdoor activity.
H_1: There is significant relation between media violence and child development, child personality and outdoor activity.

Table 1: Descriptive Statistics

	Mean	Std. Deviation	N
Child development	3.1077	0.88262	130
Child personality	2.9462	0.85645	130
Outdoor activity	3.3615	0.77763	130
Impact of media violence	2.8000	0.96770	130

Table 2: Correlations

Control Variables			Child development	Child personality	Outdoor activity
Impact of media violence	Child development	Correlation	1.000	0.512	0.245
		Significance (2-tailed)	—	.000	.005
		Df	0	127	127
	Child personality	Correlation	0.512	1.000	0.330
		Significance (2-tailed)	0.000	.	0.000
		Df	127	0	127
	Outdoor activity	Correlation	0.245	.330	1.000
		Significance (2-tailed)	0.005	0.000	.
		Df	127	127	0

Interpretation: The correlation coefficients of the three variables are perfectly positively correlated with the variable that media violence has impact on children. Since the correlation coefficient of all the variables is 1, thus it explains that child development, child's personality and their outdoor activities are all affected by media. Thus Ho is rejected and H1 is accepted stating that there is a relation between media violence and the impact on child development, their personality and the outdoor activities. Therefore the X variable or the independent variable has significant impact on the Y variable or the independent variable. According to the survey statistics it can be concluded that children spend most of their time on media and thus this reflects in change in behaviour of the children.

Hypothesis framing

H_0: Insignificant Impact of imitating characters on television with their child behaving aggressively.
H_1: significant impact of imitating characters on television with their child behaving aggressively.

Table 3: Chi Square Test (Frequencies)
Imitating characters

	Category	Observed N	Expected N	Residual
1		0	43.3	-43.3
2	1.00	129	43.3	85.7
3	2.00	52	43.3	8.7
4	3.00	51	43.3	7.7
5	4.00	28	43.3	-15.3
6		0	43.3	-43.3
Total		260		

Test Statistics
Imitating characters

Chi-Square	264.538[a]
Df	5
Asymp. Sig.	.000
Exact Sig.	.000
Point Probability	.000

Interpretation: Since the significance outcome is 0.00 which is less than 0.05, thus we reject Ho and accept H1. This implies that children imitating the characters they see on television have an impact on their children behaving aggressively. Thus as per the analysis most respondents agreed that their child behave aggressively and spends most of their day in digital media. Also as it was observed in the statistics we can state that imitating characters children see on television has impact on their behaviour. Thus the result explains that the X variable or the independent variable is statistically significant in explaining variations in the Y variable or the dependent variable.

Hypothesis framing

H_0: Insignificant impact of parents spending time with their children with the children spending time on digital media.

H_1: Significant impact of parents spending time with their children with the children spending time on digital media.

Table 4: Anova Test

Multiple R	0.206765659
R Square	0.042752038
Adjusted R Square	0.035273538
Standard Error	0.924114246
Observations	130

ANOVA

	df	SS	MS	F	Significance F
Regression	1	4.881953843	4.881953843	5.716659675	0.018260782
Residual	128	109.3103538	0.853987139		
Total	129	114.1923077			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95.0%
Intercept	1.75191314	0.201235746	8.705775064	1.3504E-14	1.353733835	2.150092445
Parents spending time	0.203741252	0.085213382	2.390953717	0.018260782	0.035132017	0.372350486

Interpretation: Since the p-value is 0.018 which is less than 0.05, thus we reject the H_0 and accept H_1. Therefore the regression test proves that there is significant impact of how much time parents spend with their child on how much time their child spend on digital media. This is also the impact of the fact that since parents don't spend much time with their child, their children tends to spend more time on digital media. It shows that the x variable has significant impact on the Y variable. Some respondents tried spending time with their child but couldn't control much of their behaviour and that resulted in aggressive behaviour of the children.

Recommendation

With the known unhealthy effects of media on children and adolescents, it is crucial to be aware and become knowledgeable about the media's influence on children. Parents need to be able to educate their children and advocate for improved, healthier media. As part of health supervision, parents also need to begin taking a media history and using the media history. This tool enables young people and parents to examine their media habits and allows them to focus on areas of concern and offer counsel and support to children.

Conclusion

Most children witness some form of media violence almost every day, whether on the news, in a cartoon, on the Internet, in a TV show or in a movie. These exposures, whether short-term or long-term, can result in negative psychological effects, including increased aggressive behaviour and a diminished level of excitement toward violent acts. New longitudinal studies with larger samples are needed to estimate accurately how much habitual childhood exposure to media violence increases the risk for extreme violence.

Parents are important gatekeepers of children's access to media. To reduce aggression and improve child health within our communities, it remains important for parents to be sensitized about the potential harmful effects of media violence on their children. Upon viewing disturbing scenes, parents can help minimize the negative effects on their children by discussing the violence. Parents can play an important role in controlling children's access to violent programmes and video games.

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Microfinance Banks: Feasibility and Performance Compared to Traditional Bank in India

Nikita Jain and Swapnapriya Sethy

Abstract

Microfinance in India has been viewed as a development tool which would alleviate poverty and enhance growth of the country through financial inclusion. Out of 6 lakh villages in India, only approximately 50000 have access to finance. India is a country which has the highest number of households which are excluded from banking. With the Andhra crisis of microfinance institutions and issues that microfinance institutions have a mission drift, the aim of the paper is to study the performance and efficiency of microfinance. The growth of the sector has been externally supported by development agencies, multilateral institutions and other international organizations, which have deemed it to be a novel financial and development instrument, but doubts still remain regarding its sustainability. The article studies the period 2014-2018 using a broad sample of traditional and microfinance banks, showing the feasibility of the sector in terms of profitability, solvency and risk, and comparing this model with the traditional banking one in those contexts.

Keywords: Efficiency, Financial Inclusion, Financial Structure, Microfinance Profitability

Introduction

Microfinance has been a development and economic tool which has helped in bringing about financial inclusion in India. It has been viewed as an important tool of women empowerment and to alleviate poverty. It has served to provide financial services and credit to the unprivileged and unbanked sector in India thereby bringing about financial inclusion. The loans provided by microfinance institutions serve the low-income population in various ways as follows: They provide working capital loans for business purposes. They provide loans for accessing necessities such as food, clothes, shelter and education. They serve as alternatives to the loans provided by money lenders.

Majority of the population in India belong to the unbanked sector. Though India has a dense and a robust formal financial system, it has failed to reach the deprived segment of the population. Next to China, India has the highest size of unbanked population in the world. Thus, Microfinance sector aims to improve the living of the poor income households thereby providing banking services to the deprived low income population. There are various forms of Microfinance institutions in India with various service models and they provide products suitable to appropriate target segment which has proved successful of improving the client's economic status. The various factors which affect the reach of formal financial services to a large segment of the Indian population are as follows:

The high fixed and variable costs incurred by banks in servicing low income households. The Microfinance institutions incur high transaction costs which are unavoidable for them because of the small size of individual low. The SHG federations and co-operatives which are forms of institutions set up by communities the transaction costs are lower. The Microfinance institutions can incorporate economies of scale to reduce transaction costs but it is difficult to achieve because of absence of recovery of costs and profit incentive.

Less branches in remote locations due to financial unfeasibility due to low volume and high cost of operation failing to meet the requirements of rural population.

Lack of financial knowledge by low income population. Therefore they find it difficult to contemplate existing financial products and services provided by Microfinance institutions

Ghosh R. (2005) Microfinance is viewed as an important tool for providing self-employment for the low income rural population. This paper studies the various delivery models of Microfinance institutions which contribute to women empowerment in India. Bi Z. and Lal S. (2011) studied the performance and efficiency of Microfinance. A sample of Microfinance institutions in India were selected based on their ratings given by Microfinance information exchange (MIX) for the study. Out of the 88 MFIs in India reported on MIX, 24 MFIs were taken as samples, these samples taken were five star rated by MIX. The financial parameters of these MFIs were studied and compared with the financial parameters of commercial banks and their financial performances were analyzed. The various parameters taken for analyzing the financial performance of MFIs and banks included: Financial structure, Profitability and Efficiency. One way ANOVA technique was used to identify if there exist a significant difference in the performance of MFIs and Commercial banks which included both the private sector and the public sector banks. The paper concluded that the large ten Microfinance institutions dominating the sector, the other small Microfinance institutions could adopt their business models, policies and practices in order to increase their outreach and to operate on a sustainable basis.

Methodology

Data sources: The data collected for the study includes secondary data. The various sources used to collect secondary data include research papers, journals, articles, annual reports of the company and various other websites. The secondary data collected is analyzed using various statistical tools and techniques such as Mann Whitney U test and one way ANOVA. The technique is used to identify if there exist a significant difference in the performance of MFIs and Commercial banks.

Results and Discussion

Hypothesis

$H_{0.1}$: There is no significant difference between the financial performance of MFIs and commercial banks.

$H_{1.1}$: There is significant difference between the financial performance of MFIs and commercial banks.

Business model

The size is a basic difference between traditional and Microfinance banks. The relevance of Microfinance Institutions is relatively small in the financial systems. It is noteworthy that, despite their reduced size, Microfinance Institutions have experienced significant growth in recent years. It is seen that there 1183.38% growth in total asset of Microfinance banks in last 5 years from 2014 to 2018 and 69.15% growth in the total asset of the traditional banks in the years taken in the research. Graph 4.3and 4.4 reflect the evolution between 2014 and 2018 of the ratios that relate the amount of the loans granted and the deposits collected to the total assets of the two groups of financial institutions.

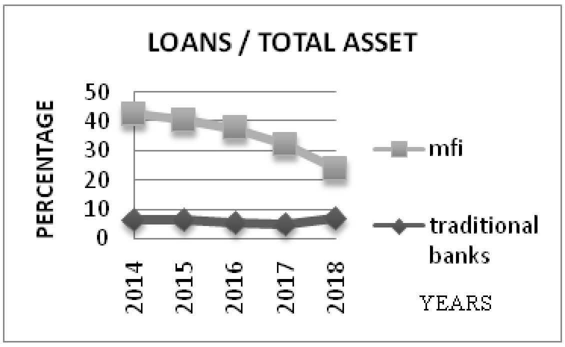

Figure 1: showing Loans/Total Asset

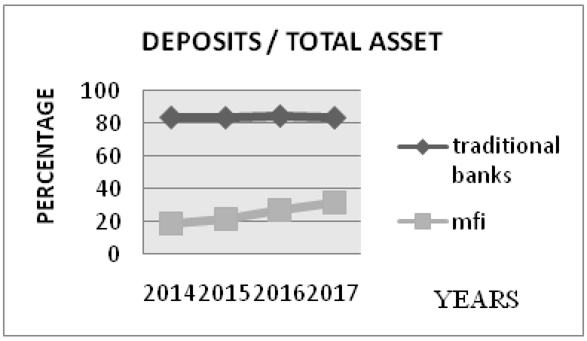

Figure 2: showing Deposits / Total Asset

As expected, given the characteristics of the Microfinance sector, the proportion of assets that MFI devoted to loans -between 17.43% in 2018 and 36.54 % in 2014-, was far ahead of the figure granted by the traditional banks -between 6.8% in 2018 and 6.2 % in 2014 On the other hand, Microfinance Institutions showed ratios between 37.70% in 2018 and 19.08% in 2014. The difficulties faced by these institutions to attract this type of resources have already been mentioned and partly explains their high solvency ratios. The Mann-Whitney U test indicates that the null hypothesis of equal ranks is accepted for any of the years studied, which implies that there is no significant differences in these variables between both types of banks for loans by total asset. For deposit by total asset the null hypothesis is not acceptable as the value is less than .05 hence there is significant relation between the both types of bank. Since the Z value is negative it is said that Microfinance bank is better than traditional bank.

Profitability ratio: Traditional banking reached higher levels of profitability than microfinance institute in terms of ROA for every year in period 2014-2018 compared to ROA that ranged between 153.46% in 2018 to 249.60% in 2014. For microfinance banks ranged between 30% in 2014 to

90% in 2018. It is seen that ROA is decreasing for traditional banks and there isan increase in ROA of Microfinance banks from 2014- 2018. The greater volatility of the ROA of the Microfinance sector during the study period should be noted.

