# KINDLER

## THE JOURNAL OF ARMY INSTITUTE OF MANAGEMENT KOLKATA
### (FORMERLY NATIONAL INSTITUTE OF MANAGEMENT CALCUTTA)

**RESEARCH
PAPER**

NCCMP
2018

NATIONAL CONFERENCE ON CONTEMPORARY MANAGEMENT PRACTICES

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# Editor's Note

The most popular cross-platform messaging app in India WhatsApp has launched the WhatsApp Business app that aims to facilitate businesses to efficiently connect with their clients. Technology has again scored in the efforts to sustain business management, commerce and trade.

With much technological progress, especially in the field of connectivity and analytics, the business world also witnesses myriad changes. In this situation, it is indeed appropriate to view sustainable and present-day management practices that have or could have evolved into theories. It gives me great pleasure to introduce some of the entries in the National Conference on Contemporary Management Practices, 2018 at Army Institute of Management, Kolkata.

Some of the entries of the conference have been collected and compiled along with already accepted research to form this multidisciplinary issue. Most of the listed research is empirical and each accepted entry has undergone the standardized review process of the journal.

I wish our audience an informative, interesting read and may research queries in business management be both answered and raised.

**Dr Swapna Datta Khan**

# NOTE FROM ASSOCIATE EDITOR, KINDLER

As a bi-annual journal, Kindler provides a scope for researchers across the globe to share their research inputs. The journal aims at covering vast domain of inter-disciplinary studies with an objective to attract thoughtful scholarship that is of relevance to corporate, academic and society at large. The NCCMP 2018 special issues covers articles that are conceptual, theoretical and empirical and covers general management, marketing, finance, economics, business accounting, quality, human resource management, IT, diversity, sustainable development to name a few. The papers selected have undergone a strict double blind peer review process. I wish all contributors and readers a very rich and rewarding experience.

**Dr. Ayan Chattopadhyay**
**Associate Professor (Marketing)**
**Convener - NCCMP 2018  &**
**Associate Editor, Kindler**

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# A feasibility of Landline Portability from Customer's perspective in Kolkata city - A Market Analysis

## Debasish Sarkar* & Asok Kumar Banerjee**

**ABSTRACT**

*This empirical paper tries to investigate some relevant information about the reasons for doing Landline Portability amongst landline customers in Kolkata region. Here questionnaire has been designed to capture the attitude of people towards Landline Portability, which can help Telecom Regularity Authority of India (TRAI) and the Cellular Operators Association of India (COAI) to formulate their policy. Data were collected from landline customers who might change their Service Providers. Also reasons behind Landline portability have been investigated using Regression methods with the help of SPSS. The result depicts that the Landline customers show preference for Landline portability based on Call Clarity, Value added Services, Staffs behavior, Customer Care, Low billing problem & less faulty lines. As a whole customers showed a very positive attitude towards Landline Portability in Kolkata.*

**Keywords:** *Call Clarity, Landline Portability, Regression Analysis*

## INTRODUCTION

Fixed or Landline portability is an Operator based portability which makes it possible for a fixed telephony subscriber to shift from one fixed service provider to another in the same area and retain his original number. It will certainly enhance competition between telecom operators. Its scope and future implementation had already defined in the National Telecom Policy-2012. Landline portability is one of the proposals made in the National Telecom Policy (NTP) -2012. In India there are total 8 landline service providers as of 31st Dec, 2017. They are – BSNL, MTNL, Tata Docomo, Airtel, Reliance, Vodafone, Aircel and Quadrant. So as per Table 1 BSNL is the largest Landline service provider in India maintains a major market share with 53.64% of the total market. And if we look at the Kolkata circle, there are only four landline service providers. They are - BSNL, Reliance, Airtel and Tata.

Their customer base and market share are shown in Table I:

| RANK | OPERATOR'S NAME | SUBSIBERS (IN MILLIONS) | MARKET SHARE |
|------|-----------------|-------------------------|--------------|
| 1 | BSNL | 12.559 | 53.64% |
| 2 | AIRTEL | 3.907 | 16.69% |
| 3 | MTNL | 3.386 | 14.46% |
| 4 | TATA | 1.853 | 7.91% |

* Ph.D Scholar, Department of Business Management, Calcutta University, Kolkata, India Email : deblee_y2k@yahoo.com

** President, Calcutta Management Association, Kolkata, India Email : ban_asok@yahoo.com

| | | | |
|---|---|---|---|
| 5 | RELIANCE | 1.188 | 5.07% |
| 6 | QUADRANT | 0.258 | 1.10% |
| 7 | VODAFONE | 0.19 | 0.81% |
| 8 | AIRCEL | 0.072 | 0.31% |

**Table 1: Operator's market share**

TABLE 1: (Source: https://en.wikipedia.org/wiki/List_of_telecom_companies_in_India)

Now the number of wire-line subscriber's data as published by TRAI as on 30th September, 2017 are shown in Table 2

| | |
|---|---|
| Wireline Subscribers | 23.67 million |
| Urban Subscribers | 20.12 million |
| Rural Subscribers | 3.55 million |
| Market share of PSU | 68.44% |
| Market share of Private | 31.56% |
| Teledensity | 1.83 |
| Urban Teledensity | 4.94 |
| Rural Teledensity | 0.40 |

**Table 2: Performance Indicator report**

(Source: https://www.trai.gov.in/release-publication/reports/performance-indicators-reports)

Now if we look globally, we found that Canada, South Africa and United States are the only countries that offer full number portability transfers between both fixed lines and mobile phone lines.After the launch of Mobile number portability (MNP) service on 20th Jan, 2011 in India, about 294.87 million subscribers have submitted their requests to different service providers for porting their mobile number (Chakri Kudikala, Technology news Voice & Data, MNP, July 2017). So we could easily assume that there would be large popularity amongst the telecom Customers for Landline portability also. After implementation of MNP the competition amongst Mobile service provider has tremendously increased. And this proven fact would make the customers keen to go for Landline portability as soon as it would implement. Let us see some data based cases which made our assumption more clear that subscribers wanted the landline portability very early (http://www.firstpost.com/author/sindhub). The report as posted by Sindhu Bhattacharya, in Dec, 20th, 2014 in First post, where he told that about 12.6 Lakhs customers of BSNL had surrendered their land phone connection in June, 2014 and about 15 Lakhs subscribers in May, 2014. The total loss in two months comes to almost 28 lakhs. And latest data reveal that BSNL lost 1, 52,797 numbers of wire-

line customers in July, 2016 (Imon, Broadband, Technology News, TRAI, Oct 12, 2016). So why such huge numbers of customers surrendering their phones. Is it that they got another alternative for communication or simply it was due to the lack of service that service providers promised to provide? If there are some reasons for the shortfall of services, then the solution is ready in our hand. That is Landline portability. This is the only way to make any service provider more efficient toward their service, more responsible, more reliable and more trustworthy.

## OBJECTIVE

1. To investigate why people show likeliness for landline portability.
2. To find out which Boosting factors would make people attracted to do Landline Portability.
3. To find out which Hindrance factor and its removal would make people attracted to doing Landline Portability.

## SIGNIFICANCE OF THE STUDY

The research provides an idea of the customer's attitude towards Landline portability. The study enhanced the knowledge of the researchers that customer's demands are always changing and it will explore some new research area for their further study.

The research will provide guidelines for the Telecom Authority of India (TRAI), Department of Telecommunication (DOT) and the Cellular Operators Association of India (COAI) to formulate some new policy and strategic plan for telecom field. Furthermore, the research lays a ground for further studies in the different location area.

So the Unique Value Proposition (UVP) of this research work is that, it explores Customer's perception towards a new field which is "Landline portability" and reasons for doing Landline Portability and if this portability got implemented a new competition in telecom field could be seen which leads into more efficiency and innovation in Indian telecom sector.

## RESEARCH GAP

A very few Research work has found on the viability of Landline portability in India. Also, provision of Landline Portability is there as per National telecom policy-2012. So working on Landline portability and to find out the reasons for doing Landline Portability would fulfill the lacuna of Telecom services in India.

## LITERATURE REVIEW

Some countries called portability in Landline Telephones as Local Number Portability (LNP). In most cases it is difficult to transfer lines from one geographical area to another, service area coverage and technology. Local Number portability was invented by Edward Sonnenberg. As per the new journals available in the market, many researchers in India as well as abroad worked in the field of cellular customer behavior where the attitude of customers had been derived and utilized in various fields of marketing. The Customer's attitude has been measured in the banking field, in the service sector and in other areas by different methods. A recent study by Sarkar, Banerjee, Datta (2018) where the attitude of Pan Mobile number portability had been explained. But very few tried to predict the attitude in the telecom sector, especially in the Landline sector. As this type of Landline portability is not implemented in India yet so there were very few papers based on Landline Portability have been found. Though after

introduction of Pan MNP in July, 2015, very few works could be found in Mobile sector, but still, no in-depth empirical investigation into Landline Telecom sector could be found. So mainly we would emphasize on paper based on the Mobile portability sector.

If we look at the National Papers of India based on Mobile number portability, "A study on cellular customer behavior after MNP" was discussed by Suthar, B. K., Sharma, K. J., and Gwal A. (2012) where the factors which motivates a customer as well as factors which inhibits a customer towards mobile number portability had been discussed. John (2011), discussed about the factors related to the loyalty of a customer taking the reference of BSNL customers in India. Pratik Sinh & Suresh Sinh Vaghela (2012) finds out the causes of Mobile number portability. Implementation of Mobile number portability and its evolution in India had been discussed by Nishat (2012). "Mobile number portability: Its challenges and solution" was discussed at length by Khan (2011). TRAI on their "Pre-consultation paper on full mobile number portability" (2013) discussed at length about the pros and cons of full mobile number portability.

Now exploring some International paper based on MNP, we found that an empirical study by Rafique Ahmed Khuhro (2011) conducted from the interior Sindh, Pakistan to see the satisfaction of the customers who have utilized the process of MNP. Buehler, S. & Haucap, J. (2004) discussed the consequences of introducing Mobile Number Portability (MNP). They showed that after introducing MNP, switching costs has been abolished and thereby benefits mobile customers. However, MNP causes consumer ignorance, as telephone numbers no longer identify networks, also mobile operators will increase termination charges, with ambiguous net effect on the surplus of mobile customers. They examined how extensions such as MNP based on call-forwarding, termination fee regulation, and alternative means of carrier identification affect these findings and discuss policy implications.

Our basic model was influenced from Two factor theory developed by Fredrick Herzberg (1959). It is also known as the Herzberg motivational hygiene theory and dual factor theory. He stated that there are certain factors in the workplace that cause job satisfaction, while a separate set of factors cause dissatisfaction. Both job satisfaction and job dissatisfaction act independent of each other. He proposed two factors as Motivators and Hygiene factors. Motivators give positive satisfaction from intrinsic conditions of the job. But Hygiene factors does not give positive satisfaction or leads to higher motivation, though dissatisfactions results from their absence. So inspired from these two factors we like to introduce such types of factors in our research work. We found that are are several factors which enhance the image or the value of a service. We called them as Boosting Factors. Also, we found that removal of certain factors from a service would generally enhance the image, value or efficiency of a service. We called them as Hindrance factors.

Finally, the research and statistical methodology has been followed from the book Multivariate data analysis, 6th edition, Pearson Publication by Hair, Black, Babin, Anderson, Tatham (2007).

**RESEARCH METHODOLOGY**

Firstly, we collected Primary data from the customers of different areas of Kolkata who are using BSNL Landline telephones. We used BSNL database to collect the subscribers Zone wise. Like – East Zone, West Zone, North Zone and South Zone. Now from each Zone we

segregated the data Postal Index Number wise.

Secondly, though we tried our level best to collect some data from the customers who are using landline telephones of private companies like Airtel, Reliance, Tata, yet we failed to collect individual data. So we have chosen some corporate sectors like Hospitals, Schools and other private offices which are using private Landline telephones. Like this way we collected few data from staffs of E.E.D.F Hospital Kolkata, B.D.M.I school, Kolkata and Ericsson Global Service Pvt. Ltd. Kolkata. Like this we had collected a total 150 data for analysis.

Here we have ignored the rural sector totally. As Landline Teledensity were more in the urban sector than rural sector. Therefore, we assume that study based on the urban sector would provide more meaningful results.

We have used a Regression method to predict a customer's attitude towards Landline portability. Here 8 numbers of independent variables were taken after discussing with the experts in Telecom field. They are Call Clarity, Value Added Features, Good behavior of staffs, Customer Care, Sales force Image, Tariff Problem, Billing Problem, Faulty Lines .

Now based on two factor theory which is also known as Herzberg's motivation –hygiene theory and dual factor theory, where Motivator factor and Hygiene factor were defined, So based on that we propose two new factors – 1) Boosting Factor and 2) Hindrance Factor.

Boosting Factor – It is defined as those features in a service which, if increases would enhance the image, the value of a telecom service. E.g. - Call Clarity, New features, Staff behavior, Customer care, Sales force image.

Hindrance Factor – It is defined as those features in a service removal of which would enhance the image, the value of a telecom service. E.g. - Tariff problem, Billing Problem, Line fault.

So our ultimate aim is to see whether the likelihood of Landline portability is influenced by these Boosting and Hindrance factors and ultimately it is favorable or not.

Generally Sample to Variable ratio of 10:1 is considered to be good. Here our Samples to Variable ratio were more than 18:1 (which is considered to be good). The primary data were collected from the period November to December, 2017. A highly constructed questionnaire was supplied to them maintaining ESOMAR guidelines. As per the survey, respondents' perception on Landline portability were measured on a 5 point Likert scale,

Where, 5 indicates- Extremely Favored and 1 indicates –Absolutely Unfavored.

Now to test the Hypotheses, we considered Regression analysis result. The positive Coefficient values were taken for acceptance. Otherwise rejected.

If the value of the predicted attitude will become greater than 3, then we would assume that the Customer's attitude towards Landline portability is favorable.

So, our ultimate attitudinal model for Landline portability is presented at **Figure 1**:

**BOOSTING FACTOR** **Figure1: Model for likelihood of Landline Portability**



**HINDRANCE FACTOR**
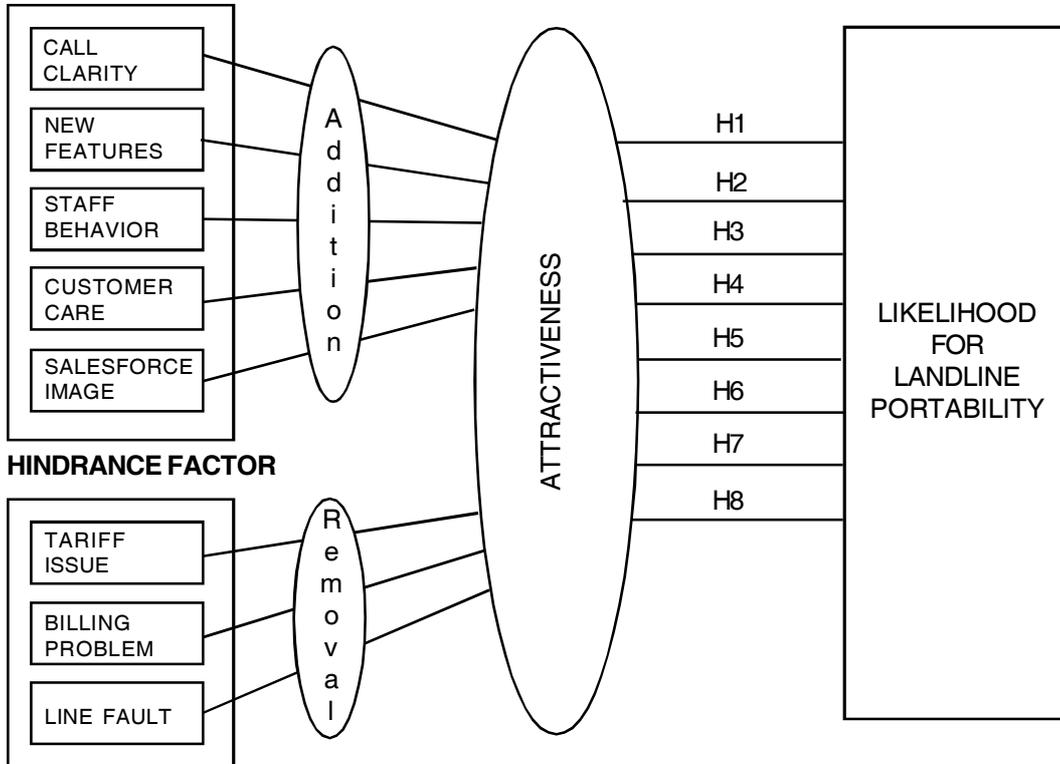
## SCOPE FOR FUTURE RESEARCH

Here only customer's attitude for Landline portability and the reasons behind that has been explored, but there might be some other factors which influence people to opt for Landline Portability. So Research scholars could explore more in that field by taking more variables like promptness in service, various offers, etc... Also there are various scopes for research scholars to explore such type of research in another service area like – Cable TV, Gas connection etc. where people might be interested to keep their existing service and change only the service providers. Also such research work should be done in other cities of India.

## ANALYSIS OF THE MODEL

We have used a Regression method to predict the Customers attitude regarding Landline portability using SPSS. With the help of Expert's view in the Telecom field, we have chosen 8 variables which we presume to be important for accessing customer's attitude for Landline Portability. They were already discussed above. The general Multiple Regression equation is shown in Equation (1):

$$\Re = \beta 0 + \beta 1 \chi 1 + \beta 2 \chi 2 + \dots \beta \rho \chi \rho + \varepsilon$$

Where, Â is the expected value of the dependent variable, $\chi 1$ through $\chi \rho$ are $\rho$ distinct

independent variables, $\beta0$ is the value of A when all the independent variables ( $\chi1$ through $\chi\rho$ ) are equals to zero, and $\beta1$ through $\beta\rho$ are the estimated regression coefficients. Each regression coefficient represents the change in A relative to a one unit change in the respective independent variable. $\varepsilon$ is the error term. As we have 8 independent variables so our Predicted equation of Attitude becomes:

$$\Re = \beta0 + \beta1\chi1 + \beta2\chi2 + \beta3\chi3 + \beta4\chi4 + \beta5\chi5 + \beta6\chi6 + \beta7\chi7 + \beta8\chi8 + \varepsilon$$

So, here in this Model, Attitude is Dependent variable and others eight variables are taken as independent or predictor variables. And we predict the attitude of customers using these 8 independent variables with the help of the Linear Multiple Regression method.

## RESULTS AND DISCUSSION

### Regression Analysis

The results of regression analysis are analyzed below:

The Pearson correlation amongst the variables shows that X7 has the highest bivariate correlation of (0.741). Followed by X8 (0.709) and X1 (0.662) and all other correlation values are more than 0.5. We are taking correlation value more than 0.5 as significant. Now if we run the Linear Regression analysis with the help of SPSS package, the following results were available. We noticed that the average mean value is more than 4, only X3 and X4 value comes 3.980 each and standard deviation in the range 0.8, 0.9 etc. Here the R square value = 0.689. This value indicates the percentage of total variation of customer attitude explained by the regression model consisting of all the variables. The standard error of estimate = 0.473. It is another measure of the accuracy of our predictions. It represents an estimate of the standard deviation of the actual dependent values around the regression line. The ANOVA analysis provides the statistical test for the overall model fit in terms of F ratio. The total sum squares = 100.685, is the squared error that would occur if we used only the mean of A to predict the dependent variable.

Now the final Regression model with all independent variables (X1 to X8) explains almost 68.9 percent of the variance of customer attitude (X9). The adjusted R square value = 0.671 Though the regression coefficients of (X1, X2, X3, X4, X7 & X8) have positive value while the coefficients of (X5, X6) are negative.

Now from SPSS result, we found the following results. The model summary has been shown in Table 3

| Model Summary | | | | |
|---|---|---|---|---|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | 0.830 | 0.689 | 0.671 | 0.473 |

**Table 3: Model Summary**

From the result obtained from SPSS, we found the value of the Regression Cooficients.So the predictive equation is written as:

$$\Re = 0.403 + 0.240 * \chi1 + 0.023 * \chi2 + 0.110 * \chi3 + 0.189 * \chi4 - 0.231 * \chi5 - 0.080 * \chi6 + 0.462 * \chi7 + 0.182 * \chi8$$

With this equation, the expected customer attitude level could be calculated if that customer's evaluation is known. Suppose a customer rated each variable with a value of 4.0 or 5.0, then the predicted attitude level for that customer would be:

Predictive Attitude = 3.983, for X = 4 & Predictive Attitude = 4.878, for X = 5

The constant value is very low. That means we can assume that our independent variables made a vital role in predicting the customers' attitude favorably. In other words, in the absence of the predictor or independent variables the predicted attitude would be very low or it won't be favorable towards Landline portability.

In both the cases the predicted Attitude value is greater than 3, so for 5 Points Likert scale we assume that Customer's attitude it is favorable for Landline Portability in Kolkata city.

Now in order to investigate why the subscribers want to do Landline portability, We used the regression results which show that the factors influence people to do Landline portability are – Call Clarity, VAS, Good Behavior of Staffs, Good Customer Care, Less Billing problem and less Faulty lines. As the Regression coefficients of these factors are positive, so these played a vital role for likelihood of Landline Portability amongst the customers. Their Regression coefficients are – 0.240, 0.023, 0.110, 0.189, 0.462 & 0.182 respectively. But Salesforce image and Less Tariff do not play a vital role for likelihood for Landline portability amongst the Landline customers in Kolkata city. As their Regression coefficients are negative, which are - 0.231 & - 0.080 respectively? So we could assume that these factors are not important to be considered.

## HYPOTHESIS TESTING

To find the reasons behind Landline Portability following hypotheses were proposed:

H1:  Clarity of voice calls on Service Provider's network would attract more customers to do landline portability in their network.

H2:  More Value added features in Landline services of Service Provider would attract more customers to do landline portability in their network.

H3:  More good behavior of line staffs of Service Provider would attract more customers to do landline portability in their network.

H4:  Good Customer Care of Service Provider would attract more customers to do landline portability in their network.

H5:  Good Sales force Image of Service Provider would attract more customers to do landline portability in their network.

H6:  Less Tariff Problem of Service Provider would attract more customers to do landline portability in their network.

H7:  Less Billing problem of Service Provider would attract more customers to do landline portability in their network.

H8: Less Faulty lines of Service Provider would attract more customers to do landline portability in their network.

Now to test the Hypotheses, we would consider the result of Regression analysis. The result in the Coefficient table shows that the coefficient ($\beta1$, $\beta2$, $\beta3$, $\beta14$, $\beta7$ & $\beta8$) has a positive value while coefficients ($\beta5$, $\beta6$) are negative. Which means for a unit change of Independent variables, the Dependent variables increases for positive values of the coefficients. That's why we accept (H1, H2, H3, H4, H7 & H8) hypotheses and as for unit changes of independent variables the dependent variables decrease for negative values of the coefficients. So we reject hypotheses (H5 & H6) respectively. The results are shown in Table 4 .

So the said table described that out of all Boosting factors taken for analysis factors like – Call clarity, VAS, Good Behavior, Customer Care influenced the likelihood for landline portability except Sales force image. And from Hindrance factors Tariff Problem does not influence people for Landline Portability but if we remove the problem of billing and fault in Line then subscribers might influence more for doing landline portability. Hence all our objectives are met.

| Regression coefficient | Coefficient value | Hypothesis | Positive/Negative | Remark |
|---|---|---|---|---|
| $\beta1$ | .240 | H1 | Positive | Accepted |
| $\beta2$ | .023 | H2 | Positive | Accepted |
| $\beta3$ | .110 | H3 | Positive | Accepted |
| $\beta4$ | .189 | H4 | Positive | Accepted |
| $\beta5$ | -.231 | H5 | Negative | Rejected |
| $\beta6$ | -.080 | H6 | Negative | Rejected |
| $\beta7$ | .462 | H7 | Positive | Accepted |
| $\beta8$ | .182 | H8 | Positive | Accepted |

**Table 4: Hypotheses**

**CONCLUSION**

Though recent trends show that gradually the number of Landline Telephone is decreasing all over India, but still there are opportunities to make the sector more competitive. As our result shows that overall attitude for Landline portability in Kolkata city is favorable. And people want to do Landline portability for Call Clarity, VAS factor, Good behavior of Staffs, Good customer care, Less billing issue and less fault in lines. So in case if Government launches Landline portability then the customer who left landline Telephones might be interested to again take the landline Telephone. Also landline telephones are totally safe compared to the mobile, as radiation from mobile which might be harmful for human health and life of birds and other small insects. As some newspapers cover the news that "Sparrows becoming extinct from the city". So with the launch of "Landline portability" India will be approaching at par with the World Telecom Services.

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# A Study to Gauge Consumer Orientation towards E-Wallet Service Providers In Urban India

## Dr. Ayan Chattopadhyay*, Dr. Ravi Chatterjee** &  Anindya Saha***

**ABSTRACT**

*India is experiencing a paradigm shift with respect to the way funds are being accessed and utilized. The currency exchange in India is undergoing a transformation from its age old physical form to an absolutely new virtual form; the e-form. Thus, physical wallets are changing to virtual wallets, also known as e-wallets. The service-scape in e-wallet domain is shared by both multinational as well as Indian companies with many of them up-scaling to diversified service offerings. These e-service providers are all geared up to transform the conventional Indian banking system with disruptive marketing thoughts and initiatives. The e-wallet service providers with the power of technological innovation and government's proactive initiatives aim to make financial services available to 100s of millions of un-served or underserved Indians. The researchers have made a sincere effort to delve and understand the perception and attitude of young Indians towards the e-wallet service providers and their core service as a whole. The ensuing study uses semantic differential scale to profile the e-wallet service provider brands in India; urban India to be precise with focus on Kolkata city. Also, the importance of the different attributes or dimensions that make up this service i.e. how consumers perceive them; have been studied using a method that is fundamentally based on entropic concept. Primary research forms the basis of the study with youth being the target group (21 – 30 years). The study concludes that Paytm is the most preferred e-wallet service provider in India with safety being the most critical dimension of this service.*

**Keywords**: *Semantic Differential Scale, Shannon's Entropic Weight, e-Wallet*

## INTRODUCTION

Indian trade has been driven primarily by cash transactions due to the lack of technological knowhow. Thanks to the e-wallet companies, in the last two to three years they have been quite successful in bringing platforms to securely perform online transactions. But somehow due to various reasons like insecurity, lack of knowledge/ understanding, the online payment platform never got that momentum which was required (Kumar, 2016).

It has been suggested by researchers that an individual needs to be convinced at various fronts in order to adopt the mobile payment services (Yang, Lu, & Gupta, 2012). Recently with the government's decision of demonetizing Rs 500 and Rs 1000 notes and the digital India campaign initiative, this drive of shifting mindset from physical monetary transaction to

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*    Associate Professor, Army Institute of Management, Kolkata, India
     Email: chattopadhyay.ayan28@gmail.com
**   Assistant Professor, Army Institute of Management, Kolkata, India
     Email: contactravic@gmail.com
***  Assistant Professor, Army Institute of Management, Kolkata, India
     Email: anindyasaha88@yahoo.com

online traction has found its way. So much so, the mobile wallet/e-wallet has exceeded the debit and credit card usage and is gradually beginning to replace the traditional payment methods (Tandon & Bhagyashree, 2017). In its basic terminology, a mobile wallet/ e-wallet is an electronic device that offers a virtual mobile-based account in which a person can store money for making online transactions with a computer or using a smart phone to purchase something at a store. Individual can link their bank accounts with their e-wallet account and with the help of near field communication (NFC) their authenticity can be evaluated based on their credentials (Li, Van Heck, & Vervest, 2009). Hence e-wallets cannot only enable online financial transactions but also help verify the credentials of the holder. For instance, in wine shops while making a purchase of alcohol, the e-wallet could help authenticate the buyer's age (Muleravièius, Sakalauskas, & Timofejeva, 2016). The two parts in which an e-wallet can be split into are the software part and the information part. The primary role of the software is to provide protection by encrypting individual's information while transacting. This can be stored in two locations, i.e. client side in which the e-wallet applications are stored and self-maintained and the server side in which the organizations uphold information about the customers. The increasing popularity of server side wallets can be associated with the benefits like safety, effectiveness and the usefulness it grants to the user which in return enhances the satisfaction level of the purchase process (Singh, Supriya, & Joshna, 2016). The information part holds data related to the users like the delivery address, permanent address, method of payment and information related to account & cards being used for the transaction. The e-wallets can be categorized into various types based on the access it provides to its users. The first is a Closed-System-Wallet which permits its users to use it only for making payments in the company domain like Ola Money. Cash withdrawal or redemption is also not permitted. The second is a Semi-Closed-System-Wallet and also does not permit the withdrawal or redemption of cash. The e-wallet provider has agreements with different merchants for accepting payments for the services or products they would sell like Freecharge. Open-System-Wallet are the third type of e-wallet which along with being a payment instrument can also provide the possibility of cash withdrawal from ATMs like Rupay (Aashish, 2016). In Asian countries the digital wallet usage is increasing on everyday basis as the number of e-wallet users have doubled compared to last years. A recent mobile shopping survey conducted during the starting of 2016 on 8500 adults aged 18–64 across 14 markets showed, 45% users in China, 36.7% users in India and 23.3% users in Singapore are the biggest adopters of digital wallet. Also analysis showed (48.5%) consumers in these regions made purchase using smart-phones. Indian consumers are leading the way with 76.4% using a smart-phone to make purchase which is a drastic increase of 29.3% from previous year (Mastercard, 2016). This has made companies like Reliance, Flipkart and Amazon India to come out with their own digital wallet (Jamnani, 2016). PayTM, PayU Money, Mobikwik, SBI Buddy, Freecharge, Oxigen have become few of the top Indian brands in the segment of e-wallet service providers (Kumar, 2016).

It is evident that the Indian market holds great opportunity for digital wallet providers and hence makes it equally competitive.  This paper tries to provide an understanding about the consumers' attitude towards the different e-wallet service provider brands and the importance of attributes that build consumer attitude towards the e-wallet brands. Finally the e-wallet companies are ranked based on the overall brand preference. The researchers have considered urban India in their study with focus on Kolkata, a metro city of our country.

## LITERATURE REVIEW

Service quality is a crucial section of customer perceptions about the service. Customers perceive services in terms of its quality and how satisfied they are with their overall experiences (Zeithaml, 2000). Hence, service quality is defined as customers' perception of how well a service meets or exceeds their expectations (Czepiel, 1990). Customers are satisfied when the perceived service meets or exceeds their expectations. They are dissatisfied when they feel the service falls below their expectations (Levy, Weitz, & Grewal, 1998). To understand service quality, the organization must understand how it is perceived by the consumer and determine in what way service quality is influenced (Grönroos, 2007). (Grönroos, C, 1984) defines perceived service quality as a consumption process in which the customer is part of the service process that leads to an outcome or result. The way the customer perceives the service process at the time of the service is more important than the outcome of the service.

In 1980s, in the attempt to define service quality and develop a model of service quality, Parasuraman, et al.; conducted an exploratory investigation. The results showed that regardless of the type of service, consumers used basically the similar criteria in evaluating service quality (Parasuraman, Zeithaml, & Berry, 1985). They labelled those 10 criteria "service quality determinants". Since then, service quality was defined through 10 dimensions: access, communication, competence, courtesy, credibility, reliability, responsiveness, security, tangibles and understanding/knowing the customer. Later, they were simplified into five dimensions including tangibles, reliability, responsiveness, assurance and empathy. This model indicates that consumer perceptions of quality are influenced by five gaps occurring in the internal process of service delivery. The basic premise is that service quality can be defined by the difference between expected service and perceived service (Parasuraman, Zeithaml, & Berry, 1985). Among all the service quality scales SERVQUAL has attracted the most attention (Lin, 2010) and has been identified as being the most widely used scale for measuring service quality (Stodnick & Rogers, 2008) in service management and marketing literature (Stodnick & Rogers, 2008). As the service provided by the e-wallet companies are on an online platform the SERVQUAL model was required to be added up with few more dimensions. Dimensions like Performance, Adaptability and Safety were added over and above Tangibility, Reliability, Responsiveness, Assurance and Empathy as suggested by SERVQUAL model by (Parasuraman, Zeithaml, & Berry, 1985). The various studies that have been based for adopting the attributes in this paper are listed in Table 1.

Based on the various surveys conducted in India which has identified and ranked different digital-wallet brands, six have been identified for the present study i.e. Paytm, PayUmoney, Mobikwik, SBI Buddy, Freecharge and Oxigen. PayTM is one of the largest mobile commerce platforms in India, offering its customers a digital wallet to store money and make quick payments.

| Research Study | Attributes undertaken for the current research and its linkages to proposed models | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Reliability/ accuracy | Responsive-ness/ timeliness | Assurance | Empathy | Safety/ Security/ Privacy | Performance/ ease of use | Adaptation/ customization | Tangibility/ Aesthetics |
| Parasuraman et al. (1985) | Y | Y | | | Y | | Y | Y |
| Doll & Torkzadeh (1988) | Y | Y | | | | Y | | |
| Zeithaml, et al (2000) | Y | Y | Y | Y | Y | Y | Y | Y |
| Yang, Peterson & Huang (2001) | Y | Y | | | Y | Y | Y | Y |
| Madu (2002) | Y | Y | Y | Y | Y | Y | Y | Y |
| Wolfinbarger & Gilly (2002) | Y | Y | | | Y | | Y | |
| Yang & Fang (2004) | Y | Y | Y | | Y | | | |

**Table 1: List of research work conducted for evaluating e- service**

Launched in 2014, with online mobile recharge and bill payments facility it has an online marketplace today, where a customer can load money and make payments to merchants who have operational tie-ups with the company. It has over 180Mn registered users; it makes it India's largest mobile payments and commerce platform (Paytm.com, 2017). PayU India is the flagship company of Naspers group which is a **$25 Billion** internet and media conglomerate listed on London and Johannesburg stock exchanges respectively. PayU provides **state-of-the-art** payment gateway solutions to online businesses through its cutting-edge and award winning technology (Payumoney.com, 2017). MobiKwik has expanded services in the last few years and have tied up with various online merchants to provide accessibility of their wallet as a payment option on e-commerce sites. (Balanarayan, 2014). Mobikwik also introduced the feature of sending and receiving money via a mobile app. MobiKwik wallet is a semi closed wallet authorized by Reserve Bank of India. As of April 2015, MobiKwik has 15 million users and "claims to be adding one million new customers every month", according to Forbes India Magazine. On November 28, 2016 MobiKwik launched its MobiKwik Lite app aimed at users in poor connectivity regions (Gadgets 360, 2016). State Bank Buddy is State Bank of India's mobile wallet on your smartphone launched on on 18 August 2015. It is a semi-closed prepaid wallet which can be used to transfer money to other wallet users and bank accounts, anytime, anywhere (SBI, 2017). FreeCharge is being used cross the country to make prepaid, postpaid, DTH, metro recharge and utility bill payments for numerous service providers. They launched their wallet in September 2015 and can be used to pay across all major online platforms and offline stores like Shoppers Stop, McDonalds, Cinepolis, HomeStop, Crosswords, Hypercity and even for E-Rickshaws,

etc. In their app Chat-n-Pay service is there which helps in social payments (Freecharge, 2017). Oxigen Wallet is India's first Non-Bank Mobile Wallet app, approved by RBI, which allows you to send and receive money through popular social channels like Facebook, Whatsapp, Twitter, SMS and Email. A customer can instantly send money to any mobile number or bank account in India, even if the recipient is not a registered Oxigen Wallet user. Oxigen Wallet services include money transfer/ Mobile/DTH/Data Recharges, Postpaid, Utility bill payments and Gift Cards for over 60+ brands. Customers also earn loyalty points that can be redeemed as cash into the wallet or as PayBack points. Oxigen has a retail footprint of 2, 00,000 outlets and has processed over 2 billion transactions till date with a current transaction volume rate of 600 million transactions per annum. It has a large customer base of over 150 million (Oxygen, 2017).

## RESEARCH METHODOLOGY

### Research gap

Based on the literature review, it was found that in India, it has been almost 3 years that the mobile wallet companies are working. Still there is a dearth of research papers related to e-wallet companies and customer attitude towards these brands. Also it was observed that the e-wallet brands have not been put to a comparative study. This paper tries to bring light to both these perspectives.

### Research objectives

1. Comparing consumer attitude towards different e-wallet service provider brands in India
2. Understanding the relative importance / weights of the each attitude building parameters

### Research framework

In the present study, the investigators chose Descriptive research design. Cross sectional study was preferred to longitudinal study since the objectives of the present research suit the former study design more. Purposive sampling, also known as judgemental or selective sampling method was adopted so as to meet the research objectives. Purposive sampling is a non-probability sampling method and it occurs when elements selected for the sample are chosen by the judgment of the researcher (Neyman, 1934). In order make a comparative analysis about consumers' attitude towards the different e-wallet service provider brands, primary survey method was used where questionnaire forms an integral part of the survey design. The questionnaire was designed based on the past researches in this area. The questionnaire was tested for the reliability using Cronbach's Alpha test and was found to have reasonably high value (0.922) (Cronbach, 1951). Before the questionnaire was administered on the chosen sample, a pilot survey was conducted to identify and eliminate the flaws. Pilot survey consisted of 30 respondents selected based on their fact that they are regular e-wallet users. This helped in coming to the conclusion that the questionnaire was apt for the research objectives and simplification of language was required to bring clarity to certain questions. For the purpose of data collection, undisguised personal interview method was employed and individuals were approached to participate in the survey. Respondents mostly co-operated with the researchers; however many respondents had to be eliminated considering their fitment for the study. The sample size was calculated to be 137 using the standard sample size calculator (Bartlett, J. E, et al., 2001) 250 questionnaires

were distributed out which 147 responses were received. Out of 147 responses, 121 responses were finalized based on the completeness of the response, thus getting a 60.4 % rate of return.

## Methodology

In the present study, the consumer attitude or preference towards selection and use of E-wallet brands was analyzed using Semantic Differential Scale (SDS). The SDS has been used as a measure of attitude in a wide variety of projects and is found to be applied frequently. (Osgood, Suci, & Tannenbaum, 1957) reports exploratory studies where SDS was used to assess attitude change as a result of mass media programs. SDS has also been used by other investigators to study attitude formation (e.g., (Barclay & Thumin, 1963)), attitudes toward organizations (e.g., (Rodefeld, 1967), attitudes toward jobs and occupations (e.g., (Triandis, 1959); (Beardslee & O'Dowd, 1961); (Gusfield & Schwartz), and attitudes toward minorities (e.g., (Prothro & Keehn, 1957); (Williams, 1964); (Williams, J.E, 1966). The results in these, and many other studies, support the validity of SDS as a technique for attitude measurement. **Semantic Differential Scale** (SDS) measures people's reactions to stimulus words and concepts in terms of ratings on bipolar scales defined with contrasting adjectives at each end. Example of SDS scale is shown below where the respondents are exposed to the bipolar statements and asked to comment on their agreement or disagreement towards the same:

Good _ _ _ _ _ _ _ _ _ _ _ _ _ _ Bad
+3    +2    +1    0    -1    -2    -3

OR

Active _ _ _ _ _ _ _ _ _ _ _ _ _ _ Passive
1    2    3    4    5    6    7

OR

Undesired _ _ _ _ _ _ _ _ _ _ _ _ _ _ Desired
1    2    3    4    5    6    7
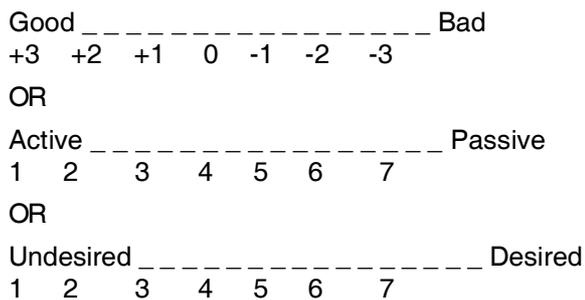
This scale rates the object under study on a number of itemized rating scales bounded by a set of bipolar adjectives. (Osgood, Suci, & Tannenbaum, 1957) were the first to propose the same. The classical Semantic Differential Scale is seven point scales, with a neutral middle point. The scale assumes that the raw data are interval scaled. Usually, the position marked 0 is labeled "neutral," the 1 positions are labeled "slightly," the 2 positions "quite," and the 3 positions "extremely." The same 7 point scale may be constructed from 1 to 7 with 4 as the neutral point. A scale like this measures the directionality of a reaction (e.g., good versus bad) and also intensity (slight through extreme). It measures the direction and intensity of attitudes to the object in question on three sets of dimension, evaluative (good vs. bad), activity (active vs. passive) and potency (strong vs. weak). A classical Semantic Differential Scale would not use less than seven adjectives, covering all these three dimensions. They are either expressed as words, or preferably phrases, but it must be noted that the labels at the two extreme poles of scale are truly bi-polar. The categories in between are not labeled verbally but are assigned integer values ranging from 1 to 7.

The analysis of Semantic Differential Scale involves averaging the response to each item

across all respondents and plotting the average graphically. The average value of all items is joined in what is usually referred to as the "Ladder" or "Snake Chart". The graphic representation of the Semantic Differential Scale makes it possible to compare the consumer attitude (persetion) towards different E-wallet brands and hence their preference. Attitude comparison between multiple E-wallet service providers has been made by computing the Sum of the average rating points for each of the bi-polar parameters considered.

Here, **Sum value = $\Sigma$ Avg. Ratings for each E-wallet brand.**

Since 1 indicates very strong agreement and till before the mid-point value of 4 the integers indicate agreement nature with varying degree; the lower the sum value, more is the respondent agreement towards different attributes of the brands considered in the study. Also, the positive polarity of each statement is towards the lower value i.e. 1 while the negative polarity of statements is towards the higher value side i.e. 7. Thus, lower Sum Values indicate greater agreement towards the different attributes of brands.

The Sum Value method described above assumes that all parameters have equal importance; however in reality all parameters cannot have equal importance; in fact they will have varying importance. From a brand's perspective, if they have to make good an attribute that consumers feel is not that good, they would invest more and make all out effort if the attribute is considered important by the consumers. Less important parameters can be dealt on priority. Thus, it makes it even more important to know how important the attributes or parameters are to consumers. Though, understanding importance of the parameters is not included in the conventional Semantic Differential Scaling studies; the researchers feel that a more realistic approach is to consider the relative weight in computing the Sum value. A reasonably good approach to obtain internal importance weights is to use the entropy concept. It is a criterion for the amount of information (or uncertainty) represented by a discrete probability distribution, p1, .....pk and this measure of information was given by (Shannon & Weaver, 1947) as:

$$E(p_1,...., p_k) = -\phi k \sum_{k=1}^{k} pk1n(pk)$$

where $\phi k$ =1/1n(K) is a positive constant which guarantees that $0 \leq$ E(p$_1$,......,p$_k$) 1.

It is noted that the larger the E(p$_1$,......,p$_k$) value, the smaller the variations among the pk's and that 0 entropy means maximum information and 1 minimum information.

For the n-th criterion vector C$_n$ = (x$_{1n}$,........x$_{Kn}$) in our Multi Attribute environment, let

X$_n$ = x$_{1n}$ + ...+ x$_{Kn}$ be the total value regarding the criterion.

If we view a normalized values p$_{kn}$ = x$_{kn}$ / Xn for k = 1, ....,K as the "probability distribution" of C$_n$ on the K alternatives, we may similarly define the entropy of C$_n$ as:

$$E(C_n) = -\emptyset k \sum_{k=1}^{K} p_k 1n(p_k) = \phi k \sum_{k=1}^{K} (x_{kn} / X_n)1n(x_{kn} / X_n), n = 1,......N, \text{ and}$$

define the weights as $w_n = (1 - E(C_n)) / \sum_{j=1}^{N} (1 - E(C_j)), n = 1,...., N$ .