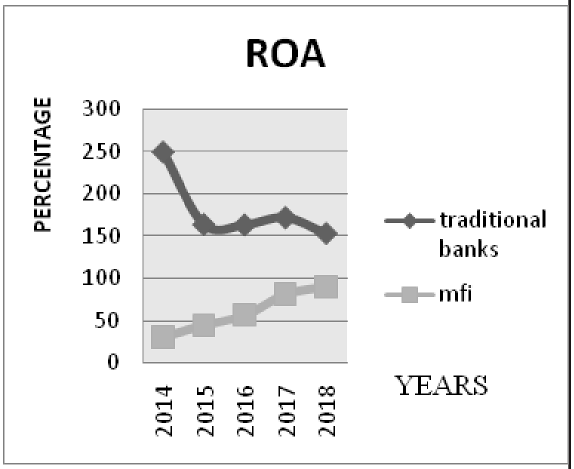

Figure 3- ROA as per the type of institution

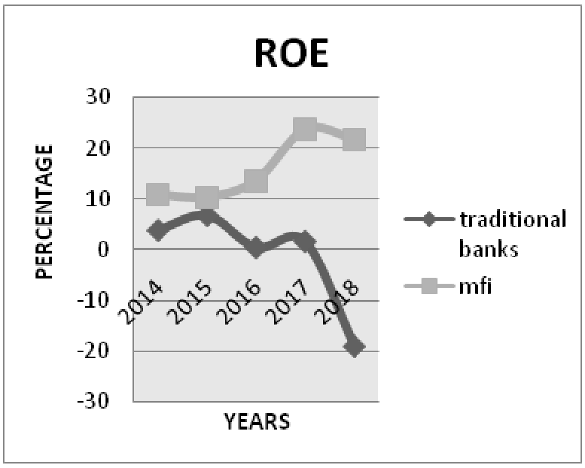

Figure 4: ROE as per the type of institution

The profitability for shareholders (ROE) is higher for Microfinance Institution than traditional banks. The ROE is increasing from 2014-2017 and then there is a slight change in 2018. Whereas the ROE of traditional banks is very low compared to Microfinance institutions and it is negative in 2018. A drastic fall in ROE is seen in traditional banks. According to the Mann Whitey test for the year 2018 to 2016 we accept null hypothesis while for 2015-2014 the null hypothesis is rejected which shows there is no significant relationship between ROA of commercial banks and Microfinance banks. Whereas in for ROE the null hypothesis is not accepted in year 2018 and 2016. Since the Z value is negative it is said that Microfinance bank is better than traditional bank.

Solvency: The solvency ratio of Microfinance Institutions practically tripled the one of the traditional banks in the period, and they are undoubtedly institutions with smaller leverage levels. However, it should be noted that the value of their ratio showed a downward trend during the years studied while it remained relatively constant in the traditional institutions.

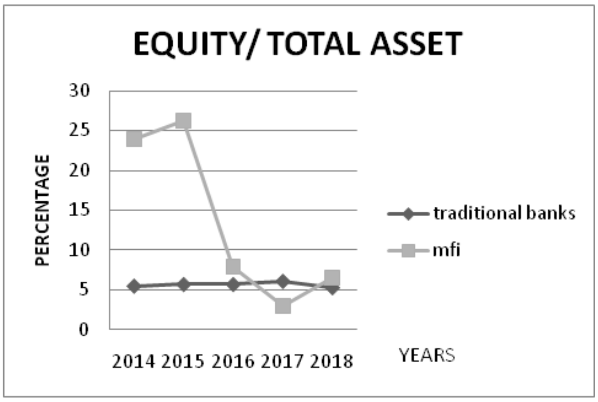

Figure 5 - Solvency as per the type of institution

The Mann-Whitney U test indicates that the null hypothesis of equal ranks for the solvency ratio is accepted for any of the years studied, which implies that there is no significant differences in these variables. Since the Z value is negative it is said that Micro finance bank is better than traditional bank.

Hypothesis

$H_{0.2}$: There is no significant difference between the means of MFIs and commercial banks.

$H_{1.2}$: There is significant difference between the means of MFIs and commercial banks.

Financial Structure

Capital adequacy ratio: There is a significant difference in the means of the capital adequacy ratio at 5% level of significance. Therefore, alternate hypothesis is accepted and null hypothesis is rejected. The banks in India are required to maintain a capital adequacy ratio (CAR) of 9% and 12% in case of NBFCs which has been raised to 15% for NBFCs as of March 2011. It has been reported that nearly 45% of the MFIs have CAR in excess of 20% and 25% of MFIs have CAR above 15% and a CAR of 15% is required to be maintained by the Microfinance institutions. A higher CAR is essential for the Microfinance institutions because a thin layer of capital would not allow for loss absorption in case of default.

Table 1: Showing Capital adequacy ratio, a measure of Bank's capital for selected Banks and MFI through ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	511.282	1	511.282	53.523	.000
Within Groups	76.420	8	9.553		
Total	587.702	9			

Debt equity ratio

The output shows that there is a significant difference between the means at 5% level of significance. Thus there is a significant difference in the debt equity ratios of commercial banks and Microfinance institutions, thereby accepting alternative hypothesis and rejecting null hypothesis. Most of the Microfinance institutions are smaller in size compared to commercial banks which makes it more difficult for them to raise capital from the market. The commercial banks have a higher debt equity ratio because being government banks they have easy availability to credit from the Central bank as well as they get fund from the capital markets.

Table 2: Showing Debt equity ratio, a measure of Company's financial leverage for selected Banks and MFI through ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	243.996	1	243.996	1355.999	.000
Within Groups	1.440	8	.180		
Total	245.436	9			

Net Profit margin

There is no significant difference between the means of commercial banks and Microfinance institutions. Thus, null hypothesis is accepted. The net profit margin of Microfinance institutions have reported to be higher because of the higher interest rates charged by them. However these wide higher margins have been reported by the large ten Microfinance institutions and the NBFC legal forms of MFIs.

Table 3: Showing Net profit margin, a measure of company's profitability for selected banks and MFI through NOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	116.605	1	116.605	.067	.802
Within Groups	13899.254	8	1737.407		
Total	14015.859	9			

Operating Expenses to Assets

There is significant difference in the operating expenses to total assets ratio of commercial banks and MFIs at 5% level of significance, thereby rejecting null hypothesis. The operating expenses to total funds are higher for the Microfinance institutions when compared the commercial banks. The reason for this is because the MFIs have incurred training expenses for their staff members, education of borrowers etc. The higher asset base for the commercial banks favorably impacts the ratio for the commercial banks.

Table 4: Showing Operating Expenses To Assets for selected banks and MFI through ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.204	1	11.204	14.499	.005
Within Groups	6.182	8	.773		
Total	17.386	9			

Conclusion

The importance of Microfinance in the developing countries like India cannot be undermined it play a vital role for socio-economic upliftment of poor and low income peoples. Since 1990s, poverty reduction has taken priority at both national and international development levels. Within this framework, various initiatives have been taken by government. Microfinance has caught the attention as an effective tool for poverty reduction and socio- economic development Hence Microfinance can play a vital role for improving the standard of living of poor. The economic development of any country is severely influenced by the availability of financial services. Microfinance is the form of a broad range of financial services such as deposits, loans, payment services, money transfers, insurance, savings, micro-credit etc. to the poor and low income individuals. A well-developed financial system promotes investment opportunities in an economy. Therefore it is necessary that Govt. of India have to focus on extending financial services to both rural and urban to ensure sustainable and inclusive growth. Although the Microfinance sector has reported an impressive growth, with the ordinances passed by the government, there is a lack of capital for some of the Microfinance institutions in the country. Therefore, continuous efforts are required to diversify the sources of funding available for the Microfinance institutions in order to attract foreign investments for well established Microfinance institutions in order to serve the rural low income population, increase efficiency of staff members, alleviate poverty and also make them profitable.

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Factors Affecting Online and Offline Repurchase Intentions of Customers

Ashna Chandgothia and Basudha Mukhopadhyay

Abstract

Comparison between online and offline shopping will continue to gain attention in 2018. In fact, as early as now news about shutting down of some physical stores across the country abound the Internet. Does this mean more people are now favouring online shopping than commuting to brick-and-mortar stores? The objective of this study is to identify the factors that motivate customers to decide whether to go back to online shopping or for offline shopping and seeing whether there is any significant relationship between the two. In the study we can see that when it comes to ease of use, convenience and after sales service respondents prefer online shopping over offline shopping but respondents still don't consider online shopping trust worthy. They still feel comfortable to make a purchase by visiting an offline store. That said, while physical stores are unlikely to go extinct soon, mobile devices will play a crucial role in people's overall shopping experience.

Keywords: Offline Shopping, Online Shopping, Repurchase

Introduction

Nowadays, popularity of online shopping has been rising rapidly amongst consumers and it is becoming part of their life style. Following the globalization for last few decades, every industry had to shift to the new changes or new technologies to compete with each other. Consumers are adopting the changes quite well. Companies choosing to use the internet to cut their marketing costs, in order to stay competitive in market, they are reducing the price of their goods and services. On the other hand, traditional shopping is still powerful, there are people who do not like to do online shopping. They prefer go to the store by their self and see the actual goods and feel and try them.

Consumers who do not like online shopping has some common issues such as is the web site is reliable or not when making payment, or the product quality is as good as mentioned on the web sites etc. However, for those consumers who like online shopping, it allows them to save time, energy, and traveling cost.

Today's competitive market companies are trying to get more customers than their competitors. They are trying to improve their technologies of communicating and advertising and selling their goods and services. Besides the brand's or store's websites, now we can use our smart phone to make purchase, there are these applications just as same as using computer to buy items. These applications are very convenient for consumers, whether they are buying the goods or not, they can still see the product and its price so they can compare and even which outlet has that item.

Today's business environment is highly competitive that companies need to be customer oriented, and customer satisfaction represents a modern approach for quality in business life and serves the development of a truly customer-oriented culture and management. Firms always look forward to long lasting success. In order to be successful in the long run, they need to keep abreast with all of their stakeholders. Out of the stakeholders, customer is considered to be the most important one. Future repurchase intentions of customers are outcomes of various organizational efforts. One of the most important determinants of customer repurchase intentions discussed by researchers is offering competitively the best service quality to customers. Repurchase intention refers to the individual's judgment about buying again a designated service or product from the same company or seller, taking into account his or her current situation and likely circumstances. Organizations try to offer the best possible service to their customers in order to retain them and create positive repurchase intentions in the future. Repurchase have a powerful impact on firms' performance by providing a competitive advantage

The aim of any research targets at the broader indication of the purpose of the research. However within this overall purpose there lies certain actual activities that the researcher intends to undertake. The primary aims and objectives of the project are to understand what are the factors affecting online repurchase intentions and offline repurchase intentions. And to understand what the significant difference is between online and offline repurchase intentions.

Methodology

This study is conducted with the use to primary data and secondary data. However, several research papers have been consulted in order to understand the concepts and framework of conducting the research.

Data from the respondents is collected by using a well-structured open ended questionnaire in the form of Google forms was circulated through various medium of digital communications like WhatsApp, E-mails and messages and personal interviews were also conducted to make a better interpretation about the responses made by the sample. The questionnaire consisted of questions on gender, age, occupation and monthly income and 13 convenient questions keeping in mind my objectives were asked. The time period of data collected is May 2019.

A total of 108 respondents constitute a sample for this study.

My population consisted of 300 people from different cities like Kolkata, Delhi, Chennai and Mumbai to have a better view of the respondents on their online offline repurchase intensions. Respondents are to be selected using convenience sampling.

Software like Microsoft Excel is used to compile and code the data. SPSS is used to analyse it by performing tests on it.

The representation of demographic details was carried out using pie charts and column graphs. . A descriptive analysis is also conducted to better understand the data. Further the testing of hypothesis was conducted using statistical techniques of chi square test and reliability test was done to assures that the questionnaire is fault free and is reliable for its intended purpose.

Hypotheses are developed to find the association between the following five hypothesis:

Hypothesis 1: There is an association between the online availability of products and offline availability of products.

Hypothesis 2: There is an association between the online customer satisfaction and offline customer satisfaction.

Hypothesis 3: There is an association between the delivery time concern for online repurchase and delivery time concern for offline repurchase.

Hypothesis 4: There is an association between the online offers/discounts and offline offers/discounts.

Hypothesis 5: There is an association between the online customer loyalty andoffline customer loyalty.

Results and Discussion

Ease of Use: The respondents were asked to choose either online or offline source for few of the factors, ease of use being one of them. Here majority of the respondents have preferred online source over offline source when it comes to ease of use. Ease of use is an important factor for determining the customer satisfaction level. If one of the factor is difficult to use, people will move to the latter option. The technology has been advancing in a rapid place making the website and applications more user friendly and easy to use.

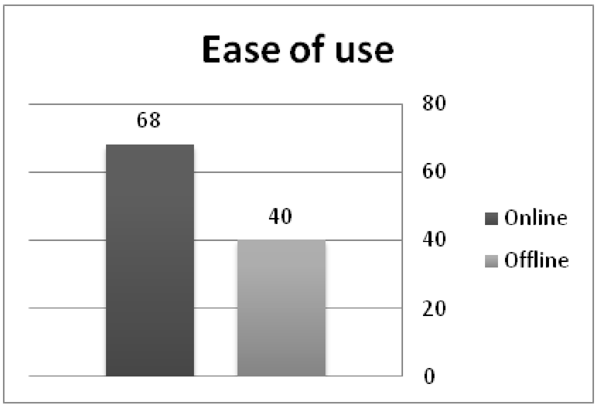

Figure 1:Chart showing frequency of Ease of use chosen by the respondents

Testing

1. Hypothesis framing: Association between the online customer satisfaction and offline customer satisfaction.

Table 1: Cross-tab

		Offline customer satisfaction					
		1.00	2.00	3.00	4.00	5.00	Total
Online customer satisfaction	1.00	3	1	0	4	3	11
	2.00	3	3	4	4	1	15
	3.00	5	2	16	13	3	39
	4.00	1	2	9	6	11	29
	5.00	1	0	3	4	6	14
Total		13	8	32	31	24	108

Table 2: Chi- Square Tests

	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi square	27.466a	16	.037
Likelihood Ratio	31.438	16	.012
Linear- by- Linear Association	7.497	1	.006
N of Valid Cases	108		

a. 19 cells (76%) have expected count less than 5. The minimum expected count is .81.