Thus, Sum = " Relative Weight x Avg. Rating of parameters for E-Wallet brands

Lower the "Weighted Sum Value" for a particular E-wallet brand more is the Consumer Preference towards that particular brand. The subsequent section deals with the findings:-

**Findings of Research Objective I.**

F1. Ladder / Snake Chart for all e-wallet brands & a composite ladder Chart
F2. Consumer Attitude Score towards e-wallet service providers (un-weighted)
F3. Consumer Attitude Gap Comparison (with respect to the most preferred brand on un-weighted scale)

**Findings of Research Objective II.**

F4. Shannon's Weight calculation for different e-wallet service providers considered in the study
F5. Consumer Attitude Score towards e-wallet service providers (weighted)
F6. Weighted – Unweighted score Gap / Delta ((with respect to the most preferred brand on weighted scale)

**FINDINGS**

**1. Findings of Research Objective 2.**

**Findings (F1 & F2).** The Ladder / Snake Chart for all e-wallet brands & a composite ladder Chart is presented below. Ladder Charts for individual e-wallet service providers have been drawn which shows the consumer attitude towards the brands against individual parameters (Figure 1 -6). Also the composite chart shows the consumer attitude towards each of the e-wallet service providers against each parameter considered (Figure 7).
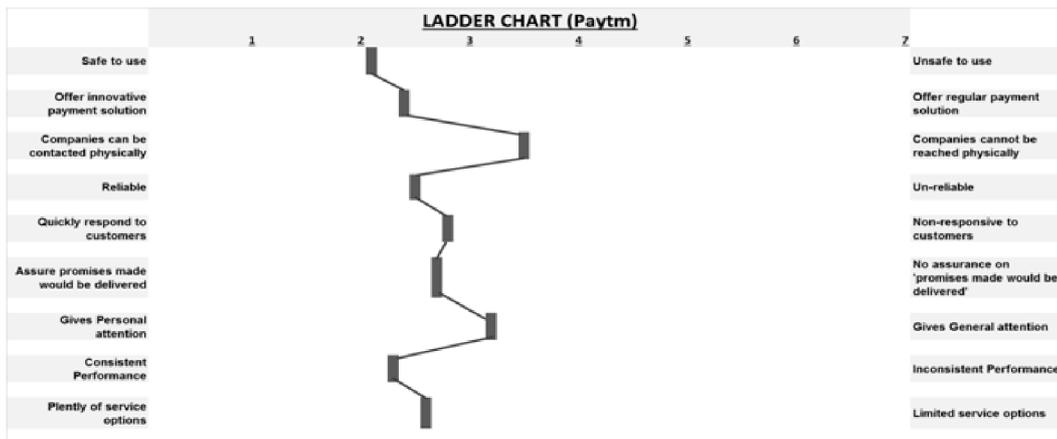


**Figure 1**

One can visually understand that barring two attributes (physical facility and personalized attention), consumers have shown preference towards Paytm. Negative attitude towards Paytm have not been found from the study; however attitude towards parameters have varying degree.

**LADDER CHART (SBI Buddy)**

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
|---|---|---|---|---|---|---|---|---|
| Safe to use |  |  |  |  |  |  |  | Unsafe to use |
| Offer innovative payment solution |  |  |  |  |  |  |  | Offer regular payment solution |
| Companies can be contacted physically |  |  |  |  |  |  |  | Companies cannot be reached physically |
| Reliable |  |  |  |  |  |  |  | Un-reliable |
| Quickly respond to customers |  |  |  |  |  |  |  | Non-responsive to customers |
| Assure promises made would be delivered |  |  |  |  |  |  |  | No assurance on 'promises made would be delivered' |
| Gives Personal attention |  |  |  |  |  |  |  | Gives General attention |
| Consistent Performance |  |  |  |  |  |  |  | Inconsistent Performance |
| Plently of service options |  |  |  |  |  |  |  | Limited service options |

**Figure 2**

**LADDER CHART (Mobikwik)**

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
|---|---|---|---|---|---|---|---|---|
| Safe to use |  |  |  |  |  |  |  | Unsafe to use |
| Offer innovative payment solution |  |  |  |  |  |  |  | Offer regular payment solution |
| Companies can be contacted physically |  |  |  |  |  |  |  | Companies cannot be reached physically |
| Reliable |  |  |  |  |  |  |  | Un-reliable |
| Quickly respond to customers |  |  |  |  |  |  |  | Non-responsive to customers |
| Assure promises made would be delivered |  |  |  |  |  |  |  | No assurance on 'promises made would be delivered' |
| Gives Personal attention |  |  |  |  |  |  |  | Gives General attention |
| Consistent Performance |  |  |  |  |  |  |  | Inconsistent Performance |
| Plently of service options |  |  |  |  |  |  |  | Limited service options |

**Figure 3**

Figure 2 & Figure 3 represents Ladder Chart for SBI Buddy & Mobikwik respectively. The consumer attitude and preference is clearly visible for both the e-wallet service providers. The parameter rating fluctuation is more for Mobikwik compared to SBI Buddy. SBI Buddy have been found to have a greater consistency of consumer preference than Mobikwik across parameters.
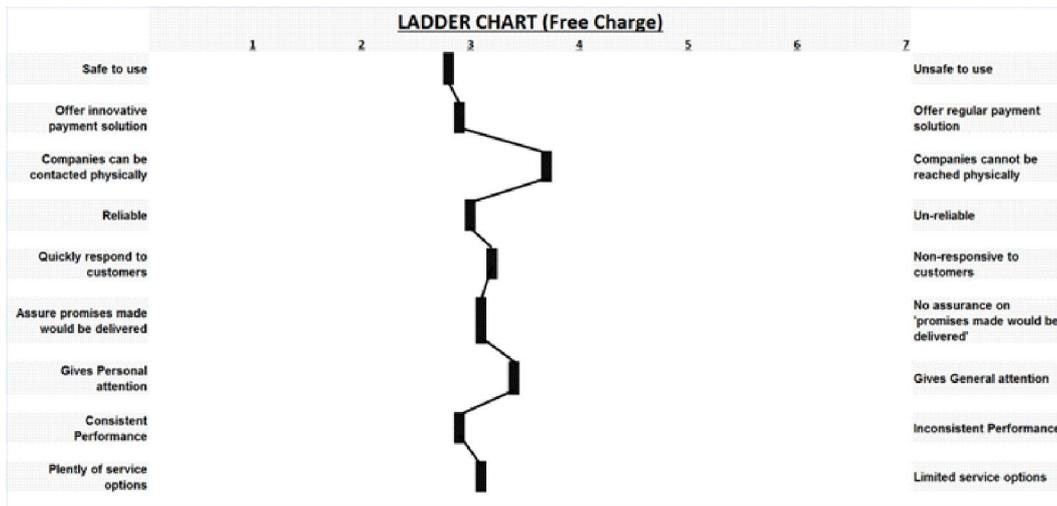
**Figure 4**
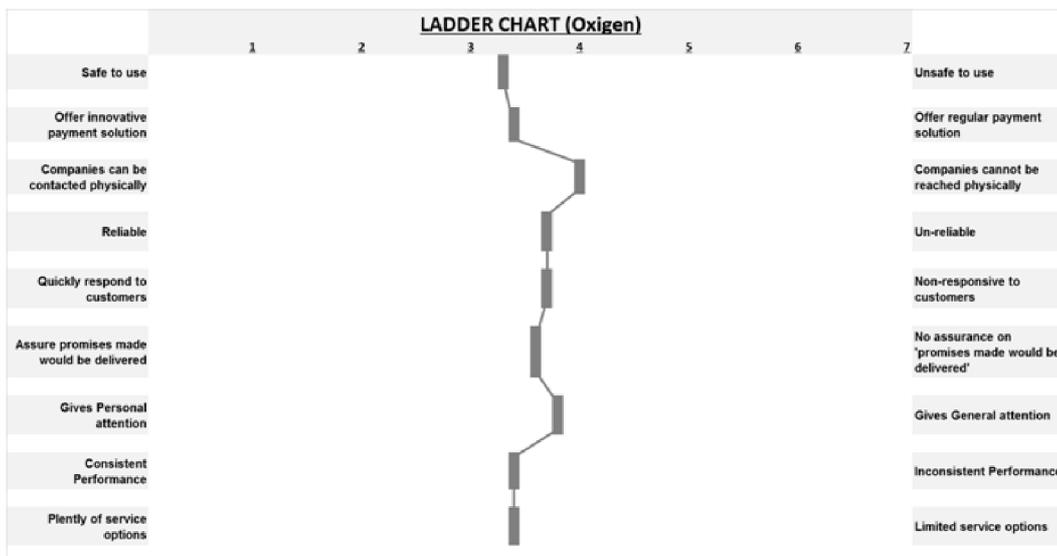


**Figure 5**

Figure 2 & Figure 3 represents Ladder Chart for Free Charge Buddy & Oxigen respectively. The charts indicate that preference towards Oxigen is lower than that of Free Charge as well as Mobikwik; musch lower than that of SBI Buddy and Paytm. However, its preference is found to be higher than that of Pay U money (Figure 6).
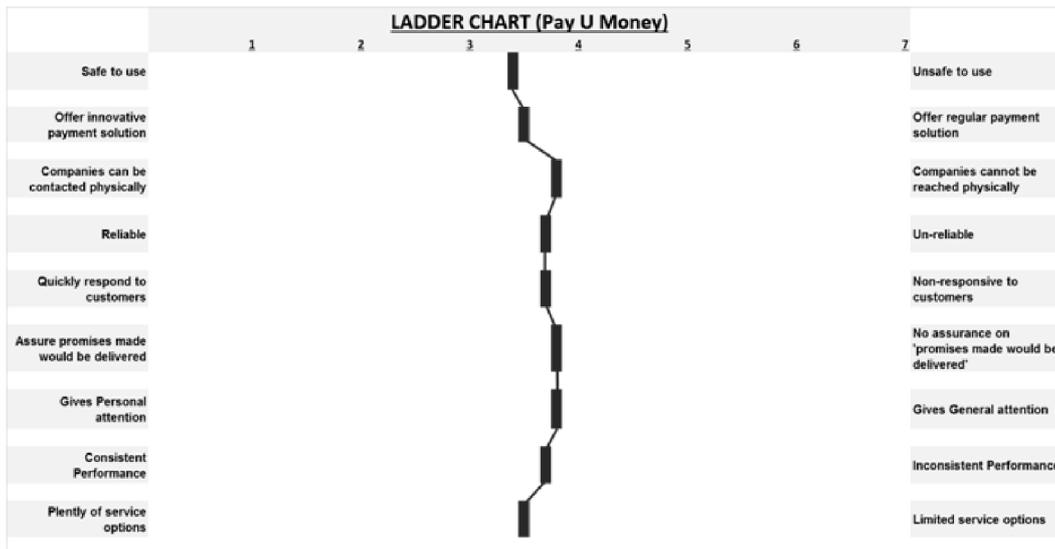
**Figure 6**
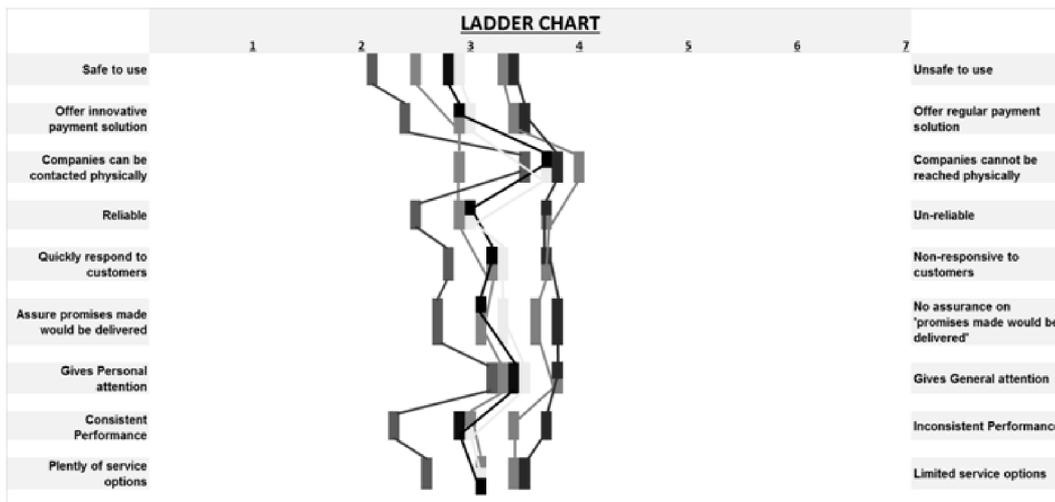


**Figure 7**

The consolidated or composite ladder chart (Figure 7) depicts overall preference of Paytm over rest of the e-wallet service providers. The e-wallet service provider scores (un-weighted) are shown in Figure 8. Paytm with the lowest overall un-weighted sum value score emerges as the most preferred e-wallet service provider followed by SBI Buddy, Free Charge, Mobikwik, Oxigen and Pay U Money respectively in order of decreasing consumer preference or attitude.

| Consumer Attitude Score towards E-Wallet Service Providers | | | | | | |
|---|---|---|---|---|---|---|
| **Attitude Builders** | Paytm Score | Mobikwik Score | SBI Buddy Score | Free Charge Score | Oxigen Score | Pay U money Score |
| Safe to use | 2.1 | 2.9 | 2.5 | 2.8 | 3.4 | 3.4 |
| Innovative Payment Solution | 2.4 | 3.0 | 2.9 | 2.9 | 3.4 | 3.5 |
| Presence of Physical facilities | 3.5 | 3.7 | 2.9 | 3.7 | 4.0 | 3.8 |
| Reliabile | 2.5 | 3.0 | 2.9 | 3.0 | 3.7 | 3.7 |
| Quick Response Time | 2.8 | 3.3 | 3.2 | 3.2 | 3.7 | 3.7 |
| Assure Promises to be Delivered | 2.7 | 3.3 | 3.1 | 3.1 | 3.6 | 3.8 |
| Personal Attention | 3.2 | 3.5 | 3.2 | 3.4 | 3.8 | 3.8 |
| Consistent Performance | 2.3 | 3.0 | 3.0 | 2.9 | 3.4 | 3.7 |
| Plenty of Service Options | 2.6 | 3.1 | 3.1 | 3.1 | 3.4 | 3.5 |
| UN-WEIGHTED SUM Value Total (USVT) | 24.1 | 28.9 | 26.7 | 28.1 | 32.4 | 32.8 |
| **Overall Consumer Attitude OR Preference** | **1** | **4** | **2** | **3** | **5** | **6** |

**Figure 8**

**Findings (F3).** Now, it is important to understand the Gap in the consumer attitude or preference towards e-wallet service providers with respect the most preferred consumer choice. Figure 9 shows how all other e-wallet service providers are behind the most favoured service provider against each of the parameters considered in the study.

| Consumer Attitude Gap Comparison | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Attitude Builders** | E-Wallet brand with best attitude builder scores | | Paytm | Mobikwik | SBI Buddy | Free Charge | Oxigen | Pay U money |
| Safe to use | Paytm | 2.1 | 0% | -28% | -18% | -27% | -39% | -39% |
| Innovative Payment Solution | Paytm | 2.4 | 0% | -19% | -16% | -15% | -28% | -30% |
| Presence of Physical Facilities | SBI Buddy | 2.9 | -17% | -21% | 0% | -21% | -28% | -23% |
| Reliable | Paytm | 2.5 | 0% | -16% | -11% | -15% | -32% | -31% |
| Quick Response Time | Paytm | 2.8 | 0% | -18% | -13% | -15% | -26% | -26% |
| Assure Promises made would be Delivered | Paytm | 2.7 | 0% | -17% | -12% | -12% | -24% | -28% |
| Gives Personal Attention | Paytm | 3.2 | 0% | -10% | -2% | -8% | -17% | -17% |
| Consistent Performance | Paytm | 2.3 | 0% | -22% | -21% | -20% | -32% | -36% |
| Plenty of Service Options | Paytm | 2.6 | 0% | -18% | -16% | -15% | -23% | -27% |

**Figure 9**

Paytm is most favoured in all 8 parameters out of 9. The only parameter where other e-wallet service provider (SBI Buddy) is ahead of Paytm is *presence of physical facilities*. SBI Buddy is the nearest to Paytm in *Safety, Reliability, Quick response, Assurance &, Personal Attention* while Free Charge is nearest to Paytm in *Innovation, Consistency & Service Options*. The farthest from the most preferred are marked in red which is distributed between Oxigen (3 out of 9 parameters) and Pay U Money (6 out of 9 parameters).

**Findings of Research Objective 3.**

**Findings (F4 & F5).** The weight of the attributes or parameters have been calculated using Shannon's Method. Figure 10 shows the importance or weights of the parameters. *Safety* is considered to be most important followed by *Personal Attention* and *Delivery of Promises made*. *Response Time* has emerged to be the parameter with least importance. From the calculated weights or relative importance, the Weighted Sum Value scores have bee calculated and the same is shown in Figure 11. It is seen that even with weighted score calculation, the overall consumer preference towards different e-wallet service proviers remin same as that of the un-weighted score; however, it is worth finding out that if there is any Gap or Delta

between the overall weighted and un-weighted score values, specially with respect to the most preferred e-wallet service provider. If any gap is found the understanding and estimating the weights make significance to the overall attempt.

| Importance / Weight of Consumer Attitude Attributes towards E-Wallet Services | |
|---|---|
| **Attitude Attributes / Builders** | **Shannons' Wt. (%)** |
| Safe to use | 17.9 |
| Innovative Payment Solution | 10.7 |
| Presence of Physical Facilities | 9.9 |
| Reliable | 10.2 |
| Quick Response Time | 9.0 |
| Assure Promises made would be Delivered | 11.2 |
| Gives Personal Attention | 11.7 |
| Consistent Performance | 9.1 |
| Plenty of Service Options | 10.3 |

**Figure 10**

| Consumer Attitude Score (Weighted) towards E-Wallet Service Providers | | | | | | |
|---|---|---|---|---|---|---|
| **Attitude Attributes / Builders** | **Paytm** | **Mobikwik** | **SBI Buddy** | **Free Charge** | **Oxigen** | **Pay U money** |
| Safe to use | 0.37 | 0.51 | 0.45 | 0.51 | 0.61 | 0.60 |
| Innovative Payment Solution | 0.26 | 0.32 | 0.31 | 0.31 | 0.36 | 0.37 |
| Presence of Physical Facilities | 0.35 | 0.36 | 0.29 | 0.36 | 0.40 | 0.37 |
| Reliable | 0.26 | 0.31 | 0.29 | 0.31 | 0.38 | 0.38 |
| Quick Response Time | 0.25 | 0.30 | 0.29 | 0.29 | 0.33 | 0.33 |
| Assure Promises made would be Delivered | 0.30 | 0.37 | 0.35 | 0.34 | 0.40 | 0.42 |
| Gives Personal Attention | 0.37 | 0.41 | 0.38 | 0.40 | 0.44 | 0.45 |
| Consistent Performance | 0.21 | 0.28 | 0.27 | 0.27 | 0.31 | 0.33 |
| Plenty of Service Options | 0.27 | 0.32 | 0.32 | 0.32 | 0.35 | 0.37 |
| **WEIGHTED SUM Value Total (WSVT)** | **2.64** | **3.18** | **2.94** | **3.10** | **3.59** | **3.63** |
| **Weighted Consumer Preference or Attitude** | **1** | **4** | **2** | **3** | **5** | **6** |

**Figure 11**

**Findings (F6).** The un-weighted and weighted Sum Values in Figure 12 indicate Paytm to be the most favoured. The Gap or Delta between the score of Paytm and other brands (in % terms) is shown for both un-weighted and weighted Sum Values. From these sets of delta values, it is clear that there exists a difference between them which further justifies that inclusion of weights have an impact on the overall consumer preference and that it is not the same as that of the un-weighted values. Further, it is to be noted that from a firm's perspective, those service providers who are having lower safety score should strongly focus on this

aspect since it is considered to be the most important attribute (almost 18%) by consumers. This approach helps to prioritize the direction of effort by the firm's to upgrade their service offerings.

| Weighted - Unweighted Score Delta | | | | | | |
|---|---|---|---|---|---|---|
| E-Wallet Brands | Paytm | Mobikwik | SBI Buddy | Free Charge | Oxigen | Pay U Money |
| Weighted Preference towards E-Wallet Brands | 1 | 4 | 2 | 3 | 5 | 6 |
| Un-Weighted SUM Value Scores | 24.14 | 28.86 | 26.73 | 28.12 | 32.43 | 32.83 |
| Weighted SUM Value Scores | 2.64 | 3.18 | 2.94 | 3 | 3.59 | 3.63 |
| Delta % (With Most Preferred Brand) - Un-Wtd. Score | | 19.5% | 10.7% | 16.5% | 34.34% | 36.0% |
| Delta % (With Most Preferred Brand) - Wtd. Score | | 20.6% | 11.2% | 17.5% | 35.82% | 37.4% |
| Delta Gap (Wtd. - Un.Wtd. Score) | | 1.0% | 0.5% | 1.0% | 1.5% | 1.4% |

**Figure 12**

## CONCLUSION

The outcome of the present research study throws some interesting results and also lays a strong foundation to an alternative method of evaluating attribute importance which is devoid of expert opinion, respondent's opinion obtained separately and uses a method that relies on internal data. One can conclude from the research results that Paytm is the most preferred e-wallet service provider in Kolkata amongst youth (21 - 30years) followed by SBI Buddy, Free Charge, Mobikwik, Oxigen and Pay U Money in order of decreasing preference. The organizational efforts of Paytm have been able to influence the attitude of the consumers positively in their favour. Furthermore, safety and security of individual's money is considered to be most important, rather dis-proportionately important by users while personal attention and assurance are the next two most important parameters that guide a customer in choosing a e-wallet brand. The findings of the present research may be useful to the service providers to upgrade their services and to future researchers as a foundation of knowledge on e-wallet.

## LIMITATIONS & SCOPE FOR FURTHER RESEARCH

The ensuing research was conducted in urban city of Kolkata. Thus the results of the study cannot be generalized for all urban cities in India. Furthermore, the sample was restricted to a particular TG i.e. youth (21 – 30 years) were considered based on the understanding of high propensity of usage. The age cross-section being restricted, the findings cannot be assumed to hold good for all section of ages; giving scope for future research. Research work on similar lines to that of the present study may be done for other metro cities, semi-urban and rural India. Comparison between different metros in India could yield interesting view points and so is the comparison between urban and semi-urban or rural areas. Consideration of different age groups, occupation class and understanding how such differential demographics influence e-wallet usage in India may also be an interesting study proposal. Influence of children, parents, peers as influencers to e-wallet usage may also pose an interesting study area. The scope mentioned above is indicative only and researchers may consult further literature to identify research gaps.

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# Adaptive and Maladaptive Perfectionists: Do they use Different Conflict Management Strategies?

## Dr. Rita Karmakar* & Dr. Abhijit Pandit**

## ABSTRACT

*Perfectionism is the desire to be flawless and setting excessively high standards for performance which is accompanied by a tendency to be overly critical of one's behavior. Perfectionism has both the positive and negative aspects such as adaptive and maladaptive perfectionism. Adaptive and maladaptive perfectionism do not appear to be opposite poles on a single continuum, but separate and largely independent factors. Research indicates that perfectionistic concerns generate negative social behaviours among which conflict is one of them. Conflict is an unavoidable and a very common issue in our daily lives. Conflict management style is someone's behavioral pattern, which he/she tends to exhibit while facing a conflict. To the best of researcher's knowledge, there is no study to determine different conflict management strategies used by adaptive and maladaptive perfectionists.*
*The objectives of present study are to determine*

*The attributes of perfectionism (adaptive and maladaptive) among faculties of public and private sector universities*

*To study conflict management strategies used by faculties (public and private) with respect to their level of perfectionism (adaptive and maladaptive)*

*To find out the relationship between perfectionism and conflict management strategies of faculties*

*Sample consists of 230 faculties drawn from 4 public and 3 private universities of Kolkata (India) using simple random sampling method. Primary data were collected using a standardized questionnaire and were analyzed using mean, t-test, Pearson's product moment correlation and multiple regression analysis. Results indicated the following points:*

*Faculties belonging to private universities differ significantly with respect to perfectionism compared to public sector faculties*

*Conflict management strategies vary with respect to the level of perfectionism of faculties*

*Significant positive correlation exists between adaptive perfectionism and collaboration, compromising strategy of conflict management*

*Significant positive correlation exists between maladaptive perfectionism and avoiding, competing strategy of conflict management.*

*Various conflict management strategies in relation to adaptive and maladaptive perfectionism are discussed.*

***Keywords:** Adaptive Perfectionism, Conflict Management Strategy, Maladaptive Perfectionism*

## INTRODUCTION
Perfectionism refers to a persistent disposition to meet ideal standards of excellence. Initially,

* Assistant Professor, Amity University, Kolkata (rk_r80@rediffmail.com)
** Assistant Professor, Amity University, Kolkata

the concept of perfectionism was defined by Adler (1956) in the field of psychology. He noted that striving for perfectionism is normal and innate. Perfectionism is a multidimensional and multifaceted concept in nature (Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1991).

Research has shown two major dimensions of perfectionism such as perfectionistic strivings and perfectionistic concerns (Frost, Heimberg, Holt, Mattia, & Neubauer, 1993; Stoeber & Otto, 2006). The dimension of perfectionistic strivings is considered as normal, healthy, or adaptive perfectionism which includes striving for perfection, self-oriented perfectionism, and high personal standards. In contrast, the dimension of perfectionistic concerns is known as neurotic, unhealthy, or maladaptive perfectionism. It is comprised of excessive concern over mistakes and doubts about actions, perceived pressure to be perfect and negative reactions to imperfections.

## LITERATURE REVIEW

The social disconnection model (Hewitt, Flett, Sherry, & Caelian, 2006; Sherry, Law, Hewitt, Flett, & Besser, 2008) is a theoretical framework suggesting that perfectionistic concerns generate depressive symptoms through negative social behaviors (conflict in interactions), cognitions (perceiving others as uncaring and unsupportive), and outcomes (uncooperative, unassertive behaviour and relational breakup). Research showed that perfectionistic striving is not related to interpersonal relationship problems (Ashby, Rice & Kutchins, 2008) and depressive symptoms (Graham et al., 2010) when controlling for perfectionistic concerns. Perfectionistic strivings are not a problem in social relationships (Stoeber & Otto, 2006). In contrast, perfectionistic concerns and demanding perfection from others confer risk for relationship problems, lack of assertiveness and lack of cooperation in relationship and consequently lead to depressive symptoms (Shahar, Blatt, Zuroff, Krupnick & Sotsky, 2004). Research in the field of dyadic conflict suggests that dyadic conflict is the chief interpersonal consequence of perfectionistic concerns (Flett, Hewitt, Shapiro, & Rayman, 2001). Conflict is inevitable and common issue in our daily lives. It has been regarded as one of the key problems in the educational institutions especially in higher education. Of late, colleges and universities are not free from the conflicts. The academic environment is different from other organizations. Teaching faculty must have independence in taking decision regarding academic activities. Besides this independence, there is a team-based approach for setting up policies and executing academic program. Of late, in private universities, team based activities are very common due to the presence of different subject specific schools or institutes. Sometimes subject specific schools and institutions under the parent organization compete with each other to attract clients (students and parents) and consequently probability of conflict occurrences is very high. Therefore, development of effective conflict management strategy has become an important tool for the effective functioning of academic sector. Hocker and Wilmot (1985) defined conflict as "an expressed struggle between at least two interdependent parties who perceive incompatible goals, scarce rewards, and interference from the other party in achieving their goals". Rahim (2001) defined conflict as an "interactive process manifested in incompatibility, disagreement, or dissonance within or between social entities". Conflict management strategy is someone's behavioural pattern, which he/she tends to exhibit while facing a conflict (Moberg, 2001). Rahim and Bonoma (1979) have classified the conflict management into five basic styles based on two basic dimensions:

concern for self or extent to which the individual attempts to satisfy his or her own concerns (**assertiveness**) and concern for others or the extent to which the individual attempts to satisfy the other person's concerns (**cooperativeness)**. These five styles are: Competing (assertive, uncooperative), Avoiding (unassertive, uncooperative), Accommodating (unassertive, cooperative), Collaborating (assertive, cooperative), and Compromising (intermediate assertiveness and cooperativeness). The detail descriptions of these five different styles of conflict management strategy are given below:

**Competing:** It is assertive and uncooperative, a power-oriented mode of conflict management. When competing, an individual pursues his or her own concerns at the other person's expense

**Avoiding** is unassertive and uncooperative. When avoiding, an individual does not immediately pursue his or her own concerns or those of the other person

**Accommodating** is unassertive and cooperative. When accommodating, an individual neglects his or her own concern to satisfy the concerns of the other person

**Collaborating** is both assertive and cooperative. When collaborating, an individual attempts to work with the other person to find a solution that fully satisfies the concerns of both the parties

**Compromising** is intermediate in both assertiveness and cooperativeness. When compromising, the objective is to find mutually acceptable solution that partially satisfies both parties

According to Cetin and Hacifazlioglu (2004), private university faculties use competing style more than the faculty of public universities. Another study confirmed that the public and private sector employees have the similar approach regarding conflict resolution but employees in public sector are more inclined to adopt collaborating strategy than their counterparts in the private sector (Brewer and Lam, 2009). Rose, Suppiah and Othman (2007) suggested that employees in both public and private sector use collaborating strategy to manage conflict with their subordinates, peers and supervisors.

The present study has considered private and public sector universities because there are some differences between private and public sector universities. Private sector universities are client centered and need to compete with other universities in order to maximize profit. Performance of faculties at private sector is evaluated on the basis of client's satisfaction and profit maximization whereas public sectors do not bother about the materialistic benefit for their performances (Halvorsen, Hauknes, Miles, & Røste, 2005). Public sector universities are characterized by many hierarchical layers and high degree of formalization which sometimes delay the efficiency of work (Brewer and Lam, 2009; Buchanan, 1975; Frank and Lewis, 2004). In private sector universities, faculties usually have to meet tough targets with less number of errors and adhere to the deadlines whereas the environment is little bit relaxed in public sector universities.

Keeping in mind the above differences, the present study aims to achieve the following objectives:

## OBJECTIVES

The objectives of present study are to determine:

The attributes of perfectionism (adaptive and maladaptive) among faculties of public and private sector universities

To study conflict management strategies used by faculties (public and private) with respect to their level of perfectionism (adaptive and maladaptive)

To find out the relationship between perfectionism and conflict management strategies of faculties.

## METHODOLOGY

### Participants

Faculties working in the public and private universities of Kolkata constitute the population for the present study. Participants consist of 230 faculties drawn from 4 public and 3 private universities of Kolkata (India). Faculties with less than 5 years experience were selected for the study. Participants ranged in age from 28 to 37 years (mean age - 32.5 years and standard deviation - 4.02 years). A stratified random sampling method was used for the study. Initial stratum was private and public universities. Simple random sampling without replacement (SRSWOR) was used for selecting universities from each stratum. Seven universities (4 public and 3 private) were taken as sample for the present study. Selected private universities were Amity, Neotia, Adamas and UEM and public universities were WBSU, Calcutta University and Jadavpur University.

### Instruments

Keeping in mind the objectives of the study, following instruments were used:

Demographic Information Schedule: It gathers personal information (such as age, sex, educational qualification, tenure of their work, name of the university) of respondents. Multidimensional Perfectionism Scale (Frost et al, 1990): This is a 35-item self-report measure of perfectionism developed by Frost et al, (1990). This measure provides a total perfectionism score as well as scores on six subscales. The concern over mistakes scale (CM) reflects a tendency to interpret mistakes as failure and to believe that one will lose the respect of others following failure (for example, "People will probably think less of me if I make a mistake"). The parental criticism scale (PC) reflects the perception of one's parents as overly critical (for example, "I never felt like I could meet my parents standards"). The parental expectations scale (PE) reflects the perception that one's parents set very high goals (for example, "My parents wanted me to be the best at everything"). The personal standards scale (PS) reflects the setting of extremely high standards by the individual (for example, "I hate being less than the best at things"). The doubts about actions scale (DA) reflects the extent the individual doubts their ability to accomplish tasks (for example, "I usually have doubts about the simple everyday things I do"). The organization scale (O) reflects the excessive importance placed on orderliness (for example, "Organization is very important to me") (Flett et al. 1995; Frost et al. 1993; Frost & Marten, 1990). Participants respond to a 5-point scale indicating the extent each statement is true, ranging from "strongly disagree" to "strongly agree". Adaptive perfectionism score is found by adding the personal standards and organization subscale scores, while maladaptive perfectionism score is found by adding the other four subscales (concern over mistakes, expectations, criticism, and doubts about actions). A total perfectionism

score is found by adding all of the scales. Internal reliability was found to be 0.88 for the total score, with scores for the six subscales ranging from 0.74 to 0.86.

Rahim Organizational Conflict Inventory- II (ROCI-II): It was developed by Rahim (1983). This instrument consists of 28 statements and a five-point Likert scale was used to score each statement with 5 indicating strongly agree and 1 a strongly disagree. The ROCI-II is a mechanism for measuring five conflict management strategies such as Competing (5 items), Avoiding (6 items), Accommodating (6 items), Collaborating (7 items), and Compromising (4 items). Internal consistency reliability of Competing, Avoiding, Accommodating, Collaborating and Compromising are found to be 0.80, 0.71, 0.70, and 0.72 and 0.69, respectively.

## PROCEDURE

The study is based on primary data. Data were collected from faculties on questionnaire public and private universities in Kolkata.

## RESULTS

The means, standard deviations (SDs) and range of scores for main variables of study were calculated and presented in Table 1.

Table 1 presents that mean adaptive (PS+O) perfectionism is high and mean maladaptive dimension of perfectionism (PC, CM, E and DA) is very low. Means competition, accommodating and collaborating conflict management strategy are high and means avoiding and compromising strategy are low. This indicates that faculties are relatively high on adaptive dimension of perfectionism and use competition, avoiding and accommodation strategy of conflict management in their day to day activities.

In order to determine whether faculties working in public and private universities differ significantly with respect to mean adaptive, maladaptive dimension of perfectionism and different dimensions of conflict management strategy, independent t tests were calculated separately for public and private universities and presented in Table 2.

| Variables | Mean | Standard Deviation (SD) | N | Range of Scores |
|---|---|---|---|---|
| PS+O (Adaptive) | 54.16 | 7.57 | 230 | 13- 65 |
| CM+E+C+DA (Maladaptive) | 49.68 | 9.40 | 230 | 22-110 |
| Competing | 18.35 | 5.61 | 230 | 5-25 |
| Avoiding | 21.76 | 6.51 | 230 | 6 -30 |
| Accommodating | 19.34 | 6.10 | 230 | 6 -30 |
| Collaborating | 17.21 | 7.10 | 230 | 7-35 |
| Compromising | 09.98 | 8.01 | 230 | 4- 20 |

Table 1: Means, standard deviations (SDs) and range of scores of main variables under study

*(Note: CM= Concern over Mistakes, PS= Personal Standard, E= Expectation, C= Criticism, DA= Doubt about Actions and O=Organization)*

| Variables | Public (N= 110) | Private (N= 120) | t-value | Significance |
|---|---|---|---|---|
| Mean (SD) | Mean (SD) | | | |
| PS+O (Adaptive) | 51.23 (6.02) | 49.95 (8.03) | 1.37 | Not Significant |
| CM+E+C+DA (Maladaptive) | 46.78 (5.04) | 54. 83 (8.35) | 8.93 | 0.0001 |
| Competing | 14.76 (6.87) | 19.49 (7.39) | 5.03 | 0.0001 |
| Avoiding | 22.76 (7.31) | 18.01 (7.41) | 4.98 | 0.0001 |
| Accommodating | 17.54 (7.01) | 21.37 (6.92) | 4.16 | 0.0001 |
| Collaborating | 17.01 (6.07) | 16.82 (7.20) | 0.23 | Not |
| Significant | | | | |
| Compromising | 8.61 (5.93) | 13.37 (7.46) | 5.38 | 0.0001 |

Table 2: Mean (SD) and t- value of adaptive, maladaptive dimension of perfectionism and conflict management strategies of faculties

*(Note: CM= Concern over Mistakes, PS= Personal Standard, E= Expectation, C= Criticism, DA= Doubt about Actions and O=Organization)*

Table 2 indicates that faculties of private colleges and universities are significantly higher on maladaptive perfectionism compared to their public sector counterparts. Faculties of private universities and colleges are significantly higher on competing, accommodating and compromising where as the reverse trend is visible in case of avoiding strategy of conflict management. The probable reason behind this is that in an effort to survive in a private sector, faculties set the very high standard for their work which is sometimes difficult to reach and overtly critical to others instead of focusing on personal excellence. They also try to compete with their colleagues by setting very high standard of work that is next to impossible. Faculties selected for the present study are not the senior member of the organization, so they sometimes also need to accommodate with others and sometimes compromise. Public sector faculties have secure jobs and that is why they do not exert much effort to resolve conflict and thereby significantly use avoiding style.

In order to study our second objective, faculties were divided into two extreme categories, namely, Q1 (lower 25%) and Q3 (upper 75%) on the basis of their scores obtained on adaptive and maladaptive dimensions of perfectionism and then mean conflict management strategies of two extreme groups i.e. high (Q3) and low (Q1) on adaptive and maladaptive dimensions of perfectionism were computed and presented in Table 3.

| Dimensions of conflict management strategies | Adaptive Perfectionism | | t- value N = 52 | Maladaptive Perfectionism | | t- value |
|---|---|---|---|---|---|---|
| | Low (Q1) N = 55 | High (Q3) N= 65 | | Low (Q1) N= 48 | High (Q3) | |
| Competing | 18.34 (5.76) | 13.24 (8.21) | 3.87 ** | 14.70 (8.86) | 20.41 (9.34) | 3.14** |
| Avoiding | 16.91 (7.31) | 17.01 (7.43) | 0.07 | 16.36 (8.52) | 20.16 (7.54) | 2.35* |
| Accommodating | 16.45 (7.81) | 21.30 (7.93) | 3.36** | 19.01 (6.99) | 13.04 (9.41) | 3.62** |
| Collaborating | 17.45 (8.27) | 24.87 (8.24) | 4.91** | 19.73 (9.31) | 14.06 (8.15) | 3.23** |
| Compromising | 11.58 (7.91) | 18.75 (8.19) | 4.85** | 12.08 (8.26) | 11.94 (8.55) | 0.083 |

Table 3: Mean, SD and t value of different conflict management strategies under Adaptive and Maladaptive perfectionism

It is evident from the above table that in adaptive dimension of perfectionism, mean conflict management strategies of two groups i.e. high and low groups differ significantly except in case of avoiding strategy. Faculties high on adaptive perfectionism score significantly higher on accommodating, collaborating and compromising strategy whereas reverse trend is evident in case of competing. In case of maladaptive dimension of perfectionism, mean conflict management strategies significantly differ between high and low groups. Faculties high on maladaptive perfectionism are significantly higher on competing and avoiding strategy whereas reverse trend is seen in case of accommodating and collaborating style.

In an effort to determine the relationship between perfectionism (adaptive and maladaptive) and conflict management strategies of faculties, Product moment Correlation of Coefficients were carried out and presented in the following table:

Table 4 depicts that collaborating conflict management strategy is found to be positively and significantly related to adaptive perfectionism of both Public and Private Sector University. Compromising conflict management strategy is found to be positively related to adaptive perfectionism. This relationship is significant only in case of Private Sector University. Competing and avoiding strategy is found to be negatively and significantly related adaptive perfectionism and positively related to maladaptive perfectionism. Negative and significant relationship exists between collaborating strategy adopted by faculties of public university and maladaptive perfectionism. Compromising strategy is found to be negatively and significantly related to maladaptive perfectionism of Private sector faculties. The probable reason behind this is that positive strivings (adaptive perfectionism) will facilitate positive affect and positive psychological functioning (Frost et al., 1993) which generates integrative and win-win solution to the problem. Maladaptive perfectionistic concerns produce negative social experiences and self-centered attitude and consequently individuals pursue own concerns at the other person's expense.

| Conflict management strategies | Nature of University | Adaptive Perfectionism | Maladaptive Perfectionism |
|---|---|---|---|
| Competing | Public (N= 110) | -0.21* | 0.20* |
| | Private (N= 120) | -0.52** | 0.45** |
| Avoiding | Public (N= 110) | -0.20* | 0.21* |
| | Private (N= 120) | -0.47** | 0.42** |
| Accommodating | Public (N= 110) | 0.12 NS | -0.09 NS |
| | Private (N= 120) | 0.11 NS | -0.13 NS |
| Collaborating | Public (N= 110) | 0.41** | -0.20* |
| | Private (N= 120) | 0.28* | 0.09 NS |
| Compromising | Public (N= 110) | 0.16 NS | 0.06 NS |
| | Private (N= 120) | 0.37** | -0.49** |

Table 4: Correlation of coefficient between perfectionism (adaptive and maladaptive) and Conflict management strategies

*(Note: ** significant at 0.01 level, * significant at 0.05 level and NS- Not significant)*

Findings indicate that in public sector, adaptive perfectionism has a positive and significant predictive effect on collaborating strategy of conflict management. Adaptive perfectionism has a negative and significant predictive effect on avoiding conflict management strategy. Maladaptive perfectionism is the significant predictor of competing strategy and is positively related to it. In private sector, competing strategy is significantly predicted by adaptive and maladaptive perfectionism but its relation to adaptive perfectionism is negative whereas the relationship is positive with maladaptive perfectionism. Adaptive strategy is negatively and significantly predicting avoiding strategy. Compromising is positively and significantly predicted by maladaptive perfectionism.

In order to determine the most significant predictors of conflict management strategies, multiple regression analyses were conducted with adaptive and maladaptive perfectionism as predictors. The results of the analyses are presented in the Table 5.

| Model | Nature of organization | Nature of University | Predictors | R2 | B | Std. Error |
|---|---|---|---|---|---|---|
| 1 | Public | Avoiding Collaborating | Adaptive | 0.29 | -0.24* 0.35** | 0.178 0.310 |
| | | Competing | Maladaptive | 0.20 | 0.21* | 0.173 |
| 2 | Private | Competing Avoiding | Adaptive | 0.32 | -0.36** -0.40** | 0.321 0.239 |
| | | Competing Compromising | Maladaptive | 0.34 | 0.43** 0.20* | 0.084 0.101 |

Table 5: The regression analyses of conflict management strategies and perfectionism

(** *Significant at 0.01 level, * significant at 0.05 level*)

## DISCUSSION

Perfectionism motivates individuals to achieving higher goals (Peters, 2005) but extreme concern over mistakes, harsh self-scrutiny may lead to interpersonal problems. The present research is undertaken to study the nature of perfectionism of faculties working in private and public universities in Kolkata. The present research aims to investigate whether the conflict management strategies (competing, avoiding, accommodating, collaborating and compromising) vary with respect to their level of adaptive and maladaptive perfectionism. The results revealed that private sector faculties are significantly higher on maladaptive perfectionism than public sector faculties. Private sector universities are largely more competitive than the public sector. In a private sector, faculties usually need to adhere to the deadlines and consequently they need to set excessive high standard of performance and overly critical to performance. The results indicated that faculties of private universities and colleges are significantly higher on competing, accommodating and compromising style of conflict management than their public sector counterparts where as the reverse trend is evident in case of avoiding strategy. This finding is partially supported by the findings of Cetin and Hacifazlioglu (2004) which suggested that employees in private sectors use competing style more than those in public sector. The finding is also partially supported by the findings of Khalid, Fatima, and Khan (2016) which revealed that doctors of public sector hospitals used more avoiding strategy. Findings of the present study suggested that faculties high on adaptive perfectionism score significantly higher on accommodating, collaborating and compromising strategy than those who are relatively low on adaptive perfectionism and those who are high on maladaptive dimension of perfectionism are significantly higher on competing and avoiding strategy. The probable reason is people who set up high but realistic standard in life achieve personal growth and become assertive and cooperative while managing interpersonal conflict and try to find out a common ground for both the parties involved in conflict. People who set unrealistic goals in life remain aimless in their life and experience repeated failure become uncooperative and avoidant. They either prefer to diplomatically circumvent conflicting issues or simply withdrawing from conflicting situations. The result also revealed that collaborating conflict management strategy is found to be positively and significantly related to adaptive perfectionism of both public and private university. Compromising conflict management strategy is found to be positively related to adaptive perfectionism and is negatively related to maladaptive perfectionism. Competing and avoiding strategy is found to be negatively and significantly related adaptive perfectionism and positively related to maladaptive perfectionism. Negative and significant relationship exists between collaborating strategy adopted by faculties of public sector university and maladaptive perfectionism. Compromising strategy is found to be negatively and significantly related to maladaptive perfectionism of private sector faculties. The possible reason behind this is that people who can fix high but realistic standard of their work, do not consider success in absolute terms and confident about their action are more likely to consider others' perspectives and find mutually acceptable solutions whenever they confront interpersonal conflict. On the other hand, those who possess inflexible mindset, think only in terms of absolute success and overly critical tend to either avoid the conflicting issues or try to pursue own concerns at the cost others and consequently try to win at any cost.

## LIMITATIONS

The main limitation of the study is the sample selection. It is confined to 230 faculties selected from private and public universities in Kolkata. The credibility of the results will be enhanced by increasing the sample size covering colleges, universities and institutes in different parts of the country. The second limitation is that the findings are based on the responses to the questionnaire which may be different from actual behaviour. The third limitation is that the study only considers junior faculties. Comparative study including senior and junior faculties may be useful. Last but not the least, present study is a cross-sectional in nature. Longitudinal study may provide different insight.

## IMPLICATIONS

Despite having limitations, the study has some significant implications.

a. The study implies that faculties of private sector universities are significantly higher on maladaptive dimension of perfectionism than their public sector counterparts. Training programme should be arranged for private sector faculties so that they get more and more opportunities to work in teams with their colleagues and this will facilitate cooperative environment rather than excessive competition and irritation among themselves.

b. The study also gives an indication that the faculty members should be given awareness about the beneficial use of effective conflict management in their departments.

c. Faculty development program and workshop may be designed on conflict management strategies. This will surely reduce unnecessary competition and avoidance of conflict and thereby boost their performances by making them assertive as well as cooperative.

## CONCLUSION

To enhance the performance in academic sector, it is imperative to improve harmony, assertiveness and develop favourable relationship among faculties by adopting effective conflict management strategies. This study has undertaken to examine the relationship between perfectionism and conflict management strategies of faculties. The findings revealed that private sector faculties are significantly higher on maladaptive perfectionism than public sector. Private sector faculties are significantly higher on competing, accommodating and compromising style of conflict management than their public sector counterparts where as the reverse trend is evident in case of avoiding strategy. Competing and avoiding are negatively and significantly related to adaptive perfectionism and positively related to maladaptive dimension of perfectionism. Collaborating and compromising are positively and significantly related to adaptive perfectionism whereas negative relationship is evident in case of maladaptive perfectionism. This study provides educational administrators an opportunity to gain insight about the situations prevalent in both types of universities and help them to formulate policies accordingly.

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# Impact of Emotional intelligence on Stress Coping Behavior: an Empirical Study of College Students

## Priyanka Jain*, Dr Taranjeet Duggal** & Dr Amirul Hasan Ansari***

**ABSTRACT**

*The purpose of this empirical research paper is to investigate the relationship between emotional intelligence and coping strategies of college students. A conceptual framework was developed by reviewing literature and then validating it in the context of college students. The framework empirically examined the impact of emotional intelligence (EI) on stress coping behavior. The subjects were 200 students selected at random out of the post graduates students in 2016-2017. The researcher collected the data using Emotional Intelligence Scale and Coping Strategy Inventory. Descriptive statistics, Correlation and Regression analysis were used by SPSS 21 for data analysis. The results revealed significant relationship between emotional intelligence and the four items (out of 5) of coping strategies in CSI. In addition, regression analysis showed that, emotional intelligence can significantly predict cognitive restructuring and emotional expression coping strategies. The study suggests that effective emotional awareness and management facilitate stress coping among the college students.*

***Key Words:*** *Emotional Intelligence, Stress coping behavior, Emotional awareness*

## INTRODUCTION

Stress is studied as a main topic of interest for the last two decades and is considered as a significant growth observer in researchers  interest for the perspective of both employers and employees. (Cartwright, 2000), (Hochwarter, Meurs, Perrewé, Royle, & Matherly, 2007) Annual cost of stress in the workplace is estimated approximately to be $300 billion. (Cynkar, 2007) Studies have demonstrated that college students are more prone to stress. (Darling, McWey, Howard, & Olmstead, 2007) In today s globalized scenario stress is too common for most of us. In this scenario where stress is an inevitable part of one s life, individuals must learn to cope up with it by using various stress coping strategies. The type of strategy adopted by each person to cope with stress is considered to be part of the susceptible profile of that person. As a coping mechanism, emotional intelligence can simplify the stress and can use an effective self- regulation system while encountering with stress. (Salovey, Bedell, Detweiler, & Mayer, 1999) The concept of EI was first proposed by (Salovey & Mayer, Emotional intelligence, 1990) who define it as "the ability to perceive accurately, appraise, and express emotion; the ability to access and or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to reflectively regulate emotions in ways that promote emotional and intellectual growth".

\*   Research Scholar, Amity University; Email: jainpriyanka301@gmail.com
\*\*   Professor, Amity University; Ph: 9810413263; Email: tduggal@amity.edu
\*\*\* Professor, Jamia Millia Islamia; Ph: 9891891464; Email: amirulhasana@gmail.com

Considering that emotional intelligence and coping strategies play crucial roles in stress management, the study of these two variables can be of great help in attaining a broader models in order to explain them. We begin with a brief overview of the concept of Emotional intelligence and stress and emotions before going into the depth of the study. The paper concludes by addressing some practical implications of our study.

## EMOTIONAL INTELLIGENCE

The construct of Emotional Intelligence (EI) is one of the most frequently researched topics in organizational study as it is a significant aspect in interpreting and analyzing human behavior at work. The concept of emotional intelligence evolved from the theory of social intelligence, which involves the ability to understand and interact with others. The term emotional intelligence was first used by (Salovey & Mayer, Emotional intelligence, 1990). According to Salovey & Mayer emotional intelligence is defined as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions". This term was later popularized by Daniel Goleman s book. "Why it matters more than IQ". To achieve the objectives of the organization, a manager needs to understand their employees feelings and emotions and build strong and close relationships with them. (Cherniss, 2003 (Retrieved)) noted that a leader who has a high level of emotional intelligence will have a greater effect on an organization than a leader with a low level of emotional intelligence.

In this research paper, emotional intelligence has been discussed on the basis of four-component model of Goleman. Hence it has been discussed with the help of following dimensions:

Self – awareness – Self-awareness is being conscious of one s emotions and how they affect thoughts and behavior.

Self – management- It is the ability to control impulsive feelings and behaviors, taking initiative and managing emotions.

Social awareness – social awareness is understanding the emotions and concerns of other„s people and recognizing the power of dynamics in a group or organization.

Relationship management- It is all about knowing how to develop and maintain good relationships.

## EMOTIONAL INTELLIGENCE AND STRESS

Hans Selye was a pioneering Austrian-Canadian to conduct the research on stress. He coined the word "stress" in 1936 and defined it as "non-specific response of the body to any demand for change". Later, (Selye, 1974) advanced two types of stress: distress and eustress where distress is characterized by anger and aggression and eustress depicts the constructive type of stress, illustrated by empathic concerns for others. (Folkman & Lazarus, 1985) defined stress "as a relationship between the person and the environment that is appraised by the person as relevant to his or her well-being and in which the person s resources are taxed or exceeded".

Recently studies have shown great researchers interest in the study of the relationship between EI and stress. Studies by various researchers have suggested that Individuals with higher level of EI are more adept at managing & resolving stressful situations successfully.

(Lopes, Brackett, Nezlek, Schutz, Sellin, & Salovey, 2004) noted that those individuals who are lower in their ability to manage their emotions are not able to acquire support in stressful situations. In the similar context another study by (Furnham, Pertrides, & Spencer-Bowdage, 2000) showed that high EI individuals use more normal coping strategies in managing stress whereas individuals with low emotional intelligence are found to use more avoidance – oriented coping strategies. A study conducted by (Darolia & Darolia, 2005) revealed the role of emotional intelligence in coping with stress and emotional control behavior. The study found that emotionally intelligent people are able to understand and recognize their emotions, manage themselves to kept under control in stressful situation. Similarly (Oginska-Bulik, 2005) investigated the relationship between emotional intelligence and stress in the work place and health related consequences in workers. The result revealed that emotional intelligence is a shield that prevents workers from negative health outcomes, especially from the symptoms of depression. In contrary to the above study (Singh & Singh, 2008) reveals significantly negative relationship of emotional intelligence with stress for both the genders of medical professionals. Based on the above literature the following objectives are being framed.

## OBJECTIVES OF THE STUDY

1. To compare the Emotional intelligence level of male and female college students.
2. To identify the relationship between Emotional intelligence and stress coping strategies of the college students.

## METHODOLOGY

### Sample

Convenience sampling method was used to select a sample of 200 from graduates and post graduates courses representing private universities of India. Though the sample size was 200 but the responses received amounted to 180, the remaining 20 did not respond. Physiotherapy, foreign languages, pharmacy, B.Sc. (FS) and managements students were included in the survey. Average age of the sample was 21 years with SD of 3.2.

### Measures

**Coping strategies Inventory (CSI)** – adapted from the Lazarus "way of coping" questionnaire. It is a 72 – item self-report questionnaire to assess coping thoughts and behaviors in response to a specific stressor. Out of the 72-items,54 were used in the questionnaire measuring problem solving, cognitive restructuring, social support, express emotions, problem avoidance and social withdrawal.

**Wong & Law EI scale (2002**) – This scale is allocated to measuring the emotional intelligence by four dimensions self-emotional appraisal (4 items), others – emotion appraisal (4 items), use of emotion (4 items) and regulation of emotion (4 items).

### Statistical analysis

The data were analyzed using SPSS (Statistical Package for Social Sciences). The statistical test used for this study is t test, Pearson correlation and linear regression. The analysis and findings of the data is given in Table 1.

(Notes: EI=Emotional intelligence, SA=Self Awareness, SM=Self-Management
So.A=Social Awareness, RM=Relationship Management, PS=Problem solving, CR=Cognitive

Restructuring, SS=Social support, EE=Express Emotion, PA=Problem Avoidance, SW=Social withdrawal, M=Mean, SD=standard deviation.)

| S.NO | Variables | Male | Female | Total Mean M(SD) |
|------|-----------|------|--------|------------------|
| 1 | EI | 13.2 1(0.176) | 13.41(0.186) | 13.31(0.181) |
| 2 | SA | 3.483(0.05) | 3.503(0.07) | 3.493(0.06) |
| 3 | SM | 3.712(0.175) | 3.722(0.179) | 3.717(0.177) |
| 4 | So.A | 3.32(0.189) | 3.38(0.193) | 3.35(0.191) |
| 5 | RM | 2.75(0.169) | 2.71(0.166) | 2.73(0.168) |
| 6 | PS | 3.00(0.08) | 4.00(0.13) | 3.08(0.10) |
| 7 | CR | 3.18(0.10) | 3.26(0.15) | 3.22(0.12) |
| 8 | SS | 3.39(0.170) | 3.35(0.168) | 3.37(0.169) |
| 9 | EE | 3.201(0.145) | 3.209(0.419) | 3.206(0.147) |
| 10 | PA | 2.959(0.170) | 2.966(0.714) | 2.963(0.172) |
| 11 | SW | 1.605(0.178) | 1.600(0.175) | 1.603(0.177) |

Table 1: Means and standard deviation

Results of variance analysis showed that male and female students weren t different in any of the subscale of emotional intelligence and coping style.

| Variables | PS | CR | SS | EE | PA | SW |
|-----------|------|---------|--------|--------|--------|--------|
| SA | 0.515 | 0.533** | 0.347 | 0.599 | -0.125 | -0.243 |
| SM | 0.356 | 0.616** | 0.0069 | 0.66** | 0.022 | 0.002 |
| Soc.A | 0.467 | 0.281 | 0.195 | 0.31 | 0.146 | -0.325 |
| RM | 0.103 | 0.269 | 0.296 | -0.03 | -0.226 | -0.273 |
| EI | 0.562 | 0.6513 | 0.322 | 0.595 | -0.181 | -0.324 |

**Correlation is significant at the 0.01 level
Table 2: Pierson correlation between EI and coping style

The table depicted the strong correlation between EI and four different domains of coping strategies (Problem solving, cognitive restructuring, social support and express emotion). The study reveals that individuals who have high level of EI are more likely to use various strategies like problem solving, cognitive restructuring, social support and express emotions when confronted with stress. Further, it reveals that out of the four subscale of EI cognitive restructuring is found to be significantly correlated with self-awareness (0.533*) and self-

management (0.616*). Similarly express emotion is found to be significantly correlated with self-management (0.660*).

| Independent variables | Dependent | | | | | |
|---|---|---|---|---|---|---|
| | Problem solving | Cognitive Restructuring | Social Support | Express Emotion | Problem Avoidance | Social Withdrawal |
| Self-awareness | 0.107 | 0.62** | 0.827 | 1.25 | 0.256 | 0.6 |
| Self-management | 0.089 | 0.319** | -0.236 | 0.32** | 0.05 | 0.068 |
| Social Awareness | 0.162 | -0.42 | -0.34 | -0.99 | -0.465 | -0.98 |
| Relationship Management | 0.151 | 0.185 | 0.242 | -0.153 | -0.35 | -0.54 |
| $R^2$ | 0.32 | 0.65 | 0.29 | 0.77 | 0.12 | 0.33 |

Table 3: Multiple Regression Analysis of Emotional Intelligence and Coping Style

The multiple regressions analysis was conducted to identify the predictive relationships between the different set of independent and dependent variables .The result of variance and regression showed that emotional intelligence significantly predicted cognitive restructuring (F= 8.617, p< 0.01) and expressing emotion (F=15.27,p<0.01). The $R^2$ for CR was found to be 0.65 which means that 65% of variance in cognitive restructuring is determined by emotional intelligence. Similarly the $R^2$ for emotional expression was found to be 0.77 which means that 77% of variance in EE is determined by EI. However out of the four subscale of EI only self-awareness ($^2$=0.62, p<0.01) ($^2$=1.25, p<0.01) and self-management ($^2$=0.319, p<0.01) ($^2$=0.32, p<0.01) are statistically significant predictor of cognitive restructuring and emotional expression respectively.

**DISCUSSION**

The study depicts that EI has positive relationship with problem solving, cognitive restructuring, social support and emotional expression while problem avoidance and social withdrawal are found to be negatively correlated. This explains that higher the level of emotional intelligence an individual has more likely he is to use various coping strategies like problem solving, cognitive restructuring, social support and express emotions when confronted with stress. Emotions influence the way individual evaluate & analyze situations when strained with stress. The study partially supports the findings of (Schutte, Malouff, Thorsteinsson, Bhullar, & Rooke, 2007) and (Noorbakhsh, 2010) as they revealed a relationship between EI and problem focused strategies.

The result of regression further revealed that emotional intelligence significantly predicted cognitive restructuring and emotional expression. The possible explanation for this could be that cognitive restructuring reduces stress by changing our negative & reactive thinking pattern and emotional intelligence influences the way we think. Out of the four dimensions of EI self-awareness and self-management were found to contribute majorly in predicting cognitive restructuring and emotional expression.

## CONCLUSION

This study examined the relationship between emotional intelligence and coping strategies amongst the college students. This finding of the studies revealed that students emotional intelligence was positively related to problem solving coping, cognitive restructuring, emotional expression and social support seeking coping. The findings suggest that feeling of controlling and managing emotions assist students to adopt effective coping strategies when confronted with stress. Individuals who are aware about their emotions and are able to manage them effectively have the ability to make sound decisions by eliminating and reducing the negative thinking pattern.

In today s globalized era where stress is an inevitable part of one s life, coping strategies plays a crucial role in augmenting the effect of stress through helping the individual maintain positive perspective about themselves and others. People use these strategies to master and minimize stressful event. This study is able to contribute to our understanding that EI abilities are crucial in influencing the decision of choosing the various coping strategy when confronted with stress. A primary implication of the study could be that the basic emotional awareness and management strategies could be inculcated in introductory PG courses so that they get better equipped to effectively manage stress in their future careers. Even the organizations should consider providing training interventions designed to aid the organizational members with emotional intelligence abilities to potentially increase their capabilities to cope with stress.

## LIMITATIONS AND AREAS FOR FUTURE STUDY

The study too has its limitation that needs further attention in the future. Since all the measures used are self-reported, common method variance due to single source bias is a problem. The sample size of the study is too small to generalize the result. The research is done on the college students hence the future studies should attempt to replicate these findings on organizational level too. Future research should focus on investigating other significant variables that explain people s choice in choosing the different stress coping style.

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# Employee Satisfaction: An Empirical Study of Banking Industry

**Dr. Prabhjot Kaur Mahal\***

**ABSTRACT**

*This study explores the relationship between emotional intelligence and employee satisfaction among executives working in service sectors in northern India including Delhi NCR. Information was gathered, using three instruments, from a sample of 120 managers, by using the emotional intelligence scale developed by Singh and Chadha, (2001) and job satisfaction scale developed by Harris (2000). It was found that there is a very strong significant linear relationship between emotional intelligence and employee satisfaction. This research therefore adds a new dimension to employee performance, leadership and emotional intelligence, since no similar study has been conducted.*

***Key words:*** *Emotional Intelligence, Employee Performance, Emotional Maturity, Emotional Competency, emotional sensitivity*

## INTRODUCTION

Emotional intelligence plays an important role in our working lives. Not surprisingly, a central thoughtful phenomenon is to understand business leaders who can secure the emotional side of an organization will permeate strength and meaning into management structures, and bring them to meaningful life (Mayer and Caruso, 2002). However, it is only recently that management researchers have seriously considered the question in the context of the workplace. The interest of the research community in this search for efficiency is reflected in the attention it has given to employee satisfaction in recent years.

Job satisfaction has been conceptualized as a complex construct to measure the global attitude of an employee towards his or her work. Researcher (Spector, 1997 and Agho, Muller and Price, 1993) observes that the employee can be either satisfied or dissatisfied with the job. A moderate and consistent relationship has generally been found across various samples between greater job satisfaction and the propensity to remain in the organization (Brayfield and Crockett, 1955; Herzberg, et. al., 1957; Porter and Steers, 1973; Vroom, 1964). According to Webster's Dictionary (1986), job satisfaction refers to how well a job provides fulfillment of a need or want, or how well it serves as a source or means of enjoyment. Sempane et al., (2002) presented a summary of job dimensions, i.e. work itself, pay, promotions, and recognition, working conditions, benefits, supervision and co-workers that have been established to contribute significantly to employees' job satisfaction. This is postulated to influence employees' opinion of how interesting the work is, how routine, how well they are doing, and, in general, how much they enjoy doing it (McCormick & Ilgen,

\*    Faculty of Management, Chandigarh Group of colleges Technical Campus, Jhanjeri; Ph: 9888589236; Email: prabhjotkaurmahal@gmail.com

1985)

The researches have shown employee satisfaction is related to the emotional intelligence (Dasborough, 2006 and Sunindijo, Hadikusumo, & Ogunlana, 2007). Luthans, F. (2002) define emotional intelligence as the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in self and others. Emotional intelligence comprised; Self-awareness deals with knowing our feelings at the moment and using them as a guide to our decision making, Self-management, includes handling our emotions so that they facilitate rather than interfere, Social awareness, considers sensing people feelings, the ability to take their perspective and lastly Social skills, focus on handling emotions in relationships well and reading carefully social situations, interacting in a smooth way (Watkin, C. 2000).

To measure the emotional intelligence in the Indian context, one scale developed by Chadha and Singh (2001) is widely acknowledged to measure the emotional intelligence of the employees. This test has been tested by considering the sample of managers, academicians, businessman, bureaucrats, and employees. Emotional intelligence describes about the requirements of Emotional skills among the employees. Emotionally stable managers are satisfied with their job as compare to those are less emotionally stable. Emotional intelligence is the ability of an individual to appropriately and successfully respond to a vast variety of stimuli being elicited from the inner self and the immediate environment (Chadda, 2001). The three dimensions of emotional intelligence identified are emotional competency, emotional maturity, and emotional sensitivity. Each dimension contains four skills which Indian managers should master to be star performers at the workplace. Managers for instance may have to learn the competencies needed for tackling emotional upsets, high self-esteem, and tactful response to emotional stimuli, and handling egoism. Emotional maturity is reflected in the behavioral pattern exhibited by the managers while dealing with the inner self and the immediate environment. The important aspects of emotional maturity are self-awareness, developing others, delaying gratification, and adaptability and flexibility. In the psychological sense, sensitivity means the characteristic of being peculiarly sensitive and judging the threshold for various types of stimulations, evoking sensations, feelings, and emotions. The managers may seek to evolve the skills of understanding the threshold of emotional arousal, empathy, inter-personal relations, and communicability of emotions in their personality.

## REVIEW OF LITERATURE

## EMOTIONAL INTELLIGENCE AND JOB SATISFACTION

Many scholars and researchers have recently started to focus on the role of emotions to determine the satisfaction level of employee at work. Emotional intelligence is an important predictor of job satisfaction (Daus & Ashkanasy, 2005; Van Rooy & Viswesvaran, 2004; Carmeli, 2003; S., Tram, & O'Hara, 2006). Employees confer order and consistency to their lives by means of their emotional intelligence (Goleman, 1995); employees with a high level of emotional intelligence experiences face fewer negative incidents in their lives and can successfully cope with the problems occurring in their working and living environments and thus enjoy a better health. Emotional Intelligence is been considered as a insignificant and miniature phenomenon in an organization, but it carries an ability to identify and manage feelings, both one's own and other people's to improve people and business performance and job satisfaction (Collins, 2000).

Hence, managers can boost employee satisfaction by considerate how emotions influence one's belief and behavior. Emotional intelligence is referred to as emotional literacy (Goleman, 1995). Individual with emotional intelligence are therefore able to relate to others with companion and empathy, have well developed social skills and use this emotional awareness to direct their acts and behaviors.

Emotional Intelligence appears to be a important dimension to understand and manage feelings and emotions. Literature has shown that job satisfaction is helpful in evaluating the emotional wellness and mental fitness of employees and those organizations can use the information to improve departmental policies and practices where dissatisfaction is expressed (Spector, 1997). Hendee (2002) expanded and incorporated emotional intelligence as a personal factor which, along with other personal factors such as gender, educational degree, demographic characteristics, etc., affects one's job satisfaction.

Researches on the emotional intelligence construct has recognized its relationship with leadership (Wolff, Pescosolido & Druskat, 2002), self-efficacy (Okech, 2004), mental health (Manhas, 2004), self-esteem (Chauhan, 2008) and aspiration (Wells, 2004). Mayer et al. (2000) in an attempt to clarify the plethora of definitions of emotional intelligence suggested that there are mixed and mental ability model of emotional intelligence. Mixed models comprised of social and emotional competencies, which include social skills and personality aspects (Goleman, 1995, 1998), whereas mental ability model scrutinize the interaction between emotion and cognition. Based on Goleman's (1995, 1998) mixed model, motivation forms a subset of emotional intelligence. Other emotional intelligence researchers reject this notion, arguing that they are related, yet separate constructs (Jordon et al, 2003; Mayer & Salovey, 1997). Consequently, we contend that EI will have both direct and indirect effects on employees' satisfaction. To address this issue, an empirical study was undertaken.

To deal with this concern, an empirical study was conducted. This study observes how emotional intelligence skills are associated with employee satisfaction on a sample of managers working in both private and public banks. EI was evaluated by a Scale developed by Chadha and Singh (2001). Harris (2000) scale was used to assess employees' satisfaction. The extent to which demographic characteristics of an employee are related to emotional intelligence is also been included in the study.

## OBJECTIVE OF THE STUDY

The objective of the current study was to explore the relationship between emotional intelligence and employee satisfaction among the employees working in a banking sector. Furthermore the present study is also contributed to see if the demographic factors are predictive of emotional intelligence or not.

## RESEARCH METHODOLOGY

## DATA AND SAMPLE

For the present study, 120 managers were chosen with the help of convenient sampling method from banking industry representing public and private sector banks in northern India. The managers were selected from different banks having a northern India presence, across all the main states, viz., Haryana, Punjab, Himachal Pradesh, and NCR. For sampling of managers

from service industry representing public and private sectors, the bank managers were approached personally, with prior appointment, to brief them about the objectives and scope of the study. After explaining and answering queries, if any, the permission for data collection from their banks was sought.

## VARIABLES AND HYPOTHESIS

### Dependent variable

To measure the employee satisfaction, scale developed by Harris (2000) was used. The scale comprised of 5 items, which were measured on a five-point Likert type rating scale ranging from strongly disagree to strongly agree.

### Independent Variable

To measure the emotional intelligence among the manager, the scale build by Chadha and Singh (2001) was used. The present scale comprised of three dimensions of emotional intelligence— emotional competency, emotional maturity, and emotional sensitivity. The five point scale comprised of 15 questions which measure emotional reactions of an employee in different situations. To find the retest reliability, a sample of 61 males and 59 females from different streams of the population were taken. The validity of the scale was found to be 0.78.

### Control variables

Present study comprised of three demographic variables: gender (1 for male; 2 for female), educational qualification (1 for graduate; 2 for post Graduate), and working experience of an employee (1 for if he has less than 2 yrs. Experience; 2 for if he has more than 2 yrs. Experience).

### Hypothesis of the study

The hypothesis of the study is:-

Higher Emotional intelligence of the employees will lead to more job satisfaction among the employees.

The three dimensions of emotional intelligence (i.e., emotional sensitivity, emotional maturity, and emotional competency), will be positively related to each other and each one will contribute to predicting overall employee satisfaction with emotional maturity as the main contributor.

There would be no significant relationship between emotional intelligence and demographic variables (gender, educational qualification, and working experience).

## DATA ANALYSIS

To access the relationship between emotional intelligence and employee satisfaction, researcher has used t-test, ANOVA and Pearson correlation.

### Result

Table 1 shows the mean, minimum, maximum, and standard deviation values of the different dimensions of emotional intelligence used in the present study. The results show that emotional maturity and emotional sensitivity has a slightly same mean but the mean value of emotional competency is slightly more than others dimensions of emotional intelligence. the mean

value of employee satisfaction is less as compare to emotional intelligence used in the study; it may be because of less number of items used to measure employee satisfaction.

| Variables | N | Minimum | Maximum | Mean | S.D. |
|---|---|---|---|---|---|
| Emotional competency | 120 | 8 | 24 | 14.38 | 3.616 |
| Emotional maturity | 120 | 2.00 | 23.00 | 10.7750 | 4.01565 |
| Emotional sensitivity | 120 | 3.00 | 23.00 | 10.6417 | 3.98484 |
| Total EI | 120 | 19.00 | 64.00 | 35.8000 | 9.59482 |
| Employee Satisfaction | 120 | 3.00 | 19.00 | 10.5500 | 3.92760 |

**Table 1: Descriptive Statistics of the studied variables**

Bivariate correlation depicts the significant relationship between the emotional intelligence and job satisfaction. Table 2 shows linear correlation between emotional intelligence and employee satisfaction score, which shows that there is a positive correlation among emotional intelligence and job satisfaction. The correlation coefficient varies from 0.331 to 0.868. Results shows that there is a positive correlation between all the dimensions of emotional intelligence (emotional competency, emotional maturity and emotional sensitivity) with each other and with EI.

| Variables | Emotional competency | Emotional maturity | Emotional sensitivity | Total EI | Employee satisfaction |
|---|---|---|---|---|---|
| Emotional competency | 1 | | | | |
| Significance | 0.00 | | | | |
| Emotional maturity | .827** | 1 | | | |
| Significance | 0.00 | 0.00 | | | |
| Emotional sensitivity | .429** | .331** | 1 | | |
| Significance | 0.00 | 0.00 | 0.00 | | |
| Total EI | .901** | .868** | .716** | 1 | |
| Significance | 0.00 | 0.00 | 0.00 | 0.00 | |
| Employee satisfaction | .817** | .851** | .332** | .802** | 1 |
| Significance | 0.00 | 0.00 | 0.00 | 0.00 | |

**Table 2: Correlations of EI Parameters with One Another**

** Correlation is significant at the 0.01 level.
Table 3 shows the ANOVA result of satisfaction with the EI factors, i.e., competency, maturity,

and sensitivity. The main purpose of this test is to determine which of the three factors a major contributor to overall satisfaction. Results show that competency, maturity, and sensitivity have $F$ values 15.57, 23.057, and 2.391 respectively all at a significance level of 0.05. It shows that maturity is the major contributor towards the overall satisfaction among the employees.

| Variables | | Sum of mean square | Df square | Mean | F | Sig. |
|---|---|---|---|---|---|---|
| **Emotional competency** | Between Groups | 1298.738 | 16 | 81.171 | 15.570 | .000 |
| Within Groups | 536.962 | 103 | 5.213 | | | |
| Total | 1835.700 | 119 | | | | |
| **Emotional Maturity** | Between Groups | 1511.256 | 20 | 75.563 | 23.057 | .000 |
| | Within Groups | 324.444 | 99 | 3.277 | | |
| Total | 1835.700 | 119 | | | | |
| **Emotional sensitivity** | Between Groups | 523.137 | 17 | 30.773 | 2.391 | .004 |
| | Within Groups | 1312.563 | 102 | 12.868 | | |
| Total | 1835.700 | 119 | | | | |

**Table No. 3 ANOVA**

Tables 4 shows the results of $T$-tests used to show the effect of demographic variables, job satisfaction on emotional intelligence. To check the effect of demographic profile on EI dimensions, the sample was divided into three groups in terms of gender, education and experience. Gender (male vs. female), qualification (graduate vs.post graduate) and Work experience (less than 2 years and more than 2 years) do not have any significant effect on the EI dimensions whereas work experience has a significant effect on EI with more work experienced people having higher EI. Hence, it can be concluded that hypotheses 1 and 2 are supported whereas hypothesis 3 is not supported.

| Demographic profile (Mean Values) | | Emotional Competency | Emotional Maturity | Emotional Sensitivity |
|---|---|---|---|---|
| Gender | Male (61) | 14.36 | 10.72 | 10.31 |
| | Female (59) | 14.41 | 10.83 | 10.98 |
| T-Value | | -.070 | -.148 | -.922 |
| Education | G. (48) | 14.27 | 10.66 | 11.04 |
| | P.G. (72) | 14.46 | 10.84 | 10.37 |
| T-Value | | -.277 | -.240 | .897 |
| Experience | >=2yrs. (57) | 14.02 | 10.71 | 10.33 |
| | <2 yrs. (62) | 14.61 | 10.72 | 10.80 |
| T-Value | | -.906 | -.009 | -.652 |

**Table 4: T-Tests to Show the Effect of demographic profile on EI Parameters**

**significant at the 0.01 level

## DISCUSSION

Present study investigates the relationship between emotional intelligence and employee satisfaction of the employees working in service sector. The objectives of the present study are three-fold: (1) to determine if there is a significant relationship between emotional intelligence and employee satisfaction; (2) to find out which dimension of the emotional intelligence is a major contributor towards employee satisfaction and (3) to see if the demographic factors are predictive of emotional intelligence or not.

There is a significant relationship between emotional intelligence and employee satisfaction. Our findings are supported by (Bar-On, 1997; Ciarrochi, Chan, & Caputi, 2000; Mayer, Caruso, & Salovey, 2000). Ciarrochi, Chan, & Caputi's research suggest that emotional intelligence is the strongest predictor of job satisfaction among the employees. Emotional intelligence accounts for the major part of a person's success in life whereas IQ has a minor contribution to a person's career success (Law, Wong, and Song2, 004), as emotional intelligence enables an employee to control desire and direct stressful moods well. Emotionally controlled and managed behavior helps the employee to remain hopeful in times of setbacks and develops empathy and social skills. Therefore, employees should seize every opportunity to promote emotional intelligence in training and the workplace to foster accord, efficiency, inventive behavior, and team building.

All the three dimensions of emotional intelligence, i.e., competency, maturity, and sensitivity are identified as the major contributor to overall employee satisfaction; emotional maturity has been recognized as the chief contributor to overall job satisfaction in the present research. It may replicate that competency of handling emotional troubles, high self-esteem, sensitive reaction to emotional stimuli, and managing egotism. Though, this research has not been reported in any related literature and therefore it is requisite to be authenticated by other

researchers as well. However, all the three factors dimensions of emotional intelligence, i.e., competency, maturity, and sensitivity contribute towards emotional intelligence and in turn contribute to employee job satisfaction.

The result shows that demographic variables are important factors to predict emotional intelligence. Research reveals that gender, education and working experience has the capacity to predict emotional intelligence among the employees. Emotionally intelligent employees are mature enough to gains experience (Abraham, 2004); it may be because of employees' interface with people of varied milieu and tastes in the course of their working career. They should have social skills in the course of such interactions. The results also disclose that female employees are more emotionally intelligent as compare to their male counterparts, as they have their own personal profiles of strengths and weaknesses for emotional intelligence capacities. The finding of our study is supported by Grewal & Salovey, (2005), King (1999), Sutarso (1999), Wing and Love (2001) and Singh (2002)

Although many efforts has been made to depict the relationship between emotional intelligence and job satisfaction. But no research has been done by using formal appraisal records to establish relation between emotional intelligence and employee satisfaction among the managers in Indian context. Therefore, present study is a reflection of the kinds of research that are the current focus within the area of emotional intelligence and employee satisfaction.

In present study emotional intelligence is significantly related to employee productivity and employee performance and it may have important inference for their recruiters, employers, managers and trainers. By evaluating one's level of emotional intelligence, an organization may be able to identify the areas of improvement, which may lead to employee satisfaction. It can also be inferred that emotional intelligence might be useful for the managers and supervisors, while selecting and recruitment the employees.

## MANAGERIAL IMPLICATION

Emotional Intelligence is an important dimension to increase the employee. Hence, hiring employees with higher levels of emotional intelligence leads to financial gains, because emotional intelligence is very important for the success of the growing organization. Nowadays employees are being more aware about their power, autonomy, learning, make relationships through emotions and then manager should recognize the use of emotional intelligence at the workplace as a facilitator to understand and deal with employees enhancing job satisfaction, with better understanding to get better awareness of where they are and where they want to be. Subsequently by managing and controlling the emotions we can build paths to go forward.

The training of EI is an important step to help the employees in managing their emotions, but it can be quite a difficult task because it is concerned about being and not doing what can include some changes in people beliefs and values. Hence, it can be concluded that organizations can depart training to the employees through the classic workshops and lectures, but above all personal involvement of the employees is very important to gain advantage from that workshop.

## LIMITATIONS AND SCOPE FOR FUTURE RESEARCH

Although the current research took a positive approach in reviewing previous literature of emotional intelligence and job satisfaction and the analysis of the relationship among them using advanced statistical tools, there are some limitations worth acknowledging. These

include issues with the research sample size in relation to and with the actual population of managers in service sector of Northern India; the constraint may have direct impact on possible generalizations of the research outcomes and may, therefore, call for further research using a larger sample size. Since the results of this study are based on empirical data, it may be impossible to draw conclusion regarding causality. For example, employees who experience lower levels of emotional intelligence at workplace may perceive less satisfaction. Longitudinal research is needed to examine the causal direction of relationships. Moreover, studies in future should examine the difference in emotional intelligence across difference organizations. Moreover, as findings of this research are based only on quantitative research, qualitative research such as in-depth interviews could be attempted in future studies.

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# Impact of FDI and FII on Economic Growth of India - A Causal Study

## Rahul Sarkar*

### ABSTRACT

*Foreign Direct Investment (FDI) and Foreign Institutional Investment (FII) are two different ways to flow foreign funds from one country (i.e. Home Country) to another country (i.e. Host Country). Whereas the former is aimed at obtaining a lasting interest in the host country's enterprise by way of exercising significant control over its management, the latter flows are not directed at acquiring management control over foreign companies. Opening up of the Indian economy to rest of the world was primarily aimed at tackling Balance of Payment (BoP) crisis and spurring growth of the capital markets. In this study, an attempt has been made to study empirically the impact of the foreign fund (i.e. both FDI and FII) on the economic growth of India.In this study, Gross Domestic Product Growth Rate (GDPG) of India has been used as a proxy for economic growth of India. The data for FDI, FII, and GDPG was collected from the Internet by exploring the secondary sources available on various websites. All the three variables for the period from 2000 to 2016 have been put to Jarque-Bera test for Normality and Augmented Dickey-Fuller test for Unit Root. Then, two simple (time-series) regression equations (i.e. regressing GDPG on FDI and again GDPG on FII) have been run to know their (FDI & FII) individual effect on economic Growth of India (GDPG). Finally, Residual diagnostic tests, like Residual Normality test, Auto-correlation test and Heteroscedasticity test have been performed for both the models. [EViews 9.5 Software have been used for Analysis]. All the three variables are found to be normal. Though FII doesn't possess unit-root, i.e. it is a stationary data. Both FDI and GDPG are found to have unit-root, i.e. they are non-stationary at level but their first difference is stationary. Both the models and individual coefficients are found to be statistically significant at 5% level of significance. The residual diagnostic test result showed that the error term is normally distributed, there is no auto-correlation problem and the error term is homoscedastic for both the models. So far as the findings of the study reveal, both the FDI and FII, individually, significantly influence the economic growth of India. So, from the viewpoint of policymaking, the study is of high significance. The national and international policies of India should be so designed that it creates a favorable environment in India so as to attract more and more foreign funds, i.e. both FDI and FII. As a consequence Indian economic growth would be faster and it would further step forward towards a developed economy.*

**Keywords:** *Foreign Direct Investment; Foreign Institutional Investment;; Augmented Dickey-Fuller test*

## INTRODUCTION:

Global capital flows in India were primarily characterized by syndicated bank loans (**Syndicated loans** are the debts issued by a consortium of lenders to a sole borrower) in 1970s followed by Foreign Direct Investment (FDI) flows in 1980s. "But a strong trend towards globalization

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\* Junior Research Fellow (Ph.D. Scholar), Department of Commerce, University of Calcutta, West Bengal, India; Email: rahul89sarkar@yahoo.com

leading to widespread liberalization and implementation of financial market reforms in many countries of the world had actually set the pace for Foreign Institutional Investment (FII) flows during 1990s." **[Chakraborty, Tanupa (2007)]**. India embraced the policy of economic liberalisation in 1991 to encounter the external payment crisis due to unsustainable macro-economic balances. With an eye on integration with the world economy and enhancement of capital flows for financing industrial growth, the Indian financial market was opened up to Foreign Institutional Investors.

A Nations  progress and prosperity is reflected by the pace of its sustained economic growth and development. Investment provides the base and pre-requisite for economic growth and development. Apart from a nation„s foreign exchange reserves, exports, government„s revenue, financial position, available supply of domestic savings, magnitude and quality of foreign investment is necessary for the wellbeing of a country. United Nations Conference on Trade and Development report on world investment prospects India has been ranked at the third place in global foreign direct investments in 2009. [**Jain, Meena and Mathur(2013**)]

FDI improves balance of payment position by crediting the inflow of investment to capital account. Also current account improves as FDI aids import substitution/export promotion. Export gets a boost through the expertise of foreign investors possessing export market intelligence and their mechanism. Updated technology of producing world standard goods at low cost is available to the host country. Export credits from the cheapest source in the international market can be availed of quite easily.

Foreign firms foster forward and backward economic linkages. Demand for various inputs gives rise to the development of the supplying industries which through employment of labour force raise their income and increase the demand for domestic industrial production. The living standard of the domestic consumers improves as quality products at competitive prices are available. Also a pool of trained personnel is created in this context.

Foreign investor by investing in economic/social infrastructure, financial market and marketing system helps the host country to develop a support base essential for quick industrialisation. The presence of foreign investors creates a multiplier effect leading to the emergence of a sound support system.

Foreign investors are a boon to government to revenue with regard to the generation of additional income tax. Also they pay tariff on their imports. Governmental expenditure requirements are greatly reduces through supplementing government„s investment activities in a big way there by lessening the burden on national budget.

FDI aids to maintain a proper balance amongst the factors of production by the supply of scarce resources thereby accelerating economic growth. Capital brought in by FDI supplements domestic capital as the savings rate at home is very low to augment heavy investment. Through the inflow of scarce foreign exchange, domestic savings get a boost to support the investment process. Foreign investors are bold enough to take risks not prevalent among local investors resulting in investment projects being implemented in a large way. FDIs bring in skilled labour force to perform jobs which ha local workers are unable to carry out. There is also a fear of imposition of alien culture being imposed on the local labour force. Foreign investors make available key raw materials along with updated technology to the host country. Such a practice helps the host country to obtain access to continued updation of R&D work of the investing company.

Unlike, Foreign Direct Investment (FDI) flows, a type of investment that involves the injection of foreign funds into an enterprise that operates in a different country of origin from the investor, aimed at obtaining lasting interest in the host country s enterprise by way of exercising significant control over its management, FII flows are not directed at acquiring management control over foreign companies. [**Sarkar, Rahul. (2017)**]

FII inflows in India also bring many benefits with it for the Indian economy. FIIs are well known for a greater appetite for equity than debt in their asset structure. For example, pension funds in the United Kingdom and United States had 68 per cent and 64 per cent, respectively, of their portfolios in equity in 1998. Not only it can help in supplementing the domestic savings for the purpose of development projects like building economic and social infrastructure but can also help in growth of rate of investment, it boosts the production, employment and income of the host country.

FIIs as professional bodies of asset managers and financial analysts enhance competition and efficiency of financial markets. By increasing the availability of riskier long term capital for projects, and increasing firms incentives to supply more information about them, the FIIs can help in the process of economic development.

**OBJECTIVES OF THE STUDY:** In the light of the above discussion, the following objectives have been set to answer in this study:

1. To quantify the impact of FDI in India on the economic growth of India;

2. To quantify the impact of FII in India on the economic growth of India.

**LITERATURE REVIEW:**

Recent past studies related to the subject of the current research have been reviewed in this section. A significant number of descriptive as well as empirical studies have been conducted to examine the effect of FDI and FII on the Economic Growth of Indian, providing different conclusions depending upon combination of variables, methodologies and tests used.

**Sarkar, Rahul (2017)** in a previous study titled "Hot Money of the Foreign Institutional Investors and BSE Sensex: An Empirical Analysis of the Degree of Association" using yearly data on BSE Sensex (Used as a proxy for Economic Growth) and FII flow in India over a period of 17 years provided evidence of significant positive association between FII flow and BSE SENSEX. It also evidenced a strong positive correlation between FII flow and Gross Domestic Product (GDP) Growth Rate in India.

In a study by **Dr.RitikaSinha** concluded that FIIs has strong implications on Indian economy. In fact FIIs are more than just money. It represents investor s sentiments.FII inflows and control have emerged as important policy issue in India. Among the Indian policymakers, FIIs flows are believed to have a positive impact on the country s development.

**Yoon Jung Choi and JunghoBaek (2017)** in their study titled "Does FDI Really Matter to Economic Growth in India?" examined the productivity spillover effects from India s inward Foreign Direct Investment (FDI), controlling for trade, in the framework of the co-integrated vector auto-regression (CVAR). They concluded that FDI is an engine of economic growth in India.

**Ozturk and Kalyoncu (2007)** investigated the causality between GDP and FDI of Pakistan and Turkey. In their comparative study they found that it is GDP that causes FDI in the case

of Pakistan, while there is strong evidence of a bi-directional causality between the two variables for Turkey.

**Hansen and Rand (2006)** argued that FDI promotes economic growth of a country, but to the extent at which a country can be benefited by FDI, which in turn depends on the country s trade policies, labour force skills and absorptive capabilities.

**Dess (1998)** in a study"Foreign Direct Investment in China: Determinants and Effects", has found that Foreign Direct Investments (FDI) has a significant positive effect on Chinese long-term economic growth.

Contrary to these, studies by **Carkovic and Levine (2005)**, **Aitken and Harrison's (1999)**, **Haddad and Harrison's (1993)** and others do not support the positive relationship between FDI and the economic growth, and concluded that FDI does not have any significant impact on economic growth in the host country.

## RESEARCH METHODOLOGY:

In this study, Gross Domestic Product Growth Rate (GDPG) of India has been used as a proxy for economic growth of India, which is the rate at which the nation s GDP changes/ grows from one period to another. The data for FDI, FII, and GDPG, for a period from 2000 - 2016, i.e. past 17 years data were collected from the Internet by exploring the secondary sources available on various websites. The collected data have been analysed with *EViews 9.5 Software*. First of all data have been put to check normality and then unit-root test have been performed. Finally the impact of FDI and FII on Economic growth of India have been seen through two time series regression models.The analytical tools that have been used in this study are discussed below:

**Jarque-Bera Test for Normality:** The Jarque–Bera (JB) test is a goodness-of-fit test of whether sample data have the skewness and kurtosis matching a normal distribution. The test statistic JB is defined as

$$JB \frac{n-k+1}{6}\left( S^2 + \frac{1}{4}(C-3)^2 \right)$$

Where n is the number of observations (or degrees of freedom in general); S is the sample skewness, C is the sample kurtosis, and k is the number of regressors.

The null hypothesis (H0) for the test is that the data come from a normal distribution ( that means the H0 of the JB test is a joint hypothesis of the skewness being zero and the excess kurtosis being zero); the alternative hypothesis (H1) is that the data does not come from a normal distribution.

With a P-Value > 0.05, one would usually say that the data are consistent with having skewness and excess kurtosis zero. A high P-Value is expected here because we use normally distributed random numbers.