Table 1 and 2: Showing Crosstab and chi-square tests between online customer satisfaction and offline customer satisfaction

H_0 – There is no association between the online customer satisfaction and offline customer satisfaction.

H_1 – There is an association between the online customer satisfaction and offline customer satisfaction.

The Chi-square test is intended to test how likely it is that an observed distribution is due to chance. It is called the goodness of fit because it measures how well the observed distribution of data fits with the distribution that is expected if the variables are independent. The Chi-square value serves as input for the more interesting piece of information: the p value.

From the above graph, we can observe that the p value is 0.037 which is less than 0.05. It means there is a reasonable probability between the online customer satisfaction and offline customer satisfaction.

Hence, it is concluded that the null hypothesis is rejected and the alternative hypothesis is accepted.

2. Hypothesis framing: Association between the online customer loyalty and offline customer loyalty.

Table 3: Cross-tab

		Offline customer loyalty					
		1.00	2.00	3.00	4.00	5.00	Total
Online customer loyalty	1.00	3	0	1	2	2	8
	2.00	3	7	7	3	2	22
	3.00	2	3	19	5	2	31
	4.00	3	2	7	13	5	30
	5.00	1	1	5	5	5	17
Total		12	13	39	28	16	108

Table 4: Chi- Square Tests

	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi square	35.110a	16	.004
Likelihood Ratio	31.716	16	.011
Linear- by- Linear Association	7.720	1	.005
N of Valid Cases	108		

a. 12 cells (72.00%) have expected count less than 5. The minimum expected count is .89.

Table 3 and 4: Showing Crosstab and chi-square tests between online customer loyalty and offline customer loyalty.

H_0 – There is no association between the online customer loyalty and offline customer loyalty.

H_1 – There is an association between the online customer loyalty and offline customer loyalty.

The Chi- square test is intended to test how likely it is that an observed distribution is due to chance. It is called the goodness of fit because it measures how well the observed distribution of data fits with the distribution that is expected if the variables are independent. The Chi-square value serves as input for the more interesting piece of information: the p value.

From the above graph, we can observe that the p value is 0.004 which is less than 0.05. It means there is a reasonable probability between online customer loyalty and offline customer loyalty.

Hence, it is concluded that the null hypothesis is rejected and the alternative hypothesis is accepted.

Table 5: Summary of Testing of Hypotheses

Sl. No.	Component	P value	Related/Not Related
1	Online and offline availability of products	0.010	Related
2	Online and offline customer satisfaction	0.037	Related
3	Online and offline delivery time concern	0.000	Related
4	Online and offline offers, discounts	0.000	Related
5	Online and offline customer loyalty	0.004	Related

From the above table, it can be observed that there are five components through which testing of hypotheses have been done. It can be seen that the p value of each of the component is below 0.05. This can be concluded that all the five components of online and offline repurchase, i.e. availability of products, customer satisfaction, delivery time concern, offers/discounts and customer loyalty are related. Hence, there is an association between each of the component online and each of the component offline.

Descriptive Statistics

Amount of money spent per month on online shopping v/s amount of money spent per month on offline shopping.

Table 7: Descriptive Statistics of Amount of money spent per month on online and offline shopping per month.

		Online spending	Offline spending
N	Valid	108	108
	Missing	1	1
Mean		2.53	3.07
Median		2.00	3.00
Mode		2	4
Std. Deviation		1.219	1.125
Variance		1.485	1.265
Skewness		.250	-.750
Std. error of Skewness		.233	.233
Kurtosis		-1.281	-.514
Std. error of Kurtosis		.461	.461
Range		4	4

From the above figure, it can be observed that the average is more in case of offline which is 3.07 as compared to the mean of online which is 2.53. Hence, it is observed that people spend more in offline shopping as compared to online shopping.

Table 6: Offline Spending

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 3000	18	16.5	16.7	16.7
	3001- 10000	7	6.4	6.5	23.1
	10001- 30000	35	32.1	32.4	55.6
	30001- 50000	45	41.3	41.7	97.2
	More than 50000	3	2.8	2.8	100.0
	Total	108	99.1	100.0	
Missing	System	1	.9		
Total		109	100.0		

Table 8: Offline Spending

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 3000	18	16.5	16.7	16.7
	3001- 10000	7	6.4	6.5	23.1
	10001- 30000	35	32.1	32.4	55.6
	30001- 50000	45	41.3	41.7	97.2
	More than 50000	3	2.8	2.8	100.0
	Total	108	99.1	100.0	
Missing	System	1	.9		
Total		109	100.0		

Online Spending

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 3000	26	23.9	24.1	24.1
	3001- 10000	36	33.0	33.3	57.4
	10001- 30000	12	11	11.1	68.5
	30001- 50000	31	28.4	28.7	97.2
	More than 50000	3	2.8	2.8	100.0
	Total	108	99.1	100.0	
Missing	System	1	.9		
Total		109	100.0		

From the information received, it can be inferred that there are five categories under which people can spend: less than 3000, 3001 to 30000, 30001 to 50000 and above 50000. It can be observed that people who does online shopping mostly spends under 30001 to 50000 category per month, having a percent of 28.7 in a total of 108 respondents. The same case could be observed in the case of people opting for offline shopping with a percent of 41 in a total of 108 respondents.

Table 7: Summary of Descriptive Statistics

Sl. No.	Component	Online	Offline	Remarks
1	Number of times one goes for shopping a week	Number of times one goes for shopping a week	More than 6 times a week (70.4%)	Offline shopping has a greater average with 2.98.
2	Amount of money spent per month	Amount of money spent per month	30001 to 50000 (28.7%)	Amount spent in offline shopping has a greater average with 3.07
3	Price of the product	Price of the product	Reasonable (63.3%)	Price of the product offline has a greater average with 2.58.
4	Quality of the product	Quality of the product	Satisfactory (56%)	Quality of the product offline has a greater average with 2.26.

Conclusion

It can be observed that there are five components through which testing of hypotheses have been done. It can be seen that the p value of each of the component is below 0.05. This can be concluded that all the five components of online and offline repurchase, i.e. availability of products, customer satisfaction, delivery time concern, offers/discounts and customer loyalty are related. Hence, there is an association between each of the component online and each of the component offline.

According to this study, it can inferred that people are more prone to offline shopping. As offline repurchase is the traditional form of shopping, it has been prevalent since a long period of time. Hence it justifies the greater average in case of offline as compared to online shopping.

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Financial Performance Evaluation of The Indian Aviation Industry

Anushree Rungta and Pritha Sen

Abstract

Indian aviation sector is growing at an accelerating rate and the country is getting the benefits of its improved connectivity. Since its inception the sector has seen many changes. The vast geographical coverage of the country and its industrial growth makes the aviation sector more meaningful. The rising working group and economic improvement of Indian middle class is also expected to boost the growth of the sector further. From the analyst point of view though this market is facing lot of issues and challenges it is growing at the rate of 18 percent per year. Many factors are contributing to this growth such as increase in disposable income of the population, industrial growth in the country or change in government policies such as FDI. From this perspective Indian market is lucrative. Since few years most of the Indian population is moving from lower middle class to upper middle class. They are gaining capability to spend and upgrade their lifestyle. This is providing opportunity for low cost players to tap the market share. Industry has faced many challenges and still it is going on. Many new players are entering into this market. Policy change such as 49 percent investment through foreign direct investment (FDI) is changing the face of the industry. The main objective of the study is to evaluate the financial performance of the top 5 companies of the Indian aviation industry, based on its market capitalisation and to understand the future opportunities for this sector. This has been done by correlating factors like operating profit margin, return on equity and return on assets to net profit margin. Regression analysis has also been done to understand whether these factors significantly affect net profit margin or not.

Keywords: Financial Performance Evaluation, Growth, Opportunities, Policy, Regression

Introduction

Aviation is the fastest means of transport and has expanded rapidly with the opening up of domestic skies to the private carriers in the second half of the 10th plan via public private partnership investment in the airport infrastructure. The air transport on long distance routes handles substantial traffic. This sector also enhances the productivity and efficiency in the movement of goods and services. It also has an important role to play on routes which involve difficult territory. The Indian government introduced the open sky policy for domestic players in 1991 and partial open sky policy for international players only in November 2004. Increasing liberalization and deregulation has led to an increase in the number of players. The industry comprises three types of players full cost carriers, low cost carriers (LCC) and many start-up airlines that are making/planning an entry. Indian aviation sector is growing at an accelerating rate and the country is getting the benefits of its improved connectivity. Since its inception the sector has seen many changes. The vast geographical coverage of the country and its industrial growth makes the aviation sector more meaningful. The rising working group and economic improvement of Indian middle class is also expected to boost the growth of the sector further. As a result of this growing demand the Government of India is planning to increase the number of airports to 250 by 2030. This improvement in infrastructure has happened to be as a result of improved business and leisure travel. The major requirement of the aviation sector is development of ground infrastructure. For the purpose of the study the top five companies of the Indian aviation industry, as per market capitalization were taken into consideration. The five companies are: IndiGo, Jet airways, Air India, Spice jet, GoAir

Indigo: IndiGo is one of the fastest growing private airlines in India. IndiGo has a market share of more than 39 percent and ranked at the first position. The IndiGo Airlines is wholly owned by the InterGlobe Enterprises.

Jet Airways: The Jet Airways is the second largest airline in India with a market share of 15.4 percent. It is one of the largest employers in India in airline sector with more than 16015 employees.

Air India: Air India is one of the oldest airline companies in India with presence in all the major as well as small cities of India. The airline was founded by one of the great industrialists JRD Tata.Air India has a market share of more than 13%.

Spicejet: SpiceJet is another budget airline company in India with a market share of 13.2 percent. SpiceJet is a low-cost airline headquartered in Gurgaon, India. It is the fourth largest airline in the country by number of domestic passengers carried.

Goair: GoAir is the one of the most popular budget airlines in India. In October 2017 it was the fifth largest airline in India with an 8.4% passenger market share.

Challenges that faced airlines and the aviation industry as a whole over the last few years, has forced the industry to rethink how they do business on both a financial and operational level. Most airlines have faced up to these challenges, and as a result have been remarkably successful at turning around ailing companies, in many cases completely reinventing themselves.

Patnaik-Mohan, B.C.; Satpathy, I. (Nov, 2017): In their research paper "Indian Aviation Industry: An Overview", they stated that with the increase in standard of living and introduction of economy class, the passenger's preference also changed dramatically, towards the aviation sector. The mass people are able to travel in airlines owing to moderate airfare. This is reflected in the increase in passenger volume from 85,20 million in 2015-16 to 103.75 million in 2016-17. The international passenger volume also increased from 49.78 million to 54.68 million during the same period. The top players being Indigo with 38% market share, followed by Jet Airways with 15.9% share, SpiceJet with 14%, Indian Airlines with 13.2% and GoAir with 8% market share.

Singh, Anubhav (April. 2016): With the momentum of a roller coaster racing along the tracks, the industry has blossomed as a new raft of air carriers have brought competition to local skies and ended many monopolies in the international market. There have been winners and losers along the way, the most recent being the high-profile collapse of Kingfisher Airlines. But, what is for sure is that with a home market of over 1 billion people, and the airline business still in its infancy in a country where rail travel still dominates, there is enormous potential for future growth. In his paper "A Study of the Current Scenario of the Aviation Sector in India", he states that low-cost carriers have mushroomed in the domestic and international market because of their effective marketing strategies. However the future of major airlines and low cost carriers is unpredictable as many see them in danger due to increasing oil prices, government taxes, increase duties, etc.

Methodology

For the purpose of the study, publicly available data has been analysed. Top five aviation companies of India have been selected based upon their market share in the aviation sector. For the purpose of evaluating the financial performance of the Indian aviation sector, certain factors have been taken into consideration, which are net profit margin, operating profit margin, return on assets and return on equity of each of the companies taken into account. The data has been collected for the last five years that is starting from 2013 to 2018.To analyse the data correlation and regression have been used. Correlation is a statistical technique that can show whether and how strongly pairs of variables are related. It measures the degree to which two securities move in relation to each other. Regression analysis is a set of statistical processes for estimating the relationships among variables. It attempts to determine the strength of the relationship between one dependent variable and a series of other changing variables. Correlation and regression have been conducted in Microsoft Excel. Also, visual representation of data has been done using line graphs, bar charts, pie charts, etc. to understand the position of the firms in relation to one another.

Regression Equation

In the regression equation the net profit margin is the dependent variable and the other factors that are the operating profit margin, return on assets and return on equity are independent variables. The regression equation formed is

NPM = f (OPM, ROA, ROE)

In this equation NPM stands for net profit margin, OPM stands for operating profit margin, ROA stands for return on assets and ROE stands for return on equity.

Hypothesis Formulation

To evaluate the financial performance of the sector we form a hypothesis for each company to see whether OPM, ROA and ROE have an impact on NPM or not, as it will help to understand the financial position of the companies.

Hypothesis 1

H_0 (null hypothesis) = OPM has no impact on the NPM.

H_1 (alternative hypothesis) = OPM has an impact on the NPM.

Hypothesis 2
H_0 (null hypothesis) = ROA has no impact on the NPM.
H_1 (alternative hypothesis) = ROA has an impact on the NPM.

Hypothesis 3
H_0 (null hypothesis) = ROE has no impact on the NPM.
H_1 (alternative hypothesis) = ROE has an impact on the NPM.