**Unit root test:** Unit root test is used to test whether the averages of Sensex and FII flows are stationary or not. The study tested the stationary of variables by using Augmented Dicky-Fuller Test (ADF). ADF test is an augmented version of the Dicky- Fuller test for a larger and more complicated set of time series model. The augmented dicky-fuller test (ADF) statistics, used in the test, is a negative number. The more negative it is, the stronger the

rejections of the hypotheses that there is a unit root at some level of confidence. Advantages of ADF is that it corrects for higher order serial correlation by adding lagged difference term on the right-hand side. The testing procedure for the ADF test is the same as for the Dickey-Fuller test but it is applied to the model:

$$\Delta y_c = \alpha + \beta_t + yy_{c-1} + \delta\Delta y_{c-1} + \ldots\ldots + \delta_{p-1}\,\Delta y_{c-p+1} + \varepsilon c$$

In the above equation, $\alpha$ is constant, the $\beta$ coefficient on a time trend and p the lag order of the autoregressive process. Imposing the constraints $\alpha = 0$ and $\beta = 0$ corresponds to modelling a random walk and using the constraint ² = 0 corresponds to modelling a random walk with a drift. [**Shrimal and Jhala (2016)**].

**Model Building:** After the above two test, with the three normally distributed stationary stochastic time series variables the following two simple time series regression model have been constructed to estimate the impact that FDI and FII individually have on the economic growth of India, where GDP Growth rate (GDPG) have been used as a proxy for economic growth of India.

**Model (a):**
$GDPG_t = \alpha + \beta*FDI_t + \varepsilon_t$
$H_{01}$: FDI has no significant impact on GDP growth rate.
$H_{11}$: FDI has significant impact on GDP growth rate.

**Model (b):**
$GDPG_t = \alpha + \beta*FIIt + \mu t$
$H_{02}$: FII has no significant impact on GDP growth rate.
$H_{12}$: FII has significant impact on GDP growth rate.

Here, $\alpha$ represents the constant term, ² represents the coefficient of the respective independent variables, i.e. FDI in case of model (a) and FII in case of model (b). µ is white-noise error term.

## SCOPE OF THE PAPER AND LIMITATIONS:

The study was based on yearly average data for past seventeen years. So only limited inference could have been drawn from it. As quarterly data are also available for all variables under study, so a similar study with quarterly data would give more accurate information. Another limitation of the study is that only past seventeen years data have been used for analysis. A longer period would have been more informative.

## ANALYSIS AND FINDINGS OF THE STUDY:

The objectives of the study as discussed in section III of the study have been achieved with the help of appropriate statistical tests and the results of these tests have been presented in this section: The Table1 represents the Jarque-Bera test of Normality for all the three study variables, namely GDPG, FDI, and FII. As from the probability of Jarque-Bera Stat of all the three variables are well above 0.05, so we accept the null hypothesis that the data come from a normal distribution for all the three variables.
The Table 2 gives a descriptive account of all the three normally distributed variables. The GDPG which have been used as a proxy for economic growth of India shows 17 years

average rate as 6.9965%. Which implies that over the past 17 years the GDP of India has grown on an average 6.9965% year-on-year basis. This is quite satisfactory. Even if we compare 2016 GDP Growth of India (7.1%) with the World GDP Growth rate (2.499%) then also we can conclude that India is still better off in terms of Economic Growth. The standard deviation which is a measure of absolute dispersion of the data set from its mean value, shows it is 2.0081. Which means variability on either side is ±2.0081. This is also not very high, implies stable GDP growth rate.

The Table 3 above shows the result of unit-root test through Augmented Dicky-Fuller Test (ADF Test). As it can be seen that P-Values for both GDPG and FDI are more than 0.05, so we accept the null hypothesis of presence of unit-root in both these data series and conclude that both the series are non-stationary at level. But at first difference, as we can see the P-Values are well below 0.05, so we reject the null hypothesis and conclude that both the data series are stationary at first difference. So, hereafter, these two sets of first difference stationary series (i.e. GDPG and FDI) are to be regarded as GDPG1 and FDI1 respectively, here „1‟ is used to represent 1st difference.

As for FII, the P-Value at level is well below 0.05, hence we reject the null hypothesis and conclude that FII data series is stationary at level.

In the next part we will directly look after the impact that FDI1 and FII have on Economic Growth of India. The summary Result of the two simple time series regression have been presented in Table 4:

The summarised result of both the models are presented above for the regression equation of GDPG1 on FDI1 (in case of Model a) and on FII (in case of Model b). For Model a, R squared value is found to be 0.3295, which means as much as 32.95% variation in GDP Growth is explained by Foreign Direct Investment only. Looking at the P-value of F-statistic (i.e. 0.0200), we can conclude that the model is highly statistically significant as it is less than 0.05. OLS method of regression assumes no auto-correlation in the residuals. Durbin-Watson Stat (D-W Stat) may be used to check to auto-correlation problem, which can vary from 0 to 4. Value close to 2 meaning there is no autocorrelation in the residuals. D-W stat., from the same Table 4 above, is found to be very close to 2 (D-W Stat = 2.1209). So it can be stated that adjacent residual/ error term (for first order only) are not correlated. So, the assumption of independent errors (no autocorrelation) is met in model a. Looking at the coefficient of FDI, which is positive, we can say increase in FDI will increase economic growth of India in terms of GDP growth rate. This coefficient of FDI is also statistically significant (as the P-value of FDI1 which is 0.0200 < 0.05).

| | GDPG | FDI | FII |
|---|---|---|---|
| **Jarque-Bera Stat** | 0.9167 | 1.5323 | 0.4193 |
| **Probability** | 0.6324 | 0.4647 | 0.8108 |

Table 1: Result of Jarque-Bera test of Normality; Source: Author Computed with EViews 9.5 .

|  | GDPG | FDI | FII |
|---|---|---|---|
| Mean | 6.9965 | 23.1550 | 46148.17 |
| Standard Deviation | 2.0081 | 15.4016 | 51284.13 |
| Observations | 17 | 17 | 17 |

Table 2: Result of Descriptive Analysis; Source: Author Computed with EViews 9.5

| Variables | At Level | | At First Difference | |
|---|---|---|---|---|
|  | t-statistics | P-Values | t-statistics | P-Values |
| GDPG | -2.9959 | 0.0583 | -3.9463 | 0.0111 |
| FDI | -0.9463 | 0.7452 | -4.2197 | 0.0062 |
| FII | -3.7657 | 0.0135 | NA | NA |

Table 3: Result of ADF test for Stationarity; Source: Author Computed with EViews 9.5

**Dependent Variable (for both the Models): GDPG1**

|  | Model (a) | | Model (b) | |
|---|---|---|---|---|
| R-Squared | 0.3295 | | 0.2484 | |
| Adjusted R Square | 0.2817 | | 0.1945 | |
| F-Statistic | 6.8827 | | 4.6226 | |
| P-Value | 0.0200 | | 0.0495 | |
| Durbin-Watson Stat | 2.1209 | | 1.8650 | |
|  | Coefficients | P-value | Coefficients | P-value |
| Intercept | 0.6434 | 0.2390 | -0.8838 | 0.2470 |
| Beta ($\beta$) Coefficients | 0.1696 (FDI1) | 0.0200 | 2.25E-05 (FII) | 0.0495 |

Table 4: Summary result of the two Regression Models; Source: Author Computed with EViews 9.5

Now, results of Model b, in the right hand side of the same table 4 above shows R-squared value of 0.2484, which means as much as 24.84% variation in GDP Growth is explained by Foreign Institutional Investment only. Probability value of F-Statistic is found to be 0.0495 which is less than 0.05, so with 95% level of confidence it can be concluded that the model b, is also highly statistically significant. In this model also the Durbin-Watson stat is very close to 2 (D-W stat = 1.8650). So it can be stated that adjacent residual/ error term (for first order only) are not correlated. So, the assumption of independent errors (no autocorrelation)

is met in model b also. The coefficient if FII is also positive, so we can say an increase in FII will increase economic growth of India in terms of GDP growth rate. This coefficient of FII is also statistically significant (as the P-value of FDI1 which is 0.0495 < 0.05).

OLS (Ordinary Least Square) method of regression assumes that the error terms be normally distributed. To check this assumption, Residual Normality Test using Jarque-Bera test is done for both the models and the extracted result is presented in the following table.

| Model (a) | | Model (b) | |
|---|---|---|---|
| Jarque-Bera Stat | 0.5362 | Jarque-Bera Stat | 0.6852 |
| Probability | 0.7648 | Probability | 0.7098 |

Table 5: Summary result of Residual Normality Test Source: Author Computed with EViews 9.5

From the above table it is seen that probability values of Jarque-Bera stat of residuals for both the models are well above 0.05 (i.e. 0.7648 for Model a, and 0.7098 for Model b), therefore accepting the null hypothesis that residuals are normally distributed under both the models.

Another main assumption of Classical Linear Regression Model (CLRM) is that the error term is homoscedastic (i.e. same variance). So if there is "non-constant" error term, the problem that arises is termed as Heteroskedasticity. So a test of Heteroskedasticity is done using Breusch-Pagan-Godfrey Test and the result is given in Table (6) below:

| Model a | | | | Model b | | | |
|---|---|---|---|---|---|---|---|
| F-Statistic | 1.7974 | Prob. F(1,14) | 0.2014 | F-Statistic | 0.0454 | Prob. F(1,14) | 0.8343 |
| Obs*R-squared | 1.8204 | Prob. Chi-Square(1) | 0.1773 | Obs*R-squared | 0.5175 | Prob. Chi-Square(1) | 0.8200 |
| Scaled Explained SS | 0.9591 | Prob. Chi-Square(1) | 0.3274 | Scaled Explained SS | 0.0374 | Prob. Chi-Square(1) | 0.8466 |

Table 6: Result of Breusch-Pagan-Godfrey Test for Heteroscedasticity; Source: Author Computed with EViews 9.5

From the table above, the Probability Value of Observed R-Squared is 0.1773 for Model a, and 0.8200 for Model b. Both are more than 5%, so the null hypotheses of equal variance for both the model have been accepted. So it can be concluded that there is no Heteroskedasticity problem in either of the two models.

## CONCLUSION AND RECOMMENDATIONS:

So far as the findings of the study reveals, both the FDI and FII, individually, significantly influence the economic growth of India, and they do positively impact the economic growth of India. The results are highly reliable as the models are significant at 5% level of significance with normally distributed error term and no auto-correlation and heteroskedasticity problems. So, from the viewpoint of policymaking, the study is of high significance. The national and international policies of India should be so designed that it creates a favorable environment in India so as to attract more and more foreign funds, i.e. both FDI and FII. As a consequence Indian economic growth would be faster and it would further step forward towards a developed economy.

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# Impact of Technical Analysis on Trading Strategies of Small Traders' in Indian Stock Market: An Experiment with Primary Data

## Sarbajit Paul*, Dr Mangilal Taparia** & Dr Gautam Mitra***

## ABSTRACT

### Purpose

In this paper we measure the efficacy of Technical Analysis (TA) in stock market operation based on a survey process among the small investors as well as traders. More specifically, our purpose is to determine the position of selected respondent traders as well as small investors before and after adoption of technical analysis.

### Methods

We have applied a structured closed ended questionnaire consisting of thirteen attributes relating to the small traders trading operation. A sample of 113 respondents has been selected at random from different parts of West Bengal. Our sample has been divided into two groups. Group A: Traders who did not flow TA at all either before or after their trading or investment decision. Group B: Traders who followed TA before or after their trading or investment decision. We have applied „F-test  and paired- t-test

### Findings

Both the tests suggest that there has been a significant improvement in putting their opinion and taking trading decision before and after adoption of TA into their trading activities.

### Implications

We are not aware of this kind of study in the context of West Bengal to the best of our knowledge. In view of the above, our research makes a significant contribution in the area of uses of TA by small investors and traders**.**

### *Key words:*

Technical Analysis, Price Fluctuation, F-test, t-test

## INTRODUCTION

In 17th century first time Japanese analysts experimented the TA on the price changes in rice. Now huge number of people and practitioners of different financial markets admire and appreciate the usefulness of TA. Under this method a trader or investor does not think about the company s financial position, company s brand value or intrinsic value of the share or any corporate announcement like dividend declaration, bonus issue but focus on the price change and volume accumulation of the share in the market place. Actually TA concentrates on short-term price fluctuation of a financial market based on historical data.

* Assistant Professor, Dept. of Commerce, Chakdaha College, Nadia, W.B. India.
** Associate Professor, Dept. of Commerce, Chandidas Mahavidyalaya, Khujutipara, Birbhum, W.B. India.
*** Professor, Dept. of Business Administration, University of Burdwan, W.B. India

One of the most important assumptions of TA is that price follows the trend unless and until the trend is break. In this paper we have measured the efficacy of the TA by a survey mechanism. We have used likert scale for tabulating and scoring the data. Simple statistical test have been applied for validating the result.

## LITERATURE REVIEW

Shaik, A.M.P. et.al. (2012) have outlined the investment objectives of retail equity investors in India. The main objective of their study is to find out the investment pattern of Indian retail equity investors based on the socio-economic variables and various factors like liquidity, quick gain, capital appreciation, safety, dividends and investors demographic profile. They have collected primary data of 500 respondents of Krishna district – a state of Andhra Pradesh based on questionnaire survey. To validate their result they have applied average rank analysis, average score analysis and Kruskal Wallis H-Test. The test result reveals that there exist a significant difference in average scores in different classes of investor regarding their investment objectives and investment objectives vary in response to their socio-economic condition and investment profile.

Baker ,M. and Wurgler, J. (2007) have expressed their views about the investors sentiment in stock market. They have provided a sentiment seesaw diagram where they analyzed the theoretical effects of investors sentiment on different types of stock. Mentioning the fact that, measuring the investors sentiment are not a simple task so they attached some generic factors with sentiment measurement and then proceeds for the proxies for the sentiment. They have described a sentiment index with its functional aspects and use the sentiment for predicting stock returns. They found sentiment affects the cost of capital. They concluded that their paper explained the „top down  approach to behavioral finance and investor s sentiments have faced a number of challenges.

Tripathi, V. (2008) has conducted a survey on 93 respondents including investment analysts, fund managers and active equity investors of Delhi and Mumbai during May to October, 2007 to identify the perception, preferences and various investment strategies in Indian stock market. The method she has applied is structured questionnaire consisting of ten questions relating to the perception, preferences and investment strategies. She found five investment strategies like size based strategies, momentum strategies, FII investment behavior, 30 days moving average and Relative Strength Index applied mostly in Indian equity market over the study period and the investors use both fundamental and technical analysis techniques while investing in Indian stock market.

## RESEARCH QUESTIONS

The main objective of the study is to determine the position of selected respondent traders before and after adaptation of technical analysis techniques. However, this main research question is divided into following two subthemes.

1. Respondents mean observations regarding usefulness of technical analysis (before and after adaptation of technical analysis) in their day by day trading experience in Indian stock market and

2. Variance of opinion regarding usefulness of technical analysis (before and after adaptation of technical analysis).

We are trying to investigate empirically the impact of technical analysis techniques in the traders every day trading platform. Especially we are focusing on various aspects like sensitive information, trading signals, ability to earn high return etc. from the market by utilizing the concept.

## DATA AND METHODS

### Selection of Sample

The study has been conducted to measure the efficacy of Technical Analysis based on the observations of the respondent before and after application of technical analysis techniques in their every day trading. A sample of 113 respondents has been selected at random from different parts of West Bengal, assuming true representative of the population.

### Selection and Description of Tool

The tool that has been selected to collect the opinion of sample respondents is structured questionnaire. The detailed about the tool is discussed below:

### Questionnaire Details

One hundred and thirteen one sets of questionnaire have been prepared to get the separate opinion of each sample respondents regarding his or her trading status or different views relating to the stock market before and after adoption of technical analysis techniques. The questionnaires are structured and close ended. There are thirteen attributes related to the trading information, trading signals, operations, possibilities of higher returns, cost effectiveness etc. on technical analysis techniques in each set, subjects to five options viz. strongly agree, agree, neutral or no comment, disagree and strongly disagree having different scores for each of them.

### Collection of Data

The primary data have been collected directly from one hundred twenty nine sample respondents through online investigation, producing hard copy of questionnaire sheet and personal meetings by the investigator himself

### Tabulation and Scoring

The data obtained from sample respondent traders are scored, keeping in mind the „Likert Scoring System . Score one is allotted to each „strongly disagree response. Score two is allotted to each „disagree response, score three is allotted to each „neutral or no comment response, score four is allotted to each „agree response and score five is allotted to each „strongly agree response.

## HYPOTHESES

For the purpose of our empirical research, we frame the following research hypothesis.

### Difference in mean of opinion before and after adoption of technical analysis:

$\mu_1$ denotes the mean opinion of respondent traders before applying the technical analysis and $\mu_2$ stands for the mean opinion of respondent traders after adoption of technical analysis.

### Null Hypothesis ($H_0$)

$H_0$: Traders are not positively differing in their opinion (mean opinions of respondent traders

are not change) after adoption of technical analysis i.e. it remains unaffected as before. **(H$_0$: μ$_1$ = μ$_2$)**

**Alternative Hypothesis (H1)**

**H1:** Traders are positively differ in their opinion (mean opinions of respondent traders are positively changed) after adoption of technical analysis. **(H$_1$: μ$_1$ < μ$_2$ )**

**Variance of opinion before and after uses of technical analysis:**

σ$_1^2$ symbolizes the variance of opinions of respondent traders before taking the help of technical analysis and σ$_2^2$ represents the variance of opinion of respondent traders after adoption of technical analysis.

**Null Hypothesis (H$_0$)**

**H$_0$:** The variances of opinion of traders before and after introduction of technical analysis into their trading activities are consistent or not differ significantly. **(H$_0$: σ$_1^2$= σ$_2^2$)**

**Alternative Hypothesis (H$_1$)**

**H$_1$:** The variances of opinion of respondent traders are changed positively (i.e., the opinion are not consistent) after application of technical analysis concept into their trading activities. **(H$_0$: σ$_1^2$ > σ$_2^2$)**

**Statistical Technique Used**

The data has been tabulated and analyzed keeping in view the objective of the study/spelt out and hypotheses formulated. Primarily we have applied paired 't-test' to measure the positive difference of opinion of sample traders. 'F-test' has also been used to study the consistency of opinion of selected respondents before and after adoption of technical analysis and this test also measure whether the consistency level is statistically significant or not. The test has been conducted at 1% significance level.

We have applied paired 't-test' to study the positive change of respondents opinion before and after adoption of technical analysis. The test helps us to catch the efficacy of the technical analysis tools in the real trading activities. The test statistic of paired 't-test' is:

$$t = \frac{\overline{d}}{S/\sqrt{n-1}}$$

Where $\overline{d}$ stands for the mean of differences of $di$, S represents the standard deviation of the differences of $di$ and n is the number of sample observations.

That means,
$$\overline{d} = \frac{\sum di}{n} \text{ and}$$

$$S = \sqrt{\frac{\sum(di-\overline{d})^2}{n}}$$

This statistic follows t distribution with (n-1) degrees of freedom.

After getting the satisfactory result from paired 't-test', we have applied difference in variance analysis test. Here we applied 'F-test' which enables us to ascertain the degree of consistency among the trading behavior of the studied respondents before and after adoption of technical analysis technique. This test also helps us to judge the influence of technical analysis techniques in the trading tricks among the respondents. The test statistic of 'F-test' is being placed in the following manner:

$$F = \sigma_1^2/\sigma_2^2, \text{ d.f. } V_1 = (n_1 - 1) \text{ and } V_2 = (n_2 - 1)$$

$\sigma_1^2$ and $\sigma_2^2$ represents the two variances under two situations, before and after adoption of TA. $\sigma_1^2$ stands for larger variance of opinion in any situations and $\sigma_2^2$ stands for smaller variance in any situations. $V_1$ and $V_2$ are the degrees of freedom relating to larger and smaller variance respectively where $V_1 = (n_1 - 1)$ and $V_2 = (n_2 - 1)$. N is the number of sample observations.

**Demographic Profile of the Respondents**

Primary data have been collected from 129 respondents consisting of the traders who are applied TA directly into their trade, taking trade with specific improvised model originated from TA, taking tips from the experts based on TA, uses software based on TA techniques, automatic buy and sell signal generating applications based on TA and the technical analysts. After scrutinizing all the observations we have short listed 113 replies of the respondents which are suitable for the analysis and reject 16 respondents observations which are shown in Exhibit-1. Out of 113 observations we have had 103 (91%) male respondents and 10 (09%) female respondents. We have received 30 (27%) replies from the respondents whose age between 20 to 40 years and 61(54%), 18 (16%), 04 (03%) observations from the age ranging 41 to 50, 51 to 60 and above 60 years respectively. 28 (25%) respondents having up to higher secondary level of education, 66 (58%) having the graduate degree, post graduation degree attained by 17 (15%) respondents and 2 (02%) are the professional. We have four category of respondents occupation of which 32 (28%) service holder, 55 (49%) business man, 03 (03%) professional and 23 (20%) belong to the other occupation. 13 (11%) of total respondents under study earns below Rs.20000 per month. 55 (49%) of the respondents having the income in the range of Rs. 20001 to Rs. 50000 per month. 39 (34%) respondents monthly income between Rs. 50000 to one lakh and rest respondents consisting of 06 (06%) of total respondents having monthly income above one lakh.

**Exhibit: 1: Demographic Profile of the Respondent with group percentage**

| Demographic Profile | Groups | Frequency | Total Sample | Group (%) |
|---|---|---|---|---|
| Gender | Male | 103 | 113 | 91 |
| Female | 10 | 9 | | |
| Age | 20 to 40 years | 30 | 113 | 27 |
| 40 to 50 years | 61 | | | 54 |
| 50 to 60 years | 18 | | | 16 |

| | Above 60 years | 4 | | 3 |
|---|---|---|---|---|
| Education | Up to H.S. | 28 | 113 | 25 |
| | Graduation | 66 | | 58 |
| | Post Graduation | 17 | | 15 |
| | Professional | 2 | | 2 |
| Occupation | Service | 32 | 113 | 28 |
| | Business | 55 | | 49 |
| | Professional | 3 | | 3 |
| | Others | 23 | | 20 |
| Monthly Income Range | Below Rs.20000 | 13 | 113 | 11 |
| | Rs.20000 to Rs.50000 | 55 | | 49 |
| | Rs.50000 to 1 lakh | 39 | | 34 |
| | Above 1 lakh | 6 | | 6 |

Exhibit: 1: Demographic Profile of the Respondent with group percentage
(Source: Primary data)

## FINDINGS AND DISCUSSION

### Test result as per research question I

To judge the difference in the mean of opinion of respondent traders before and after adoption of technical analysis we have used paired „t test and to identify the variances of opinion of respondent traders before and after adoption of technical analysis we have applied „F test. We have analyzed and interpreted both the test results and their statistical significance through the following Exhibit-3 & 4.

### Findings from the paired t-test

| Attribute | Differences of Mean (d) | Differences of SD ($\sigma^2$) | Calculated Value of 't' | T.V. of 't' at 1% sig. Level (0.01) | Degrees of Freedom (d.f.) | Hypothesis Accepted $H_o / H_1$ |
|---|---|---|---|---|---|---|
| Respondents opinion, before and after adoption of Technical Analysis: | d = 19.86 | $\sigma^2$ = 8.43 | t = 24.825 | 2.360 | 112 | H1 |
| N: 113, d = 19.86, $\sigma^2$ = 8.43, calculated „t -value = 24.825, T.V. of 't' (One Tail) = 2.360, Sig. Lev. 1% i.e. 0.01, d.f. 112, $H_1$: accepted. | | | | | | |

Exhibit: 3: Result of paired t-test

Paired t-test reveals that the opinion of respondents differ significantly after adoption of TA in determining their investment strategy as the calculated value of 't' (i.e. 24.825) is exceeds the table value of 't' (i.e. 2.360) at 1% significance level with 112 degrees of freedom (i.e. H0 rejected). So the alternative hypothesis (H1) is accepted, which considers the positive impact, therefore it can be concluded that technical analysis creates a positive change among the traders opinion and they are positively influenced by technical analysis concept.

**Findings from the F test**

**Test result as per Research Question II**

| Attribute | Variances ($\sigma 2$) | Calculated Value of 'F' | T.V. of 'F' at 1% sig. Level (0.01) | Degrees Of Freedom ($V_1/V_2$) | Hypothesis Accepted $H_o/H_1$ |
|---|---|---|---|---|---|
| Respondents' opinion, before and after adoption of Technical Analysis: | $\sigma_1^2$= 46.10 $\sigma_2^2$= 28.71 | 1.6057 | 1.556 | 112/112 | $H_1$ |
| $N_1$:113, N2:113, $\sigma_1^2$ = 46.10, $\sigma_2^2$= 28.71, calculated 'F'-Value = 1.6057, T.V. of 'F' = 1.556, Sig. Lev. 1% i.e. 0.01, d.f. $v_1$:112/$v_2$:112, $H_1$: accepted. | | | | | |

Exhibit: 4: Result of F- Test

**F-Test** reveals that the variances of opinion of respondent traders before and after adoption of technical analysis are significantly different as the calculated value of 'F' (i.e. 1.6057) is higher than table value of 'F' (i.e. 1.556) at 1% significance level with 112/112 degrees of freedom (i.e. $H_1$ accepted). Here the larger variance $v_1$ is 46.10 and smaller variance, $v_2$ is 28.71 and the ratio is greater than 1 meaning that we consider only 'the right (the positive) tail of the F distribution as we are interested in knowing whether the first V is equal to or greater than the second (Garrett, H. E., p.287). As the alternative hypothesis ($H_1$) is accepted meaning that they are not consistent in putting their opinion, they are significantly differ in putting their opinion after adoption of TA therefore it can be concluded that traders are positively influenced by technical analysis and their trading activities are different after taking the support of the technical analysis techniques.

The statistical result proved that in both the cases paired 't' test (difference in mean opinion) and 'F' test (difference in variance of opinions i.e. degree of consistency), the opinion of the respondents are significantly change before and after the adoption of technical analysis concept. The findings of the study confirm that technical analysis created confidence among the trader for their betterment and smooth and profitable trading execution.

**CONCLUSIONS & POLICY IMPLICATIONS**

So, both the test result revealed that TA has an impact on traders activities during carry out their everyday trading.

## LIMITATION OF STUDY AND SCOPE FOR FURTHER RESEARCH

State wise data could be collected.

There is scope for inter country study.

There is scope for intertemporal studies.

More in-depth or politically sensitive questions could be asked. However the same have been avoided for obvious reason.

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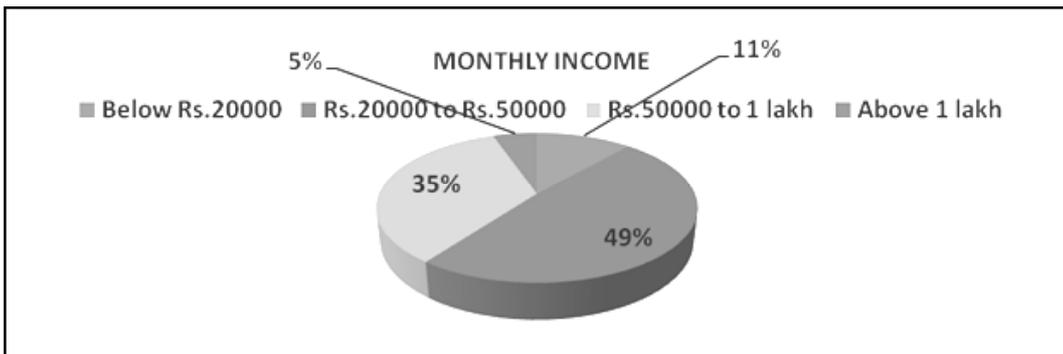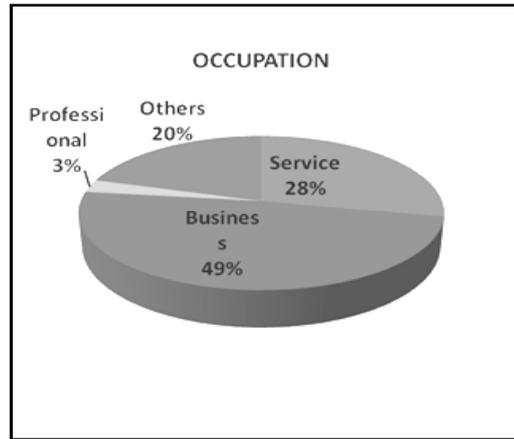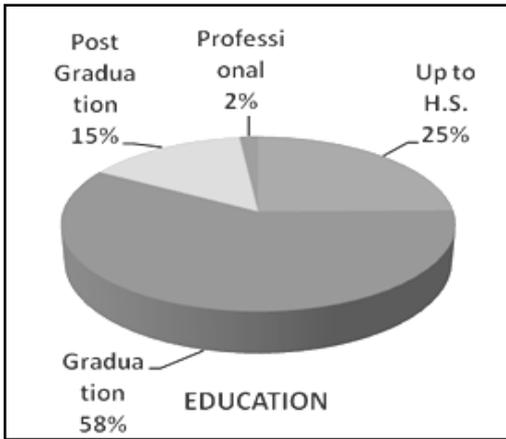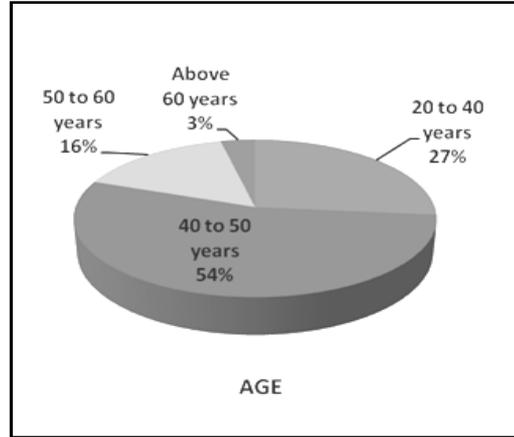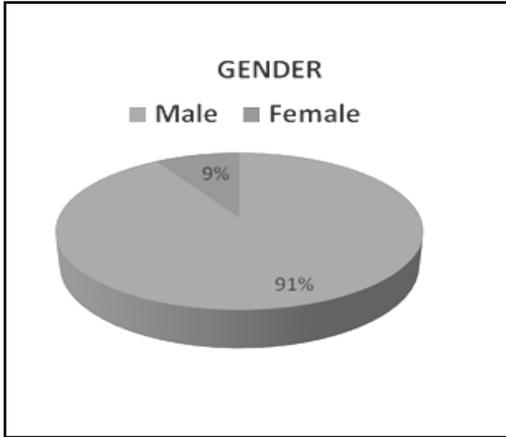
**Appendix**
Exhibit: 2: Chartical Representation of Demographic Profile of the Respondents

# Questionnaire for Measurement of Effectiveness of Technical Analysis (TA) as a strategy for Trade and Investment in Indian Stock Market

I am Sarbajit Paul, a Phd scholar at the Department of Commerce, The University of Burdwan. My objective behind monitoring this questionnaire is to measure the efficacy of technical analysis in stock market.This questionnaire is meant for technical analysts and the other who use automatic buy and sell signal chart based on technical analysis and get regular tips from technical analyst. We seek opinion of those analysts and traders in relation to 13 attributes before and after use of technical analysis. Your identity will be kept confidential and inputs will be processed strictly for academic exercises. If you have any queries, please feel free to mail or call me at paulsarbajit06@gmail.com or 7980031331.I am waiting for your response.

1.
**Trend identification**

*Mark only one oval per row.*

|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agreee |
|---|---|---|---|---|---|
| Before Adoption of TA | ◯ | ◯ | ◯ | ◯ | ◯ |
| After Adoption of TA | ◯ | ◯ | ◯ | ◯ | ◯ |

2.
**Corporate announcement reflects in the stock prices**

*Mark only one oval per row.*

|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agreee |
|---|---|---|---|---|---|
| Before Adoption of TA | ◯ | ◯ | ◯ | ◯ | ◯ |
| After Adoption of TA | ◯ | ◯ | ◯ | ◯ | ◯ |

3.
**Entry and exit timings of the tarde**

*Mark only one oval per row.*

|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agreee |
|---|---|---|---|---|---|
| Before Adoption of TA | ◯ | ◯ | ◯ | ◯ | ◯ |
| After Adoption of TA | ◯ | ◯ | ◯ | ◯ | ◯ |

4.
**Indicators' signals**

*Mark only one oval per row.*

|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agreee |
|---|---|---|---|---|---|
| Before Adoption of TA | ◯ | ◯ | ◯ | ◯ | ◯ |
| After Adoption of TA | ◯ | ◯ | ◯ | ◯ | ◯ |

*Cont. ...*

## 5. Trading accuracy

*Mark only one oval per row.*

|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agreee |
|---|---|---|---|---|---|
| Before Adoption of TA | ( ) | ( ) | ( ) | ( ) | ( ) |
| After Adoption of TA | ( ) | ( ) | ( ) | ( ) | ( ) |

## 6.
### Foreign market movement information

*Mark only one oval per row.*

|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agreee |
|---|---|---|---|---|---|
| Before Adoption of TA | ( ) | ( ) | ( ) | ( ) | ( ) |
| After Adoption of TA | ( ) | ( ) | ( ) | ( ) | ( ) |

## 7.
### Easy to operate in trading activities

*Mark only one oval per row.*

|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agreee |
|---|---|---|---|---|---|
| Before Adoption of TA | ( ) | ( ) | ( ) | ( ) | ( ) |
| After Adoption of TA | ( ) | ( ) | ( ) | ( ) | ( ) |

## 8.
### Easier Day Trading and Swing Trading

*Mark only one oval per row.*

|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agreee |
|---|---|---|---|---|---|
| Before Adoption of TA | ( ) | ( ) | ( ) | ( ) | ( ) |
| After Adoption of TA | ( ) | ( ) | ( ) | ( ) | ( ) |

## 9.
### Possibilities of Higher return

*Mark only one oval per row.*

|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agreee |
|---|---|---|---|---|---|
| Before Adoption of TA | ( ) | ( ) | ( ) | ( ) | ( ) |
| After Adoption of TA | ( ) | ( ) | ( ) | ( ) | ( ) |

## 10.
### Trading based on sensitive information

*Mark only one oval per row.*

|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agreee |
|---|---|---|---|---|---|
| Before Adoption of TA | ( ) | ( ) | ( ) | ( ) | ( ) |
| After Adoption of TA | ( ) | ( ) | ( ) | ( ) | ( ) |

## 11.
### Future price projection

*Mark only one oval per row.*

|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agreee |
|---|---|---|---|---|---|
| Before Adoption of TA | ( ) | ( ) | ( ) | ( ) | ( ) |

|                    | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agreee |
|--------------------|-------------------|----------|---------|-------|-----------------|
| After Adoption of TA | ⬭ | ⬭ | ⬭ | ⬭ | ⬭ |

12.

**Volume and Open Interest tracking**

*Mark only one oval per row.*

|                    | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agreee |
|--------------------|-------------------|----------|---------|-------|-----------------|
| Before Adoption of TA | ⬭ | ⬭ | ⬭ | ⬭ | ⬭ |
| After Adoption of TA | ⬭ | ⬭ | ⬭ | ⬭ | ⬭ |

13.

**Cost effectiveness**

*Mark only one oval per row.*

|                    | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agreee |
|--------------------|-------------------|----------|---------|-------|-----------------|
| Before Adoption of TA | ⬭ | ⬭ | ⬭ | ⬭ | ⬭ |
| After Adoption of TA | ⬭ | ⬭ | ⬭ | ⬭ | ⬭ |

14.

**Respondent's Occupation**

*Mark only one oval.*

⬭ Service

⬭ Business

⬭ Professional

⬭ Other: _____

15.

**Respondent's Education**

*Mark only one oval.*

⬭ UP To HS

⬭ Graduate

⬭ Post Graduate

⬭ Professional

⬭ Other: _____

16.

**Respondent's Gender**

*Mark only one oval.*

⬭ M

⬭ F

*Cont. ...*

**17. Respondent's Age**

*Mark only one oval.*

( ) 20-40

( ) 40-50

( ) 50-60

( ) Above 60

**18.**

**Respondent's Monthly income level**

*Mark only one oval.*

( ) Below 20 Thousand

( ) 20-50

( ) 50-1 lakh

( ) Above 1 lakh

**19.**

**Respondent's State/ District**

_____

**20.**

**Respondent's Email/Mobile No.(Optional)**

_____

**21.**

**Respondent's Name (Optional)**

_____

Address:                                                M (Optional):

| Your Observations / Attributes | BEFORE ADOPTION OF TA | | | | | AFTER ADOPTION OF TA | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
| Corporate announcement reflects in the stock prices | | | | | | | | | | |
| Trend identification | | | | | | | | | | |
| Entry and exit timings | | | | | | | | | | |
| Indicators' signals | | | | | | | | | | |
| Trading accuracy | | | | | | | | | | |
| Foreign market movement | | | | | | | | | | |
| Easy to Operate | | | | | | | | | | |
| Day Trading and Swing Trading | | | | | | | | | | |
| Possibilities of Higher Return | | | | | | | | | | |
| Sensitive information | | | | | | | | | | |
| Future price projection | | | | | | | | | | |
| Volume and Open Interest | | | | | | | | | | |
| Cost Effectiveness | | | | | | | | | | |

Respondent's Occupation:                     Age:                     Education:                     Gender:

Monthly Income Range: [Below 20K], [20k-50k], [50k-1lakh]  and  [Above 1lakh]

# Market Segmentation in Real Estate Sector at Kolkata: An Application of Cluster Analysis

## Dr. Anirban Majumdar* & Sutapa Pal**

**ABSTRACT**

*It is well recognized that with the growth of economy and urbanization, housing and real estate sector has immense potential to grow fast. This is particularly true in respect of developing nations like India. Since during the initiation of the economic reforms in India, the housing sector has been getting added attention and more conducive environment for its growth, Demand for organized Indian real estate has been increasing day by day. Customers' expectations for residential apartments have also changed rapidly. In such trend of fast-changing demands of customers, developers of real estate or housing complex are involved in creating strong product and brand strategies to match target customer preferences. They put emphasis on segmenting their customers and building their brands for proper positioning. Market segmentation is one of the most important tools by which appropriate marketing strategies are applied. Cluster analysis is a method that helps in grouping customers into homogenous segments based on their needs and preference. In this paper, cluster analysis has been considered for grouping the customer of a real estate project on the basis of two determinants viz. their preference toward configuration of apartments and their income. In the findings of the study, it helps identify homogenous income group of prospects that have preference for different configurations of apartments. Ultimately, the focus of the study is to determine the market segments of a real estate project at Kolkata.*

**Key words:** *Real Estate Sector, Customer Preference, Market Segmentation*

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## INTRODUCTION

In underdeveloped country like India, the real estate sector has the enormous potential for both social and economic development as housing is a primary requisite of human life. It also helps in the development of the economy of the country as it has forward and backward relation with many other industries (Manoj, 2016). At present, in India, it has been observed that the real estate sector which is one of the most revenue generating sectors, shows very high growth and plays a significant role in infrastructural development of the country (Chaturbedi and Sharma 2015). In the liberalized India, a number of investors from the country and abroad have got the opportunity to enter the real estate sector which has become an important component of the big socio economic system to promote economic growth and to create a momentum for industrialization and urbanization (Nithyamanohari1 and Ambika 2014). In

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\* Associate Professor, Future Institute of Engineering and Management, Kolkata Email: animaj1970@gmail.com

\*\* Student, Future Institute of Engineering and Management, Kolkata Email: sutapapal16@gmail.com

price sensitive and competitive market of Indian real estate sector, any investor who is willing to go for long term investment has to be careful about the macro and micro environmental factors viz. market players, regulations and market (Chaturbedi and Sharma2015). Many construction companies are in position to adopt marketing strategies to have several benefits related to profit, sales, client satisfaction and are capable of creating and entering new markets, improving customer loyalty and reputation(Talat Birgonul, and Ozcenk 2005.) In the competitive business environment of India, in real estate sector, construction companies emphasize market segmentation, targeting and positioning for achieving marketing objectives and optimizing the marketing strategy (Mokhtariani et. al.2017). This study focuses on the market segmentation of a housing complex at Kolkata.

## LITERATURE REVIEW

During 1980s a real estate deals in India was concerned about only purchase of land by the customers who generally used the land for their personal purpose. At present, the concept of real estate in India includes the investment of Foreign Investors and Private Equity players for developing residential complexes to fulfill the need for urban housing in the country (Das, 2016). The residential real estate sector in India has got importance with the liberalization of Indian economy in 1990s. The demand of residential real estate and its price has been increased due to rising income, IT enabled services, lowering of interest and foreign direct investment in India (Sandbhor, et.al. 2013).

The success of a real estate company depends on the market analysis on the basis of some important issues viz. employment trends in the market area, the population growth rate in the market area, the best configuration and size of units for the proposed development, number of units absorbed by the market at a price and a specific length of time, percentage of market demand captured, the way to market the units to target market, expected operating revenue of the project, regulatory control, communities' position on the potential development at the proposed location. Ultimately market analysis of any real estate company leads to define market segment and differentiated the project for target customer (Jadhav and Gupta 2015).

In the mid 1950s the concept of market segmentation was put forward by Wendell.R.Smith (Goyat, 2011, Asiedu, 2016). Smith(1956) considered market segmentation as an alternative technique for market development where there are few competitors with identical products. Market segmentation is determined on the basis of certain parameters viz. Demography, Geography, Psychography and Behaviour (Goyat, 2011, Otuedon 2016).

Cluster analysis is defined as a method for identifying homogenous groups of objects called clusters (Sarstedt and Mooi 2014). Therefore, it has many applications for determining market segmentation. Some recent examples are: market segmentation of industrial product like corrugated cardboard through cluster analysis (Grosova et.al.2011), application of cluster analysis as a market segmentation tool for segmenting online shoppers (Prashar et.al.2016), use of cluster analysis as one of the methods of segmenting Patients in hospitals in Jordan (Lamees et.al. 2015), Application of cluster analysis to identify market segments of travelers (Rodriguez Cote et. al 2017).

This study focuses on market segmentation of a residential real estate project of Joka at Kolkata by clustering the homogenous income and age group of customers.

## OBJECTIVE

To determine the market segment of a residential real estate of Joka, Kolkata considering three factors viz. income, budget and purpose of purchasing apartments and their choice of configurations.

## RESEARCH METHODOLOGY

As per the objective of the study it is important to collect data related to three major factors like income of prospects of the real estate project of Joka, their expected budget for purchasing the real estate and their purpose of purchasing apartments. Therefore a questionnaire survey has been conducted mostly at South Kolkata and North and Central Kolkata as well. Here, the expected budget refers to the customers' willingness to pay the amount for purchasing an apartment. Different categories of apartments are available in the above mentioned project based on their configurations. These are denoted by 2bhk, 3bhk and 4bhk apartments. The expected budget has been categorized based on the configuration of apartments. The lowest expected budget for 2bhk and 3bhk apartments is Rs.3000000/- and for 4bhk apartments is Rs.5200000/-.The survey has been conducted with 74 respondents from the different parts of above mentioned area. In this study, the respondents having monthly income of at least Rs. 40000/- has been considered as sample units. The maximum range for monthly income has been fixed at Rs.250000/- .All these 74 respondents were asked about their choice of configurations and the purpose of purchasing the apartment.

Market segmentation of the said Joka Project has been done on the basis of cluster analysis. Cluster analysis can be done with the help of various algorithms that differ significantly in their notion of what constitutes a cluster and how to efficiently find them. One of the most common algorithms is Hierarchical clustering. There are two types of Hierarchical clustering algorithms. These are top-down and bottom-up algorithm. Bottom-up algorithms is known hierarchical agglomerative clustering or HAC. HAC is presented in the form of dendogram, a hierarchical diagram which shows the clusters of different components. This study has considered HAC to form the clusters of prospects for Joka project on the by developing a homogenous group of income, a demographic variable and a homogenous group of expected budget or customers' willingness to pay, a behavioral variable. In order to categorize the above mentioned income and expected budget one categorical variable i.e. the purpose of purchasing apartments has been considered.

## RESULT

The survey result shows that respondents intend to purchase apartments due to three purposes – 1) they will live with their family i.e. Residential purpose, 2) they want have an additional asset i.e. purpose of investing money and 3) they will rent out the apartment i.e. commercial purpose. The result of cluster analysis, considering the income as a demographic variable and the purpose as a categorical variable, is presented in the Figure 1 : Dendogram of income and purpose. The subsequent tables provides detailed explanation of the dendogram. The Table 1 shows that a homogenous group of very high income, ranging from Rs.135000/- to Rs. 250000/-, amongst whom most of them are willing to pay high amount ranging from Rs. 6200000/- to Rs. 9000000/- as per their expected budget. Most of the respondents will purchase those apartments for the purpose of future investment because they consider
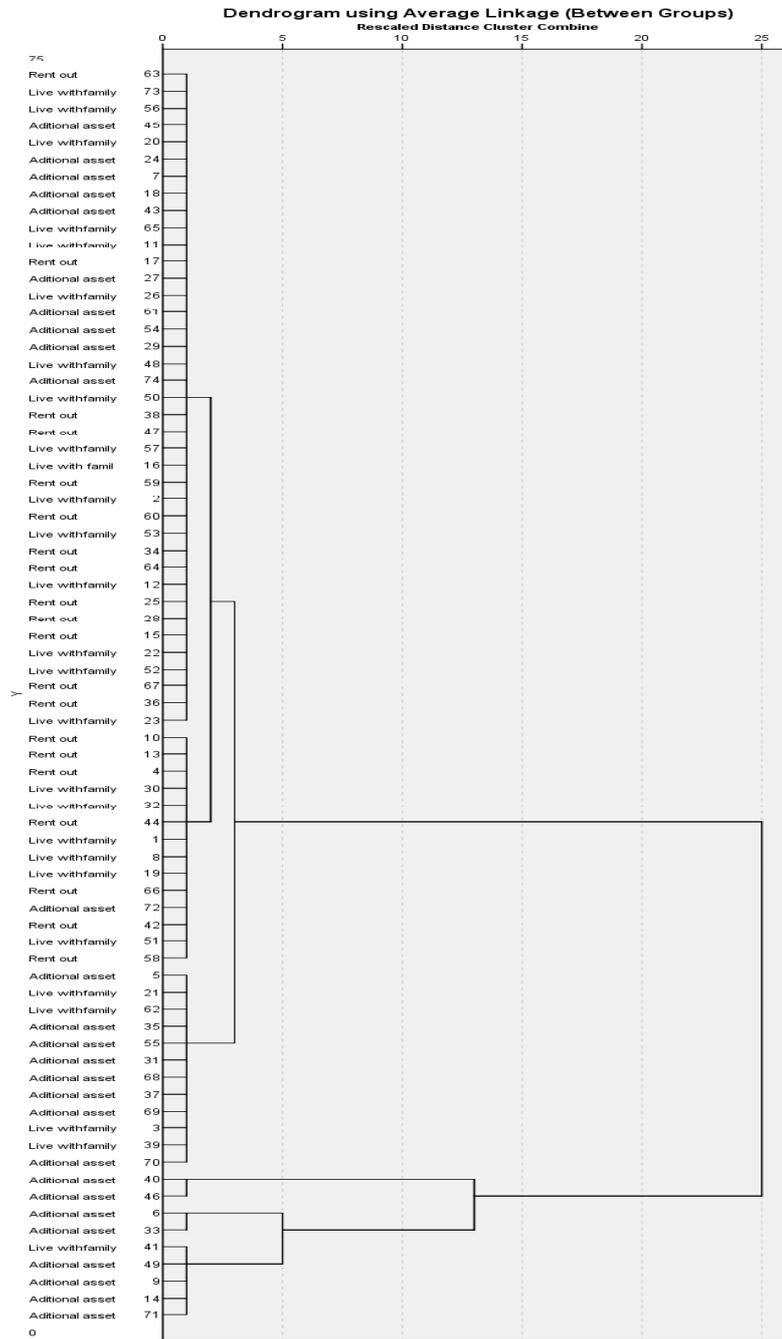
**Figure 1: Dendrogram of income and purpose**

those apartments as their additional assets. Only one respondent will purchase the apartment for residential purpose as they want to live in the apartment with their family. Most of them will purchase 3bhk apartments except two respondents who will purchase 4bhk apartments. There is no demand for 2bhk apartment amongst them.

| Income | Budget | Configuration | Purpose | Respondent |
|--------|--------|---------------|---------|------------|
| 200000 | 7000000 | 3bhk | Additional asset | 6 |
| 150000 | 7000000 | 3bhk | Additional asset | 9 |
| 150000 | 9000000 | 3bhk | Additional asset | 14 |
| 200000 | 6200000 | 3bhk | Additional asset | 33 |
| 250000 | 7000000 | 4bhk | Additional asset | 40 |
| 160000 | 7500000 | 3bhk | Live with family | 41 |
| 250000 | 7200000 | 4bhk | Additional asset | 46 |
| 170000 | 6500000 | 3bhk | Additional asset | 49 |
| 135000 | 3400000 | 3bhk | Additional asset | 71 |

**Table 1: Market Segment of Very High Income**

Table 2 shows that the high income group whose monthly income is ranging from Rs.94000/- to Rs100000/- are grouped together. Most of them are willing to pay from Rs.5200000/- to Rs. 7500000/- for purchasing apartments where as only three respondents have their expected budget ranging from Rs. 3000000/- to Rs. 3300000/-. Most of them invest their money to have an additional asset except four respondents. Four respondents want to use those apartments for residential purpose. Most of them will purchase 3bhk apartment except four. Out of four two will purchase 4bhk apartments as additional assets. In the same group, there are two respondents who will purchase 2bhk apartments. One of them is willing to pay Rs. 6000000/- for a 2bhk apartment where he wants to live with his family and other respondent is willing to pay the lowest amount i.e. Rs. 3000000/- for a 2bhk apartment which will be considered as an additional asset.

Table 3 shows that a market segment of middle income group whose monthly income range is Rs. 60000/- to Rs. 90000/-. Most of them have lower expected budget ranging from Rs.3000000/- to Rs. 6000000/-. Only six respondents have higher expected budget above 75 lakhs rupees. Most of the respondents, approximately 61.5% , want 3bhk apartments whereas the demand for 2bhk apartments among the middle income group is also higher than very high income group and high income group.

| Income | Budget | Configuration | Purpose | Respondents |
|---|---|---|---|---|
| 100000 | 7500000 | 3bhk | Live with Family | 3 |
| 120000 | 6000000 | 3bhk | Additional asset | 5 |
| 120000 | 6000000 | 2bhk | Live with Family | 21 |
| 94000 | 5500000 | 3bhk | Additional asset | 31 |
| 96000 | 5200000 | 4bhk | Additional asset | 35 |
| 100000 | 7500000 | 3bhk | Additional asset | 37 |
| 98000 | 7000000 | 3bhk | Live with family | 39 |
| 96000 | 6200000 | 4bhk | Additional asset | 55 |
| 115000 | 7500000 | 3bhk | Live with Family | 62 |
| 95000 | 3000000 | 3bhk | Additional asset | 68 |
| 100000 | 3000000 | 2bhk | Additional asset | 69 |
| 105000 | 3300000 | 3bhk | Additional asset | 70 |

**Table 2: Market Segment of High Income**

| Income | Budget | Configuration | Purpose | Respondents |
|---|---|---|---|---|
| 70000 | 4000000 | 2bhk | Live with family | 2 |
| 80000 | 5500000 | 2bhk | Additional asset | 7 |
| 75000 | 8000000 | 3bhk | Live with family | 11 |
| 60000 | 7000000 | 2bhk | Live with family | 12 |
| 60000 | 6000000 | 4bhk | Rent out | 15 |
| 70000 | 8800000 | 2bhk | Live with family | 16 |
| 75000 | 4000000 | 3bhk | Rent out | 17 |
| 80000 | 5000000 | 3bhk | Additional asset | 18 |
| 80000 | 5000000 | 3bhk | Live with family | 20 |
| 60000 | 4000000 | 3bhk | Live with family | 22 |
| 64000 | 5000000 | 3bhk | Live with family | 23 |
| 80000 | 5200000 | 3bhk | Additional asset | 24 |
| 60000 | 5000000 | 2bhk | Rent out | 25 |
| 85000 | 5500000 | 3bhk | Live with family | 26 |

| | | | | |
|---|---|---|---|---|
| 76000 | 5600000 | 3bhk | Additional asset | 27 |
| 60000 | 5200000 | 4bhk | Rent out | 28 |
| 87000 | 5700000 | 3bhk | Additional asset | 29 |
| 60000 | 5600000 | 2bhk | Rent out | 34 |
| 63000 | 5000000 | 3bhk | Rent out | 36 |
| 67000 | 5000000 | 2bhk | Rent out | 38 |
| 75000 | 5500000 | 3bhk | Additional asset | 43 |
| 79000 | 5200000 | 3bhk | Rent out | 45 |
| 67000 | 3000000 | 2bhk | Rent out | 47 |
| 87000 | 4000000 | 3bhk | Additional asset | 48 |
| 90000 | 8000000 | 3bhk | Live with family | 50 |
| 63000 | 7500000 | 3bhk | Live with family | 52 |
| 72000 | 8000000 | 3bhk | Live with family | 53 |
| 83000 | 3500000 | 2bhk | Additional asset | 54 |
| 78000 | 4000000 | 3bhk | Live with family | 56 |
| 68000 | 7000000 | 2bhk | Live with family | 57 |
| 70000 | 5000000 | 2bhk | Rent out | 59 |
| 69000 | 3200000 | 3bhk | Rent out | 60 |
| 85000 | 5500000 | 2bhk | Additional asset | 61 |
| 78000 | 3000000 | 3bhk | Rent out | 63 |
| 60000 | 3500000 | 2bhk | Rent out | 64 |
| 75000 | 3200000 | 3bhk | Live with family | 65 |
| 63000 | 3100000 | 3bhk | Rent out | 67 |
| 78000 | 3100000 | 3bhk | Live with family | 73 |
| 88000 | 3500000 | 3bhk | Additional asset | 74 |

**Table 3: Market Segment of Middle Income**

In this middle income group, 33.33% respondents are willing to have 2bhk apartments. In this segment, 36% of respondents want to rent out their apartments. In this segment, approximately 25.6% respondents purchase apartments for developing their additional assets. The rest of the respondents of this middle income group purchases apartment for residential purpose. Table 4 shows the market segment of lower middle income whose monthly income

ranges from Rs. 40000/- to Rs. 53000/-. Most of them have expected budget of lower range of Rs. 3000000/- to Rs. 500000/- except one whose expected budget is Rs.7000000/- and monthly income Rs. 50000/-.

| Income | Budget | Configuration | Purpose | Respondents |
|--------|--------|---------------|---------|-------------|
| 50000 | 7000000 | 2bhk | Live with family | 1 |
| 40000 | 3000000 | 2bhk | Rent out | 4 |
| 50000 | 4000000 | 2bhk | Live with family | 8 |
| 40000 | 4000000 | 2bhk | Rent out | 10 |
| 40000 | 3500000 | 3bhk | Rent out | 13 |
| 50000 | 4000000 | 2bhk | Live with family | 19 |
| 42000 | 5000000 | 2bhk | Live with family | 30 |
| 50000 | 3500000 | 2bhk | Live with family | 32 |
| 52000 | 5000000 | 2bhk | Rent out | 42 |
| 50000 | 5000000 | 2bhk | Rent out | 44 |
| 52000 | 5000000 | 2bhk | Live with family | 51 |
| 53000 | 3500000 | 3bhk | Rent out | 58 |
| 52000 | 3000000 | 2bhk | Rent out | 66 |
| 52000 | 3200000 | 2bhk | Additional asset | 72 |

**Table -4: Market Segment of Lower Middle Income**

In this group, it has been observed that all the respondents will purchase 2bhk apartment except two respondents who has shown interest to purchase 3bhk apartments. In the lower middle income group, it has been observed that approximately 43% respondents purchase apartments for residential purpose whereas 50% respondents purchase apartments to earn from rent. Only one respondent is interested to purchase apartment as a additional asset.

**CONCLUSION**

India has a good prospect for real estate sector, particularly the residential real estate to fulfill the demand for urban and rural housing complexes. A number of private investors, both domestic and foreign investors, are investing a lot in real estate sector in India. In competitive environment real estate companies also implement marketing strategies to satisfy their target market. It is also realized that market segmentation is one of the important factor affecting the optimization of marketing strategy. This study deals with a residential real estate project at Joka, Kolkata. The cluster analysis has been applied as a statistical tool to segment the market mainly based on income of a sample prospects considering other factors like expected budget, purpose of purchasing apartments and choice of configurations. It has

been found that most of the prospects who belong to Very High Income Group will have very high range of expected budget for purchasing mostly 3bhk apartments as additional assets. Similarly, it can be concluded that most of the prospects that belong to High Income Group will have high range of expected budget for purchasing mostly 3bhk apartments as additional assets. The Middle Income Group has moderate range of expected budget for purchasing both 3bhk and 2bhk apartments for residential purpose or to rent out those apartments. Most of the prospects who belong to Lower Middle Income Group have comparatively lower range of expected budget for purchasing mostly 2bhk apartments to rent out.

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# Positioning of Mutual Fund as an Investment Opportunity - A Study on Retail Investors

## Shouvik Mitra* & Sudip Kundu**

**ABSTRACT**

*In recent times, financial markets are appearing to be more efficient and momentous to fight against economic abnormalities. Financial markets are becoming more extensive with wide-ranging financial products trying innovations in designing mutual funds portfolio which requires need-unification in correspondence with investor's expectations. A mutual fund along with their convenient nature, easy operations and high returns expectation induce savings, capital formation and source of income to the retail investors. Despite its growing popularity, mutual funds are not favored by many as it is more dependent upon volatile stock market and lacks of clarity on different product range to satisfy retail investor. Today's investors have a variety of options for investment and thus it is important to understand and analyze investor's perception and expectations and to extract valuable information to understand financial decision on investment criteria. Thus, it has become imperative to study mutual funds from a different angle, which focuses on investor's behavioral perception, expectations and disclose the incognito parameters that are ascribed for their preference or discontentment. This research paper focused attention on number of factors that highlights investors' perception about mutual funds, role and attitude towards purchasing financial instruments and to examine the positioning of financial instruments based on investment criteria. The survey includes 100 retail investors and the data is analyzed using statistical tools to test the level of significance and attribute dependencies on investor's behavioral perception and multi-dimensional scaling to rank the positioning of the investment options.*

***Keywords***: Mutual fund, Behavioral perception, Multi-Dimensional Scaling

## INTRODUCTION

Mutual Fund is a retail product designed to target small investors, salaried people and others who are intimidated by the mysteries of stock market but, nevertheless, like to reap the benefits of stock market investing. In very simple terms, a mutual fund is a pool of money that is managed on behalf of investors by a professional money manager. The professional uses the money to buy stocks, bonds or other securities according to specific investment objectives that have been established for the fund. In return for putting money into the fund, the investor receives proportionate units or shares .The fund manager charges fees based on the value of the investors fund assets. At the retail level, investors are a highly heterogeneous group. Hence, their fund/scheme selection also differs.

In India, a small investor generally goes for such kind of information, which do not provide hedge against inflation and often have negative real returns. He finds himself to be an odd

\* Student, NSHM College of Management & Technology, Kolkata; Ph: 9073031170; Email Id: shouvikmitra.15@nshm.edu.in

\*\* Assistant Professor, NSHM College of Management & Technology, Kolkata; Ph: 9830643008; Email Id: sudipkundu1905@gmail.com

man out in the investment game. Mutual funds have opened new vistas to millions of small investors by taking investment to their doorstep. These funds come, as a much needed help to these investors. Thus the success of MFs is essentially the result of the combined efforts of fund managers and alert investors. A competent fund manager should analyze investor behavior and understand their needs and expectations, to gear up the performance to meet investor requirements. Therefore, in this current scenario it is very important to identify needs of investors, their preference for funds schemes and its performance evaluation. Consumer behavior from the marketing world and financial economics have come together to bring to surface an exciting area for study and research in the form of behavioral finance and it has been gaining importance over the recent years. With reforms in financial sector and the developments in the Indian financial markets, the investment habit of the small investors particularly has undergone a sea change. Increasing number of players from public as well as private sectors have entered in to the market with innovative Mutual Fund schemes to cater to the requirements of the investors in India and abroad. So in this scenario where many schemes are flooded in to market, it is important to analyses needs of consumers and to find out which factors affects consumers' needs the most.

## RESEARCH OBJECTIVES

1. To analyse the important factors while selecting a mutual fund company
2. To access the role and attitude towards purchasing financial instruments for investments
3. To examine the positioning of financial instruments based on investment criteria

## LITERATURE REVIEW

### Growth of Mutual Fund in India

AMFI WEBSITE in Mutual fund History section states that the mutual fund industry in India started in 1963 with the formation of Unit Trust of India, at the initiative of the Government of India and Reserve Bank of India. SBI Mutual Fund was the first non-UTI Mutual Fund established in June 1987 followed by Canara bank Mutual Fund (Dec 87), Punjab National Bank Mutual Fund (Aug 89), Indian Bank Mutual Fund (Nov 89), Bank of India (Jun 90), Bank of Baroda Mutual Fund (Oct 92). LIC in June 1989 and GIC set up its mutual fund in December 1990. 1993 was the year in which the first Mutual Fund Regulations came into being, under which all mutual funds, except UTI were to be registered and governed.

### Criteria for Investments

Shanmugham (2000) analyzed the information sourcing by investors and highlighted that the factors motivating investment decisions are guided by psychological and sociological factors.

Jambodekar M V (1996) conducted a study to assess the awareness of MFs among investors, to identify factors influencing the buying decision and the factors influencing the choice of a particular fund. The study reveals that investors look for safety of principal, liquidity and capital appreciation in the order of importance. Whereas Ippolito (1992) says that fund/ scheme selection by investors is based on past performance of the funds and money flows into winning funds more rapidly than they flow out of losing funds. Prasath.R.H (2009) emphasizes that the investors should study in details the fact sheet of investments which implies the core values of mutual fund investment. Jensen. C.M (1967) highlighted that investors perceive manager s forecasting ability contributes to fund s returns where as

Statman (2000) emphasized that investors prefer mutual fund as a best investment class primarily because of the belief that fund portfolio will give excess return over the return of the benchmark index.

**Investment Opportunities among Different Asset Classes**

Singh A K (2006) says that investors are more aware about various investment avenues & the risk associated with that. All the age groups give more important to invest in equity & except people those who are above 50 give important to insurance, fixed deposits and tax saving benefits. Karthikeyan (2001) on his research on Small Investors Perception on Post office Saving Schemes and discovered that there was significant difference among the four age groups, in the level of awareness for Kisan Vikas Patra (KVP), National Savings Scheme (NSS), and deposit Scheme for Retired Employees (DSRE), and the Overall Score Confirmed that the level of awareness among investors in the old age group was higher than in those of young age group. Mittal M. and Vyas R K (2008) mention in their article "Personality Type and Investment Choice: An Empirical Study" published in Journal of Behavioral Finance, 2008, that investors have certain cognitive and emotional weaknesses which come in the way of their investment decisions. According to them, over the past few years, behavioral finance researchers have scientifically shown that investors do not always act rationally. They have behavioral biases that lead to systematic errors in the way they process information for investment decision. Empirical evidence also suggests that factors such as age, income, education and marital status affect an individual s investment decision. Sairam A ( 2016) tries to bring out the various investment channels and avenues that are available to the investors. In his study he observes that each investment has its own characteristic feature and the investor has to align his objectives with them. The features associated with each of the investment may relate to risk-return dynamics, time-period, liquidity, safety, tax-saving, marketability, etc. He lists and elaborates various asset classes (Equity, Bonds or Fixed Income Securities, Non-marketable Financial Assets • Bank deposits • Flexi Deposits • Post office deposits (POTD) • Monthly income scheme of the post office (MISPO) • National Savings Certificate (NSC) • Company Deposits • Employees Provident Fund Scheme (EPF) • Public Provident Fund (PPF), Real Estate, Insurance Policies, Mutual Funds) that the investor can choose from.

| Parameters | Bank (FD, RD) | Gold Bonds | Mutual Fund | Post office (NSC, KVP, MIS) | Direct Equity trade | Government Bonds | Real Estate | PPF |
|---|---|---|---|---|---|---|---|---|
| Maturity Period | 5 years | 8 years | 3 years | 5&10 years | Trade Purpose | 7 years | Variable | 15 years |
| Interest Rate (%) | 7.5 | 9 | 11 | 7.8 | NA | 7.75 | 8 | 8.7 |
| Tax benefit | 1.5L (80C) | NA | 1.5L in ELSS FUNDS | 1.5L (80C) | NA | NA | NA | 1.5L (80C) |

| Premature withdrawal facility | | Not available | After 5 years of issue | Yes in other funds but not in elss | 2.5 years | NA | After 3 years lock in | Yes | 5 years |
|---|---|---|---|---|---|---|---|---|---|
| Loan Facility | | 85% | 75 % | 85% | 85-90% | 85% | Variable amount | | 25% |
| Investment | Min | 1000 | 1000 | 500 - 1000 | 100 - 200 | Variable | 1000 | Min | 1000 |
| | Max | No upper limit | No upper limit | No upper limit | No upper limit | No upper limit | No upper limit | No upper limit | 500 |

Table 1.1 Comparative summary of investment options *Source: ICICI Direct*

## RESEARCH METHODOLOGY

### Data Collection

To understand the behavioral perception investors relating to buying a mutual fund product, the population was defined as residents of metro city (Kolkata), who invest their money using various financial instruments in any company/bank or have the desire to invest in mutual fund. The data was collected with the help of a questionnaire.

### Questionnaire Design

The questionnaire consists of three parts – personal details, instrument preference,and factors that lead to buying mutual fund products. The questionnaire consists of 16 questions to test the perception of mutual funds among other investment choices.

### Research Design

Descriptive Research Design has been used for this research

| 1 | Sample Size | 100 samples |
|---|---|---|
| 2 | Sampling Units | Respondents from different background i.e. students, businessman, professional, service, employees, housewives etc. |
| 3 | Sampling Methods | Non Probability Convenience Method |
| 4 | Sampling Area | Metro City (Kolkata) |

Table 1.2 Sampling Plan; *Source: Primary Data*

### Demographic Profile

The study was carried out by collecting responses from a hundred working professionals in the city of Kolkata. (N = 100). The questionnaire consisted of three parts – demographic profile, preference ranking of different instruments and fund attributes influencing investor's perceptions. In the demographic profile section, we enquired about the gender, age, education,

occupation and annual household income of the respondent. The questionnaire was developed based on the questionnaires of Rajeswari and Rama Moorthy (2000), Kavitha Ranganathan (2004) Agarwal S (2017) and Nawazish Mirza (2017). A brief profile of the respondents is depicted below.

| Variable | Categories | Frequency | % |
|---|---|---|---|
| **Gender** | Male | 71 | 71 |
| Female | 29 | 29 | |
| **Age** | 24-30 | 23 | 23 |
| 31-40 | 27 | 27 | |
| 41-50 | 22 | 22 | |
| 51-60 | 21 | 21 | |
| 60+ | 7 | 7 | |
| **Education** | Secondary | 4 | 4 |
| Higher Secondary | 9 | 9 | |
| Graduate | 35 | 35 | |
| Post Graduate | 49 | 49 | |
| Diploma | 3 | 3 | |
| **Occupation** | Business Self Employed | 18 | 18 |
| Government Service | 14 | 14 | |
| Housewife | 2 | 2 | |
| Private Company | 43 | 43 | |
| Professional | 23 | 23 | |
| **Household Income per annum** | Less than 2 Lakh | 13 | 13 |
| 2 to 5 Lakh | 33 | 33 | |
| 5 to 10 Lakh | 33 | 33 | |
| | Greater than 10 Lakh | 21 | 21 |

Table 1.3: Demographic Profile of Respondents; *Source: Primary Data*

**SCOPE OF PAPER / RESEARCH GAP**

This study aims to recognize and subsequently analyze the attributes of a financial instrument that influences the behavior of retail investors in selection of a particular instrument. There

exists a multitude of studies analyzing the characteristics of mutual funds but the perceptions and selection patterns of investors with regards to mutual funds among other instruments has yet to be thoroughly explored. While some researchers have studied the different dimensions of investors socio-economic profiles of investment in mutual fund schemes, we have extrapolated the important factors that influence their investment decisions and choice of mutual fund. Moreover, the previous studies gave a mixed outcome with no concrete results to determine the position mutual funds among other instruments. In view of this there is ample scope for a new study to analyze and study the perceptions of retails investors.

## Limitations

A bigger sample size needs to be taken for a complete picture of the study.

## Data Analysis and Findings

## Reliability Test

Initially we verified the reliability of the data to give us an understanding of overall consistency. The tests were positive showing that the data had medium to high reliability and would produce corresponding results under consistent conditions. Cronbach s alpha test was performed to check the reliability of scale as the questionnaire contained many likert questions where the respondent were asked to indicate their agreement or disagreement to the parameter. For Alpha Value meaning, we see Table 2.1.

GEORGE AND MALLERY (2003) PROVIDE THE FOLLOWING RULE OF THUMB:

| >/= 0.9 | >/= 0.8 | >/= 0.7 | >/= 0.6 | >/= 0.5 | <0.5 |
|---------|---------|---------|---------|---------|------|
| Excellent | Good | Acceptable | Questionable | Poor | Unacceptable |

*Source: GEORGE AND MALLERY (2003)*

**H$_1$: To analyze the important factors while selecting a mutual fund company**

It was important to analyze the impacting factor while selecting a mutual fund company. Analysis of variance (Anova) was conducted assuming that there is no difference in the means of factors identified. The table represents the means of the factors.

| | Reputation of the fund and Fund Size | Scheme's/ Fund's historical importance | Ranking of the fund by the rating agency | Entry and Exit Load | Innovative Schemes | Lock in Period or withdrawal norms | Portfolio/ Fund manager's performance | Equity research and infrastructural management | Diversified investment portfolio |
|---|---|---|---|---|---|---|---|---|---|
| N | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| M | 3.4 | 4.0 | 3.6 | 3.8 | 3.2 | 3.8 | 3.8 | 3.8 | 4.5 |
| SD | 1.17 | .99 | 0.83 | 1.07 | 1.06 | 0.91 | 0.95 | 0.87 | 0.78 |

Table 2.1 Mean and Standard deviation; *Source: Primary Data*

| Criteria for Investment | Bank | Gold | Mutual Funds | Post Office | Direct Equity | Government Bonds | Real Estate | PPF |
|---|---|---|---|---|---|---|---|---|
| **Reliability Statistics** | | | | | | | | |
| Capital Appreciation | 0.736 | 0.731 | 0.918 | 0.701 | 0.714 | 0.765 | 0.773 | 0.944 |
| Tax Exemption u/s 80C | 0.784 | 0.695 | 0.889 | 0.733 | 0.737 | 0.719 | 0.779 | 0.927 |
| Tax Free Return u/s 10 (23D) | 0.753 | 0.662 | 0.884 | 0.698 | 0.729 | 0.713 | 0.802 | 0.924 |
| Risk Perception | 0.718 | 0.642 | 0.914 | 0.682 | 0.717 | 0.705 | 0.750 | 0.930 |
| Convenience | 0.678 | 0.598 | 0.886 | 0.687 | 0.721 | 0.677 | 0.755 | 0.930 |
| Return Expectation | 0.730 | 0.669 | 0.900 | 0.732 | 0.767 | 0.784 | 0.750 | 0.939 |
| Scale Statistics: <br> - Mean <br> - Variance <br> - SD <br> - N | 15.48 <br> 26.33 <br> 3 <br> 5.132 | 11.01 <br> 11.46 <br> 5 <br> 3.386 | 20.41 <br> 44.52 <br> 7 <br> 6.673 | 15.59 <br> 20.52 <br> 7 <br> 4.531 | 10.86 <br> 16.08 <br> 1 <br> 4.010 | 11.99 <br> 16.172 <br> 4.021 <br> 6 | 13.99 <br> 24.25 <br> 2 <br> 4.925 | 19.70 <br> 67.90 <br> 9 <br> 8.241 |
| Item Mean: <br> - Mean <br> - Minimum <br> - Maximum <br> - Range <br> - Maximum/Minimum <br> - Variance <br> - N | 2.580 <br> 1.530 <br> 3.390 <br> 1.860 <br> 2.216 <br> 0.576 <br> 6 | 1.835 <br> 1.290 <br> 2.360 <br> 1.070 <br> 1.829 <br> 0.170 <br> 6 | 3.402 <br> 2.990 <br> 3.650 <br> .660 <br> 1.221 <br> 0.061 <br> 6 | 2.598 <br> 2.160 <br> 2.850 <br> .690 <br> 1.319 <br> 0.104 <br> 6 | 1.810 <br> 1.480 <br> 2.000 <br> 520 <br> 1.351 <br> 0.038 <br> 6 | 1.998 <br> 1.500 <br> 2.320 <br> 0.820 <br> 1.547 <br> 0.139 <br> 6 | 2.332 <br> 1.500 <br> 3.050 <br> 1.550 <br> 2.033 <br> 0.397 <br> 6 | 3.283 <br> 3.010 <br> 3.500 <br> 0.490 <br> 1.163 <br> 0.031 <br> 6 |
| Cronbach Alpha | .771 | .710 | .915 | .743 | .766 | .764 | .800 | .943 |
| Cronbach alpha based on standardized items | .768 | .717 | .914 | .746 | .764 | .765 | .802 | .943 |

Table 2.2: Reliability Analysis Source: Primary Data

The analysis represents that the difference in mean scores of the factors is significant enough (F = 13.14, p = 0.000) to conclude that few factors plays an essential role in selecting a mutual fund company.

| ANOVA table | | | | | |
|---|---|---|---|---|---|
| *Source* | *SS* | *df* | *MS* | *F* | *p-value* |
| Treatment | 98.32 | 8 | 12.290 | 13.14 | 0.000 |
| Error | 833.39 | 891 | 0.935 | | |
| Total | 931.71 | 899 | | | |

Table 2.3 ANOVA Table; Source: Primary Data

A detailed post doc test was conducted to analyze the significance of the factors impacting the selection. The findings of the post hoc analysis are shown in table 2.4 and 2.5

| Post hoc analysis: p-values for pairwise t-tests | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Mean** | 3.2 | 3.4 | 3.6 | 3.8 | 3.8 | 3.8 | 3.8 | 4.0 | 4.5 |
| | Innovative schemes | Reputation of the fund and Fund Size | Ranking of the fund by the rating agency | Lock in Period or withdrawal norms | Portfolio manager's performance | Entry and Exit Load | Equity research and infrastructural management | Scheme's/Fund's historical importance | Diversified investment portfolio |
| Innovative Schemes | | | | | | | | | |
| Reputation of the fund and Fund Size | .3063 | | | | | | | | |
| Ranking of the fund by the rating agency | .0107 | .1250 | | | | | | | |
| Lock in Period or withdrawal norms | .0002 | .0056 | .2142 | | | | | | |
| Portfolio/Fund manager's performance | .0002 | .0056 | .2142 | 1.000 | | | | | |
| Entry and Exit Load | .0001 | .0028 | .1440 | .8264 | .8264 | | | | |
| Equity research and infrastructural management | 1.78E-05 | .0010 | .0796 | .6089 | .6089 | .7700 | | | |
| Scheme's/ Fund's historical importance | 1.20E-07 | 1.78E-05 | .0056 | .1250 | .1250 | .1885 | .3063 | | |
| Diversified investment portfolio | 2.61E-18 | 8.43E-15 | 3.20E-10 | 3.78E-07 | 3.78E-07 | 1.15E-06 | 4.70E-06 | .0004 | |

Table 2.4; Source: Primary Data



Comparison of Groups
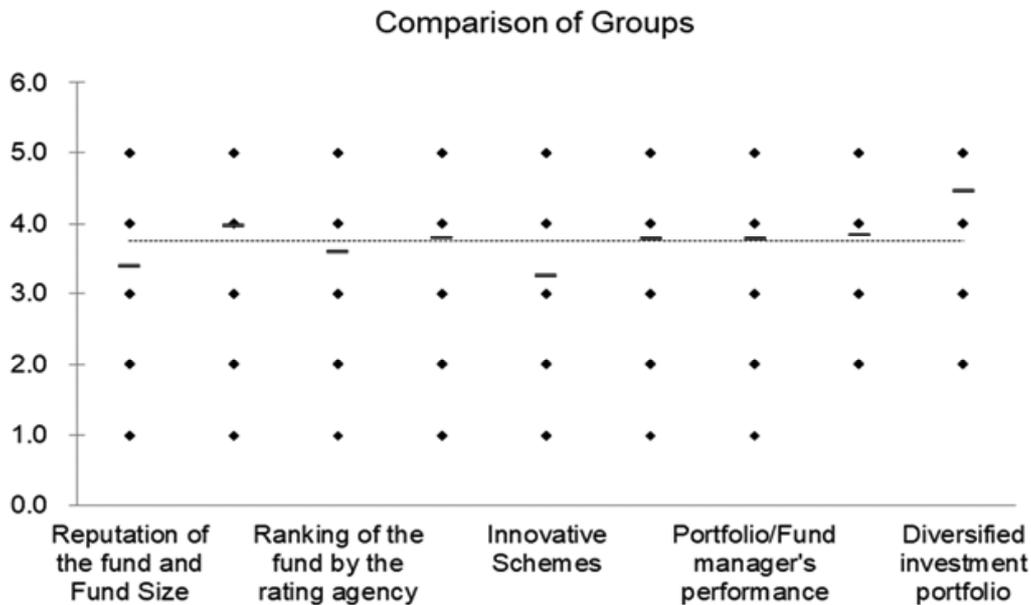
Table 2.5; Source: Primary Data

| Tukey simultaneous comparison t-values (df. = 95) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Mean | 3.2 | 3.4 | 3.6 | 3.8 | 3.8 | 3.8 | 3.8 | 4.0 | 4.5 |
| | Innovative schemes | Reputation of the fund and Fund Size | Ranking of the fund by the rating agency | Lock in Period or withdrawal norms | Portfolio manager's performance | Entry and Exit Load | Equity research and infrastructural management | Scheme's/Fund's historical importance | Diversified investment portfolio |
| Innovative Schemes | | | | | | | | | |
| Reputation of the fund and Fund Size | 1.02 | | | | | | | | |
| Ranking of the fund by the rating agency | 2.56 | 1.54 | | | | | | | |
| Lock in Period or withdrawal norms | 3.80 | 2.78 | 1.24 | | | | | | |
| Portfolio/Fund manager's performance | 3.80 | 2.78 | 1.24 | 0.00 | | | | | |
| Entry and Exit Load | 4.02 | 3.00 | 1.46 | 0.22 | 0.22 | | | | |
| Equity research and infrastructural management | 4.31 | 3.29 | 1.75 | 0.51 | 0.51 | 0.29 | | | |
| Scheme's/ Fund's historical importance | 5.34 | 4.31 | 2.78 | 1.54 | 1.54 | 1.32 | 1.02 | | |
| Diversified investment portfolio | 8.94 | 7.90 | 6.36 | 5.12 | 5.12 | 4.90 | 4.61 | 3.58 | |

Table 2.5; Source: Primary Data

**H$_2$: To assess the role and attitude towards purchasing financial instruments for investments**

Detailed regression analysis was conducted to access the role and attitude towards buying financial instruments. The factors were found to be highly significant among all possible financial instruments. Investment in Bank FD and RD (Adj R20.660, F = 33.08, p =0.000, DW = 1.566) represents return expectation (coefficient 0.3983, p = 0.000) and tax exemption (coefficient 0.363, p = 0.0002) as an important factor. Similarly investment in Gold Bonds (Adj R2 0.3783, F = 11.0398, p =0.000, DW = 2.161) represents return expectation (coefficient 0.3396, p = 0.000) and tax exemption (coefficient 0.1148, p = 0.3932)as an essential parameter for investment. Investment in Mutual Funds (Adj R2 0.7704, F = 56.3747, p =0.000, DW = 1.889) represents return expectation (coefficient 0.2729, p = 0.0003) and convenience (coefficient 0.1919, p = 0.0497) as an imperative cause for choice by investors. Post office investments NSC, KVP etc. (Adj R2 0.6302, F = 29.1179, p =0.000, DW = 1.873) like Mutual Fund investments represents return expectation (coefficient 0.2989, p = 0.0005) and convenience (coefficient 0.2296, p = 0.0032)as vital elements. Investments in Direct equity trade (Adj R20.6644, F = 33.6689, p =0.000, DW = 1.916) represents return expectation (coefficient 0.3049, p = 0.000) and convenience (coefficient 0.2972, p = 0.0001) as an important factor. Government Bonds (Adj R20.4210, F = 12.9951, p =0.000, DW = 1.566) shows return expectation (coefficient 0.2768, p = 0.0004) and convenience (coefficient 0.1972, p = 0.0459) as the most important factor. Study of investments in Real estate (Adj R20.7383,

F = 47.5407, p =0.000, DW = 2.421) shows return expectation (coefficient 0.3466, p = 0.000) and risk perception (coefficient 0.1427, p = 0.0050) as the most important factor. Lastly investment in PPF (Adj R20.8905, F = 135.155, p =0.000, DW = 2.038) shows return expectation (coefficient 0.3935, p = 0.000) and capital appreciation (coefficient 0.2746, p = 0.000) as a necessary attribute.

| Role and attitude towards purchasing financial instruments for investment | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Regression Output | BANK | | GOLD | | MUTUAL FUND | | POST OFFICE | | DIRECT EQUITY | | GOVERNMENT BONDS | | REAL ESTATE | | PPF | |
| | SC | P value | SC | P value | SC | P value | SC | P value | SC | P value | SC | P value | SC | P value | SC | P value |
| Intercept | -0.0026 | 0.9901 | 0.5427 | 0.0129 | -0.2789 | 0.2525 | -0.3633 | 0.1491 | -0.2395 | 0.1423 | 0.3552 | 0.1409 | 0.1848 | 0.2267 | -0.0268 | 0.8389 |
| Capital Appreciation | 0.1281 | 0.0306 | 0.0334 | 0.6885 | 0.1897 | 0.0098 | 0.2127 | 0.0014 | 0.2402 | 0.0012 | -0.0024 | 0.9775 | 0.1123 | 0.0225 | 0.2746 | 0.0000 |
| Tax Exemption | 0.3673 | 0.0002 | 0.1148 | 0.3932 | 0.1710 | 0.0333 | 0.1792 | 0.0036 | 0.2637 | 0.0010 | 0.1564 | 0.1597 | 0.1153 | 0.0400 | -0.0895 | 0.2009 |
| Tax Free Return | 0.0222 | 0.7775 | 0.0650 | 0.5803 | 0.0831 | 0.3646 | 0.0224 | 0.8006 | -0.0054 | 0.9222 | 0.1450 | 0.1951 | 0.0183 | 0.7890 | 0.1291 | 0.1018 |
| Risk Perception | 0.1687 | 0.0231 | 0.0701 | 0.3267 | 0.1324 | 0.1223 | 0.1703 | 0.0143 | 0.0175 | 0.8005 | 0.0700 | 0.4407 | 0.1427 | 0.0050 | 0.2100 | 0.0020 |
| Convenience | 0.0516 | 0.5729 | 0.0583 | 0.5508 | 0.1919 | 0.0497 | 0.2296 | 0.0032 | 0.2972 | 0.0001 | 0.1972 | 0.0459 | 0.1374 | 0.0487 | 0.1574 | 0.0168 |
| Return Expectation | 0.3983 | 0.0000 | 0.3396 | 0.0000 | 0.2729 | 0.0003 | 0.2989 | 0.0005 | 0.3049 | 0.0000 | 0.2768 | 0.0004 | 0.3466 | 0.0000 | 0.3935 | 0.0000 |
| | Adjusted R² 0.6604 F= 33.0874 df = 99. P= 0.000 Durbin Watson 1.566 | | Adjusted R²= 0.3783 F=11.0398 df = 99 P = 0.000 Durbin Watson 2.161 | | Adjusted R²= 0.7704 F= 56.3747 df=99 P=0.000 Durbin Watson 1.889 | | Adjusted R²=0.6302 F= 29.1179 df= 99 P=0.000 Durbin Watson 1.873 | | Adjusted R²=0.6644 F= 33.6689 df=99 P=0.000 Durbin Watson 1.916 | | Adjusted R²=0.4210 F=12.9951 df=99 P=0.0000 Durbin Watson 1.566 | | Adjusted R²=0.7383 F= 47.5407 df=99 P=0.0000 Durbin Watson 2.421 | | Adjusted R²=0.8905 F=135.155 df=99 P=0.0000 Durbin Watson 2.038 | |

Table 2.6; Source: Primary Data

**H₃: To examine the positioning of financial instruments based on investment criteria**

In this research various financial instruments have been considered thereby the positioning of mutual funds is compared with other investment options. Overall 8 financial instruments, namely Bank (FD/RD), Gold Bonds, Mutual Funds, Post Office (NSC, KVP), Direct Equity Trade, Government Bonds, Real Estate, and PPF including Mutual Funds have been acknowledged. Each attribute has been categorized into 6 independent factors, namely Capital Appreciation, Tax Exemption u/s 80C, Tax Free Return u/s 10 (23D), Risk Perception, Convenience, Return Expectation and 1 dependent factor „overall preference . The respondents were asked to evaluate each brand with respect to others, based on assured factors. Six major factors were considered in estimating the preferential difference. Individual ratings of each respondent were considered and overall 100 respondent s results were taken for the overall estimation. The objective was to evaluate the coefficient underlining each factor applying multiple regressions. The mentioned factors are all considered as the independent variables and the overall preference is measured as the dependent variable under this case.

In order to categorize the two key factors on which the assessment has to be undertaken, multiple regression analysis require to be conducted. In the mentioned research analysis the Overall preference has been measured as the dependent Variable (Y) and all the six (6) factors taken together are the independent variable (X) represented in Table D. Data s were collected for all 100 respondents and the regression analysis is conducted. The output of the analysis has been shown in Table – E, F and G respectively.

The standard multiple regression equation is as follows:

$$Y = a + b_1x1 + b_2x2 + b_3x3 + b_4x4 + b_5x5 + b_6x6$$

Where Y is Overall Preference [dependent variable] while 'x' [independent variable], where '$x_1$' is Capital Appreciation, '$x_2$' is Tax Exemption, '$x_3$' is Tax free Return, 'x4' is Risk Perception, '$x_5$' is Convenience and '$x_6$' is Return Expectation.

The research model identifies Adjusted R Square 0.761 and Durbin – Watson statistic 2.077 figure as 0.761 and 2.077 respectively which is required. Table 2.7 represents the evaluation:

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | R Square Change | F Change | df1 | df2 | Sig. F Change | Durbin Watson |
|-------|---|----------|-------------------|----------------------------|-----------------|----------|-----|-----|---------------|---------------|
| 1 | .873 | .763 | .761 | .594 | .763 | 425.101 | 6 | 793 | .000 | 2.077 |

Table 2.7; Source : Primary Data

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig |
|-------|------|-----------|------|---|-----|
| | B | Std Error | Beta | | |
| Constant | -.024 | .058 | -.423 | .672 | |
| Capital Appreciation | .146 | .021 | .153 | 6.864 | .000 |
| Tax Exemption | .162 | .024 | .191 | 6.655 | .000 |
| Taxfree Return | .073 | .026 | .081 | 2.775 | .006 |
| Risk Perception | .109 | .022 | .125 | 4.941 | .000 |
| Convenience | .216 | .026 | .240 | 8.287 | .000 |
| Return Expectation | .299 | .023 | .308 | 12.973 | .000 |

Table 2.8; Source: Primary Data

It is to be noted from Table 2.8 that, "x" represents the coefficient to the variables. a = -0.024 (The Regression equation constant), x1 = 0.146 (Capital Appreciation), x2 = 0.162 (Tax Exemption), x3= 0.073 (Tax free Return), x4 = 0.109 (Risk Perception), x5 = 0.216 (Convenience), x6 = 0.299 (Return Expectation).