For each company three pairs of hypotheses have been formed. The same hypothesis will be applied for all the five companies and then it will give an overall result.

Results and Discussion

The correlation coefficient of operating profit margin, return on assets and return on equity with respect to net profit margin for the five chosen companies are:

Table 1: Financial Factors with Airlines

Factors	Indigo	Jet Airways	Air India	Spice Jet	Go Air
OPM	0.987219021	0.995002281			
	0.846245057	0.998884063	0.899381108		
ROA	0.307869753	0.977426683			
	0.688359312	0.998837416	0.074903457		
ROE	-0.086839557	-0.977877773	0	-0.920577708	0

On a whole, it is seen that operating profit margin, return on asset and return on equity, all are correlated to net profit margin. Some might be highly correlated and some might be slightly correlated. Return on equity for Air India and Go Air are 0 because no return has been given to the shareholders for the last five years.

Regression Analysis

Indigo

Table 2: Regression of Factors of Indigo

Regression Statistics	
Multiple R	0.989405284
R Square	0.978922816
Adjusted R Square	0.915691264
Standard Error	0.846610322
Observations	5

Particulars	Coefficients	Standard Error	t Stat	P-value
Intercept	2.402214088	2.295418916	1.046525352	0.485529689
Operating profit margin (%)	0.544973784	0.084178758	6.474005998	0.097563701
Return on assets (%)	-0.000945868	0.154603361	-0.00611803	0.996105191
Return on equity (%)	-0.001672035	0.003757615	-0.44497234	0.73346954

Upon doing regression, it is seen that the p-value of operating profit margin, return on assets and return on equity are 0.097563701, 0.996105191 and 0.73346954 respectively. Since, all the values are greater than 0.05, therefore OPM, ROA and ROE all have an impact on NPM. So, For all the three cases H0 has been rejected and H1 has been accepted. An adjusted R square of 0.915691264 states that the independent variables are responsible for 0.915691264% variation in the dependent variable, i.e. net profit margin.

Jet Airways

Table 3: Regression of Factors of Jet Airways

Regression Statistics	
Multiple R	0.999977957
R Square	0.999955915
Adjusted R Square	0.999823662
Standard Error	0.153213103
Observations	5

Particulars	Coefficients	Standard Error	t Stat	P-value
Intercept	2.402214088	2.295418916	1.046525352	0.485529689
Operating profit margin (%)	0.544973784	0.084178758	6.474005998	0.097563701
Return on assets (%)	-0.000945868	0.154603361	-0.00611803	0.996105191
Return on equity (%)	-0.001672035	0.003757615	-0.44497234	0.73346954

Upon doing regression, it is seen that the p-value of operating profit margin, return on assets and return on equity are 0.071929179, 0.042650179 and 0.044015152 respectively. Since, only the p-value of operating profit margin is greater than 0.05, so only OPM has an impact on NPM. So, for OPM H0 has been rejected and alternative hypothesis has been accepted. For ROA and ROE null hypothesis has been accepted and H1 has been rejected. An adjusted R square of 0.999823662 states that the independent variables are responsible for 0.999823662% variation in the dependent variable, i.e. net profit margin.

Air India

Table 4: Regression of Factors of Air India

Regression Statistics	
Multiple R	0.880255553
R Square	0.774849838
Adjusted R Square	0.049699676
Standard Error	3.92523979
Observations	5

Particulars	Coefficients	Standard Error	t Stat	P-value
Intercept	-26.14325509	5.17474594	-5.052084758	0.03701766
Operating profit margin (%)	0.510908338	0.312444388	1.63519768	0.2436342
Return on assets (%)	0.315584195	0.43696488	0.722218672	0.54518934
Return on equity (%)	0	0	65535	0

Upon doing regression, it is seen that the p-value of operating profit margin, return on assets and return on equity are 0.243634204, 0.545189345 and 0 respectively. Since, only the p-value of operating profit margin and return on assets is greater than 0.05, so only OPM and ROA have an impact on NPM. So, for OPM and ROA H0 has been rejected and H1 has been accepted. For ROE H0 has been accepted and H1 has been rejected. An adjusted R square of 0.049699676 states that the independent variables are responsible for 0.9049699676% variation in the dependent variable, i.e. net profit margin.

Go Air

Table 5: Regression of Factors of Go Air

Regression Statistics	
Multiple R	0.912528729
R Square	0.832708682
Adjusted R Square	0.165417364
Standard Error	1.670016081
Observations	5

Particulars	Coefficients	Standard Error	t Stat	P-value
Intercept	-4.577272688	2.476154888	-1.848540538	0.205771499
Operating profit margin (%)	0.764653603	0.243168837	3.14453782	0.0879886
Return on assets (%)	0.08873295	0.166270322	0.533666798	0.646941993
Return on equity (%)	0	0	65535	0

Upon doing regression, it is seen that the p-value of operating profit margin, return on assets and return on equity are 0.0879886, 0.646941993 and 0 respectively. Since, only the p-value of operating profit margin and return on assets is greater than 0.05, so only OPM and ROA have an impact on NPM. So, for OPM and ROA H_0 has been rejected and H_1 has been accepted. For ROE H_0 has been accepted and H_1 has been rejected. An adjusted R square of 0.165417364 states that the independent variables are responsible for 0.165417364% variation in the dependent variable, i.e. net profit margin.

Spice Jet

Table 6: Regression of Factors of Spice Jet

Regression Statistics	
Multiple R	0.999805636
R Square	0.99961131
Adjusted R Square	0.998445241
Standard Error	0.482591724
Observations	5

Particulars	Coefficients	Standard Error	t Stat	P-value
Intercept	0.773901304	0.313827789	2.4660063	0.245258
Operating profit margin (%)	0.563318297	0.269956382	2.086701162	0.284499
Return on assets (%)	0.242806701	0.13194792	1.840170736	0.316899
Return on equity (%)	0.081451744	0.070125545	1.161513156	0.452519

Upon doing regression, it is seen that the p-value of operating profit margin, return on assets and return on equity are 0.28499109, 0.316898757 and 0.0.452518566 respectively. Since, all the values are greater than 0.05, therefore OPM, ROA and ROE all have an impact on NPM. So, for all the three cases H0 has been rejected and H1has been accepted. An adjusted R square of 0.998445241 states that the independent variables are responsible for 0.998445241% variation in the dependent variable, i.e. net profit margin. Overall, it is seen that return on assets, operating profit margin, and return on equity have an impact on the profits of the companies. The aviation sector has emerged as one of the most rapidly developing industries in India. India is presently considered as the third largest domestic civil aviation market in the world. The International Air Transport Association (IATA) affirms that the country will surpass the UK and will reach the second place by 2026. Currently, only 5% of 1.3 billion Indians travel by air, and they make close to 200 million trips per year. This points to tremendous growth potential; however, multiple challenges abound in the path towards achieving the ambitious goal of ensuring one billion trips per annum over the next 15-20 years.

Conclusion

Based on the study the conclusions drawn are that the aviation industry in India has tremendous opportunity for growth. For growth not only the airlines have to perform better but the infrastructure supporting it also needs to improve. It was also concluded that the net profit margin of the airline companies are significantly impacted by operating profit margin, return on assets and return on equity for companies paying the return on equity. All these factors are also correlated to the net profit margin.

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A Comparative Study between LIC of India and Private Insurance Players in Post Reform Period

Shreya Roy Choudhury and Papia Mitra

Abstract

Insurance is primarily a risk management mechanism. Risk of loss-income property or even human life-is transferred, in part or in full, to the insurer. That apart, insurance business helps in capital accumulation to use in nation building activities. Insurance sector not only plays a leading role within financial system in a country but also has an important socio-economic function. Insurance facilitates economic development. The objective of Nation is to build an efficient and stable insurance sector in India that will support both the needs of the real economy and the socio economic objectives of country. This paper is an attempt to do a Comparative study between LIC of India and Private insurance players in post reform period.

Keywords: Insurance Industry, IRDA, LIC, Premium, Private Insurance Players

Introduction

Insurance is one of the most important service sectors of the Indian economy. It plays a dynamic role contributing towards the rapid economic growth. Nationalization in the Indian insurance industry was done with an objective of reaching to every individual in all the corners of the country; mobilizing huge financial resources and building up the nation. All laws relating to insurance industry has evolved progressively giving a way from nationalization to privatization and allowing foreign investment. Earlier when we talked about insurance, at the first instance we thought of Life insurance and that too LIC but now the scene has changed. It is not only limited to just life but also about each and almost everything. People are now more aware and concern for their life and belongings and that is why to fulfill the demand the insurance companies are coming with new policies and tries to capture more market share. Now a day there is motor insurance, health insurance etc. present both in public sector as well as in private sector. Many new private insurance companies are coming up to provide insurance with lucrative benefits and to give tough competition to the government players. Immense changes in the insurance sector took place in the year 2000 because of the introduction of IRDA act in the year 1999.

Imam (2011) analyzed Customer behaviour in Life Insurance Industry. Researcher opined that the sale of life insurance policies in India is less than many western and Asian countries. As second largest populated country in world, the Indian insurance market is looking very prospective to many multinational and Indian insurance companies for expanding their business and market share.(4) Mitra and Ghosh (2009) in their research paper highlighted emerging trends and patterns in Indian insurance business during post globalized era. It also focuses on the role of private partners in life insurance in India. The authors have mentioned that life insurance is of paramount importance for protecting human lives against accidents, causalities and other types of risks.(10)

Methodology

The study is based on secondary data collected from IRDA (Insurance Regulatory and Development Authority of India) annual reports for one and half decade i.e. from year 2000-01 to 2017- 18. The secondary data has been collected through panel data series and represented using bar graph, line chart. To compare the performance of public and private life insurance companies, the collected data is analyzed by using t-testing.

Hypotheses of the study

H_0: There is insignificant growth in Premium income of LIC/Private Insurance Players/ Overall insurance industry against

H_1: There is significant growth in Premium income of LIC/Private Insurance Players/ Overall insurance industry

In order to come to conclusion if we have to accept null hypothesis or reject it and accept alternative hypothesis, we have to apply t-test.

Results and Discussion

Table 1: Insurance Penetration and Density of LIC and Private Insurance Players over the years

Years	LIC		Private insurance players		Overall Industry	
	Penetration (%)	Density (USD)	Penetration (%)	Density (USD)	Penetration (%)	Density (USD)
2001-2002	2.15	9.1	0.56	2.4	2.71	11.5
2002-2003	2.59	11.7	0.67	3.0	3.26	14.7
2003-2004	2.26	12.9	0.62	3.5	2.88	16.4
2004-2005	2.53	15.7	0.64	4.0	3.17	19.7
2005-2006	2.53	18.3	0.61	4.4	3.14	22.7
2006-2007	4.10	33.2	0.60	5.2	4.80	38.4
2007-2008	4.00	40.4	0.60	6.2	4.70	46.6
2008-2009	4.00	41.2	0.60	6.2	4.60	47.4
2009-2010	4.60	47.7	0.60	6.7	5.20	54.4
2010-2011	4.40	55.7	0.71	8.7	5.10	64.4
2011-2012	3.40	49.0	0.70	10.0	4.10	59.0
2012-2013	3.17	42.7	0.78	10.5	3.96	53.2
2013-2014	3.10	41.0	0.80	11.0	3.90	52.0
2014-2015	2.60	44.0	0.70	11.0	3.30	55.0
2015-2016	2.72	43.2	0.72	11.5	3.44	54.7
2016-2017	2.72	46.50	0.77	13.2	3.49	59.7
2017-2018	2.76	55	0.93	13.7	3.69	68.7

Table 2: Number of offices of LIC and Private insurance players

Years	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Private	3072	6391	8785	8768	8175	7712	6759	6193	6156	6179	6057
LIC	2301	2522	3030	3250	3371	3455	3526	4839	4877	4892	4897
Industry	5373	8913	11815	12018	11546	11167	10285	11032	11033	11071	10954

Growth Rate of premium income of LIC

Over the time under this context we have regressed the premium income of LIC.

Table 3: Summary Output

Regression Statistics	
Multiple R	0.564789
R Square	0.318987
Adjusted R Square	0.270343
Standard Error	10.46955
Observations	16

Table 4: ANOVA Results

	df	SS	MS	F	Significance F
Regression	1	718.7882	718.7882	6.557598	0.022638883
Residual	14	1534.561	109.6115		
Total	15	2253.349			

	Co-efficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	Error	t Stat	P-value	Lower	9.366887	20.59436	9.366887	20.59436
X Variable 1	95%	Upper	***-2.56078***	0.022639	-2.43899	-0.21562	-2.43899	-0.21562

Absolute value of t-stat of X-variable is | 2.56078 |. So here we find that t-stat is greater than | 2 | which implies there has occurred a significant growth in premium income. This shows premium income of LIC has grown significantly over the years starting from 2001-02 to 2016-17. So we reject null hypotheses H_0 and accept alternative hypothesis H1. Adjusted R Square is 27.03%. So overall this model is statistically insignificant. Independent variables are explaining only 27.03% of variation in dependent variables. Growth Rate of premium income of Private insurance players. Over the time under this context we have regressed the premium income of Private insurance players.