The average of preference level of all the respondents taken jointly is shown in Table 2.9. The implication of getting the average values is to locate the points on the perceptual map of only two major factors as evaluated by the regression model.

| Attribute | BANK | GOLD | MUTUAL FUND | POST OFFICE | DIRECT EQUITY | GOVERNMENT BONDS | REAL ESTATE | PPF |
|---|---|---|---|---|---|---|---|---|
| Capital Appreciation | 2.69 | 2.09 | 3.65 | 2.85 | 2.00 | 2.2 | 3.05 | 3.01 |
| Tax Exemption | 1.53 | 1.29 | 3.54 | 2.16 | 1.48 | 1.5 | 1.73 | 3.42 |
| Tax free Return | 1.85 | 1.40 | 3.30 | 2.21 | 1.78 | 1.54 | 1.5 | 3.29 |
| Risk Perception | 3.39 | 2.36 | 2.99 | 2.80 | 1.72 | 2.23 | 2.64 | 3.32 |
| Convenience | 3.33 | 1.96 | 3.33 | 2.76 | 1.91 | 2.20 | 2.19 | 3.5 |
| Return Expectation | 2.69 | 1.78 | 3.60 | 2.81 | 1.97 | 2.32 | 2.88 | 3.16 |
| Overall Preference | 2.78 | 1.78 | 3.31 | 2.63 | 1.82 | 2.04 | 2.43 | 3.41 |

Table 2.9; Source: Primary Data

To obtain a perceptual map, two factors need to be considered, one for the X axis and the second for the Y – axis. As per the regression output, factor "Return Expectation" has the highest coefficient of 0.299 and "Convenience" has the second highest coefficient 0.216 as shown in figure 2.1.

4

| a | b | c | d | e | f | g | h |
|---|---|---|---|---|---|---|---|
| Bank | Gold | Mutual fund | Post office | Direct Equity | Government Bonds | Real Estate | PPF |
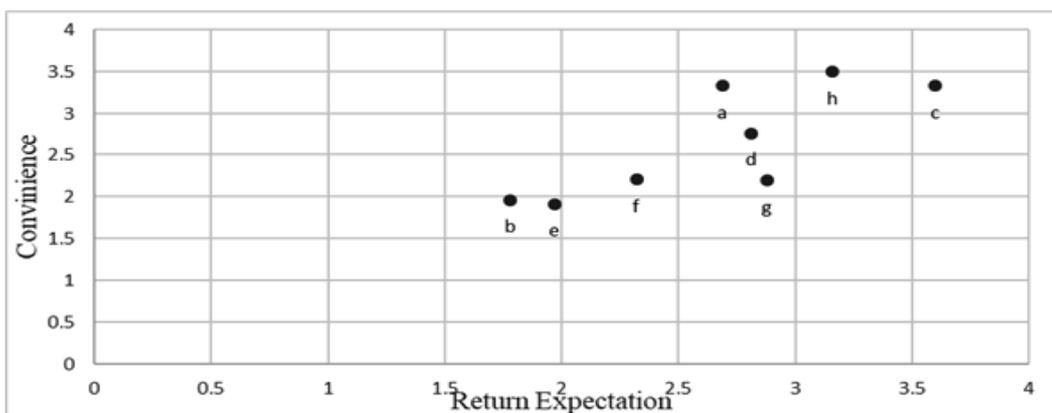


Figure 2.1

To understand the mapping, an Ideal Vector can be constructed. The ratio (0.216 / 0.299 = 0.722) defines the slope of the ideal vector, originating at the origin of the map shown in Figure 2.2.
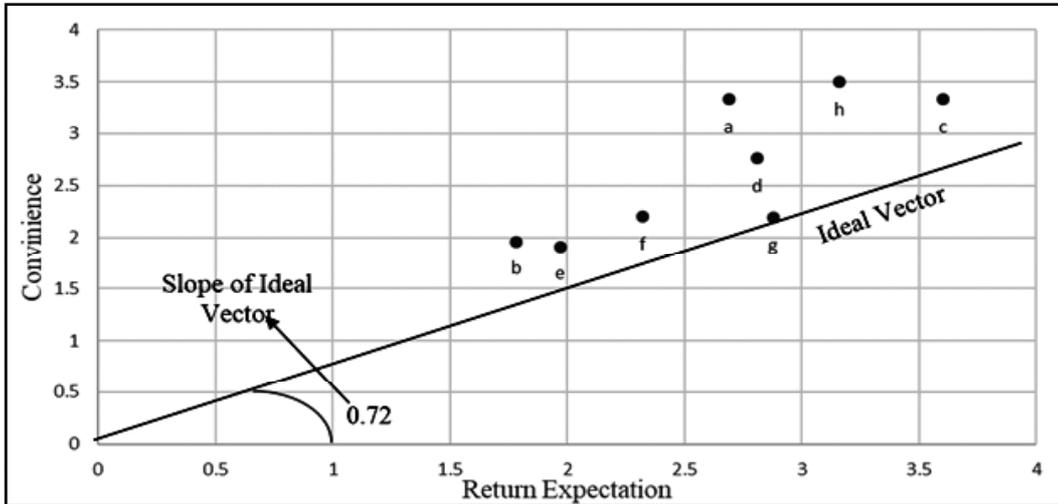


Figure 2.2

Figure2.3 represents the ranking of the respondent s preference level across all brands into consideration. A point of equal preference is determined by constructing lines perpendicular to the ideal vector (I1 to I3).
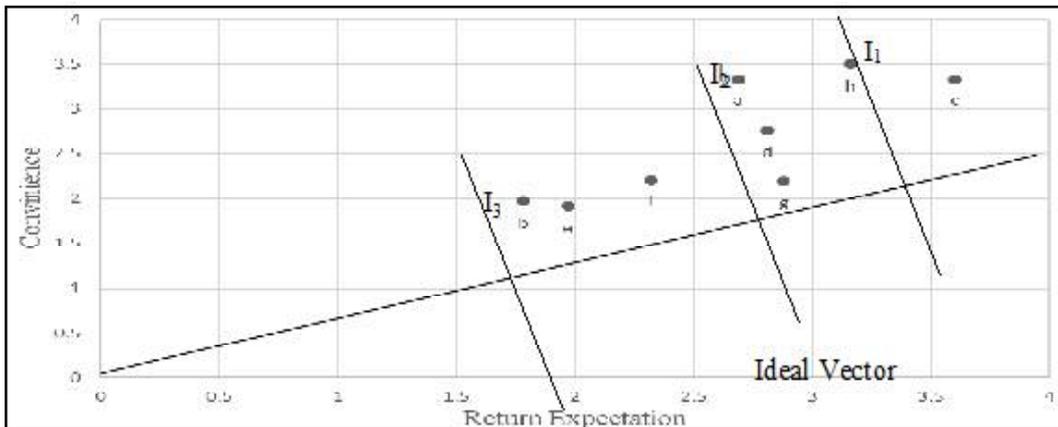


Figure 2.3

Vector $I_1$ has been drawn to differentiate between the positioning of Mutual Funds (c) and PPF (h). More rightward position representing highest preference. Thereby mutual fund stands as a clear preference for investment among retail investors compared to PPF. Vector I2has been drawn to differentiate Bank (FD/RD) (a), Post Office savings (d) and Real estate (g). Bank (FD/RD) (a) and Post Office savings (d) represents an indifferent outlook as both lies on the I2 whereas the next preference is real estate followed by government bonds (f). In vector I3Direct Equity Trade (e)is most preferred instrument compared to Gold Bonds (b).

## CONCLUSIONS AND RECOMMENDATIONS

As per the initial hypothesis relating to the analysis of factors for selecting a mutual fund company, we found that there is significant difference in the mean score of factors and thereby we conclude that few factors played a very important role in selecting a mutual fund company. A detailed post hoc test was conducted where the factor "Diversified Investment Portfolio" stands out as an impacting factor. Whereas factors like "Innovative Schemes" and "Reputation of the fund and Fund size has the lowest mean". As per the hypothesis statement, role and attitude towards purchasing of financial instruments was analyzed using regression. The preferential study showed that the factor "Return Expectation" plays a vital role in selecting instruments like Bank (FD/RD), Gold Bonds, Mutual Funds, Post Office Saving Schemes, Direct Equity Trade, Government Bonds, Real Estate and PPF. The factor "Tax Exemption" has the second highest preference score for financial instruments like Bank (FD/RD) and Gold Bonds. The factor "Convenience" is essential after return expectation for the financial instruments like Mutual Funds, Post Office Savings schemes, Direct Equity Trade and Government Bonds. The factors "Risk Perception" and "Capital Appreciation" for Real Estate and PPF respectively are investor s liking after return expectation. The positioning of financial instruments based on preference showed Mutual funds as the best investment class compared to PPF, Bank (FD/RD) and Post office savings schemes.

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# Prospect of HR Analytics

## Anindya Saha* & Sougata Majumder**

**ABSTRACT**

*Technology, data and human resources are the three main buzz words in today's corporate world. In last few years 'Big Data' and 'Data Analytics' are the talk of the town, companies are running after Big Data through the implementation of different technologies such as Hadoop, Apache Spark, Data Torrent etc. At a first glance these tools and technologies do not agree with the principles of Human Resource Management (HRM) as because HRM is not about numbers only. Another critical aspect of technology and analytics is they will give you the number but are they corrected with respect to the human-factor? HR managers face a new challenge in striking a balance between technology and people.*

*This paper will try to study how HR managers are effectively striking a balance between technology and people and how HR Analytics is helping organisations in taking correct decisions related to employees so that it will provide opportunities and scope for designing HR function with a new angle to suite technology and people at the same time. This paper also tries to understand implication of predictive analysis in HR*

**Key Words:** *Data Science, HR Analytics, Big Data*

## INTRODUCTION

Technology, data and human resources are the three main buzz words in today s corporate world. In last few years „Big Data and „Data Analytics are the talk of the town, companies are running after Big Data through implementation of different technologies such as Hadoop, Apache Spark, Data Torrent etc At a first glance these tools and technologies do not agree with the principles of Human Resource Management (HRM) as because HRM is not about numbers only.

HR processes are not same as operational or manufacturing processes because in manufacturing processes the defects, wastages and efficiency of the machines are easy to measure through different techniques like Kaizen, Lean, Six Sigma etc. Whereas in HRM, we deal with people, their emotions and sentiments.

But it has been noticed in due course of time that ignorance of technology is a risky affair. HR managers face a new challenge in striking a balance between technology and people because if the implementation process and approaches of implementing new technology goes wrong it will cost heavily on companies. Another critical aspect of technology and

* Assistant Professor- System/IT, Army Institute of Management, Kolkata -700027, West Bengal, India.
  Email: anindyasaha88@yahoo.com
** Assistant Professor- HR, Army Institute of Management, Kolkata-700027, West Bengal, India.
  Email: sougata_majumder@rediffmail.com

analytics is they will give you the number but are they correct with respect to the human-factor? For Example turnover rate will give us the exact figure of number of people leaving but does it provide the information that right people are leaving and right people are staying or not? Similarly for other HR functions.

This paper shall try to study how HR managers are effectively striking a balance between technology and people and how HR analytics is helping organisation in taking correct decision related to employees so that it will provide opportunities and scope for designing HR function with a new angle to suite technology and people at the same time.

## PURPOSE OF RESEARCH

The overall purpose of this study is to examine effectiveness of technology and HR analytics on companies and on people. Specific purposes for the research study are as follows
a) To study the effect of technology on HR.
b) To study the effect of HR analytics on company.
c) To study the effect of HR analytics and technology on people

## METHODOLOGY

Descriptive study was conducted based on literature review of various academic articles and research papers published in journals and available in research databases, EBSCO, Google Scholar etc.

## THEORETICAL FRAMEWORK

### Data and Data Management

Data is the raw material of information and data management is the execution and development of different architecture, policies, procedures and practices in order to manage the facts respective to the needs of an organization. There are many approaches to Data Management, like MDM (Master Data Management), BDM (Big Data Management) etc. MDM is a method of linking critical data in one file, which is called master file that provides a common point of reference. BDM is involved with very large amount of data may be structured or unstructured from the organization, administration and governance, this typically involving many terabytes or even Petabytes or Exabyte in near future.

Data is everywhere. In fact, the amount of digital data that exists is growing at a rapid rate - more than 2.7 zettabytes of data exist in today s digital universe, and that is projected to grow to 180 zettabytes in 2025.

Data Science is a field that encompasses anything related to data cleansing, preparation, and analysis. Simply, Data Science is a technique used to extract insights and information from data.

### Big Data

According to Gartner(American research and advisory firm), the definition of Big Data reads, "Big data is high-volume and high-velocity and/or high-variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision-making, and process automation."

Big Data is used to describe large volumes of data, both structured and unstructured, Big

Data inundates organizations of all sizes on a day-to-day basis. In other words, Big Data refers to humongous volumes of data that cannot be effectively processed with traditional applications.

**Data Analytics**

Data analytics refers to quantitative and qualitative techniques used to enhance productivity and business performance. Data is categorized and extracted to identify patterns. It varies according to organizational requirements. Data analytics is also known as data analysis.

**HR Analytics**

HR analytics is an area in the field of analytics which refers to the application of analytic in the human resource department of an organization with an objective to improve employee performance and therefore getting a better return on investment. HR analytics is not just a technique to gather data on employee. But also, it aims to provide information to make relevant decisions about how to improve HR processes. It means creating a relationship between HR and business outcomes – and then formulating strategies based on that information is HR analytics.

The core functions of HR can be highly improved by applying analytics. HR analytics can help to identify problem surrounding the core HR requirements. It guides the managers to answer questions and gain in depth information in hand, then make relevant decisions and take appropriate actions.



Figure 1: Cross-Sectional Diagram of HR Analytics

**Predictive Analytics**

Predictive analytics is an upcoming trend in human resource in which outcomes of future events are predicted through statistical tools and modelling and also with the help of information technology. Predictive analytics help organisation to become futuristic and proactive.

**Predictive Analytics Process**



| DATA | REPORTING /ANALYSIS | MONITORING | PREDICTIVE ANALYTICS |
|---|---|---|---|
| •Data is a set of values of qualitative or quantitative variables. | •What happened •Why that happened? | •What is happing presently | •What is going to happen in future? |
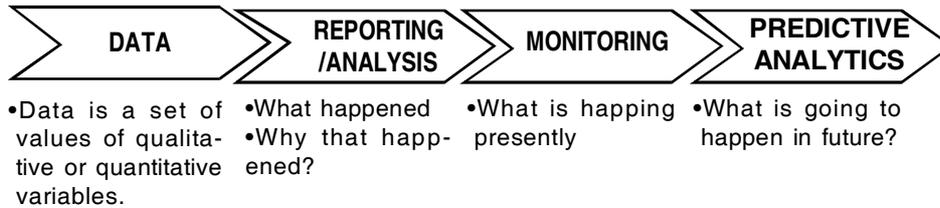
Figure 2: Predictive Analytics value Chain

1. Define Project – Define project outcomes, scope, business objective and data sets required for project
2. Data Collection – Collecting data from multiple sources (Internal / External).
3. Data Analysis – Is the process of transforming raw data to useful meaningful information through data modelling.
4. Statistics - Standard statistical model and test are used to validate assumption and hypothesis.
5. Modelling – It provide the ability to create predictive model for future
6. Deployment & Feedback– In these models are implemented for every day decision making and generation of report.

Figure 3: Predictive Analytics process
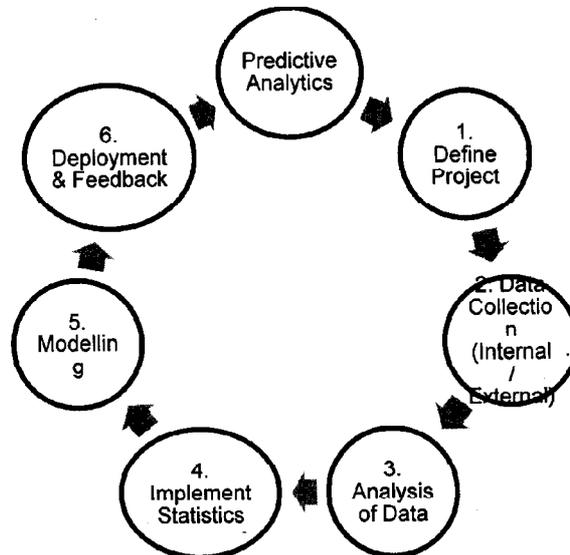


Figure 4: Flow Chart of Predictive Analytics

```
┌─────────────────────────────────────────────┐
│        Source Systems/Dialog Module         │
└─────────────────────────────────────────────┘
                      ▼
┌─────────────────────────────────────────────┐
│         Structured / Unstructured Data       │
└─────────────────────────────────────────────┘
                      ▼
┌─────────────────────────────────────────────┐
│                 Data Mining                  │
└─────────────────────────────────────────────┘
                      ▼
┌─────────────────────────────────────────────┐
│                Text Analytics               │
└─────────────────────────────────────────────┘
                      ▼
┌─────────────────────────────────────────────┐
│                  Statistics                  │
└─────────────────────────────────────────────┘
                      ▼
┌─────────────────────────────────────────────┐
│                  Modelling                   │
└─────────────────────────────────────────────┘
                      ▼
┌─────────────────────────────────────────────┐
│                 Deployment                   │
└─────────────────────────────────────────────┘
                      │
                      ▼
                Web Reporting
               System Reporting
```
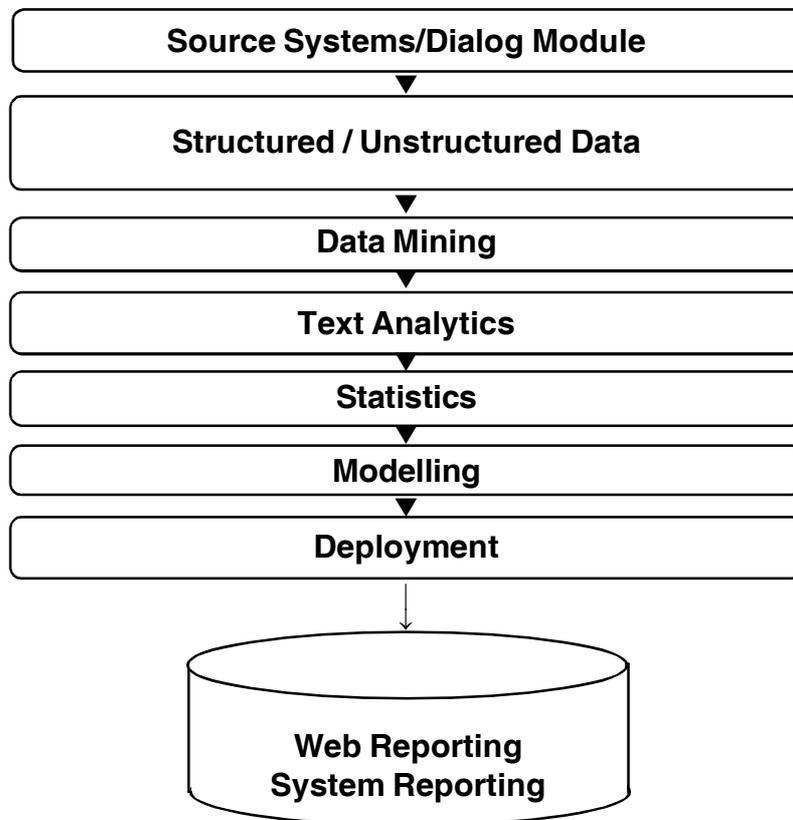
## LITERATURE REVIEW

**Weena and Tarun (2015)** in their paper titled HR analytics transforming Human Resource Management studied various companies and found out that to remain as a market leader the marriage between technology and HR department becomes the integral part of any business strategy. **Bill Robert (2011)** in his article says HR is not as easy as we think. HR is in the early stage of Big Data. Business leader with the help of technology can change the destiny of the organisation. Big data guru **Tom Davenport** in an interview with People Management said that only relying on technology could be disastrous because technology cannot supplement the intuition and experience of human being. **Mark Feffer (2015)** in his article processing people mention that some time data driven technologies take out „human from Human Resource which is highly detrimental for the organisation. **Lawler and Boudreau (2009)** in their study depicted that use of analytics enhance the scope of HR as a strategic component from organisation perspective. **Banerjee, Bandhyopadhy et.al (2013)** showed that use of analytics in HR makes HR a powerful component in the performance of the organisation. **Carlson and Kavanagh (2012)** were of an opinion that in spite of technological advantages HR not being adaptive to analytics. **EIU interview with Wayne Cascio (July 2015)** on the obstacle and pitfalls of implementation of workforce analysis. Where Wayne commented that Workforce analytics will certainly encounter some bumps in the road.

Successful business results from the use of analytics will do much to garner the necessary support for surmounting these obstacles, while also leading to further investment.

**Bassi (2011)** state that many HR Practitioner argued that there is no need of HR Analytics because of lack of willingness of the senior management. **Boudreau and Ramstad (2007)** stated that doing ROI is the wrong focus and rather call for a "talent decision science". **Deloittes (2011)** highlighted that HR analytics involve statistical models that integrate HR data with predictive future employee behaviours and the events. **Lawler, Levenson and Boudreau (2004)** commented that HR data do not measure the business impact on different functions of HR

## REAL LIFE EXAMPLES

1. Laszlo Bock, Senior Vice President of Google in his book Work Rules! Commented that in Google important instrument for people operation is statistic. HR predictive analysis helps to estimate number of sales people leaving the organisation. Based on that models are developed or strategies are formulated for retention.
2. In a study by Klumper, Rosen and Mossholder in 2012 revealed that Facebook profile can be an instrument to judge candidate future work performance.
3. Hewlett-Packard (HP) based on predictive analysis develops „Flight Risk score to predict the likelihood of leaving each employee of HP.

## MAJOR RESULTS

This paper tries to understand the impact and penetration of HR analytics in the corporate. While studying it is observed that the breakthrough of HR analytics is more in western countries in comparison to India. This paper is of opinion that still the field of analytics in HR is at nascent stage. There are dichotomy in the mind of HR practitioners and other concern people on acceptance and reach of analytics in HR. Various experts are of different opinion on impact of analytics and big data on HR as they think technology cannot replace the emotion, intuition and experience of people. This paper tries to understand the reasons behind this dichotomy which are as follows.

1. In many cases HR practitioners ignore analytics because they see it as personal threats.
2. HR has capacity to get information from connections not from data.
3. Lack of training may be another cause behind ignorance of analytics by HR professionals. They are trained on soft aspect they don t have the skill and expertise on numerical to handle analytics.
4. The way data analytics is applied in HR function can be the one of the possible reason behind not accepting the HR analytics by the HR professionals.
5. In many cases data collected such as turnover rate, rate of absenteeism, data on sickness and training days etc. are not relevant to provide information to CEOs to take strategic decision and to gauge impact on business performance.

## IMPLICATIONS

So the implication of the study is striking a balance between data and people. The danger is, if everything we do in HR based on data that could be hazardous for the organisation. Organisations should not get carried away with the waves of new technologies in that case we will be losing the heart and soul of an organisation. We should be wise enough to handle human element and use data with a sense of humanity and not open the door to a world

where we lose track of what makes us human. Keeping this into view this paper suggested that predictive analysis using tools like R, SAS, ODM, MATLAB, Data Science Studio etc can be judiciously be used for the benefit of the organisation.

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# Price discovery of gold futures: an experiment with multi commodity exchange

## Amitava Saha*, Gautam Mitra ** & Arindam Gupta ***

**ABSTRACT**

*Purpose of this paper is to examine long term, short term and causal relationship between spot and future prices of gold market with reference to MCX, the biggest commodity exchange in India. Data on spot as well as future prices (60 days) have been taken from Multi Commodity Exchange of India Limited's website from 1st April 2010 to 31st March 2017. We have applied Unit Root test, Johansen Co integration test, Vector Error Correction model (VECM) including Wald Test and Granger Causality Test. Phillip Peron test results shows that unit root exists at level in the both sets of data. Then we tried with data set taking their first difference. At first difference, the data became stationary for both sets of data. From Johansen Co integration test we find that Trace statistic as well as Maximum Eigen value test shows one co integration equation exists at 5% level of significance. From VECM we find that there exists a long run as well as short run relationship between spot and future prices. From Granger causality test we find that there is bidirectional causality exists between the data series. It implies that both spot price and future price have a significant effect to settle the prices of each other. Our experiment establishes long term, short term relationship between spot and future prices of gold and also establishes bidirectional causal relationship between these two. Our findings are quite similar to findings of Arora and Kumar (2013) in case of non-precious metals traded on MCX and, Jie and Liang (2015) in case of gold futures traded on Shanghai Futures exchange.*

*Keywords :* Gold future market, Johansen co-integration, VECM

## INTRODUCTION

Gold futures is very popular commodity derivative product now a days because the exchange mention the details of the product like delivery unit, unit of trading, tick size, base value, delivery centre, tender period etc. at the time of contract is made and also gives the guarantee that the contract will be honoured. Now a day's investors are more interested to procure gold futures as a part of their investment strategy because if they buy the product in the spot market then it involves opportunity cost. Futures contract also reduces the transaction cost and storage cost. Exchange-traded funds (ETFs), Exchange-traded notes (ETNs) and Close-ended funds (CEFs) are the gold exchange traded products which gives traders an opportunity to participate in the futures market without storing the gold.

* Assistant Professor, Dept. of Commerce, Bhairab Ganguly College, Belghoria, W.B. India.
** Professor, Dept. of Business Administration, University of Burdwan, W.B. India.
*** Assistant Professor, Dept. of Statistics, University of Burdwan, W.B. India.

## CONCEPT OF PRICE DISCOVERY

In an organised derivatives market price of the product reflects the perception of market buyer's and seller's about the future and lead the prices of underlying products to the perceived future level. Process of price discovery continues throughout the day in an active futures market and free flow of information is very essential for the market. At the time of maturity of the futures contract near expiration, the future price converges with the spot price. It is either equal or is very close to the spot price. It is shown in Exhibit 1.
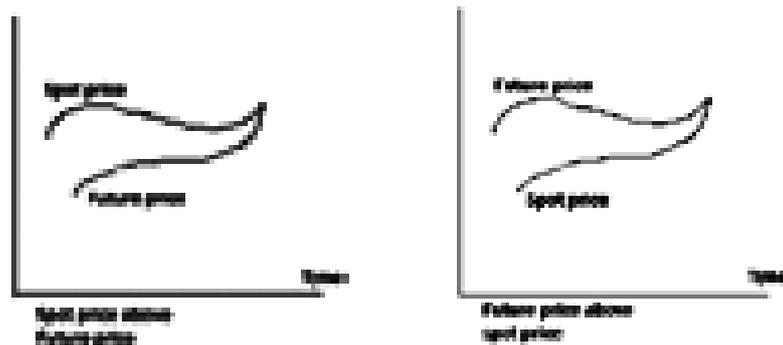


**Exhibit 1: Convergence of spot and future price.**

Several factors influence the buyers' and sellers' expectation and increases or decrease the future prices. These factors are demand and supply development, sentiments of people, behaviour of buyers' and sellers' weather reports, transportation cost, storage cost, purchase cost, exports, imports, currency values, interest rates and other pertinent information. Price discovery process reduces the so called "Cob Web effect" of inter seasonal price fluctuation.

## LITERATURE REVIEW AND IDENTIFICATION OF THE RESEARCH GAP

In order to prepare of our paper we have considered a vast number of literature. However, the most pertinent literatures have been cited here.

Zheng Jie and Dong Liang (2015) investigated the price discovery function on the gold future market. They took 5-minutes high-frequency data in gold futures continuous contract and gold spot Au9999 contract (the trade name) in Shanghai Gold Exchange from July 9th 2013 to March 31st 2014. They apply ADF test, VAR model, Johansen co- integration, VECM, Granger causality test and Impulse Response Function (IRF). They found the existence of bidirectional causality between spot and future prices. Mutual influence and sustainability exit between gold future market and spot market.

Sunita Arora and Narender Kumar (2013) investigated the role of futures market in price discovery on copper and aluminium. They took daily closing price of spot and its near month futures contract for aluminium and copper traded on MCX from January 2006 to December 2011. After applying ADF test, Johansen co- integration, VECM and Ganger causality tests they found the bidirectional causality which suggests that both the markets

are efficient in discounting the new information but future market is more efficient than spot market.

K.Nirmala, Munilakshmi R. And Sandhya V. (2015) took daily closing data of cardamom traded on MCX from 1st January 2012 to 31st December 2013 to investigate the price discovery in Indian cardamom market. They apply ADF test, Granger Causality test and Johansen Co-integration techniques and found Uni-directional relationship between spot and future price and futures price movement can be used as Price discovery vehicle for spot market transactions.

So far our knowledge and belief no research works on gold futures market have been done on gold future market.

## RESEARCH QUESTION:

In our study we examine long term, short term and causal relationship between spot and future prices of gold futures market with reference to MCX Ltd, where trading volume is more in comparison with other commodity derivative exchanges in the country.

### Data and Methods

For the purpose of our study we have considered (60 days) data on spot as well as future prices from Multi Commodity Exchange of India Limited's website from 1st April 2010 to 31st March 2017. The data has been analysed with the help of MS Excel 2007 and Eviews-9.

### Econometric Tools

In order to satisfy our objectives first we have checked the stationary of the data series by applying unit root test. Here we have applied Phillips-Perron test to see whether the series is non-stationary or not. Test result shows non stationary at level and stationary at first difference. If the series have no trend at level then it shows non stationary and after applying the first difference the series has became stationary. Depending on their order of integration, we have applied Johansen co- integration test to identify the long run association among the variables. If the series satisfies long run relationship among the variables, we further apply VECM including Wald test to see the long run causality and short run causality among the variables. To see the direction of the variable we can also apply Granger causality test.

$$y_t = \rho y_{t-1} + u_t \qquad (1)$$

Where,

$-1 \le \rho < 1$ and $u_t$ is a white noise.

If $\rho = 1$, we face a non-stationarity situation and conclude that $y_t$ has a unit root. This also implies that $y_t$ represent a random walk series which means the series suffers permanent effect from random shocks which are known as non-stationary stochastic process. So $y_t$ regress on its lagged value $y_{t-1}$ and find out if the estimated $\rho$ is

statistically equal to 1. If it is so, then $y_t$ is non-stationary. We rewrite the model as follows:

$$\Delta y_t = \delta y_{t-1} + u_t \quad (2)$$

Where,

$$(\rho - 1) = \delta \text{ and } \Delta = 1^{st} \text{ difference.}$$

Now test the hypothesis that $\delta = 0$. If $\delta = 0$ and $\rho = 1$, it implies that $y_t$ has a unit root and it is non-stationary.

Now, If $\delta = 0$ then equation (2) become

$$\Delta y_t = (y_t - y_{t-1}) = u_t \quad (3)$$

Since, $u_t$ is a white noise error terms it is stationary which means that 1$^{st}$ differences of a random walk time series are stationary.

**Phillips-Perron (PP) Test**:

Purpose: To check whether the mean and variance of the series are constant over time.

Model : $\Delta y_t = \delta y_{t-1} + u_t$

Where, $y_t$ = Stochastic time series variable.

$y_{t-1}$ = One period lagged value of $y_t$.

$u_t$ = White noise error term.

Hypothesis : $H_0$ = Presence of unit root in the series.

$H_1$ = Has no unit root in the series.

**Johansen co- integration test**:

Purpose: To check the long run association or stability of both the variables.

Model:     Trace test $= \lambda_{trace}(r) = -T \sum\limits_{i=r+1}^{g} ln\left(1 - \hat{\lambda}_i\right)$

          Maximum

Eigen value test $= \lambda_{max}(r, r+1) = -T.ln\left(1 - \hat{\lambda}_{r+1}\right)$

Where,

          r = Number of co integrating vector; T = Sample size; ln = log to the base e, $\hat{\lambda}$ = Estimated value of the $ith$ ordered Eigen value from the $\prod$ matrix, $i = 1, 2, 3..............n$

Hypothesis : $H_0$ = No co-integration exists between the variables.

$H_1$ = Co- integration exits between the variables.

**Vector error correction test**:

Purpose : Find out the short run forces or dynamics that are responsible for keeping the long run relationship intact.

Model : $\Delta y_t = \phi + \gamma \Delta x, + \lambda \hat{\varepsilon}_{t-1} + u_t$

Where,

$\hat{\varepsilon}_{t-1} = \left(y_{t-1} - \hat{y}_{t+1}\right) = \left(y_{t-1} - \hat{a} - \hat{b}x_{t-1}\right)$ is one period lagged value of the error from the co integrating regression and  is the error term in ECM.

$\gamma$ =  Captures the impact of short run disturbances of  on.

$\lambda$ =  Captures the adjustment towards long run equilibrium.

$\Delta x_1$ =  Explanatory variable.

Hypothesis:   $H_0$ =  No long run causality running between the variables

$H_1$ =  Long run causality running between the variables

Hypothesis:  $H_0$ = No short run causality running between the variables

$H_1$ =  = Short run causality running between the variables

**Granger causality test**:

Purpose: To test the direction of the variables or causal relation between the variables.

Model :  $F_1 = a_1 + \sum_{i=1}^{n} \alpha_i S_{t-1} + \sum_{j=1}^{m} \beta_j F_{t-j} + \varepsilon_{1t}$

$S_t = a_2 + \sum_{i=1}^{n} \gamma_i S_{t-1} + \sum_{j=1}^{m} \delta_j F_{t-j} + \varepsilon_{2t}$

Where,

$\varepsilon_{1t}$ and  $\varepsilon_{2t}$  are uncorrelated white noise error terms.

Hypothesis :  $H_0 = F_t$  does not granger cause

$H_0 = S_t$  does not granger cause

## FINDINGS OF OUR STUDY

First we should study basic statistics of the data series and to reduce the scatterness of the data we transform it into log. Following graphs of raw data of the price series shows that there is no trend in any of the price series and it indicate that all the series are non-stationary.
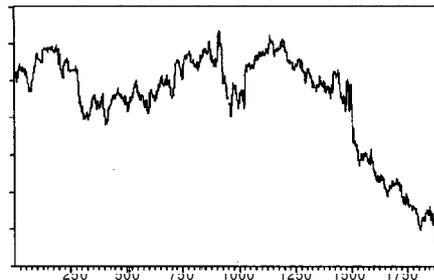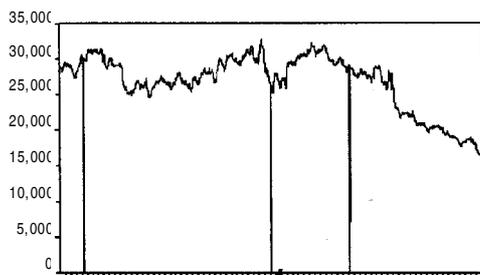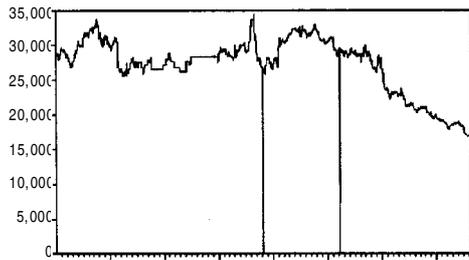


### Descriptive Statistics

Following Exhibit 2 shows the descriptive test statistics of the spot and future price series of gold.

| Particulars | LOG_FP | LOG_SP |
|---|---|---|
| Mean | 4.429134 | 4.421733 |
| Median | 4.452538 | 4.442025 |
| Maximum | 4.538197 | 4.517763 |
| Minimum | 4.219873 | 4.213119 |
| Std. Dev. | 0.069747 | 0.069973 |
| Skewness | -1.220452 | -1.207925 |
| Kurtosis | 3.586197 | 3.402443 |
| Jarque-Bera | 500.4549 | 476.1147 |
| Probability | 0.000000 | 0.000000 |
| Sum | 8441.930 | 8423.402 |
| Sum Sq. Dev. | 9.267124 | 9.322480 |
| Observations | 1906 | 1905 |

**Exhibit 2: Descriptive statistics on Future and Spot prices**

Descriptive statistics test results show that negative skewness in both the future and spot market returns. It indicates that the tail of left side is longer or fatter than the right side and mean value is less than the median value. Kurtosis in both the cases indicates greater than 3 and it indicates leptokurtic shape in the distribution which produces outliers. After removing the outliers we should proceeds for our next test.

**Test for Stationarity**

In our present study we apply Phillips-Peron test to check the Stationarity of the data. Exhibit 3 and Exhibit 4 show the unit root results of our data series.

| Variables | At Level | | | | At 1st difference | | | |
|---|---|---|---|---|---|---|---|---|
| | Test Statistic | Critical Value (1%) | Critical Value (5%) | Prob. | Test Statistic | Critical Value (1%) | Critical Value (5%) | Prob. |
| LOG_FP | 0.406003 | –3.433586 | –2.862856 | 0.9832 | –43.77678 | –3.433591 | –2.862858 | 0.0001 |
| LOG_SP | 0.449098 | –3.433589 | –2.862857 | 0.9849 | –44.19039 | –3.433597 | –2.862861 | 0.0001 |

**Exhibit 3 : Phillips-Perron test statistic (Intercept)**

| Variables | At Level | | | | At 1st difference | | | |
|---|---|---|---|---|---|---|---|---|
| | Test Statistic | Critical Value (1%) | Critical Value (5%) | Prob. | Test Statistic | Critical Value (1%) | Critical Value (5%) | Prob. |
| LOG_FP | –0.879813 | –3.962872 | –3.412171 | 0.9566 | –43.83590 | –3.962879 | –3.412175 | 0.0000 |
| LOG_SP | –0.818244 | –3.962877 | –3.412174 | 0.9626 | –44.22022 | –3.962887 | –3.412179 | 0.0000 |

**Exhibit 4: Phillips-Perron test statistic (Intercept and trend)**

Test results shows in the above indicate that at level P-value is more than 1% and 5% level of significance in case of both Intercept and Trend and Intercept. It is also seen from our result that adjusted t-statistic is less than the critical value at 1% and 5% level of significance at level. So we conclude that at level we accept the null hypothesis that unit root is present in spot and future data series of gold. But when we take 1st difference of the data series we see that the P-value is small at 1% and 5% level of significance in case of both Intercept and Trend and Intercept. And it is also seen that Adj t-stat is more than the critical value at 1% and 5% level of significance. So we conclude that At 1st difference we reject the null hypothesis and accept the alternative hypothesis means that the spot and future price series of gold are free from unit root which implies that data series are stationary and both spot and future price are integrated of same order i.e. I(1).

**Lag selection criteria:**

Before we see the long run and short run relationship among the variables first we go for lag selection. The test result shown in Exhibit 5.

VAR Lag Order Selection Criteria

Endogenous variables: LOG_FP LOG_SP
Exogenous variables: C
Sample: 1 1908
Included observations : 1889

| Lag | LogL | LR | FPE | AIC | SC | HQ |
|-----|------|-----|-----|-----|-----|-----|
| 0 | 8016.263 | NA | 7.08e-07 | -8.485191 | -8.479321 | -8.483030 |
| 1 | 15782.78 | 15508.36 | 1.91e-10 | -16.70384 | -16.68623 | -16.69735 |
| 2 | 15951.76 | 337.0744 | 1.60e-10 | -16.87852 | -16.84917* | -16.86771 |
| 3 | 15962.75 | 21.89516* | 1.59e-10* | -16.88592* | -16.84483 | -16.87079* |
| 4 | 15966.61 | 7.689613 | 1.59e-10 | -16.88577 | -16.83295 | -16.86632 |

* indicates lag order selected by the criterion
LR : sequential modified LR test statistic (each test at 5% level)
FPE : Final prediction error
AIC : Akaike information criterion
SC : Schwarz information criterion
HQ : Hannan-Quinn information criterion

**Exhibit 5: Lag selection criteria**

First, we run unrestricted VAR of the two variables taking two lags. After the result comes we apply lag selection criterion taking four lags. In the result of the above table we see that in the entire criterion * indicate the lag order selected by the criterion. Here four criterion (i.e. FPE, LR, AIC and HQ) are asking to take three lags. So we take three lags as optimum for our models and we shall use three lags in case of Johansen test and VECM test respectively.

**Johansen co- integration test**
Following Exhibit 6 shows the Johansen test results of the data series.

Unrestricted Cointegration Rank Test (Trace)

| Hypothesized No. of CE(s) | Eigen value | Trace Statistic | 0.05 Critical Value | Prob.** |
|---------------------------|-------------|-----------------|---------------------|---------|
| None * | 0.012668 | 24.31553 | 15.49471 | 0.0018 |
| At most 1 | 0.000123 | 0.232455 | 3.841466 | 0.6297 |

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

| Hypothesized No. of CE(s) | Max-Eigen Eigen value | 0.05 Statistic | Critical Value | Prob.** |
|---|---|---|---|---|
| None * | 0.012668 | 24.08307 | 14.26460 | 0.0011 |
| At most 1 | 0.000123 | 0.232455 | 3.841466 | 0.6297 |

Max-eigenvalue test indicates 1 cointegratingeqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

**Exhibit 6 :Co-integration test result**

After running Johansen co-integration test, we see that the Test statistics is more than the critical value at 5% level of significance at both the Trace test as well as Maximum Eigen value test and P-value is small. So we reject the 1st null hypothesis that there is no co integration among the log of future price and log of spot price of gold and accept the alternative hypothesis. Our 2nd null hypothesis implies that there exists at least one co integration equation. Test statistics is less than the critical value at 5% level of significance and P-value is higher than 5% level of significance. So, here we accept the null hypothesis. Overall we say that spot and future price of gold have a long run association ship and in the long run they move together. Now we can move with VECM with these series to see that how the short run forces are responsible for keeping the long run relationship intact.

**Vector error correction test**

Exhibit 7, 8 and 9 shows the Vector error correction estimates, Vector error correction estimates with P values and Wald test results which are shown in the following.
Vector Error Correction Estimates
Date: 11/29/17   Time: 21:40
Sample (adjusted): 5 1908
Included observations: 1889 after adjustments
Standard errors in ( ) & t-statistics in [ ]

| Cointegrating Eq: | CointEq1 | |
|---|---|---|
| LOG_FP(-1) | 1.000000 | |
| LOG_SP(-1) | -0.974833 | |
| | (0.03409) | |
| | [-28.5945] | |
| C | -0.118703 | |

| Error Correction: | D(LOG_FP) | D(LOG_SP) |
|---|---|---|
| CointEq1 | -0.017731 | 0.019489 |
| | (0.00764) | (0.00735) |
| | [-2.32041] | [ 2.65104] |
| | | |
| D(LOG_FP(-1)) | -0.184496 | 0.098677 |

|  |  |  |
|---|---|---|
|  | (0.02677) | (0.02576) |
|  | [-6.89153] | [ 3.83129] |
| D(LOG_FP(-2)) | -0.062204 | 0.036505 |
|  | (0.02738) | (0.02634) |
|  | [-2.27192] | [ 1.38589] |
| D(LOG_FP(-3)) | 0.019613 | 0.039618 |
|  | (0.02485) | (0.02390) |
|  | [ 0.78935] | [ 1.65733] |
| D(LOG_SP(-1)) | 0.436284 | -0.057972 |
|  | (0.02765) | (0.02661) |
|  | [ 15.7762] | [-2.17897] |
| D(LOG_SP(-2)) | 0.056446 | -0.062398 |
|  | (0.03011) | (0.02897) |
|  | [ 1.87440] | [-2.15376] |
| D(LOG_SP(-3)) | 0.028962 | 0.031272 |
|  | (0.02910) | (0.02800) |
|  | [ 0.99514] | [ 1.11690] |
| C | -8.21E-05 | -0.000113 |
|  | (8.9E-05) | (8.6E-05) |
|  | [-0.92206] | [-1.31443] |

| | | |
|---|---|---|
| R-squared | 0.130501 | 0.019086 |
| Adj. R-squared | 0.127265 | 0.015436 |
| Sum sq. resids | 0.028092 | 0.026001 |
| S.E. equation | 0.003865 | 0.003718 |
| F-statistic | 40.33067 | 5.228534 |
| Log likelihood | 7818.749 | 7891.824 |
| Akaike AIC | -8.269718 | -8.347088 |
| Schwarz SC | -8.246240 | -8.323610 |
| Mean dependent | -0.000119 | -0.000122 |
| S.D. dependent 0.004137 | 0.003747 | |

| | |
|---|---|
| Determinant resid covariance (dof adj.) | 1.57E-10 |
| Determinant resid covariance | 1.56E-10 |
| Log likelihood | 15966.50 |
| Akaike information criterion | -16.88565 |
| Schwarz criterion | -16.83282 |

Exhibit 7: Vector error correction

Vector error corrections estimates show that there exists a bi directional error correction in respect of spot and future price in the long run but the results does not show the probability value . In order to draw conclusion of our result we ascertain P value in the exhibit 8.
Dependent Variable: D(LOG_FP)
Method: Least Squares (Gauss-Newton / Marquardt steps)

Date: 11/29/17   Time: 21:45
Sample (adjusted): 5 1908
Included observations: 1890 after adjustments
D(LOG_FP) = C(1)*( LOG_FP(-1) - 0.974833283641*LOG_SP(-1) -
    0.11870283963 ) + C(2)*D(LOG_FP(-1)) + C(3)*D(LOG_FP(-2)) + C(4)
    *D(LOG_FP(-3)) + C(5)*D(LOG_SP(-1)) + C(6)*D(LOG_SP(-2)) + C(7)
    *D(LOG_SP(-3)) + C(8)

|  | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C(1) | -0.017705 | 0.007639 | -2.317705 | 0.0206 |
| C(2) | -0.184482 | 0.026765 | -6.892677 | 0.0000 |
| C(3) | -0.062083 | 0.027370 | -2.268312 | 0.0234 |
| C(4) | 0.019567 | 0.024841 | 0.787676 | 0.4310 |
| C(5) | 0.436272 | 0.027648 | 15.77962 | 0.0000 |
| C(6) | 0.056693 | 0.030096 | 1.883746 | 0.0598 |
| C(7) | 0.028891 | 0.029095 | 0.992989 | 0.3208 |
| C(8) | -8.27E-05 | 8.90E-05 | -0.929031 | 0.3530 |

| | | | |
|---|---|---|---|
| R-squared | 0.130466 | Mean dependent var | -0.000120 |
| Adjusted R-squared | 0.127232 | S.D. dependent var | 0.004136 |
| S.E. of regression | 0.003864 | Akaike info criterion | -8.270204 |
| Sum squared resid | 0.028094 | Schwarz criterion | -8.246736 |
| Log likelihood | 7823.343 | Hannan-Quinn criterion | -8.261562 |
| F-statistic | 40.33969 | Durbin-Watson stat | 2.000030 |
| Prob(F-statistic) | 0.000000 | | |

Exhibit 8: Results of VECM with P value

After running VECM with P value on our data series (exhibit 8), we find that the error correction term C (1) is negative and significant. It implies that we reject the null hypothesis (i.e. no long run causality running from log of spot price to log of future price) and accept the alternative hypothesis. So here we conclude that there is a long run causality running from log of spot price to log of future price.