Table 5: Summary Output

Regression Statistics	
Multiple R	0.470756
R Square	0.221611
Adjusted R Square	0.166012
Standard Error	929.7758
Observations	16

Table 6: ANOVA Results

	df	SS	MS	F	Significance F
Regression	1	3445711	3445711	3.985863	0.065710194
Residual	14	12102763	864483.1		
Total	15	15548475			

	Co-efficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	319.8869	232.444	1.376189	0.190378	-178.65	818.4296	-178.65	818.4296
X Variable 1	-91.8987	46.03076	***-1.99646***	0.06571	-190.62	6.827467	-190.62	6.827467

Absolute value of t-stat of X-variable is | 1.99646 |. So here we find that t-stat is less than | 2 | which implies there has occurred an insignificant growth in premium income. This shows premium income of Private insurance players has not grown significantly over the years starting from 2001- 02 to 2016-17. So we accept null hypothesis H0. Adjusted R Square is 16.6%. So overall this model is statistically insignificant. Independent variables are explaining only 16.6% of variation in dependent variables.

Growth Rate of premium income of overall insurance industry

Over the time under this context we have regressed the premium income of overall insurance industry.

Table 7: Summary Output

Regression Statistics	
Multiple R	0.621846
R Square	0.386693
Adjusted R Square	0.342885
Standard Error	11.40006
Observations	16

Table 8: ANOVA Results

	df	SS	MS	F	Significance F
Regression	1	1147.175	1147.175	8.827057	0.010115672
Residual	14	1819.458	129.9613		
Total	15	2966.633			

	Co-efficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	17.547	2.850014	6.156988	2.49E-05	11.43483	23.6601	11.43483	23.6601
X Variable 1	-1.6768	0.564387	***-2.97104***	0.010116	-2.8873	-0.46632	-2.8873	-0.46632

Absolute value of t-stat of X-variable is | 2.97104 |. So here we find that t-stat is greater than | 2 | which implies there has occurred significant growth in premium income. This shows premium income of overall Insurance Industry has grown significantly over the years starting from 2001-02 to 2016-17. So we reject null hypothesis H0 and accept alternative hypothesis H1. Adjusted R Square is 34.28%. So this model is statistically insignificant. Independent variables are explaining only 34.28% of variation in dependent variables.

Conclusion

Liberalization has led to the entry of the largest insurance companies in the Indian insurance market and has become more attractive for foreign insurers due to saturation of insurance market in many foreign countries. The overall size of LIC is much more than that of all private insurance companies. Premium income has witnessed a significant growth rate in LIC and overall insurance industry from 2001-2002 to 2016-2017 while it has witnessed insignificant growth rate in private insurance players. If we see the total number of policies issued by LIC and private insurance companies, we find that there is a huge gap between them. Hence it is obvious that LIC is having large number of policyholders. There are many private insurance companies and hence their total number of branches has gone past LIC. LIC did not show their good concern when the matter of grievance handling came till 2007-2008. Private insurance companies were far ahead of LIC in this matter that time. But from 2010-2011 both LIC and private insurance players have been excellent in grievance redressal process.

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A Comparative Study of Profitability Analysis of Selected Public and Private Sector Banks in India

Sadaf Sultana and Debjyoti Dey

Abstract

Indian banking sector is an important component of Indian financial system. It has a strong impact on the economic development and growth of the nation. Main purpose of the study is to measure the financial position, performance and efficiency of the largest public sector banks (STATE BANK OF INDIA, BANK OF BARODA, PUNJAB NATIONAL BANK, CENTRAL BANK OF INDIA, UNITED BANK OF INDIA) and private sector banks (HDFC BANK, ICICI BANK, AXIS BANK, KOTAK BANK, YES BANK).The objective of the study is to identify financial position and performance of the selected banks and to examine whether any significant difference exists in their performance. The study is based on secondary data which has been collected from annual reports of the selected banks covering a period of five years from 2013-14 to 2017- 18. The CAMEL model has been used to assess the financial strength of the selected banks.

Keywords: Bank, Public and Private Sector, CAMEL Test

Introduction

Without a sound and effective banking system, no country can even dare to dream having a healthy and prosperous economy.(1) In India, to make this happen, a considerable attention and efforts have been put into account on how the banking system should not only be made hassle free but be able to meet new challenges posed by the technology and any other external and internal factors.(2) For the past three decades, India 's banking system has several outstanding achievements to its credit.(3)

Banking sector in India is broadly classified into three categories namely Nationalized Banks and SBI and associates, Private Sector Banks and Foreign Banks.(4) All these banks and bank groups are doing banking operations for different objectives to achieve.(5) These banks always compete with each other on different grounds and parameters.(6) Their competition has two fold advantages to the economy and to these banks themselves.(7)

Banking plays a very useful and dynamic role in the economic life of the country.(8) An efficient banking system is recognized as primary requirement for the economic development of any economy.(9) Bank is old body that contributes toward the development of an economy and it's treated as an important service industry in modern world.(10) Currently India is the fastest growing economy in the world.(11)

The Indian economic development takes place in the realistic world from the 1991 liberalization privatization globalization policy.(12) As per LPG policy all restriction on the Indian economy was totally dissolved, and the soundest phase for the Indian banking system adopt over here.(13) This also changed the scenario of the Macroeconomic world.(14) Banking Sector reforms were initiated to upgrade the operating standard health and financial soundness of the banks.(15) The Government of India setup the Narasimham Committee in 1991, to examine all aspects relating to structure, organization and functioning of the Indian banking system the recommendations of the committee aimed at creating at competitive and efficient banking system.(16) Another committee which is Khan Committee was instituted by RBI in December, 1997 to examine the harmonization of the role and operations of development financial institutions and banks. It submitted its report in 1998.(17)

Chidambaram R. M and Alamelu found in their studies that the problem of declining profit margins in the Indian Public Sector Banks as compared to their private sector counterparts. It was observed that in spite of similar social obligations; almost all the private sector banks have been registering both high profits and high growth rate with respect to deposits, advances and reserves as compared to the public sector banks. Regional orientation, better customer services, proper monitoring of advances and appropriate marketing strategies are the secrets behind the success of public of the private sector banks.(18)

Das A found in his studies that there is decline in overall efficiency due to fall in technical efficiency which was not offset by an improvement in allocative efficiency. However, it is pointed out that the deterioration in technical efficiency was mainly on account of few nationalized banks.(19)

Deb and Kalpada found in their studies that the growth of banking in India covering the period from 1966-1987. The analysis revealed that the structure of the banking system changed considerable over the years. It was further pointed out that the quantitative growth of the public sector banks was no doubt significant in some of the areas, but qualitative improvement, by and large lacked in desired standards. In spite of substantial increase in deposit mobilization, their share in national income continued to be very low. It was concluded that the public sector banks were neither guided by the consideration of returns nor were they very much concerned with developmental strategies.(20)

S and Verma found in their studies that the factors influencing the profitability of public sector banks in India by making use of ratio of net profits as percentage of working funds. They concluded that spread and burden play a major role in determining the profitability of commercial banks.(21)

Sanjay J. Bhayani found in their studies that analyzed the performance of new private sector banks with the help of CAMEL model. The study covered 4 leading private sector banks- ICICI,HDFC, UTI and IDBI for a period of 5 years from 2000-01 to 2004-05.It is revealed that the aggregate performance of IDBI Bank is best among all the banks, followed by UTI.(22)

Chowdhari Prasad and K.S. Srinivasa Rao found in their studies that performance of all private sector banks. As per the criteria selected like efficiency, financial 29 strength, profitability and size of scale, it is revealed that the private sector banks are in position to offer cost-effective, efficient products and services to their customers using technology, best utilization of human resources along with professional management and corporate governance principles.(23)

Prashanta Athma found in his studies that the period of the study for evaluation of performance is from 1980 to 1993-94, a little more than a decade. He outlined the Growth and Progress of Commercial Banking in India and analyzed the trends in deposits, various components of profits of SBH, examined the trends in Asset structure, valuated the level of customer satisfaction and compared the performance of SBH with other PSBs, Associate Banks of SBI and SBI. Statistical techniques like Ratios, Percentages, Compound Annual rate of growth and averages are computed for the purpose of meaningful comparison and analysis. The major findings of this study are that since nationalization, the progress of banking in India has been very impressive. All three types of Deposits have continuously grown during the study period, though the rate of growth was highest in fixed deposits. A comparison of SBH performance in respect of resource mobilization with other banks showed that the average growth of deposits of SBH is higher than any other bank group. Profits of SBH showed an increasing trend indicating a more than proportionate increase in spread than in burden. Finally, majority of the customers have given a very positive opinion about the various statements relating to counter service offered by SBH.(24)

Singla HK found in his studies that the how financial management plays a crucial role in the growth of banking. It is concerned with examining the profitability position of the selected sixteen banks of banker index for a period of six years (2001-06). The study reveals that the profitability position was reasonable during the period of study when 31 compared with the previous years. Strong capital position and balance sheet place, Banks in better position to deal with and absorb the economic constant over a period of time.(25)

Methodology

Data Collection Process: In this study, collection from the annual reports of the banks have been analyzed. For the purpose of this study, five public sector banks and five private sector banks have been selected as they have largest market capitalization at present. The banks selected of State Bank Of India, Bank of Baroda, Punjab National Bank, Central Bank of India, United Bank Of India, HDFC Bank (Housing Development Finance Corporation Limited), ICICI Bank, Axis Bank, Kotak Bank, Yes Bank. The factors taken into account are capital adequacy ratio, debt equity ratio, asset turnover ratio, loan ratio, net NPA to net advance ratio, credit deposit ratio, net profit per employee, net profit ratio, dividend per share, earnings per share, return on net worth, return on assets, interest spread ratio, current ratio, liquid assets to total assets ratio, liquid assets to total deposit ratio done by the ten banks for a period of five years, starting from 2014 to 2018.

Database: The present study is analytical in nature. It is purely based on the secondary data. The data have been collected from various research articles, journals, annual reports of public sector banks and private sector banks and web based resources.

Data Analysis Method: To analyze the data, CAMEL model is followed to measure the relative financial position and performance of the banks has been used. Apart from CAMEL model, statistical tools like Mean and t-test have been used to assess the performance of banks from each of the important parameters like capital adequacy, asset quality, management efficiency, earning ability and liquidity to draw the logical conclusions.

Levene's test is used to check that variances are equal for all samples when your data comes from a non-normal distribution. You can use Levene's test to check the assumption of equal variances before running a test Levene's test is built into most statistical software. For example, the Independent Samples T Test in SPSS generates a "Levene's Test for Equality of Variances" column as part of the output. The result from the test is reported as a p-value, which you can compare to your alpha level, then you can say that the null hypothesis stands that the variances are equal; if the p-value is smaller than the Alpha level, then the implication is that the variances are unequal.

Hypothesis Formulation

To find the impact of a bank's

H_0 (null hypothesis) = There is no significant difference in financial position and performance of public sector banks and private sector banks in India.

H_1 (alternative hypothesis) = There is significant difference in the financial position and performance of public sector banks and private sector banks in India.

Results And Discussions

The CAMEL model and its parameters are shown and discussed below on the basis of secondary data to measure the financial performance of the selected banks.

CAMEL Model

Table 1: CAMEL Model

Short Form	Parameters of CAMEL	Ratio of Measuring CAMEL Parameters
C	Capital Adequacy	Capital Adequacy Ratio
		Debt Equity Ratio
A	Asset Quality	Asset Turnover Ratio
		Loan Ratio
		Net NPA to Net
		Advance Ratio
M	Management Efficiency	Credit Deposit Ratio
		Net Profit per
		Employee
E	Earning Ability	Net Profit Ratio
		Dividend per share
		Earnings per share
		Return on Net worth
		Return on Assets
		Interest Spread Ratio
L	Liquidity	Current Ratio
		Liquid Assets to Total
		Assets Ratio
		Liquid Assets to Total
		Deposit Ratio

Capital Adequacy Ratio: This ratio measures the ability of the bank regarding absorption of losses arising from the risk weighted assets. It is a measurement of Tire-1 and Tire-II capital to the aggregate of risk weighted. The p value of the car is 0.256 which is greater than the expected 0.05, so Null hypothesis is rejected.

Asset Turnover Ratio: It determines the efficiency of the bank in asset utilization. It is measured by dividing sales with total assets. The p value of the car is 0.494 which is greater than the expected 0.05, so Null hypothesis is rejected.

Debt Equity Ratio: Bank's financial leverage is measured by this ratio. It is the proportion of total external liabilities to net worth. The ratio indicates how much portion of the bank's business is financed by debt and how much portion is financed through equity. Higher ratio signifies less protection for creditors and depositors of the bank. DE Ratio=Debt/Net worth. The p value of the car is 0.211 which is greater than the expected 0.05, so Null hypothesis is rejected.

Loan Ratio: The ratio measures the financial position of banks and its ability to meet outstanding loans. It is calculated by dividing amount of loans with total assets. The p value of the car is 0.291 which is greater than the expected 0.05, so Null hypothesis is rejected.

Return On Net Worth: This ratio shows the relation between net profit and capital employed of the business. It determines operational efficiency and overall profitability of the business. Maximization of return of net worth is the prime objective any business. The result of ratio indicates the extent of the achievement of that objective. It is calculated by dividing net profit with net worth. The p value of the car is 0.079 which is greater than the expected 0.05, so Null hypothesis is rejected.

Earning Per Share: It indicates return earned by each shareholder. This ratio measures the market worth of the shares of a business. Higher ratio shows better prospects of the bank. It is calculated by dividing earning available to equity shareholders with numbers of equity shares. The p value of the car is 0.023 which is greater than the expected 0.05, so Null hypothesis is rejected.