Now for checking short run causality we select our null hypothesis as: C(5)=C(6)=C(7)=0. Here C(5),C(6) and C(7) are the co efficient of the log of spot price at lag 1,lag 2 and lag 3 respectively. To check it we apply Wald test and the results are shown in exhibit 9.

Wald Test:
Equation: Untitled

| Test Statistic | Value | df | Probability |
|---|---|---|---|
| F-statistic | 84.83089 | (3, 1882) | 0.0000 |
| Chi-square | 254.4927 | 3 | 0.0000 |

Null Hypothesis: C(5)=C(6)=C(7)=0
Null Hypothesis Summary:

| Normalized Restriction (= 0) | Value | Std. Err. |
|:---:|:---:|:---:|
| C(5) | 0.436272 | 0.027648 |
| C(6) | 0.056693 | 0.030096 |
| C(7) | 0.028891 | 0.029095 |

Restrictions are linear in coefficients.

Exhibit 9: Wald test result

After running Wald test on the data series we get chi-square value to be 254.4927 and here P-value is significant at 1% level of significance. So, here we reject the null hypothesis. It implies that there exists a short run causality running from log of spot price to log of future price. So we conclude that there is log run and short run causality running from spot price to

Granger causality test
Following Exhibit 10 shows the pair wise Granger causality test result.
Pair wise Granger Causality Tests
Date: 11/29/17   Time: 22:27
Sample: 1 1908
Lags: 3

| Null Hypothesis: | Obs | F-Statistic | Prob. |
|:---|:---:|:---:|:---:|
| LOG_SP does not Granger Cause LOG_FP | 1893 | 93.1929 | 3.E-56 |
| LOG_FP does not Granger Cause LOG_SP | 9.50742 | 3.E-06 | |

Exhibit 10 : Granger causality

From the above test result we find that F-statistics does not Granger causes log of future price is 93.1929 with P-value 3.E-56 which is very small and significant. It implies that we reject the null hypothesis. The F-statistics does not Granger causes log of spot price is 9.50742 with P-value 3.E-06 which is also very small and significant. It implies that we also reject the null hypothesis. So, here we find the existence of bidirectional causal relationship between the variables (i.e. log of future price and log of spot price) which implies that log of

## CONCLUSION

In our present study we try to investigate the role of price discovery function for settlement of gold future price. Johansen co integration test result shows long run cause and effect relationship between the spot and future price of gold.  Vector error correction test result shows that long run as well as short run causality running from logs of spot price to logs of future price. Through Granger causality test the existence of bidirectional causality between the future price and spot price prove the existence of price determination from spot price to future price and vice-versa.

**CONTRIBUTION TO EXISTING LITERATURE**

Most of the authors have proved into their study that uni directional causality running between the spot price and future price although their results are not always consistent. To make it specific; some researchers [like. Sridhar, L. S., Dr. Sumathy, M., Sudha, N.,& Charles Ambrose, A(2016) found spot price casus future prices and some (like.. Nirmala, K., Munilakshmi, R. and Sandhya,V.(2015), Dr.Chellasamy,P.,& Anu,K. M(2015) found just the opposite in respect of different commodities. In our study we have prove the existence of bidirectional causality between gold spot and future price. Our result is consistent with Zheng Jie and Dong Liang (2015).

## LIMITATION OF RESEARCH AND SCOPE FOR FURTHER RESEARCH

Concluding a paper with analysis of seven years data is not sufficient. Our result shows only price discovery function on gold future while futures researches may also look into many vital areas like volatility spill over, hedge effectiveness, inter country study, inter temporal study etc. on gold price both spot as well as derivative. With introduction of option trading in commodity market the future scope of research has further been extended to option price and spot price as spot price is a dependent variable for determination of option price.

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o   http://www.nseindia.com/content/ncfm/SMRepository/SM_COMMODITIES.zip

**NOTES**

1.  Nicholas Kaldor analyzed the "Cob web effect" model in 1934. This model is based on a time lag between supply and demand decisions. This model basically applied for agricultural market.

2.  Random walks have various applications on different field of study like Physics, Ecology, Biology, Economics etc. It explains the observed behavior of many processes. The term was first introduced by Karl Pearson.

# A Pilot Study on the Relationship between Personality Trait and Leadership Style of the Paramedical Personnel in Kolkata

**Rituparna Acharya\* & Dr.A.K.Dasbiswas\*\***

**ABSTRACT**

*Paramedical personnel are the most important building block of the health industry. The purpose of the study is to find out most appropriate leadership style among these individuals. Further the identification of personality trait among these personnel was conducted. Lastly we tried to find out relationship between these two variables. Leadership and personality trait questionnaires are constructed and used for collection of data. The statistical techniques used are central tendency, factor analysis, Cronbach alpha calculation and regression. The data showed values of factor analysis close to 1. The reliability of the questionnaire demonstrated the values greater than 0.7 and regression showed significant F value. So it can be concluded that personality trait have a significant relationship with leadership style. The whole study was conducted on 20 paramedical individuals as it was a pilot study. In near future we will conduct the research on larger sample*

***Key words:*** *Leadership Style, Personality Trait, Paramedical Personnel*

## INTRODUCTION

The intimate relationship of psychology and management has lead to the study of paramedical personnel and their leadership style depending upon their personality trait. Paramedical personnel are the individuals who provide healthcare under the supervision of physicians. As obviously for managing patients in a heath care industry these professionals need leadership capabilities. They may demonstrate different types of leadership styles while managing patients. Moreover these personnel may have different personality traits. In the present communication we are intended to establish a relationship between the personality trait and leadership style of the paramedical individuals.

## OBJECTIVE

The objective of this paper is to find out the relationship between personality trait of the paramedical individuals and the leadership style of the same. In our study we are intended to find out the reliability of the questionnaires formed for testing personality trait and leadership style for future study. This study will lead to a futuristic research on large samples of paramedical individuals for studying the relation of personality trait and leadership behaviour.

\*    Scholar ,Seacom Skills University, Kendradangal, near Santiniketan, Birbhum , West Bengal, India. ; E-mail:rituparnaacharya@rediffmail.com \*\* Emeritus Professor, ITM Business School, Navi Mumbai, India E-mail: dasbiswas@itm.edu

## LITERATURE REVIEW

The most popular method of studying personality trait is Big Five personality trait (Goldberg, 1990). The questionnaire of this model is subdivided in five broad categories by factor analysis. The five factors are openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism which are acronymic as OCEAN.

The first trait of the big five personality trait is openness to experience. This trait focuses on the appreciation of art and beauty. The openness to experience is divided into six distinct facets which include fantasy, aesthetics, feelings, actions, ideas and values. The manager who scores high in this trait have the qualities like original, imaginative, daring, the person have broad interests and generally prefer variety over fixed routines. This trait is a strong predictor of who will become a successful leader (Poropat, 2009).

The second trait of this model is conscientiousness which revolves around the idea of organization and perseverance. There are six facets of this trait which are competence, order, dutifulness, achievement, self discipline and deliberation. The high score of this trait reveals that the person is hardworking, ambitious, energetic, persevering and he likes to plan things in advance just like an appropriate leader. Psychologists predict that this trait represents both personal and professional success and it is strong predictor of leadership in business and government (Stock et al., 2016).

The third trait extraversion is also known as "surgency". It focuses on sociability and where individuals derive their energy from. The six facets of this trait are warmth, gregariousness, assertiveness, activity, excitement seeking and positive emotions. The high score of this trait represents sociable, fun-loving, affectionate, friendly, talkative and a person who derive energy from social activity. The individual who have high score in this trait prefers to remain in the spot light and they often engage themselves in thrill seeking behaviour (Cheema, 2006).

The forth trait agreeableness revolves around the idea of trust, honesty and compliance. The six facets of this trait are trust, straightforwardness, altruism, compliance, modesty and tender-mindedness. The high score means the person is sympathetic, kind, affectionate and is likely to engage in pro-social behaviour and volunteerism. Researchers suggest that disagreeable people may be more likely to succeed at work because they're better at getting their ideas heard (Müller et a., 2012).

The final trait of big five personality trait is neuroticism that focuses on the experience of negative emotions. The six facets of this trait are anxiety, angry hostility, depression, self consciousness, impulsiveness and vulnerability. The person having high score in neuroticism experience negative emotions and have difficulty in controlling them. Usually with high score they worry a lot, they feel insecure, self-conscious and temperamental (Wichert et al., 2010).

However, this present communication is a way of revealing the relationship between the personality trait and leadership style. Leadership style is nothing but the way a person uses power to lead other people. In our study we will concentrate on the main 4 types of leadership style- Authoritarian, Democratic, Laissez-faire, Business like and Benevolent (Yavirach, 2012).

Autocratic leadership style is centred round the boss. In this leadership style leader holds all the authority and responsibility. In this leadership, leaders make decisions on their own

without taking any consultation of the subordinates. They reach decisions by their own, communicate them to subordinates and expect prompt implementation. Autocratic work environment does not have any flexibility.

Democratic leadership style, subordinates are involved in making decisions. Unlike autocratic, this headship is centred round the subordinates' contributions. The democratic leader holds final responsibility, but he or she is known to delegate authority to other people, who determine work projects. In this style of leadership communication is active upward and downward. This leadership can provide better solutions of the managerial problems.

Laissez-faire or nice guy style means giving complete freedom to subordinates. In this style, manager once determines policy, programmes and limitations for action and the entire process is left to subordinates. Group members perform everything and the manager usually maintains contact with outside persons to bring the information and materials which the group needs. This type of style helps the subordinates to develop independent personality. However, the contribution of managers is almost nil. It tends to permit different units of an organization in to proceed at cross-purposes and can degenerate into chaos. Hence this style is used very rarely in business organizations.

Training or business like style is characterized by clear authority of the leader with a strong emphasis on performance. The leader takes personal interest in the subordinates only in so far as it may aid their performance potential. He tries to maintain a distance from the subordinates and tries to remain objective. The leader often approaches the business as a science. He gathers information and formulates decisions based upon calculation. The team is usually provided with the best equipment and op-to-date techniques.

Benevolent or supportive style is characterized by a coach who relies upon his own ideas yet is generally approachable and encourages interpersonal communication between himself and team members. He respects subordinates as individuals and uses personal contact as the means for rewarding them for group cohesion and group performance. He is supportive, open and interested in individual problems but maintains a distance between himself and the athletes (Liu et al., 2003; Kantharia, 2012; Melero, 2004).

As can be seen, each leadership style has advantages and disadvantages. Not all leaders will fall exclusively into any one style, nor do all leaders fall into only five styles mentioned above, these are only the most predominant leadership styles. There is neither ideal leader nor one who is completely effective. Success depends on the number of elements such as talent technique, circumstances and the make-up of the team.

## METHODOLOGY OF RESEARCH

### Sampling

A pilot study was conducted on 20 paramedical professionals.

### Data Collection & Proposed Tools for Interpretation

The instrument used for this study is a modified version of the Leadership behaviour Description questionnaire based on Kirby's and Neil's factor analysis of this questionnaire. A total of 25 items will be used, 5 items for each of the factors or identified leadership styles. Item selection will be done through a subjective analysis based on the average score obtained by Kirby's and Neil's research results. This questionnaire assessed the subordinate's preference

for specific behaviours from their leader on a five point scale. Each question starts with the phrase, "The leader should….." and the response will be always, often, occasionally, Seldom and never. The questionnaire for personality trait was made and used for data analysis.

### Data Analysis & Techniques to be applied

An item analysis will be performed on each of the 25 items on the questionnaire. This will be done for the entire sample. The item analysis will provide with an indication of the percentage of people within the sample who selected each response for every item on the questionnaire. Each response will be given a value; always-5 points, often-4 points, occasionally-3 points, seldom-2 points and never-1 point. Then the responses from all the subjects for each item will be added so that a total number of points can be assigned to each item. Based on these results, a hierarchy of items (specific behaviours from the leader) will be tabulated. This will be done for all the subjects. The factor analysis of the questions and reliability was tested. After that the test for regression was performed.

### Scope of Paper and Limitations

The future scope of the paper is to study on large sample of paramedical personnel. The future study will help to appropriate leadership and preferred leadership behaviour among paramedical individuals. The limitation of this study is that this work is conducted in a very small sample size as it is a pilot study to find out the reliability of the questionnaires and for preliminary findings of the relationship of the personality trait and leadership behaviour.

### ANALYSIS

### Central tendency

The study variables of this work are leadership style and personality trait. The leadership style has 14 questions though the 10th question is neglected for its results in factor analysis. The other 13 items have mean of 56.4737, standard deviation of 7.28292 and variance of 53.041 (table1).

| Mean | Variance | Std. Deviation | N of Items |
|---|---|---|---|
| 56.4737 | 53.041 | 7.28292 | 13 |

Table 1: Central tendency of leadership style

The central tendency of personality trait is demonstrated in the table2. There are 6 questions and they have a mean of 26.3684, variance of 17.135 and standard deviation of 4.13938.

| Mean | Variance | Std. Deviation | N of Items |
|---|---|---|---|
| 26.3684 | 17.135 | 4.13938 | 6 |

Table 2: Central tendency of personality trait

|      | LS1 | LS2 | LS3 | LS4 | LS5 | LS6 | LS7 | LS8 | LS9 | LS10 | LS11 | LS12 | LS13 | LS14 |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| LS1  | 1   | 1   | 0.543 | 1 | 0.655 | 1 | 1 | 0 | -0.39 | . | 1 | 1 | 1 | 1 |
| LS2  | 1   | 1   | 0.543 | 1 | 0.655 | 1 | 1 | 0 | -0.39 | . | 1 | 1 | 1 | 1 |
| LS3  | 0.543 | 0.54 | 1 | 0.54 | 0.156 | 0.54 | 0.54 | 0 | -0.59 | . | 0.54 | 0.54 | 0.54 | 0.54 |
| LS4  | 1   | 1   | 0.543 | 1 | 0.655 | 1 | 1 | 0 | -0.39 | . | 1 | 1 | 1 | 1 |
| LS5  | 0.655 | 0.66 | 0.156 | 0.66 | 1 | 0.66 | 0.66 | 0.707 | -0.72 | . | 0.66 | 0.66 | 0.66 | 0.66 |
| LS6  | 1   | 1   | 0.543 | 1 | 0.655 | 1 | 1 | 0 | -0.39 | . | 1 | 1 | 1 | 1 |
| LS7  | 1   | 1   | 0.543 | 1 | 0.655 | 1 | 1 | 0 | -0.39 | . | 1 | 1 | 1 | 1 |
| LS8  | 0   | 0   | 0 | 0 | 0.707 | 0 | 0 | 1 | -0.76 | . | 0 | 0 | 0 | 0 |
| LS9  | -0.39 | -0.39 | -0.59 | -0.39 | -0.72 | -0.39 | -0.39 | -0.76 | 1 | . | -0.39 | -0.39 | -0.39 | -0.39 |
| LS10 | .   | .   | . | . | . | . | . | . | . | 1 | . | . | . | . |
| LS11 | 1   | 1   | 0.543 | 1 | 0.655 | 1 | 1 | 0 | -0.39 | . | 1 | 1 | 1 | 1 |
| LS12 | 1   | 1   | 0.543 | 1 | 0.655 | 1 | 1 | 0 | -0.39 | . | 1 | 1 | 1 | 1 |
| LS13 | 1   | 1   | 0.543 | 1 | 0.655 | 1 | 1 | 0 | -0.39 | . | 1 | 1 | 1 | 1 |
| LS14 | 1   | 1   | 0.543 | 1 | 0.655 | 1 | 1 | 0 | -0.39 | . | 1 | 1 | 1 | 1 |

Table 3: Correlation Matrix (of leadership style)

**Factor analysis**

The factor analysis is carried out of the both variables, as they are showed in table 3 and table 4. The values demonstrated are close to 1.

| PT1 | PT2 | PT3 | PT4 | PY5 | PT6 | |
|-----|-----|-----|-----|-----|-----|-----|
| PT1 | 1.000 | .252 | .456 | .248 | .868 | 1.000 |
| PT2 | .252 | 1.000 | .044 | .091 | .179 | .252 |
| PT3 | .456 | .044 | 1.000 | .542 | .839 | .456 |
| PT4 | .248 | .091 | .542 | 1.000 | .455 | .248 |
| PY5 | .868 | .179 | .839 | .455 | 1.000 | .868 |
| PT6 | 1.000 | .252 | .456 | .248 | .868 | 1.000 |

Table 4: Factor analysis of personality trait

**Reliability**

The use of Cronbach alpha is for checking reliability of a questioner. The value above .7 shows reliable. In the present study table 5 and table 6 showed the Cronbach alpha values for leadership style and personality trait questioner. However both of them showed higher Cronbach alpha value, more than 0.7 which signifies that both the questionnaires are reliable (Yavirach, 2012).

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| .840 | .936 | 13 |

Table 5: Reliability Statistics for leadership style

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|---|---|---|
| .767 | .833 | 6 |

Table 6: Reliability Statistics for personality trait

## Regression analysis

For doing regression analysis we had two hypothesis-
$H_{01}$: there is no relationship between leadership style and personality trait
$H_{a1}$: there is a significant relationship between leadership style and personality trait

In this study table 7 and table 8 showed R and R2 values as .983 and .966 respectively. The standard error is .10852. the F calculated is 99.906 which demonstrated high significance which is larger than 99.9% (Yavirach, 2012).

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .983 | .966 | .956 | .10852 |

**Table 7: Model Summary**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 4.706 | 4 | 1.177 | 99.906 | 0.00 |
| | Residual | .165 | 14 | .012 | | |
| | Total | 4.871 | 18 | | | |

**Table 8: Regression analysis of personality trait and leadership style**

So this result rejects null hypothesis and accepts alternative hypothesis which means that there is a significant relationship between leadership style and personality trait.

## FINDINGS

The preliminary findlings of this study demonstrated significant realtionship of the personality trait and leadership behavior of the paramedical personnel. However the two questionnaires of personality trait and leadership style showed high cronbach alpha which signifies the relaibality of these questionnaires.

## CONCLUSION

This study was to identify relationship between leadership style and personality trait in paramedical personnel. The paramedical personals are nothing but the health-care workers who provide clinical services to patients under the supervision of a physician. The term generally encompasses nurses, therapists, technicians, and other ancillary personnel involved in medical care but are frequently applied specifically to highly trained persons who share with physicians the direct responsibility for patient care. Obviously they use different types of leadership style while managing patients. Our study was to identify the personality trait these paramedical personnel have and a relationship of this personality trait with the leadership style they use while managing patients. This was a pilot study on 20 paramedical personnel. The study was conducted in Kolkata, India.

## RECOMMENDATIONS

We would recommend the readers of this paper to study further on this aspect of leadership style. The paramedical personnel are not been studied at this aspect before, so I would recommend the readers to explore further.

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# Tourism in Gujarat: A case to study

## Dr Swapna Datta Khan* & Sneha Chowdhury**

**ABSTRACT**

*Tourism in India is a fast growing industry, generating revenue directly and by enhancing employment opportunities. Gujarat on the western part of India has been proactive in boosting the tourist footfall by some innovative measures and policies. This case studies the policies introduced in Gujarat that has resulted in a definite promotion and progress of tourism.*

***Key Words:*** Gujarat, Tourism, Policy

## INTRODUCTION

Tourism in India is a fast-growing multi-billion industry. With the concept of "Incredible India" by the Indian government, and advances of information technology, tourism promotes Indian culture, Indian handicrafts and national integration. There are 36 World Heritage Sites in India that are recognized by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as of August 2017. Medical tourism is also a fast growing part of the tourism industry. (Patel, 2012),
(https://en.wikipedia.org/w/index.php?title=Tourism_in_India&oldid=824092692) Figure 1 shows the percentage share of India in comparison with the top 10 tourist destinations.
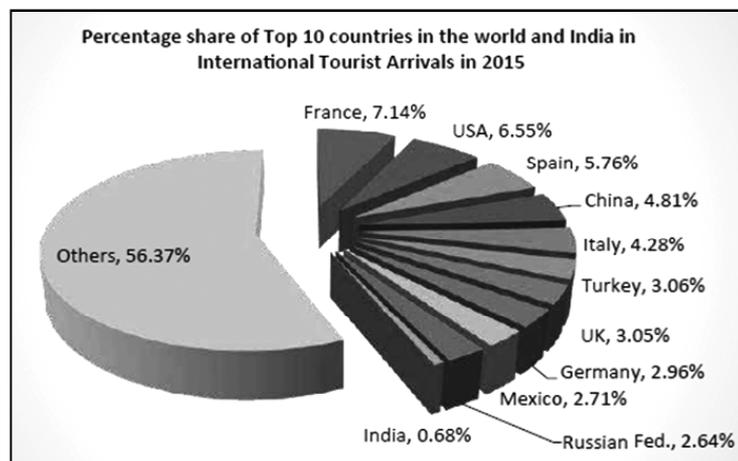


**Figure 1; (http://tourism.gov.in/sites/default/files/Other/
India%20Tourism%20Book%20English.pdf, 2018)**

* Assistant Professor, Army Institute of Management, Kolkata; EMail: captsdk@gmail.com; Ph: 9836289444
** Student II Yr, Army Institute of Management, Kolkata; EMail: chowdhurysneha12@gmail.com; Ph: 8496880006

Indian tourism, traditionally known for its cultural and historical dimensions, now is the growing earner of foreign exchange. The socio-economic dimensions of such rapid growth are plentiful, encompassing many business opportunities as tourism has linkages with transport system, hotel industry and also with the banking sector, health care sector. (Patel, 2012). The objective of tourism policy in India is to position tourism as a major driver of economic growth, reaping benefits from its developmental effect on employment generation and poverty eradication.

(http://tourism.gov.in/sites/default/files/FTA/Press_Note_FTAs_Dec_16.PDF) The growth of tourism in India is depicted in Figure 2.
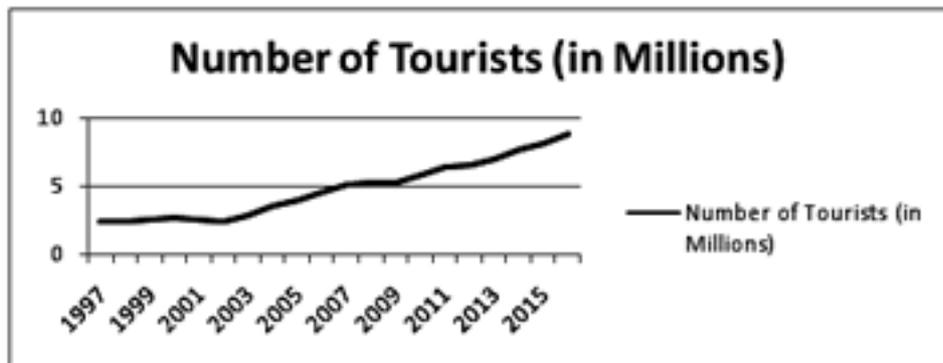


**Figure 2; (https://en.wikipedia.org/w/ index.php?title=Tourism_in_India&oldid=824092692)**

The growth notwithstanding, there are considerable challenges to the development of the tourism industry. The tourism infrastructure stands underdeveloped. The number of tourist accommodation does not meet required standards. There is low rural ATM (Automated Teller Machine) penetration.
(https://en.wikipedia.org/w/index.php?title=Tourism_in_India&oldid=824092692)

With this backdrop, it would be interesting to note the remarkable growth of tourism in Gujarat and its drivers. The takeaway from this study would throw light on the possible activities to include in the development of tourism in other parts of the nation.

**METHODOLOGY OF STUDY**

The study is based on secondary data collected from relevant government sites and a study of connected literature. The data is compiled as a narration and conclusions are drawn therein.

**A GLIMPSE OF TOURISM IN GUJARAT**

Gujarat is a state in western India with area of 196,024 km2and a coastline of 1600km. The state boasts of the tourist attractions that include:

    Some sites of the ancient Indus Valley Civilisation, such as Lothal, Dholavira, and GolaDhoro
    Four national parks and 21 sanctuaries (It is the only home of Asiatic lions and outside Africa, is the only present natural habitat of lions)

Mountain ranges of Aravalli, Sahyadri (Western Ghats), Vindhya and Saputara

Heritage sites displaying the Indo-Saracenic style of architecture

Heritage museums such as KirtiMandir, Porbandar, Sabarmati Ashram, and Kaba Gandhi No Delo

Religious sites such as Somnath, Palitana temples, SidiSaiyyed Mosque and Jama Masjid

Fairs such as The Kutch Festival orRann Festival

Geotourism at the gulf of Kutch

Beaches of Mandvi and Chorwad

Medical tourism centred around Ahmedabad

(https://vibrantgujarat.com/writereaddata/images/pdf/tourism-industry-the-gujarat-experience-sector.pdf), (Swarna, Biswas, & Harinarayana, 2013), (https://en.wikipedia.org/wiki/Gujarat#Tourism)

## CHALLENGES TO CONQUER

In his research in 2012, Patel had opined the following challenges faced by tourists in Gujarat:

Poor transportation

Lack of basic clean facilities at halting points

Variable rates and fares

Poor maintenance of heritage sites

Issues regarding security
Inadequate capacity

Lack of correct information

Excessive formalities

It was also noticed that tourism in Gujarat was inadequately promoted both among tourists and among the local people as a source of revenue. Many tourism projects were being developed without any discussion with the community leaders. Lack of alternate sites had created bottlenecks and crowd management was a problem.
(Patel, 2012)

Most constraints were due to the lack of correct and focussed infrastructure. Other problems included operator malpractices, unqualified manpower resulting in poor service quality, capacity and the absence of a diversified value bundle as a product offer. Most manpower was hired and employed on a short-term basis and concentrated in cities and resorts. (Shukla & Ansari, 2013)

## A GLIMPSE AT THE CLIMB AT THE TOURIST FOOTFALL IN GUJARAT IN THE RECENT COUPLE OF YEARS

The growth of tourism in Gujarat is depicted in Figure 3
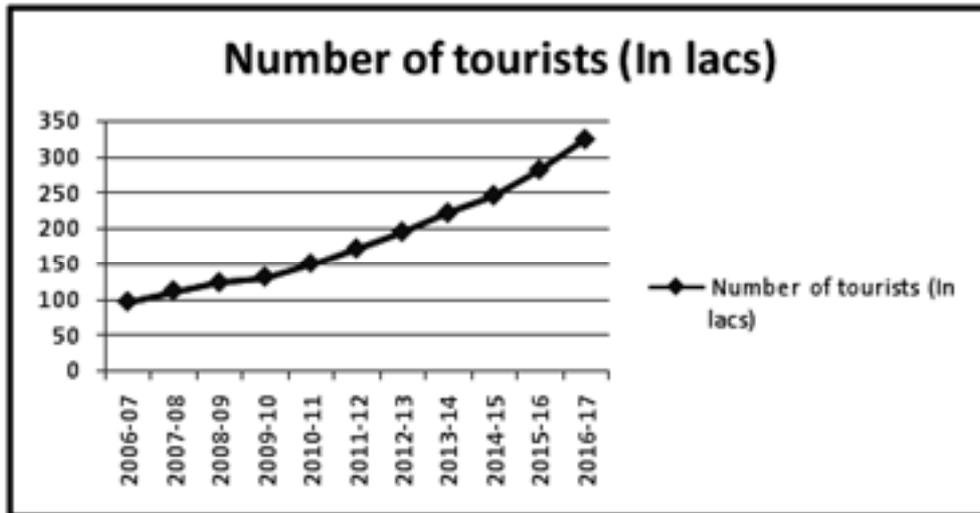


**Figure 3; (Chowdhury, 2017)**

The purpose of tourist flow is depicted in Figure 4.
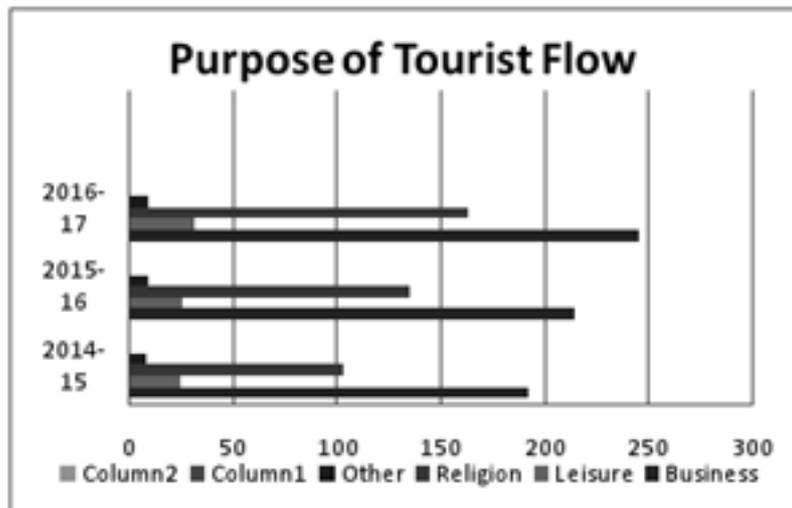


**Figure 4; (Chowdhury, 2017)**

Business was the dominant reason for tourist visits followed by spiritual pursuits. Ahmedabad, Ambaji, Dwarka, Surat and Vadodara were the top-draw destinations. (Chowdhury, 2017)

**STEPS TAKEN BY THE GOVERNMENT OF GUJARAT TO ENSURE ENHANCED TOURIST FOOTFALL**

### 1. Stepping up the efforts

The government in Gujarat celebrated World Tourism Day on 27th September 2015 by disclosing an ambitious new tourism policy 2015-2020 and awarded „industry status to the tourism sector for the first time. The objective of the policy was to make Gujarat one of the top five tourist states of India in terms of local, national and international tourist arrivals by 2025.(Madhani, 2016)

### 2. Public-Private Partnerships (PPP)

Tourism embraces sectors such as transportation, communication, accommodation, destination and event management. Thus, to enable tourism to actively contribute to the economy, PPP and participation of all private players of the connected sectors were invited. PPP involved long term contracts of the government and private bodies pulling in the strengths of both. (Kumar & Dahiya, 2015)

### 3. Tourism Organizations

Tourism Organizations provided various types of services such as provision of relevant information, training of human capital and arranging finance for tourism projects.(Kumar & Dahiya, 2015)

### 4. Marketing and Promotion

Research was conducted about the needs and expectations of tourists and communicated to the various stakeholders for implementation. All developments were portrayed by media and advertisement partners to the international public.

Film producers were given incentives to shoot film scenes in Gujarat. (Kumar & Dahiya, 2015) Amitabh Bachchan is currently the brand ambassador of Gujarat Tourism. The 'Khushboo Gujarat Ki' campaign by Bollywood megastar Amitabh Bachchanis said to have increased tourist inflow by 14%, the highest in India.(https://en.wikipedia.org/wiki/Gujarat#Tourism)Television commercials have also successfully promoted the concept of Gujarat as a tourist destination. (Dholakiya, 2015)

Students of Gujarat were inspired to develop email communication with international scholars to promote the socio-cultural aspects of their state with a scheme called "E-mail Fan Club of Gujarat". Also various familiarization tours are arranged with travel partners such as travel journalists. Road shows and international fairswere organized. PPP ensured to position the state as a tourism destination. (Kumar & Dahiya, 2015)

### 5. Provision of Essential Facilities

Enhanced investment led to an increase in the infrastructure to provide basic amenities and accommodation. (Madhani, 2016) Private players provided ¾ star rated leisure hotels, economic hotels and resorts often based on themes. They also contributed towards maintenance and development of amenities.

A Memorandum of Understanding (MOU) was signed between Tourism Corporation of Gujarat Ltd. and Indian Oil, wherein every facility of Indian Oil Corporation shall maintain a tourism

extension service, accessible in every stretch of 100km on national highways and 75km on state highways.

Public sector invested in development and maintenance of fair and festival premises, accommodation facility, wayside amenities, museums, temples, tourist information centres, parking and bus stations, road surfacing, street light, public toilet and arrangement of drinking water (Kumar & Dahiya, 2015)

### 6. Theme-Based Eco Tourism

Private players were given incentives and encouraged to provide luxury and budget accommodation with parking at theme based resorts, generating large volume of revenue. They also contributed towards projects that generated lesser revenue such as development of wayside amenities and maintenance of historical sites. (Kumar & Dahiya, 2015)

### 7. Business Interests Attract Tourists

Gujarat has had exclusive infrastructure, amenities and policies promoting business ventures. Business executives from all over the world make investment in many small and medium enterprises. The site "Vibrant Gujarat" has provided investors the platform for appropriate investments, thus also thereby boosting tourism in the state. (Madhani, 2016)

### 8. Encouragement of Innovation

Incentives are provided if an innovation benefitting the tourism sector is made in such a way that at least one of the following conditions is met:

Introduction of technology for the first time in the state
Significant leveraging of information technology
Having negligible carbon footprint

Besides, the government in Gujarat provides incentives for the use of Information and Communication Technology (ICT) in the tourism sector. (Madhani, 2016)

### 9. The Home-Stay Policy

This policy provides home owners to provide accommodation and the experience of living in ethnic Gujarat to tourists, especially foreign tourists. This policy provides employment opportunities to home owners and also increases accommodation for tourists. (Madhani, 2016)

### 10. Tourism Police

In consultation with home department an institution of tourist police has been introduced to increase the safety of tourists and adequate traffic management. (Madhani, 2016) Thus, malpractice of touts may also be curbed.

### 11. The Tourism-Employment Connection

Tourism boosts economy at the micro level in rural by contributing currency to households as they provide service, accommodation, food, guidance and handicrafts. Gujarat has every kind of tourism, thus expanding the range of possible entrepreneurship and employment of local people. (Kalaiya & Kumar, 2015)

## 12. Exemption from Taxes:

Eligible tourism units got exempted from luxury tax and entertainment tax and as per the policy, passed on the same to the end-user. The same was reviewed on introduction of the Goods and Service Tax. Also, new units enjoyed exemption from electricity duty. (Madhani, 2016)

## 13. Medical Tourism

Ahmedabad is a metropolitan city with state of art infrastructure for medical treatments of various kinds. It has already seen an influx of tourists who come for medical treatment and procedures. As part of its Navratri Celebration 2004, the Government of Gujarat promoted its world –class medical facilities and medical expertise making Gujarat as a destination for medical tourism for Non Resident Indians.The" 108 Service , an ambitious project of the state for the emergency ambulance service is also successful. (Rami & Solanki, 2017)

## CONCLUSION

Realizing the benefits of the development of tourism towards the growth of economy, the government of Gujarat took very many steps and designed policies to enhance tourism infrastructure. It facilitated PPP to create necessary amenities. It encouraged innovation and contemporary concepts such as the facility of home-stay and the concept of medical tourism It also actively promoted its tourism through various communication channels and involving celebrity. It provided incentives for innovations meeting certain prelisted conditions, making the local people well aware of the economic boost gained from profitable activities for tourist units. It introduced tourist-police to make the state safer for all visitors, thus reducing also, malpractice and harassment. The state government has development Ahmedabad as a powerful location for modern medical treatments. The state government of Gujarat has always demonstrated a positive attitude towards business enterprises and this has in turn boosted tourism in the state as a sizeable portion of tourists are business travelers.

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# Organizational Perspective of Critical Success Factor to Establish ERP as A Sustainable Solution

## Ipsita Saha*, Dr Amit Kundu** & Sadhan Kumar Ghosh***

**ABSTRACT**

*Recent organizations are making significant investments in enterprise resource planning (ERP) as it integrates different functional modules to accumulate data of various business areas within a particular group. Despite their benefits, more than two thirds of ERP system projects result in failure. The reason for the failure is not only technical, but some behavioural factors are also involved there. System adoption technique should be taken from users' perspective and employees should be ready to adopt new technology.*

*Indian organizations have encountered some organizational, technological, strategic problems during the adoption and implementation of ERP system. Hence, it is significant to understand the influence of the various factors for the acceptance of ERP in the Indian context. Based on the review of extant literature, an attempt has been in the present study to identify the factors that influence the acceptance of ERP in India and their effect on the acceptance and usage of ERP. Critical Success Factors (CSFs) is a prime thing that must go well to ensure success for a manager or an organization and, therefore, it represents those managerial or enterprise areas that must be given special and continual attention to bring about high performance. CSFs include issues vital to an organization's current operating activities and to its future success.*

*Based on exhaustive literature survey, parameters associated with several domains are critically analyzed and a sustainable solution is being proposed for the successful implementation of ERP system. The present research is aimed at finding out the relevant factors of organizational domain particularly focused on an Indian environment that can contribute to the success of ERP of financial sectors. It is expected that the theory and research findings presented in this study can identify the CSFs and can aid the development of the ERP research field. The findings provide practical guidance to managers implementing ERP systems for the Indian public and private banking sectors.*

***Keywords:** ERP, CSFs, Organizational, Sustainable, Financial Sector*

**INTRODUCTION**

ERP system is a tool of integrated software components and a central database that facilitates an organization to manage effective and efficient use of resources (materials, human resources, finance etc.) by automating and incorporating business processes, data sharing throughout the enterprise and enabling information access in real-time environment (Laudon and Laudon, 2013; Nah, Lau and Kuang, 2001). For huge success in ERP implementation previous studies have identified a large number of Critical Success Factors (CSFs).

\* Research Scholar, Department of Mechanical Engineering, Jadavpur University**;** Email: ipsita.saha49@gmail.com; Ph: 8017451580

\*\* Head, School of Management Studies, Techno India; amit.kundu74@gmail.com; Ph: 9830390661

\*\*\* Professor & President, International Society of Waste Management, Air and Water (ISWMAW); sadhankghosh9@gmail.com

Despite the existence of a large body of identified CSFs that are claimed to help avoid ERP project failures, such projects have continued to experience failures and implementation difficulties. A quality improvement tool that many organizations use is called Critical Success Factors (CSF). CSFs can be mainly classified as Organizational, Technological, Environmental, Strategic, and Individual. CSFs are indicators that measure how well an organization is achieving its strategic plan and objectives. A limited number of CSFs have been empirically investigated for their role in, and effect on, implementation success or post-implementation performance outcomes. The findings can help the supervisors to modify their change of level regarding their attention, priorities, resources and leadership on managing the CSFs that have been established to be critical for achieving ERP project implementation and/or performance outcomes. The sustainability of the business model will be more feasible by successful ERP implementation organized with the Technology, Organization and Environment (TOE) framework. Sustainable business describes how dynamic concepts can be built providing a strategic advantage by developing lean and agile business process to accomplish the change in the process and be competitive in the volatile business environment.This issues can be handled by developing an effective supply chain framework for any ERP system to optimize the value chain with more flexible business process transformation by integrating the best available modules for the Financial sectors in Indian scenario.

## OBJECTIVES OF PAPER

An attempt has been made to identify the factors which are critical for the successful ERP implementation of Banking Sectors. Based on exhaustive literature survey, parameters associated with organizational domain particularly are analyzed and a strategic model is proposed. The present study is intended at finding out the relevant factors of the organizational domain particularly focused on Indian environment that can contribute to the success of an ERP system implementation. The paper aims to investigate the success factors for adaptation of ERP based on the proposed theoretical SOTE (Strategic, Organizational, Technological and Environmental) model in the financial service sector with respect to organizational perspective.

## LITERATURE REVIEW

Critical Success Factors (CSFs) have been introduced during the 1960s, as a concept that would assist companies to achieve their goals and enhance their overall competitiveness (Ram et al.,Rockart et al. Saade et al.) According to Ram and Corkindale et al., CSFs constitute a systematic way of identifying key business areas that require constant management attention. On the same vein, Rockart argues that the results obtained in these critical areas, if satisfactory, are able to significantly enhance organizational performance. In plain words, CSFs assist managers to directly affect a specific outcome, by proactively taking necessary actions in certain areas (Saade et al.). Not surprisingly, the concept of CSFs gained wide recognition in the Information Systems domain and, consequently, in the context of ERP systems . Since high failure rates of ERP implementation projects have been observed by numerous studies(Zang, Saini et al.), many scientists have attempted to investigate the factors that may enhance the whole implementation process. According to Ram, Corkindale and Wu, a large number of CSFs have been identified throughout the international literature. Indeed, the literature review analysis that was conducted revealed

that the relevant literature includes numerous studies that have, mostly, been published during the last 15 years (Saade et al.). Among these studies, some are theoretical (Bingi et al.), some others are empirical, while just a few have adopted the case-study approach. According to Saade and Nijher, despite the growth in the investigation of CSFs regarding ERP implementation, there is a long way before the empirical contribution can be considered to be substantial. Moreover, most of the empirical studies that have been conducted incorporated a limited number of critical factors in their analysis, failing to draw a more complete picture of the phenomenon. Finally, despite the wide range of CSFs proposed in the literature, many organisations continue to experience failures and difficulties in implementing ERP systems, thus, calling for additional research. More significantly, according to Ram and Corkindale et al., there is a lack of an established process for the identification of CSFs. Authors use subjective criteria in order to select the critical factors utilised in their studies, something that results in a lack of objective approaches. The present study heals that gap in the relevant literature, by developing a conceptual framework that was crystallised after a coherent two-step approach (literature review analysis and consultation with experienced practitioners / focus-group methodology). This study has used to identify factors for success or failure while implementing enterprise systems in micro, small and medium scale enterprises in developing economies.

## METHODOLOGY OF RESEARCH

### Development of Survey Instrument

Present research studied organizations implementing and using enterprise resource systems. To achieve the specified research aim, this research considered survey as an appropriate method to collect data on identified parameters of four pillars important for implementation of business model on ERP in an Indian context. The name of proposed model is SOTE (Strategic, Organizational, Technological and Environmental) for success or failure while implementing enterprise systems in the organizations of the developing economies. Those are categorized as follows:
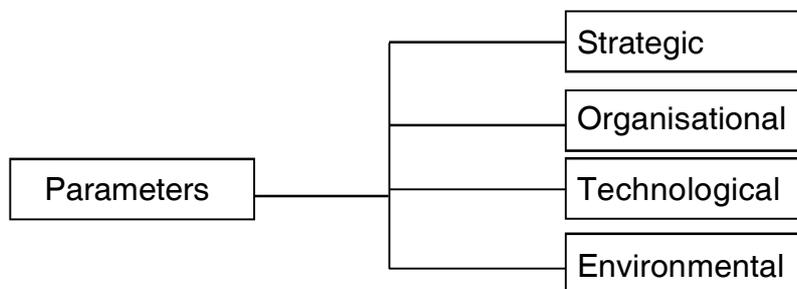


Figure1 : Proposed Theoretical Framework of SOTE Model

### Data Sources

- The present work is an empirical research based on both primary and secondary data. The theory is basically developed from secondary sources of information and a thorough study of various academic works in the field has been attempted.

- Questionnaire based survey method is adopted following the exhaustive study of literature to evaluate the identified parameters associated with implementation issues found from the past research. The required modification has been made in the survey questionnaire by the subsequent addition/deletion of the identified issues keeping in mind the context of the study. The survey uses five point Likert type scales where "1" means strongly disagree and "5" means strongly agree. The items were empirically tested and validated.