Dividend Per Share: It indicates the dividend earned by each shareholder in hand. Higher the ratio higher is the operational efficiency of the business. It is calculated by dividing dividend in equity share capital with number of equity shares. The p value of the car is 0.317 which is greater than the expected 0.05, so Null hypothesis is rejected.

Net Profit Ratio: It shows the operational efficiency of a business. Increasing ratio indicates better performance and decreasing ratio shows inefficiency in management and excessive operational expenses. It is calculated by dividing net profit with total income. The p value of the car is 0.000 which is less than the expected 0.05, so Null hypothesis is accepted.

Net Profit Per Employee: It reveals the productivity and efficiency of human resources of bank. It is arrived at by dividing net profit with total number of employees. The p value of the car is 0.019 which is more than the expected 0.05, so Null hypothesis is rejected.

Credit Deposit Ratio: This ratio shows the proportion of lending out of its total deposit mobilization. It indicates the ability of the bank to convert its deposits into high earning advances. It is calculated by dividing total advances with total customer deposits. The p value of the car is 0.188 which is more than the expected 0.05, so Null hypothesis is rejected.

Net NPA To Net Advance Ratio: The ratio measures the proportion of bad loans of the bank out of total advances given. Higher ratio signifies the bank's inability to recover the loan and that leads to huge capital losses. So, lower ratio is expected to be positive for bank. It is calculated by dividing total NPA with total advances. The p value of the car is 0.334 which is more than the expected 0.05, so Null hypothesis is rejected.

Interest Spread Ratio: Spread is the difference between the interest incomes and interest expended. Higher ratio indicates better earning ability of the business. It is determined as a percentage of total assets. The p value of the car is 0.284 which is more than the expected 0.05, so Null hypothesis is rejected.

Liquid Assets To Total Deposit Ratio: It indicates the ability of the bank to meet its deposit obligations with available liquid funds. Higher ratio signifies better ability of the bank. It is calculated by dividing liquid assets with total deposit. The p value of the car is 0.106 which is more than the expected 0.05, so Null hypothesis is rejected.

Liquid Assets To Total Assets Ratio: It measures overall liquidity position of a business. It is calculated by dividing liquid assets with total assets. The p value of the car is 0.510 which is more than the expected 0.05, so Null hypothesis is rejected.
Current Ratio: It measures the sufficiency of current assets to pay off the current liabilities. It helps the bank to determine its working capital requirement. The ratio is calculated by dividing current assets with current liabilities. The p value of the car is 0.003 which is less than the expected 0.05, so Null hypothesis is accepted.

Return On Assets: It signifies the operational efficiency in asset utilization by the management and profitability on the assets of the business. It is a general measure of managerial performance to assess the conversion of assets into earnings. It is calculated by dividing net profit with total assets. The p value of the car is 0.405 which is more than the expected 0.05, so Null hypothesis is rejected.

Table 2: Hypothesis Testing at a Glance

Sl. No.	T-Testing of null hypothesis on the basis of CAMEL ratios	Decision
1	Capital adequacy ratio	Rejected
2	Debt equity ratio	Rejected
3	Asset turnover ratio	Rejected
4	Loan ratio	Rejected
5	Net NPA to net advance ratio	Rejected
6	Credit deposit ratio	Rejected
7	Net profit per employee	Rejected
8	Net profit ratio	Accepted
9	Dividend per share	Rejected
10	Earnings per share	Rejected
11	Return on net worth	Rejected
12	Return on asset	Rejected
13	Interest spread ratio	Rejected
14	Liquid ratio	Accepted
15	Liquid asset to total asset ratio	Rejected
16	Liquid asset to total deposit ratio	Rejected

Capital Adequacy Ratio: From the above study we can see that YES bank have reported the highest rank as it is having highest capital adequacy ratio in most of the years and UBI bank have reported the lowest rank as it is having lowest capital adequacy ratio.
Debt Equity Ratio: From the above study we can see that SBI bank have reported the highest rank as it is having highest capital adequacy ratio in most of the years and YES, ICICI and PNB banks have reported the lowest rank as it is having lowest capital adequacy ratio.

Asset Turnover Ratio: From the above study we can see that HDFC bank have reported the highest rank as it is having highest capital adequacy ratio in most of the years and BOB, Kotak banks have reported the lowest rank as it is having lowest capital adequacy ratio.

Loan Ratio: From the above study we can see that HDFC bank have reported the highest rank as it is having highest capital adequacy ratio in most of the years and UBI bank have reported the lowest rank as it is having lowest capital adequacy ratio.

Net NPA To Net Advance Ratio: From the above study we can see that Kotak bank have reported the highest rank as it is having highest capital adequacy ratio in most of the years and UBI, CBI banks have reported the lowest rank as it is having lowest capital adequacy ratio.

Credit Deposit Ratio: From the above study we can see that ICICI bank have reported the highest rank as it is having highest capital adequacy ratio in most of the years and UBI bank have reported the lowest rank as it is having lowest capital adequacy ratio.
Net Profit Per Employee: From the above study we can see that SBI bank have reported the highest rank as it is having highest capital adequacy ratio in most of the years and Kotak and PNB banks have reported the lowest rank as it is having lowest capital adequacy ratio.

Net Profit Ratio: From the above study we can see that SBI bank have reported the highest rank as it is having highest capital adequacy ratio in most of the years and CBI bank have reported the lowest rank as it is having lowest capital adequacy ratio.
Dividend Per Share: From the above study we can see that HDFC bank have reported the highest rank as it is having highest capital adequacy ratio in most of the years and UBI bank have reported the lowest rank as it is having lowest capital adequacy ratio.

Earning Per Share: From the above study we can see that UBI bank have reported the highest rank as it is having highest capital adequacy ratio in most of the years and CBI bank have reported the lowest rank as it is having lowest capital adequacy ratio.

Return On Net Worth: From the above study we can see that Kotak bank have reported the highest rank as it is having highest capital adequacy ratio in most of the years and CBI bank have reported the lowest rank as it is having lowest capital adequacy ratio.
Return On Assets: From the above study we can see that HDFC bank have reported the highest rank as it is having highest capital adequacy ratio in most of the years and UBI bank have reported the lowest rank as it is having lowest capital adequacy ratio.

Interest Spread Ratio: From the above study we can see that UBI bank have reported the highest rank as it is having highest capital adequacy ratio in most of the years and BOB bank have reported the lowest rank as it is having lowest capital adequacy ratio.

Current Ratio: From the above study we can see that PNB bank have reported the highest rank as it is having highest capital adequacy ratio in most of the years and BOB bank have reported the lowest rank as it is having lowest capital adequacy ratio.
Liquid Assets To Total Assets Ratio: From the above study we can see that PNB bank have reported the highest rank as it is having highest capital

adequacy ratio in most of the years and SBI bank have reported the lowest rank as it is having lowest capital adequacy ratio.

Liquid Assets To Total Deposit Ratio: From the above study we can see that PNB bank have reported the highest rank as it is having highest capital adequacy ratio in most of the years and BOB bank have reported the lowest rank as it is having lowest capital adequacy ratio.

Conclusion

In this study, using Levene's test on the data acquired of the five public sector banks and five private sector banks of India. The sixteen ratios that have taken into consideration the net profit ratio and liquid ratio these two ratios is accepted are null hypothesis and in all the cases null hypothesis is rejected it means there significant difference the performance in the financial position and efficiency compared between the public and private sector banks there is difference between in all the cases. So, the null hypothesis is rejected so alternative hypothesis is accepted.

The results of the study reveal that capital adequacy ratio for private sector the banks are more than Basel norms for bank. So, they are satisfactory for and private sector banks. SBI has higher debt equity ratio than Yes, ICICI, PNB. SBI is trying to taking advantage of financial leverage and is also exposed to greater financial risk. HDFC is quite risk averse and trying to provide high margin of safety to the depositors. HDFC bank has higher asset turnover ratio. So, it has the ability to generate more revenue with respect to given amount of total assets. BOB, Kotak bank is less efficient in utilization of their assets. The loan ratio of HDFC bank is higher than UBI bank. So, HDFC is taking more risks compared to UBI. The net NPA to net advance ratio is higher for Kotak than UBI, CBI. It can be concluded that efficiency in management of advances given to customers are not good for Kotak.

The credit deposit ratio for ICICI is higher than UBI. It means that UBI is providing more credits to their customers from their deposits. It is clear that UBI is taking advantages of leverage and also generating more risks for the depositors. Net Profit per Employee is higher in SBI bank than Kotak, PNB. It may be concluded that the efficiency and productivity of human resources of SBI bank is better than Kotak, PNB. Net profit ratio is also high for SBI bank. So, SBI has a better profitability and better management efficiency than CBI. Dividend per share are high for HDFC .So, HDFC has better profit potentiality to satisfy their stakeholders than UBI. Earnings per share are high for UBI. So, UBI has better profit potentiality to satisfy their stakeholders than CBI. Return on Net worth is the overall barometer of overall performance of any institution. Kotak bank has high Return on Net worth ratio. It may be concluded that the performance of CBI is poor compared to Kotak bank.

Return on assets is high for HDFC bank. It may be concluded that profitability on assets and managerial performance in asset utilization is better in HDFC bank than UBI. UBI bank has higher interest spread ratio than BOB. It may be commented that UBI bank has higher net interest earnings over the given amount of assets. PNB bank has higher result for both the liquidity ratios like Current ration and liquid assets to total deposit ratio. It may be commented that the liquidity position of PNB bank is much more than BOB bank. PNB bank has higher result for the liquid asset to total assets ratio. It may be commented that the liquidity position of PNB bank is much more than SBI bank.

As per the result the alternative hypothesis was rejected and null hypothesis was accepted.

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Consumers and Restaurant Owner’s Perception towards Online Food Ordering and Delivery Services

Madhu Kabra and Swapnapriya Sethy

Abstract

The mobile application era has thrown open a new pathway for today's marketing. The mobile application has made all traditional modes of business outdated and generated amazing new possibilities in business. Mobile application is a combination of marketing acumen and technology – uses the Internet as a medium to advertise and sell services and goods. Today, more people are getting connected through mobile application and they are ready to trade through it. It also affects the operation of companies and organizations. Companies have changed their traditional business strategies into online marketing to suit customer needs and taste at any time. This project aims to discuss the consumer's and restaurant owner's perception towards the online food ordering and delivery services in Kolkata. The survey was conducted for a purposeful analysis of the study on around 175 respondents. The research is focused on the study and analysis of data collected from all those users who are already using the online food delivery services. The purpose is to know the influencing factors, the perceptions, needs, positioning of various attributes of different online portals in the mind of the consumers and restaurant owners and overall satisfaction towards online food delivery services. To achieve the objective, data from different areas of Kolkata have been collected and also visited restaurants to know their point of view.

Keywords: Consumer Perception, Factor Analysis, Food Delivery Services, Restaurant Owner’s Perception

Introduction

Technology has played a key role in revolutionizing the food delivery service, it has contributed to the changes in consumer preferences as their dependency of technology has motivated them to do everything online comprising getting cooked meals delivered to their doorstep. Convenience is the prime factor to the consumers, as to place an order is as simple as few clicks on any mobile devices. Technological dependency,convenience and less time taken for the food to be delivered aids as a good reason for the consumers to choose the services offered by the online food ordering and delivery service portals.

The popularity of online food ordering and delivering services is steadily growing, expectations of the users are also increasing. This project is aimed to investigate consumer’s “ views about the services they receive from different portals and help the service providers to understand the consumer’s perception, needs and views on the basis of the result of a survey”.

To start this discussion, a look at the relevant literature, particularly in relation to the online food ordering and delivering services has been described in the project. The survey and its results, followed by findings and conclusion on how the consumers perceive the services can be used by the online food delivery service businesses to develop better strategies to market their mobile applications successfully.

In this day and age where presence in the virtual world is an imperative, small restaurants and entrepreneurs too need to take benefit of it. Online food ordering websites present just the options.

The difference between the organized and the unorganized sector in the Indian hospitality industry is huge. This does not just include hotels, but also the food service segment. Apart from the organized chain restaurants, most restaurants cater to local needs and often at a micro market level. In such a scenario, creating a loyal customer base is not difficult and a specialized marketing and sales force may not be necessary.

Enter online food ordering websites. These websites have been developed more for consumer convenience than anything else. But they do open a plethora of opportunities for small establishments to grow their business further. Online food ordering has been an international phenomenon for a while now. There have been many variations in India as well which have taken off at different periods of time, but success has been hard to come by.

Kimes S. (2011), his study found that perceived control and perceived convenience associated with the online food ordering services were important for both users and non-users. Non-users need more personal interaction and also had higher technology anxiety to use the services.

Alagoz &Hekimoglu (2012), e-commerce is rapidly growing worldwide, the food industry is also showing a steady growth. In this research paper they have used the Technology Acceptance Model (TAM) as a ground to study the acceptance of online food ordering system. Their data analysis revealed that the attitude towards online food ordering vary according to the ease and usefulness of online food ordering process and also vary according to their innovativeness against information technology, their trust in e- retailers and various external influences.

Chavan, V. et al, (2015), the use of smart device based interface for customers to view order and navigate has helped the restaurants in managing orders from customers immediately. Their analysis states that this system is convenient, effective and easy to use, which is expected to improve the overall restaurant business in coming times.

Sethu & Saini (2016), their aim was to investigate the student's perception, behavior and satisfaction of online food ordering and delivery services. Their study reveals that online food purchasing services help the students in managing their time better. It is also found that ease of availability of their desired food at any time and at the same time easy access to internet are the prime reasons for using the services. Lan H. et al, (2016), online food delivery market is immature yet; there are some obvious problems that can be seen from consumers" negative comments. In order to solve these problems, we can neither rely merely on the self-discipline of online food delivery restaurants nor the supervision and management of online food delivery platforms. Only by taking laws as the criterion, with the joined efforts of the online food delivery platforms and restaurants, the government departments concerned, consumers and all parties in the society, can these problems be solved and a good online take away environment can be created.

Hong L. (2016), the technological advancement in many industries has changed the business model to grow. Efficient systems can help improve the productivity and profitability of a restaurant. The use of online food delivery system is believed that it can lead the restaurant business grow from time to time and will help the restaurants to facilitate major business online.

Methodology

Sources of data: Calculating a quantitative figure with quantitative methods for measuring a qualitative scenario like Consumer's and restaurant owner's perception towards "online food ordering and delivery services" requires a combination of investigative study along with logical reasoning. In order to complete the research, convenience Sampling has been preferable with a sample size of 175 individual respondents on an average to investigate the consumer's perception towards online food ordering and delivery services and 100 individual respondents on an average to investigate the restaurant owner's perception towards online food ordering and delivery services. Primary data has been collected using two different questionnaires and the questionnaires have been a major source of the findings. The primary data is on the basis of Likert scale. Various appropriate statistical tools have been used to analyze the primary data collected. The primary data collected has been represented using graphs and pie charts.

Area of sampling: The sample arena or frame selected for the research was the territorial boundaries of Kolkata city, the research was conducted across various platforms of consumer demographics such as colleges, schools, MNC's, etc., within the city boundary.

Statistical tool used for the study: Various appropriate statistical tools are used to analyze the primary data collected. Factor Analysis is used to analyze the data. The primary data is represented using graphs and pie charts.

Module formation

The following hypothesis had been proposed for the study -

$H_{0.1}$: There is no significant relationship between Consumers Perception and factors affecting usage of online food ordering and delivery devices.

$H_{1.1}$: There is a significant relationship between Consumers Perception and factors affecting usage of online food ordering and delivery devices.

$H_{0.2}$: There is no significant difference among the respondents for the selection of application for food delivery.

$H_{1.2}$ There is significant difference among the respondents for the selection of application for food delivery.

$H_{0.3}$: There is no significant relationship between Restaurant Owner's Perception and factors affecting tie-up's with online food ordering and delivery devices.

$H_{1.3}$: There is a significant relationship between Restaurant Owner's Perception and factors affecting tie-up's with online food ordering and delivery devices.

$H_{0.4}$: There is no significant difference among the respondents for the selection of application for food delivery.

$H_{1.4}$ There is significant difference among the respondents for the selection of application for food delivery.

Results and Findings

Graphical representation of the responses received from the consumers.

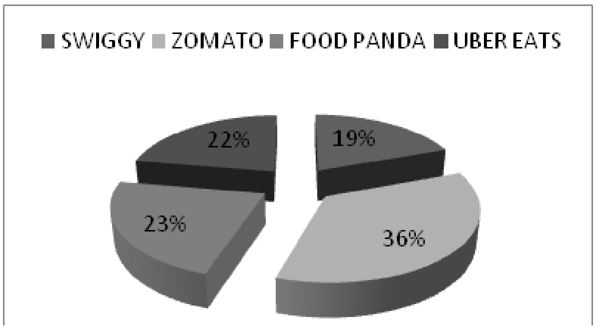

Figure 1 - Responses for preference of food ordering application

Interpretation: Undoubtedly the prominent players of the market capture a huge ration of the market share where Zomato being the market winner shows that the company has made tremendous efforts in keeping its market share in spite of the fact that debutant Uber Eats has made successful attempts to attract a huge amount of market share.

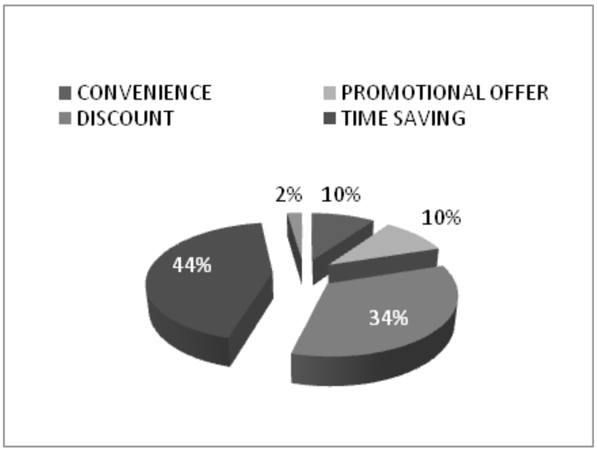

Figure –2 Responses for factors influencing online ordering

Interpretation: From the responses collected it is clearly evident that "Time saving" is one of the major factor for the consumers to choose online food ordering and delivery services followed by discounts and promotional offers. Here we see that 2% of the people out of the total respondents i.e., 35 individuals feel that all the given factors induce them to choose online food ordering and delivery services.

Table 1: Factor analysis for understanding the perception of consumers towards the online food ordering and delivery services

Communalities					
	Initial	**Extraction (Zomato)**	**Extraction (Swiggy)**	**Extraction (Food Panda)**	**Extraction (Uber Eats)**
Payment	1.000	0.629	0.514	0.562	0.593
Promotional offers	1.000	0.648	0.977	0.492	0.436
Speed of delivery	1.000	0.370	0.547	0.586	0.492
Minimum order	1.000	0.379	0.330	0.811	0.466
Delivery charges	1.000	0.903	0.417	0.481	0.375
Convenience	1.000	0.642	0.649	0.420	0.289
Satisfaction	1.000	0.371	0.977	0.779	0.288

Interpretation: The table of communalities shows how much of the variances (i.e., the communalities value which should be more than 0.5 to be considered for further analysis. Else these variables are to be removed from further steps of factor analysis) in the variables has been accounted for by the extracted factors.

Table 2: KMO and Bartlett's Test of consumer's perception towards the online food ordering and delivery services

KMO and Bartlett's Test					
		Zomato	**Swiggy**	**Food Panda**	**Uber Eats**
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.812	0.696	0.752	0.751
Bartlett's Test of Sphericity	Approx. Chi-Square	63.734	55.959	327.237	273.582
	Df	21	6	21	21
	Sig.	0.000	0.000	0.000	0.000

Interpretation: This table shows two tests that indicate the suitability of the data for structure detection. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is a statistic that indicates the proportion of variance in the variables that might be caused by underlying factors. High values i.e., close to 1.0 indicate that a factor analysis is useful with the data. If the value would have been less than 0.50, the results of the factor analysis probably won't be very useful.

Bartlett's test of sphericity tests the hypothesis that the correlation matrix is an identity matrix, which indicates that the variables are unrelated and therefore unsuitable for structure detection. Small values i.e., 0.00 in our case (less than 0.05) of the significance level indicate that a factor analysis may be useful with your data

Graphical representation of the responses received from the Restaurant owner's.

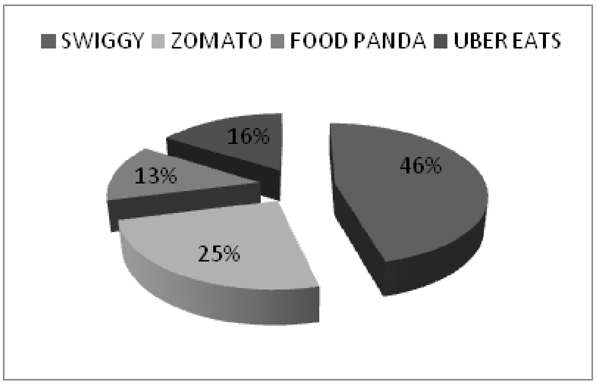

Figure 3 – Preference in mobile application or portal

Interpretation: Undoubtedly the prominent players of the market capture a huge ration of the market share where Swiggy being the market winner shows that the company has made tremendous efforts in keeping its market share in spite of the fact that debutante Uber Eats has made successful attempts to attract a huge amount of market share.

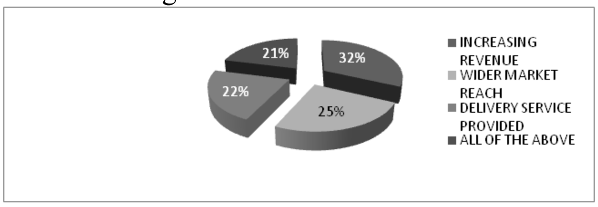

Figure 4: Goal of Restaurant owners

Interpretation: As we all know that for any businessman increasing his profits are the most important similarly for the restaurant owners increasing their revenue is the major factor for tie-up with online applications followed by wider market reach and delivery service provider.

Table 3: FACTOR ANALYSIS for understanding the perception of restaurant owner's towards the online food ordering and delivery services

Communalities					
	Initial	**Extraction (Swiggy)**	**Extraction (Zomato)**	**Extraction (Food Panda)**	**Extraction (Uber Eats)**
Increased revenue	1.000	0.485	0.524	0.539	0.460
Increased exposure	1.000	0.596	0.584	0.597	0.579
Wider customer reach	1.000	0.557	0.589	0.534	0.524
Convenience	1.000	0.368	0.483	0.380	0.471

Per order charges	1.000	0.474	0.178	0.442	0.385

Interpretation: The table of communalities shows how much of the variances (i.e., the communalities value which should be more than 0.5 to be considered for further analysis. Else these variables are to be removed from further steps of factor analysis) in the variables has been accounted for by the extracted factors.

Table 4: KMO and Bartlett's Test of Restaurant owner's perception towards the online food ordering and delivery services

KMO and Bartlett's Test					
		Zomato	**Swiggy**	**Food Panda**	**Uber Eats**
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.612	0.783	0.768	0.734
Bartlett's Test of Sphericity	Approx. Chi-Square	7.367	97.690	102.209	96.788
	Df	10	10	10	10
	Sig.	0.000	0.000	0.000	0.000

Interpretation: This table shows two tests that indicate the suitability of the data for structure detection. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is a statistic that indicates the proportion of variance in the variables that might be caused by underlying factors. High values i.e., close to 1.0 indicate that a factor analysis is useful with the data. If the value would have been less than 0.50, the results of the factor analysis probably won't be very useful.

Bartlett's test of sphericity tests the hypothesis that the correlation matrix is an identity matrix, which indicates that the variables are unrelated and therefore unsuitable for structure detection. Small values i.e., 0.00 in our case (less than 0.05) of the significance level indicate that a factor analysis may be useful with your data.

Conclusion

In the case of 'Swiggy', it has also been seen that due to the following factors, it has been able to acquire new consumers and retain them in the long run:

The pricing strategy is much more beneficial for the consumers as compared to the other brands, which gives it an upper hand for those consumers which are price-sensitive in their buying behaviour.

It has been able to provide accepted service quality levels to their consumers in most of their products due to which it has been able to attract a major section of the society from all the walks of life.

In terms of promotional offers, it has been able to surpass the benchmarks set by most of its competitors, which has proved to be an additional force in attracting and retaining their consumers.

However, it can be seen from the numerical perspective that brand loyalty for "Swiggy" can be shifted due to the various factors because the consumers are still prone to changes in the other factors such as 'Satisfaction', 'Payment Options' and 'Minimum order criteria' .

In the case of 'Zomato' it can be observed that the consumers have loyalty towards this brand due to its historic presence and dominance in the market. However, this loyalty has been restricted only because of a few factors like minimum amount criteria, delivery charges and promotional offers.. Another significant point that needs to be highlighted is that "payment option' has a very minimal effect on the consumer's perception when it comes to choosing Zomato.

Both these applications (Swiggy and Zomato) collectively have been able to acquire a major chunk of the consumers. From the collected data and an analysis of the same, it can be stated that most of the consumers of these two brands do not tend to shift their loyalty.

The remaining two brands 'Food Panda' and 'Uber Eats' have a lot in common. Right from factors such as 'Convenience', 'Time Saving', 'Promotional Offers' and "Discounts, etc., it can be seen that both of them are similar concerns with a different Online

Application

Taking into consideration the restaurant owners perception we see that most of the restaurant owners have their first preference as Swiggy due to the excellent service provided by the application. The first preference for all the factors be it ‘Increased exposure’, ‘Increased Revenue’, ‘Wider market reach’ and ‘Convenience’ is Swiggy for maximum restaurant owners. Zomato being the second preference for most of the respondents is a leading competitor of Swiggy in the market.

The remaining two applications ‘Food panda’ and “Uber Eats’ although being new in the market have managed to provide attractive offers to the restaurant owners and have managed to capture a considerable portion of the market and are becoming more popular amongst both consumers and restaurant owners.

So, it can be prudently noted that factors such as ‘Convenience’, ‘Time Saving’, ‘Promotional Offers’, ‘Discounts’, ‘Satisfaction’, ‘Payment Options’ and ‘Minimum order criteria’ has a great impact on consumer perception of online food ordering and delivery services. And factors such as ‘Increased exposure’, ‘Increased Revenue’, ‘Wider market reach’ and ‘Convenience’ has a great impact on restaurant owners perception of online food ordering and delivery service.

It can also be seen that Swiggy is the most preferred online food application by the restaurants owners and in case of consumers both Swiggy and Zomato are highly preffered.

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A Comparative Analysis of Priority and Non Priority Sector NPAs of Indian Public and Private Sector Banks

Priti Bhadra and Monojit Dutta

Abstract

Facilitating loan and advances to customers is the main stream of banking business. The loans are advanced by banking institution to different segment of their market. These segments primarily fall under priority and non-priority sectors, in former sector bank are directed to grant as per guidelines by the Reserve Bank of India. Furthermore, the rise of non-performing assets (NPAs) in banks is influenced by many reasons depending upon the quality of bank's assets in both of these sectors. Many texts suggest that the lending in Priority sector is one of the important causes for the rise of such non performing assets. This paper intended to study the trends of NPAs for both priority and non priority sector for both Public and Private sector Banks and to find the significant relationship between NPA and total advance for both Public and Private sector Banks in India based on secondary sources of information of 8 years annual reports. To find this T-test, Correlation and Regration is done. The study shows that growth of NPA for both public and private sector Banks for non priority sector has shown a increasing trend even the relationship is significant between gross total advance and NPA for both the public and private sector Banks.

Keywords: Banks, Gross Advances, Lending, Non Performing Assets (NPA's), Priority/Non Priority Sector, Sector Wise Performance

Introduction

Banks play a very useful and dynamic role in the economic life of every modern state: They are important constituents of the money market and their demand deposits serve as money in the modern community. It is realized that since banks have the required investment potentiality, they can make a significant contribution in eradicating poverty, unemployment, and they can bring about progressive reduction in inter-regional, inter-state, and inter sectorial disparities through rapid expansion of banking services.

Commercial banks have come to play a significant role in the development of countries. The two basic functions of commercial banks are: mobilization of the savings of the people and disbursement of credit according to socio-economic priorities, thus accelerating the pace of economic development in the desired direction. The world over, banking system is the focal point in the financial set-up of any developing country. In India too economic development has evolved around the banking system.

Methodology

The data has been collected from secondary source, mostly annual reports for 8 public and 8 private banks. 8 private banks (HDFC Bank, ICICI Bank, Axis Bank, Federal Bank, IndusInd Bank, J&K Bank, South Indian Bank, Yes Bank) data for the year 2014-18 and 8 public banks (Punjab National Bank, State Bank of INDIA, Bank of Baroda, Bank of India, Canara Bank, Central Bank of India, IDBI, Union Bank) data for the same year data has been collected from annual report. For comparison simple graphs has been used and T-test, correlation and regression has been used.

Results And Discussions

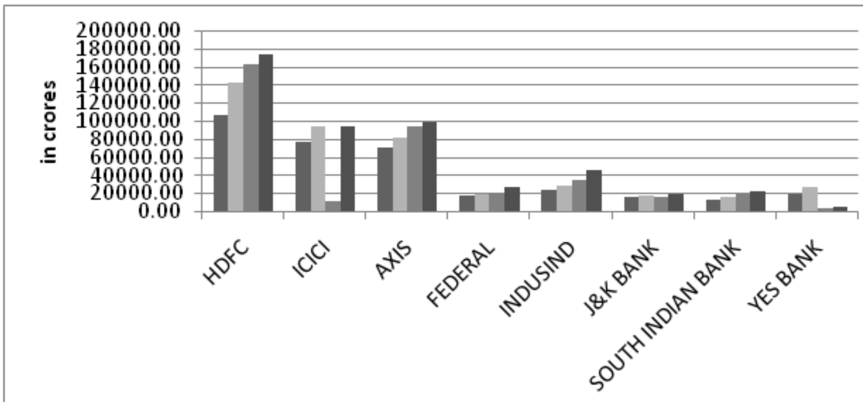

Figure 1: Total Advances made by Private Banks in Priority sector

Interpretation:

In the above graph we can see that the total advances in Priority Sector of HDFC Bank is high in overall period among the other 7 Banks. But again in 2017-18 the advances made is highest for all the Banks the reason could be that all the banks have focused more towards the agriculture and allied activities sector and specially HDFC has made total advances of 73,513.50 Crore in 2017-18 in agriculture and allied activities sector.

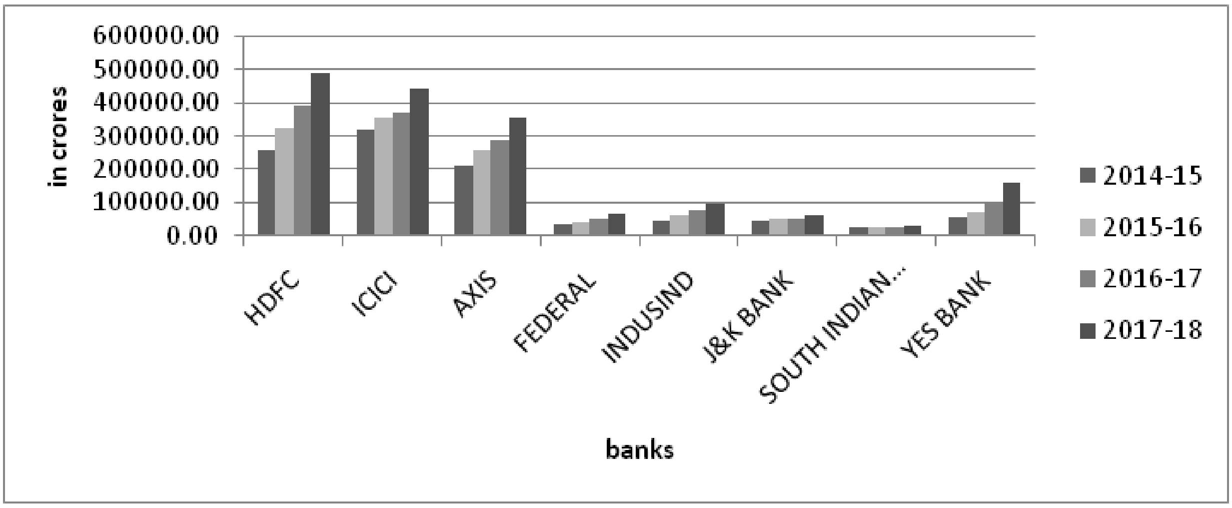

Figure 2: Total Advances made by Private Banks in Non Priority sector

Interpretation:

In the above graph we can see that here also in Non Priority Sector HDFC Bank has made highest total advances among the other 7 Banks. In 2017-18, HDFC Bank has given loan mostly to the Personal Sector i.e., 177,723.19 crore in Non Priority Sector.

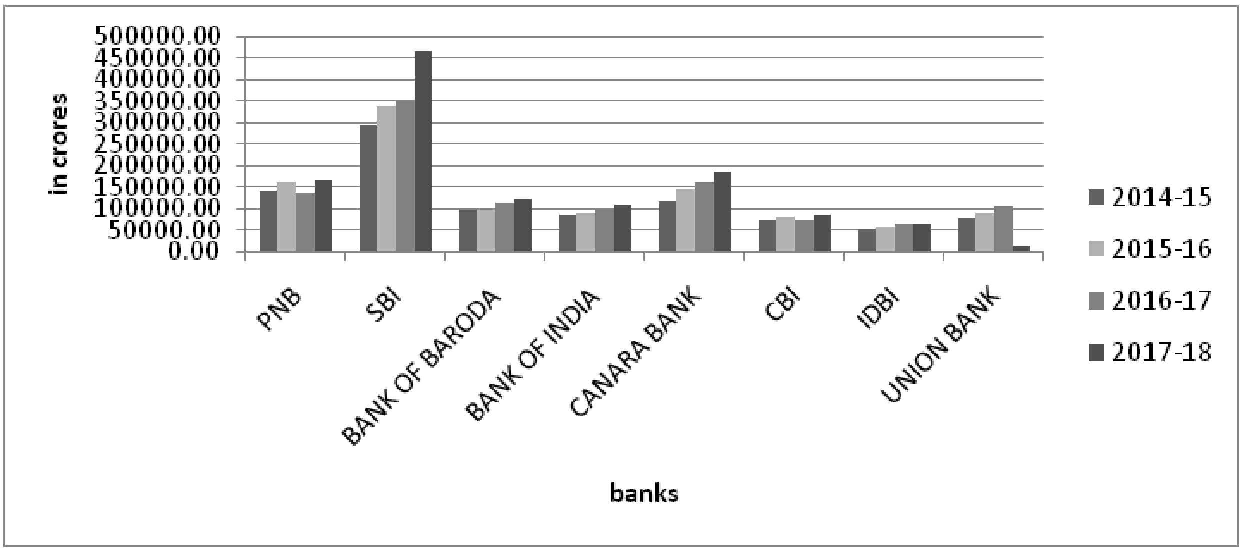

Figure 3: Total Advances made by Public Banks in Priority sector

Interpretation:

In the above graph we can see that SBI has made the maximum advance towards the Priority Sector. In the year 2017-18 SBI has given the maximum loan towards the Agriculture and allied activities.

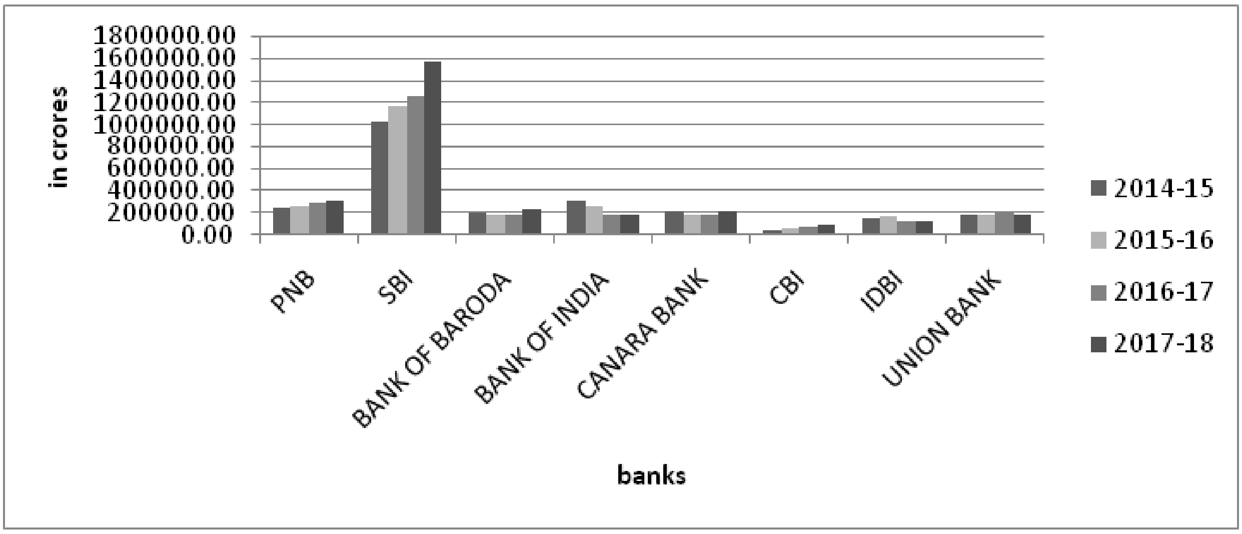

Figure 4: Total Advances made by Public Banks in Non Priority sector

Interpretation:
In the above graph we can see that SBI has given more advances towards the Industrial sector. SBI has given more loans towards the Non Priority Sector among the other 7 Banks.

Percentage of NPA over Gross advances for Priority and Non-Priority Sector Lending of Public sector Banks: On Comparing the Public Sector Priority and Non-Priority sector NPA performance, in public sector bank which it was found that the NPA percentage in non-priority sector is higher the priority sector or in other words we can say NPA in priority sector is less.

The RBI says that on June 30, 2014, the gross NPAs of these banks were worth Rs 2, 24,542 crore. At the end of December last year, that number had risen to Rs 7,23,513 crore. These numbers were reported by the banks to the RBI.

Non-priority sector NPAs contribution was found to be more than priority sector NPAs of total NPAs. Hence it can be interpreted that gross advances also have a significant impact on total NPAs of Indian public sector banks.

Conclusion

The RBI guidelines on priority sector aim to ensure that adequate finance reaches the agricultural and generally weaker sections of the society, mainly in rural India to provide them with economic opportunities. This study focused on the role of Microfinance institutions towards bringing the unbanked sector under financial umbrella, the importance, the guidelines and the various categories of Priority Sector lending.

Mandatory directed credit or priority sector lending (PSL) is part of the regulatory framework for commercial banks/financial institutions in many countries, both developing and developed. However, compliance and lending effectiveness of such programs may be determined by a host of factors. This may be particularly so in developing countries like India, where availability of finance for the vulnerable sectors like agriculture, small businesses weaker sections are scarce.

Through this study we covered the broad aspects of lending towards Priority Sectors by various Private and Public Sector Banks including the Sector wise breakup to have a deep understanding of how the Banks are distributing their portfolio for achieving a broader and variety in their portfolio and also reducing the risk which may arise in future in any of the particular sector we had also studied the level of Non Performing Assets in the different sectors. We had a brief look on the reasons and impact of Non Performing Assets under the Priority sector as well as the methods used by Banks to counter the same.

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