- Self-administered questionnaire was the main source of collecting the primary data. However, personal interviews were also conducted of the subjects in the light of same questionnaire.

- Perceptual inputs in the form of documentation were collected by personal visits to the subject of the company like public and private sector banks.

## Characteristics of Primary Respondents

Considering the research context, the respondents of this survey came from financial service sector, more specifically managers and business analysts of public and private sector banks who have at least 5 years of experience from Indian financial service sector organizations having experience in ERP implementation process. A total 81 respondents from the financial sector were received.

## SCOPE OF PAPER & LIMITATIONS

The next phase of research is to validate the proposed theoretical model by empirical analysis. An attempt has been made to evaluate the perception of the top level executive of Banking Sector towards organizational perspective of ERP adoption. As the questionnaire was self-explanatory the respondents were asked to respond as per the instructions in the questionnaire. The present researchers have given focus only on the financial service sector in the Indian context. The accumulated data are analyzed through SPSS package.

In future the factors of the four verticals (Strategic, Organizational, Technological, Environmental) will be emerged and a sustainable solution will be reflected namely SOTE model.

## Analysis
## Scale Reliability and Validity

During data analysis, a test for reliability and validity was conducted along with test for common method variance. Harman's single factor test to confirm presence of common method bias was done. Tests for validity include convergent validity and discriminant validity. Since most items show loading more than 0.7 (with t values significant at 0.001), all average variance extracted (AVEs) exceed 0.5 and all composite reliability (CR) exceed 0.7 hence it can be accepted that the scale exhibits good convergent validity.

## Reliability Measure

The reliability of all the variables is measured for 81 respondents and the results (Cronbach's alpha **= 0.9232**) indicate that satisfactory internal consistency exists in the survey data set.

**Methods**

An attempt has been made to evaluate the ERP implementation strategy considering all possible associated parameters ( total 11 parameters)  with organizational perspectives and estimate the most significant factors responsible for the same through factor analysis. Based on perceived data on all identified items, the factor analysis has been performed.

**Findings**

**Emerging Dimensions of Organizational Perspective**

The construct's validity was tested applying Bartlett's Test of Sphericity and The Kaiser–Mayer–Olkin (KMO) Measure of Sampling adequacy analyzing the strength of association among variables. The results reveal that the value of KMO is 0.683 which is above 0.5.The results for Bartlett's Test of Sphericity (0.000) and KMO both were highly significant and so it is concluded that factor analysis is suitable [Refer Table 1].

**KMO and Bartlett's Test**

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .683 |
|---|---|---|
| Bartlett's Test of Sphericity | Approx. Chi-Square | 231.745 |
| | df | 55 |
| | Sig. | .000 |

Table 1: Validation of Factor Analysis by KMO Measures

Based on perceived data on all identified items, the factor analysis has been performed. The findings of this study indicated that three factors namely, Organization Intent to Use ERP, Conflict in  Resolution, Management of Change have emerged as the significant factors regarding adaptation of, so derived, can explain the variation at the level of 67.601 percent [Ref Table 2].

The aim of our study is to gain insight into the research of critical success factors of ERP implementation projects. Research on ERP implementation and critical success factors in the Indian context can be seen as a valuable step toward increasing chances of implementation success. Though we have proposed SOTE model for successful implementation of ERP but empirical analysis has only made based on 11 parameters of organizational perspectives. The emerged factors namely, Organizational intent to Use ERP, Transformational Leadership and Management of Change are responsible for successful implementation of ERP in the financial service sector in the Indian context.

| Factor | Parameter | Factor Loading |
|---|---|---|
| Factor 1:<br>**Organization Intent to use ERP** $(F_1)$ | Enhancement of Employees Skills | 0.790 |
| | Information sharing between organization and supply chain members | 0.740 |
| | Participation of new employees on Decision Making | 0.627 |
| | Retrain IT workforce in new skills | 0.611 |
| | Project justification based on cost and economic scale | 0.502 |
| | Decision Making based on Research based Activity | 0.491 |
| Factor 2:<br>**Transformational Leadership** $(F_2)$ | Business Plan/ Vision of Leader | 0.620 |
| | Top Management Initiatives | 0.616 |
| | Change agents and leadership | 0.554 |
| Factor 3:<br>**Management of Change** $(F_3)$ | Organization Readiness to Change | 0.723 |
| | Management Readiness to Change | 0.720 |

Table 2: Emerged Factors with their parameters and associated loadings

**CONCLUSION & FUTURE WORKS**

It can be concluded that the establishment of a new business model for sustainable development is needed urgently. This research found that the existing business models to embed at least eco-efficiency aspects of sustainability.

More research is needed into the form that sustainable business models may take in India but it is imperative that such research does not simply seek to export western thinking and models to India, but also in the hope that the Indian might just create truly sustainable business models in ways not yet considered in the West. The extent to which such business models are mainly free-market or government policy derivatives remains to be seen, but whatever the specific determinants are there has endured for millennia.

Finally, in this spirit, we speculate that the characteristics of new sustainable business models in India would have the potential to synthesize economic, social and economic aspects at least at practical levels.

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# Young Consumers' Consumption Behavior toward Fashion Leather Accessories - An Implication of Sheth-Newman-Gross Model

**Dibyendu Chattaraj\* & Dr Sujit Mukherjee\*\***

**ABSTRACT**

*Purpose:*

*The research study is based on the Sheth-Newman-Gross (SNG) Model (1991) on consumption values. This study was carried out to explore the factors influencing purchase intention of young consumer toward fashion leather accessories. Also the study aimed to found out how these explored factors are influencing the purchase intention.*

*Methods:*

*A self administered questionnaire was utilized to collect responses from 205 respondents aged between 21- 35 years on a 7-point Likert scale through Judgmental sampling. Based on the five consumption values as per SNG Model, twenty three items were developed. Out of all these items, six items measured Functional Value, four items measured Social Value, three items measured Emotional Value, five items measured Epistemic Value and five items measured Conditional Value. Exploratory Factor Analysis (EFA) was used to analyze these items to explore the factors. Then these factors were analyzed using Multiple Regression Analysis (MRA) to measure the impact on purchase intention.*

*Findings:*

*Self-developed items indicated high reliability with Cronbach alpha value of .742. Seven factors emerged from EFA with high reliability scores of .744. The MRA demonstrated that all the seven explored factors have influence on purchase intention fashion leather accessories.*

*Implication:*

*The understanding of factors influencing the purchasing of various fashion leather accessories will help the corporate to understand the complexities of Indian consumers and customize their products to convert it into a brand which will meet the requirements of the growing Indian fashionable leather market.*

*Originality:*

*This study is extension of the extant literature based on young consumer consumption behavior. But it is furthered with SNG Model in Indian context.*

**Key words:** *Fashion Leather Accessories, Consumption Values, Purchase Intention, India*

\*   Assistant Professor, Institute of Engineering & Management, Kolkata,
    E-mail – dibyendu.chattaraj@iemcal.com

\*\* Associate Dean of Studies, Bharatiya Vidya Bhavan Institute of Management Science, Kolkata,
    E-mail – sujit@bimskol.org

**INTRODUCTION**

Leather is considered as one of important material for production of various types of goods and products like apparel, purses, wallets & belts, footwear, handbags, luggage, furniture and automotive interiors and other accessories (Joseph & Nithya, 2009). Production & use of leather is considered as one of the oldest industries (Hamer, Pratt & Such, 1966; Ola, & Iman, 2008). Due to innovation and changing needs of the consumer leather becomes an important material for apparel and accessories in today's fashion. The leather goods market by 2020 is expected to reach a whopping $94.7 billion with a CAGR of 5 % during 2015 – 2020 (Bisht, 2016).

A list of factors like increase in disposable income, improve in standard of living and increase in mobility of tourists in domestic and international level furthering the huge growth of the leather goods market. The increase in per capita income is pushing consumers to go for premium and high quality fashionable leather products; which in turn coupled with consumer' changing demand compelling global market players to continuously innovate and introduce latest and stylish leather goods (Bisht, 2016). The fashion trend across the globe is evolving with a high momentum. Market players are investing lots of resources to launch trendy, stylish and compact yet fashionable leather accessories to cater the demands of consumers and maintain a loyal customer base.

Fashion is becoming the most important part of today's generation especially for a country like India. It becomes a necessity to know what are the tastes and preferences of the people towards fashion branded leather accessories. This preference maybe in the form of designs, durability, and uniqueness or as gifts too. The consumers look out for these features in their preferred leather accessories.

The spending habits of the Indian Consumers are in a state of drastic changes. The modern consumers are becoming more materialistic as they are emphasizing more on pleasures in their life and education of their children. The leather products are becoming fashion statement for Indian consumers especially for young consumers. The companies have to understand the complexities of Indian consumers and customize their products to have the right mix to convert it into a brand which will meet the requirements of the growing Indian fashionable leather market. The understanding of factors influencing the purchasing of various fashion leather accessories among the young Indian consumers will help the corporate to do business in the Indian market. Hence the study focuses on the purchase behavior of the young consumer in Indian fashion leather accessories market.

**Model Development**

This study tries to find out the overall consumer behavior towards fashion leather accessories based on the comprehensive model developed by Prof. Sheth, along with Newman and Gross, known as Sheth–Newman–Gross Model (SNG Model) of

Consumption Values (1991). In this study, five consumption values as per SNG Model viz. Functional values, Social values, Conditional values, Emotional values and Epistemic values has been applied to understand the influences of consumption values on the consumption choice of fashion leather accessories.

**The First Value: Functional Value**

'The perceived utility acquired from an alternative for functional, utilitarian, or physical performance. An alternative acquires functional value through the possession of salient functional, utilitarian, or physical attributes. Functional value is measured on a profile of choice attributes' (Sheth, Newman & Gross, 1991). Utility, durability, reliability and price can be considered as examples of functional values.

**The Second Value: Social Value**

"The perceived utility acquired from an alternative association with one or more specific social groups. An alternative acquires social value through association with positively or negatively stereotyped demographic, socioeconomic, and cultural-ethnic groups." (Sheth et al., 1991) "Social value is measured on a profile choice imagery" (Sheth et al., 1991).

**The Third Value: Emotional Value**

'The perceived utility acquired from an alternative's capacity to arouse feelings or affective states. An alternative acquires emotional value when associated with specific feelings or when precipitating those feelings. Emotional values are measured on a profile of feelings associated with the alternative" (Sheth et al., 1991). Examples of emotional values are love, anger, curiosity, pleasure, pride, fear etc.

**The Fourth Value: Epistemic Value**

"The perceived utility acquired from an alternative capacity to arouse curiosity, provide novelty, and/or satisfy a desire for knowledge. An alternative acquires epistemic value by items referring to curiosity, novelty, and knowledge" (Sheth et al., 1991). Epistemic issues mean the set of values that could validate and enhance the customer's perceived satisfaction level obtainable from a novel product by fulfilling the curiosity, knowledge, and exploratory needs.

**The Fifth Value: Conditional Value**

"The perceived utility acquired by an alternative is the result of the specific situation or set of circumstances facing the choice maker. Conditional value is measured on a profile of choice contingencies" (Sheth et al., 1991). Conditional value can be defined as the perceived utility acquired by an alternative as a result of the specific situation or set of circumstances facing the choice maker.

Thus, the five consumption values recognized in the Sheth – Newman – Gross model play as differentiators of consumer choice in case of any particular product or brand.

**OBJECTIVES**

1.  To study the consumption behavior of young consumer towards fashion leather accessories

2. To explore the factors influencing the consumption behavior of young consumer towards fashion leather accessories

3. To find out the impact of factors on consumer purchasing intention of young buyers towards fashion leather accessories

## LITERATURE REVIEW

Leather is the raw material for varieties of products like apparel, shoes, upholstery/ wall coverings, bags, luggage and accessories like wallets, belts etc and can be fit for style, once different finishes added to the appeal of leather (Kadolph, 2010). The leather is a versatile product with varying quality and property like durability, hardness and/or, softness, stiffness and/or flexible, stretchy and/or tight (Hamer et al., 1966; Kadolph, 2010; Becker, 2014). Versatility of leather makes it fit for competitive fashion goods market (Hamer et al., 1966).

Fair estimation for a positive outlook in the leather accessories market can be done due to the facts that luxury goods become an important part of the global business activity (Husic & Cicic, 2009) and leather as fashion goods is fast outshining other products to become a fashion statement in the last decade or so (Carrier, Germain & Jean, 2014).  At the same time this segment is mostly attracted by the young consumer. In the era of tough competition and saturation of other segments, youth forms the most profitable target segment (Ahava & Palojoki, 2004). Young consumers are considered as the most susceptible segment in any marketing campaign which make them the most lucrative and ideal target market for leather fashion products (Lachance & Beaudoin, 2003; Carrier et al., 2014).

Considering the consumer's perception of leather, it was found that consumers' overall perception of leather consumption, environment and education level influence their inclination toward purchasing fashion leather goods (Kendall & Bridgett, 2007). Determinants to leather goods consumption as exhibited by Carrier et al. (2014), the importance of the ecological impact, the country of origin and ethical concerns showed fairly positive relationship with educational levels of consumer. Also Summers *et al.* discussed that consumers' orientation toward fashion made their outlook to consumption of leather accessories in a positive note (Summers, Belleau & Xu, 2006).

The five consumption values as per SNG Model are significant in predicting customer's preference where social values and conditional values are the major positive influencers. Study of Simmons (1997) indicated the usefulness of SNG model where functional and conditional values contributed more to the explanation of variance in the choice decision.

Purchase intention towards fashion products depends on the income of the respondents, higher the income, more tendencies to buy fashion accessories. There is no relationship between genders of respondents (Goyal, 2014). Consumer's individual characteristics i.e., consumers need for uniqueness, attitude towards product specific variables i.e., quality and emotional value has major role on Indian consumers' purchase intention towards fashion accessories (Lee, Kumar & Kim, 2010).

Customer value has traditionally been viewed as a trade-off between quality and price, which for many products, is a salient determinant of purchase intentions and

repeat purchase behavior. In defining present consumers' lifestyle, fashion goods and accessories play a significant role, which affect highly the consumption pattern of fashion brands (McColl & Moore, 2011; Tungate, 2005). But when fashion goods are for status, high price is not a deterrent for the consumers to purchase fashion goods (Mason, 1981).

## RESEARCH METHOIDOLOGY

A quantitative research methodology was utilized to collect the data using a detailed self developed questionnaire. The responses were personally collected from 205 young respondents aged between 21- 35 years old. In order to get well diverse respondents, respondents with different education having different marital status from diverse income strata were selected from both male and female consumers. In assessing the relevance of SNG Model, a self-developed scale based on this model was constructed. Responses were captured on a 7-point Likert scale coded by 1 as "Strongly disagree" to 7 as "Strongly agree".

The scale was developed based on the five values (variables) according SNG Model. The five values consisted of twenty three items, describing the behavioral pattern toward fashion leather accessories. Out of all these items, a set of six items measured functional value, four items measured social value, three items measured emotional value, five items measured epistemic value and five items measured conditional value. The data was quantitatively analyzed through Exploratory Factor Analysis (EFA) to explore the factors influencing young consumers' consumption behavior toward fashion leather accessories. Then extracted factors were analyzed using Multiple Regression Analysis (MRA) to measure the impact on purchase intention. MRA is carried out on the respondents who show high purchase intention (coded as 1), where low purchase intention is coded as 0.

| Demographic Characteristics | Description | Frequency | |
|---|---|---|---|
| | | Count | Percentage |
| **Gender** | Male | 109 | 53.17 |
| | Female | 96 | 46.83 |
| **Age (in Years)** | 21 - 25 | 107 | 52.20 |
| | > 25 - 30 | 58 | 28.29 |
| | > 30 - 35 | 40 | 19.51 |
| **Education** | Undergraduate | 40 | 19.51 |
| | Graduate | 98 | 47.80 |
| | Post Graduate | 67 | 32.68 |
| **Marital Status** | Married | 58 | 28.29 |
| | Unmarried | 147 | 71.71 |
| **Profession** | Service | 71 | 34.63 |
| | Business | 54 | 26.34 |
| | Self Employed | 61 | 29.76 |
| | Unemployed | 19 | 9.27 |

| Monthly income (in Rs.) | Below 25000 | 65 | 31.71 |
| | 25000-35000 | 59 | 28.78 |
| | 35001-45000 | 40 | 19.51 |
| | Above 45000 | 41 | 20.00 |

**Table 1: Demographic Characteristics of Respondents (n = 205)**

## LIMITATIONS AND SCOPE FOR FURTHER STUDIES

Like other studies this study also has data limitations, conducted with sample of only 205 respondents. More respondents would have provided better analysis output. Extension of geographical location other than Kolkata may lead to more accurate results in terms of better presentation of Indian consumer. The study outcome provides thrust to the existing study variables toward the impact of determinants on purchase intention toward fashion leather accessories, which can be furthered toward different fashion products.

## ANALYSIS & FINDINGS

*Exploratory Factor Analysis*

Exploratory principal components analysis (PCA) with Varimax rotation was utilized to extract the factors from the items. KMO value of 0.679 (greater than 0.5) indicates that the sample is quite adequate.

PCA extracted seven factors from 23 items, which were given by the number of components with Eigen values greater than one which accounted for 60.713 % of the variance explained. Seven factors thus extracted are renamed as Product Attribute, Uniqueness, Social Image, Convenience, Recognition, Value for Money and Attitude respectively. 21 items out of 23 displayed an acceptable limit factor loading of .50 or more. Based on the results of the exploratory factor analysis, it is demonstrated that all items (i.e., 23 items) were clearly defined and logically associated with their factors. The summary of EFA is presented in Table 2 below.

| Factors | Loading | Variance Explained | Total Variance Explained |
|---|---|---|---|
| Factor 1: Product Attribute | | | |
| I FLA because of durability. | .592 | 10.271 | 10.271 |
| FLA available in many colour combinations. | .733 | | |
| FLA available with many designs. | .552 | | |
| Quality matters most to me when it comes to purchasing FLA. | .613 | | |
| I like to use branded bags because it can withstand pressure. | .549 | | |
| Factor 2: Uniqueness | | | |
| I always buy FLA because of its style. | .714 | 9.707 | 19.978 |
| I use FLA as they never go out of fashion. | .777 | | |
| Possessing FLA make me unique in the crowd. | .532 | | |

| Factor 3: Social Image | | | |
| --- | --- | --- | --- |
| FLA act as status symbol. | .614 | 9.595 | 29.574 |
| Possessing FLA help avoiding getting embarrassed. | .708 | | |
| FLA make good impressions on others. | .730 | | |
| FLA represent latest trend. | .508 | | |
| **Factor 4: Convenience** | | | |
| FLA can be used as gift for any form of occasion. | .454 | 8.263 | 37.836 |
| I use FLA as it can be used in any event (casual/formal). | .850 | | |
| I use FLA because it is very convenient. | .632 | | |
| **Factor 5: Recognition** | | | |
| I always buy FLA because others admire me | .680 | 7.998 | 45.834 |
| I buy the same FLA that is being used by my peer group. | .714 | | |
| I enjoy FLA as I have capability to afford it. | .588 | | |
| Consumption of FLA is a symbol of successful people. | .415 | | |
| **Factor 6: Value for money** | | | |
| FLA outruns other products in accordance to quality & price. | .806 | 7.795 | 53.628 |
| I believe in one time investment while choosing FLA. | .755 | | |
| **Factor 7: Attitude** | | | |
| I experience gratification, pleasure & fun while purchasing FLA. | .560 | 7.084 | 60.713 |
| Being fashionable is an attitude and I cherish it. | .811 | | |

(FLA stands for Fashion Leather Accessories)

**Table 2 : Summary of EFA**

**Reliability Test**

Cronbach Alpha values of more than 0.70 for all measures as shown in Table 3 indicated the high consistency and reliability of the study.

| Variables/Items/Factors | N of Items | Cronbach's Alpha |
| --- | --- | --- |
| Self Developed Items | 31 | 0.742 |
| Consumption Values (SNG Model) | 23 | 0.744 |
| Independent Variables (Seven Factors) | 7 | 0.794 |

**Table 3: Summary of Reliability Test**

**Multiple Regression Analysis**

Table 4 exhibits the summary of results of multiple regression analysis. Result of adjusted R Square with relatively high score of 0.778 explains the total variation in dependent variable (purchase intention toward fashion leather accessories) due to the impacts of the independent variables (Product Attribute, Uniqueness, Social Image, Convenience, Recognition, Value for Money and Attitude). The value of R is 0.886,

which shows a strong positive correlation between the purchase intention and the factors with the significant level of 0.000 (p< 0.05). The standardized slope coefficient beta (Table 5) for Product Attribute, Uniqueness, Social Image, Convenience, Recognition and Attitude indicates a relatively strongly positive relationship, while Value for money indicates a weak relationship with purchase intention. The value of Durbin Watson is 1.820 which shows that there is a relatively high positive correlation between dependent and independent variables.

| R | R Square | Adjusted R Square | F Change | Sig. F Change | Durbin-Watson |
|------|----------|-------------------|----------|---------------|---------------|
| .886 | .786 | .778 | 103.070 | .000 | 1.820 |

**Table 4: Summary of results of multiple regression analysis**

| Variables | Standardized Beta | t | Sig. |
|-----------|-------------------|-------|------|
| (Constant) | | 7.197 | .000 |
| Product Attribute | .259 | 6.251 | .000 |
| Uniqueness | .142 | 3.666 | .000 |
| Social Image | .327 | 7.191 | .000 |
| Convenience | .248 | 6.138 | .000 |
| Recognition | .221 | 5.913 | .000 |
| Value for money | -.022 | -.460 | .646 |
| Attitude | .114 | 2.987 | .003 |

**Table 5: Regression between independent and dependent variables**

## CONCLUSIONS

This research aimed to study and evaluate the factors of consumption behaviors toward fashion leather accessories based on the Sheth-Newman-Gross Model (1991). Findings from this study provided evidence of the relevance of the self developed scale based on SNG model in measuring purchase intention of young consumer toward fashion leather accessories. Results from the exploratory factor analysis demonstrated that all the seven factors influence consumption behavior. The result of multiple regression analysis proved that product attribute, uniqueness, social image, convenience, recognition and attitude influence purchase intention of the young consumer positively with Beta value of 0.259, 0.142, 0.327, 0.248, 0.221 and 0.114 respectively. Negative Beta value of – 0.022 for "Value for money" demonstrated that price is one of the barrier for high purchase intention.

## RECOMMENDATIONS

Results of this study will help marketers to adjust and amend their marketing strategies to target customers precisely to secure a competitive advantage. The explored determinants would also be advantageous to the marketers in analyzing factors that can drive consumers to purchase fashion leather accessories and plan accordingly their products to the preference and taste of consumers' that somehow helps to promote their market. Being in a competitive market, marketers of fashion products

need to create an identity to increase trusts, beliefs, and attitude among consumers. The implications of this model reestablish the influence of the five major consumption values on consumer choice decision toward fashion leather accessories. In brief, the result will help the marketers to understand the mind of the consumers and as to what are they looking for in fashionable goods in Indian context.

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# Management of Academic Stress among Students: A Critical Review Based on Case Studies

**Dr. Satarupa Datta\***

**ABSTRACT**

*Students have different expectations, goals and values that they want to fulfil. While realising their dreams, they suffer from tremendous psychological pressure. Different studies have shown a variety of factors that can shrink a student's academic performance. When stressful situations take place, students become disorganized, disoriented and therefore less able to cope up. Thus, they face stress related problems such as tension, pressure, anxiety, depression and frustrations. This paper attempts to identify the factors causing stress among the college students, analyse the symptoms of stress exhibited by the students and suggest stress management interventions to mitigate stress.*

**Keywords :** *Student's stress, management education, sources of stress, effects of stress, stress management interventions.*

## INTRODUCTION

Stress is an adaptive response to an external situation that results in physical, psychological and/or behavioural deviations for individuals. When there is excessive pressure its intensity and chronic nature can lead to mental and physical ill health including depression, nervous breakdown and heart disease.

In education system, adolescents are those receiving education in junior high schools, senior high schools, vocational high schools, colleges or universities. Due to fast physical changes and mental development at this stage, students may sometimes experience incompatibility of their mental development with their physical changes or with the social environment and thus suffer from problems arising from inadequate adaptations. These problems may further cause psychological troubles and even induce deviant behaviours.

Management education is an important medium that facilitates improvement of leadership qualities and turns out excellent future managers. Students entering into the professional education need to face many challenges to which they have never been exposed earlier. The pressure to earn good grades and to earn a degree is very high. It is important that students should learn and acquire the necessary knowledge and skills that will in turn make them contribute positively to the development of the general economy. College students are at a critical period where they will enter adulthood. They are expected to be the elites in the society. Thus, they should enhance their stress management abilities so as to live a healthy life after entering the society.

\*    Assistant Professor, Department of Commerce, Panchakot Mahavidyalaya;
     Email : satarupadatta10@gmail.com; Ph: +919932532711

Stress in academic institutions can have both positive and negative consequences if not well managed. Academic institutions have different work settings compared to non-academic and therefore one would expect the difference in symptoms, causes, and consequences of stress in the two set up. Stress seems to be very common in college student's life. They have to survive academically and to prepare themselves for further graduate or professional trainings.

On Jan 10, 2010 Express India reported that Crime Records Bureau figures show India's suicide rate has risen 8 per cent a year for 10 years. According to a 2007 estimate, 45 percent of suicides involve people between 15 and 29. And WHO lists suicide among the top three causes of death in the age group 15-35. The motive when students kill themselves is invariably academic pressure – this accounts for 99 per cent suicides in the age group 12-18 Years, but psychiatrists sought to assess why the trend has risen of late and put it down to three reasons: deprivation of sunshine, exam results, and the copycat syndrome. Our education system has gradually evolved into a rat race; wherein the exciting and enriching experience of learning has been stripped down to a mere number game. We know that thousands of dreams could not be fulfilled due to pressure and stress inflicted on them because of the so called rat race. A study conducted in Sanghai (2009) shows that one out of four students suffer from excessive stress if their results are not up to their expectation levels (Ebela, March 3, 2014). So studies should be conducted to assess the impact of stress on performance and mental health of the students.

Academies environment are considered as a stressful atmosphere that often put forth a negative effect on the student's performance, mental and physical health of the undergraduate students. Stress has become an imperative issue in studious sphere as well as in our civilization. It is necessary to identify the stressors, the level of stress and adopt strategies to mitigate stress. Students encounter numerous obstacles to overcome their stress and stressors in order to attain their best intellectual act. It considers more than just achieving a successful college career. Researches also show a correlation of many stress factors that college students experience and the harmful effects of stress on their performance. Different studies have shown a variety of factors that can shrink a student's academic performance. When these stressful situations take place, students become disorganized, disoriented and therefore less able to cope up, thus they face stress related problems as tension, pressure, anxiety, depression and frustrations.

This paper is divided into different sections. In the first section, various case studies are analysed. The second section identifies the sources of stress among the students. Effects of stress on students are discussed in the third section. The final section provides suggestions regarding stress management strategies for the students.

## LITERATURE REVIEW

Management students have many obstacles to overcome in order to achieve optimal academic performance. A number of researches have shown the correlation of many stress factors that university students experience and the effects of stress on their achievements and mental health.

Academic stress among students have long been studied, and researchers Fairbrother and Warn (2003) have acknowledged many stressors such as numerous assignments, antagonism with other students, disappointment, failures and poor relationships with other students or teachers, family or problems at home. Lan (2003) mentioned that some physiological symptoms such as headaches were signals of mental overload. Other signals included fatigue, depression, anxiety, dissatisfaction with certain interpersonal relations, change of the current sleeping habit, and a drastic gain/loss of body weight. Feng (1992) pointed out that setting high goals, being a perfectionist, and comparing the self with others, and self-degradation may all cause stress and result in depression. Institutional (university) level stressors are overcrowded lecture halls, semester system and insufficient resources to execute academic work ( Awino and Agolla, 2008).

According to the Erkutlu and Chafra (2006), the pressure to perform well in the examination or test and time allocated makes academic environment very stressful. Researchers (Malach-Pines and Keinan, 2007; Ongori and Agolla, 2008) asserted stress symptoms as lack of energy, taking over the counter medication, high blood pressure, feeling depressed, over or less eating habits, difficulty in concentrating, agitation, nervousness and anxiety among others. Other potential sources of stress include excessive homework, unclear assignments, and uncomfortable classrooms (Kohn and Frazer, 1986). In addition to academic requirements, relations with faculty members and time pressures may also be sources of stress (Sgan-Cohen and Lowental, 1988). Academic institutions have different work settings compared to non-academic and therefore one would expect the difference in symptoms, causes, and consequences of stress in the two set up (Elfering et al., 2005).

Purna and Gowthami (2011) conducted a study of 500 postgraduate management students from various management institutes spread across the Warangal district of Andhra Pradesh in India reveals that four major areas cause stress among management students and out of that the curriculum factor has attracted high prominence followed by the teamwork aspect. The instruction, assessment and placement issues also are contributing for academic stress among the respondents.

The only scientific research that specifically related leisure satisfaction to academic stress was that of Ragheb and McKinney (1993) who established a negative association between academic stress and leisure satisfaction. This area of research attracts the need to inspect stress among students and identify stressors which is main source of academic stress faced by students at various management institutions in Pakistan. Graduate students perceive that faculty exert great power over their lives and feel that they live in a state of substantial powerlessness (Altbach, 1970). Students report experiencing academic stress at predictable times each semester with the greatest sources of academic stress resulting from taking and studying for exams, grade competition, and the large amount of content to master in a small amount of time (Abouserie, 1994). An undergraduate study done by Neumann et al. (1990) concludes that college students may in fact experience the burnout phenomenon due to learning conditions that demand excessively high levels of effort and do not provide supportive mechanisms that would facilitate effective coping. Types of role stress present among the engineering and management students in India was explored in a study conducted by Agarwal and Chahar (2007). Role overload, role stagnation and self-role distance

were found to be the major stressors experienced by the students. Male students experienced more role stagnation than females. The results did not show any significant differences on any of the role stressors between first year students and their seniors, or between management and engineering students. The results of this study are helpful in understanding the social and educational environment prevailing in the country. University students, especially freshmen, are a group particularly prone to stress (D'Zurilla and Sheedy, 1991) due to the transitional nature of university life. They must adjust for being away from home probably for the first time, maintain a high level of academic achievement, and adjust to a new social setting. These stressors do not cause anxiety or tension by themselves. Instead, stress results from the interaction between stressors and the individual's perception and reaction to those stressors.

The most significant academic stressors reported were items that are time-specific or subject specific which supports Carroll's (1963) contention that learning is a function of time allowed, aptitude, quality of instruction and ability to understand instruction. These core academic stressors were found to be relatively unchanged over time, as observed by Murphy and Archer (1996) who compared the academic stressors of their previous study with those experienced eight years later (Archer and Lamnin,1985).

As observed by Lauren Bigham et al. (2012) college years have been deemed as one of the most stressful periods of a person's life. The millennial generations of college students are unique in characteristics, including the manner in which they handle stressors. An epidemiological cross-sectional study of randomly selected 246 college students completed the Stress Tolerance Questionnaire (STQ), which was comprised of checklists for stressors, symptoms, and coping strategies. Stress tolerance ratios (STRs) were calculated, and subjects divided into high or low stress tolerance groups. Ten lifestyle/coping factors (out of 29) were significantly associated with high stress tolerance (HST): one was a protective factor (feeling supported) while the nine others put a person at risk for low stress tolerance (cleaned apartment, prayed, called mom, used internet social network etc. p-value < 0.05). Coping mechanisms and lifestyle habits currently employed by the millennial college students are not only ineffective for alleviating stress, but also has the effect of putting these students at risk for low stress tolerance.

## OBJECTIVES

The main objective of the current study is to

1. Identify the sources of stress among students
2. Symptoms of stress found in students
3. Suggest stress management interventions to minimise stress among students

## CASE STUDIES

### Case Study 1

According to Department of Statistics, Ministry of Education (2007), there are currently 162 colleges/universities in Taiwan, and more than half of them (93 schools) are institutes or colleges of technology. For college freshmen, they need to not only adapt themselves to the new life and new environment but also be familiar with many new

people, events, and things. The stress   on them is considerable. Therefore, understanding the sources of stress among them and how they can cope with the stress is very important. Adolescence is a dangerous period of time where young people experience self organization and role confusion. For them, stress mainly comes from academic tests, interpersonal relations, relationship problems, life changes, and career exploration. Such stress may usually cause psychological, physical, and behavioural problems.

According to statistics of 2005-2008, the number of suicide (including self-injury) cases is the highest among college/university students, and female students take a much larger proportion of the suicide (including self-injury) cases. Among the causes of suicide or self-injury, relationship problems are the leading cause, followed by depression and academic stress. Obviously, stress is the primary cause of suicide (or self-injury) among college/university students   (Campus Security Report Center, Ministry of Education, 2009). As the number of college students in Taiwan has drastically increased in recent years, this study focused on college students in to explore their stress sources and coping strategies through a questionnaire survey.

### Case Study 2

The study by Purna and Gowthami (2011) tries to make an in-depth investigation into each component of academic stress such as curriculum and instruction, team work related issues, assessment, and placement, to identify the micro issues that are causing stress. Around twelve micro issues have been identified under the curriculum and instruction component while four stressors were prioritized related to team work; five sub issues regarding assessment and three micro issues under placement components of academic stress. The sample comprises of 500 postgraduate management students from various management institutes spread across the Warangal district of Andhra Pradesh in India. Data was collected through self designed academic stress questionnaire based on previous models available.

### Case Study 3

The intention of the investigation done by Ahmed et al.(2013) is to explore the basic stress and stressors among the graduate management students in Pakistan and the degree of stress that they feel with reference to academic level. Academic, institutional and environmental stress among students has long been researched on, and researchers have identified different stressors. The learning auxiliary tries to make an in-depth inquire into each component of academic stress such as numerous assignments, antagonism with other students, disappointment, failures and poor relationships with other students or lecturers or family problems at home, curriculum and instruction, team work related issues, assessment and placement to identify the micro issues that are causing stress.

Convenient and random sampling was used to collect data through Agolla s Instrument from 300 participants who were drawn from Management students of three different Universities.

Findings of research show that the major symptoms of stress in students are anxiety or nervous indigestion, tension, experience pain in the neck or shoulders and/or suffer from migraine, Concern about next day work and managing multiple tasks.

**Case Study 4**

In a study, Misra and Castillo (2004) compared academic stressors and reactions to stressors between American and international students using Gadzella's Life Stress Inventory (Gadzella, 1991). They examined five categories of academic stressors (i.e., frustrations, conflicts, pressures, changes, and self-imposed) and four categories describing reactions to these stressors (i.e., physiological, emotional, behavioral and cognitive). The sample consisted of 392 international and American students from 2 Midwestern universities. American students reported higher self-imposed stressors and greater behavioral reactions to stressors than international students. Respondent's status (American or international) and interaction of status and stressors emerged as the 2 strongest predictors of their behavioral, emotional, physiological and cognitive

reaction to stressors. Five stressors attained statistical significance in the regression model. The findings emphasize the need to recognize cultural differences in stress management.

**Case 5**

Ross et al. (1999) conducted student stress survey to determine the major sources of stress among college students. The scale consists of 40 potentially stressful situations. The scale addressed interpersonal, intrapersonal, academic and environmental sources of stress. Participants were 100 students at a mid-sized, midwestern university and varied in year, in school, age, gender and major. The top five sources of stress were change in sleeping habits, vacation or break, change in eating habit, increased workload and new responsibilities. The most reported source was intrapersonal sources of stress.

**SOURCES OF STRESS AMONG STUDENTS**

In higher learning institutions, students are likely to be the victims of stress. Identification of stressors among students helps the educational administrator, teachers and supervisors to monitor and control the stress, anxiety and depression among students.

Academic stressors include the student's perception of the extensive knowledge base required and the perception of an inadequate time to develop it (Carveth et al. 1996). Students report experiencing academic stress at predictable times each semester with the greatest sources of academic stress resulting from taking and studying for exams, grade competition, and the large amount of content to master in a small amount of time (Abouserie, 1994).

In higher learning institutions where the demands placed on students are based on deadlines and pressure for excelling in tests or examination, the students are likely to be the victims of stress. This highlights the need for research to examine the sources of academic stress faced by students at various management institutions. With such knowledge, educationists will be able to pay more attention to the sources of academic stress of students and the use of counselling measures to assist students in the sound development of their bodies and mind. Management education is an important medium that facilitates improvement of leadership qualities and turns out excellent future managers, which is quite evident. Students entering into the

professional education needs to face many challenges to which they have never been exposed earlier. It is important to the society that students should learn and acquire the necessary knowledge and skills that will in turn make them contribute positively to the development of the general economy of any nation. Teachers often emphasize the acquisition of knowledge, so they often neglect the emotional feelings of students during the teaching process, which can cause emotional stress and learning problems for students. In addition, students may feel unfamiliar situations like nervousness, worry, frustration, abasement, depression, etc. The instability of these emotions easily initiates unusual behaviour, which then affects the learning achievements and adjustment ability of students if appropriate timely counselling is not given by the institutions, teachers and parents, or if they cannot obtain appropriate concern from their peers or siblings (Chen et al. 2006).

## STUDIES HAVE SHOWN THE FOLLOWING SOURCES OF STRESS AMONG STUDENTS

High work load; Continuous poor performance; Uncertain about job after completion of course; Stress due to overcrowded lecture halls; High expectations from parents, teachers and self; Lot of work burden due to assignments, projects and examination; Difficulty in achieving social intimacy; Relations with faculty members; Time pressures; Stress due to team work; Unsatisfactory academic performance; Lack of interest in a particular subject; Punishment by teachers; Lack of time for recreational activities; Quantum of syllabi; Presentations; Timely submission of projects etc.

## EFFECTS OF STRESS AMONG STUDENTS AND SYMPTOMS OF STRESS

Change in eating habits; Pain in neck; Headache; Migraine; Difficulty in breathing; Lack of concentration; Feel tensed; Anxiety; Tension; Fatigue; Depression; Dissatisfaction; Drastic gain or loss of body weight; Sleeplessness; Nervousness; Moodiness etc.

## STRESS MANAGEMENT INTERVENTIONS

It is important to the society that students should learn and acquire the necessary knowledge and skills that will in turn make them contribute positively to the development of the general economy of any nation. It is important for the institutions to maintain well balanced academic environment conducive for better learning, with the focus on the students' personal needs. Students have different expectations, goals, and values that they want to fulfil, which is only possible if the students' expectations, goals, and values are integrated with that of the institution (Goodman, 1993). Stress management techniques include self-management, conflict resolution, positive attitude, self-talk, breathing, meditation, exercise, diet and rest. Effective stress management also involves learning to set limits for the issues that create stress.

## INTERVENTIONS AT INDIVIDUAL LEVEL

Effective time management; Engagement in leisure pursuits; Positive reappraisal; Family support; Counselling

## INTERVENTIONS AT INSTITUTIONAL LEVEL

Restructure courses to reduce work load; Career counselling; Friendly environment; Design and offer stress related courses

## CONCLUSIONS AND SUGGESTIONS

Identification of stressors among students helps the educational administrator, teachers and supervisors to monitor and control the stress, anxiety and depression among students. Often, students feel that faculty put forth great power over their lives and they suffer in a state of ample powerlessness. As academic stress was found to be more prominent among the students of professional courses by many research studies, this study primarily concentrated on exploring the micro issues of different components of academic activities in the professional course work. The components of academics, in general, are curriculum and instruction, team work, assessment and placement. Among these components, curriculum and instruction aspects were found to be largely responsible for stress among the management students. Placement related issues are followed by assessment related matters and the team work issues.

A strong personality type can combat job anxiety better than a weaker one. Hence, institutions should arrange for personality development programmes periodically for the students. Apart from conventional education, professional, job specific and moral education should be introduced at institutions for overall grooming of the students. Choosing the right profession analyzing one's strength, weakness and area of interest can help to reduce work-related stress to a great extent. In a labour surplus economy, it may be difficult to practice but a beginning may be made to help students for the right career planning. Frequent orientation programmes at the academic institutions may be one approach.

Yoga is the most effective method of stress management. It is the source of continuous well-being, a forum where moments of happiness can briefly appear. Practice of yoga develops an inner state of deep awareness in students to realize the meaning of life with the increase in their age. The practice of yoga optimizes the self-affirmation and self-care of the students as their age increases and balances the self-confidence, self-motivation, self-potency and interpersonal relations. Managing time intelligently can help one to maximize productivity. A student should assess himself where to stop, otherwise he will be in the danger of stretching himself too thin. Family support is helpful for students faced with stress. While college students should take advantage of family support, their family members should try to understand their interests, area of expertise and abilities so as to avoid having too high expectations of them and causing them additional stress.

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# The Assessment of Marketing Culture impact on Perceived Service Quality and Destination Loyalty Link: Evidence from West Bengal Tourism

## Nibir Khawash[*] & Dr. Arup Kumar Baksi[**]

**ABSTRACT**

*The literature reveals a profusion of several studies of tourism service quality and destination loyalty link. However, the impact of marketing culture on tourist perceived service quality and destination loyalty has not thoroughly investigated. The objective of this study is to gain a deeper understanding the impact of marketing culture on tourist perceived service quality and destination loyalty in West Bengal. A mixed methodology quantitative and qualitative approach was used. In-depth interview was conducted on specific tourist destination. This study highlights marketing culture has a strong and positive impact perceived service quality and destination loyalty. Based on findings some important recommendation has been proposed for destination marketing.*

**Keyword :** *Marketing culture, Perceived Service Quality, Destination Loyalty, West Bengal*

## INTRODUCTION

Travel and tourism are one of most important service industry playing a vital role in socio economic development for many nations. Good service quality is the most important factor for creating tourist satisfaction and loyalty. Loyal tourist has an important role in creating destination attachment and destination bonding. Destination bonding turns into destination loyalty when satisfied tourist recommended the same destination to their friends and relatives. The link between customer satisfaction and company success has historically been a matter of faith and satisfaction, studies have also supported the case (Hill and Alexander, 2000).In the tourism industry tourist satisfaction create destination loyalty (Bramwell 1998; Oppermann 2000). Marketing culture is important aspects of successful tourism management and destination marketing. Marketing culture can successfully crate tourist satisfaction and consequently, it is important for tourists to revisit and recommend the destination (Rajesh, 2013 Jang & Feng, 2007). An important portion of income from tourism comes from the amount of money spent by the repeat tourists. The company may apply various marketing culture to promote their service quality for more satisfaction. Destination marketing organization can coordinate of strategic marketing management and stakeholder involvement and participation.

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\* Assistant Professor, Department of Business Administration, International Institute of Management Sciences Kolkata; Email: khawashnibir@yahoo.co.in

\*\* Associate Professor, Dept. of Management & Business Administration, Aliah University West Bengal; Email: baksi.arup@gmail.com

Destination managers need to know about important of marketing culture for creation destination loyalty (Chen & Gursoy, 2001). Previous studies have been conducted on tourist satisfaction and loyalty yet, there are few studies which have assessed destination loyalty (Yoon & Uysal, 2005; Chi & Qu, 2008; Oppermann, 2000), and however, no studies examined the influence of marketing culture on perceived service quality and destination loyalty. Our study focused five major tourist arrival destination of West Bengal. Accordingly United Nation it has expected that growth rate in emerging destination has twice as fast then other service firms (Mariani et al., 2014).

We can effectively tap into opportunities of growing tourist numbers, in terms of existing and emerging markets, it is crucial for West Bengal to deliver a high level of service quality through creating superior marketing culture in the service firms. The purpose of the study has twofold. First, it aims at gaining a deeper understanding of the underline factors that predict marketing culture. Secondly, it seeks to assess marketing culture and its impact on tourist perceived service quality and destination loyalty in West Bengal. The next sections review the literature followed by the methodology, results and conclusion.

## LITERATURE REVIEW

Because of global competition, creating loyal customers through delivery of superior service quality and customer satisfaction are considering importance to the success of service firms. As the tourism and hospitality industry become more competitive, it becomes more difficult to meet the expectations of tourist due to marketing problems arising mainly from the intangibility, inseparability, heterogeneity, and perishability characteristics of services. Although several strategies are well documented as possible solutions to marketing problems in the services marketing literature (Zeithaml, Parasuraman, & Berry, 1985), service organizations need to establish a marketing culture for the effective implementation of the strategies to overcome these problems (Webster, 1990) through the support of frontline employees (Harris & Ogbonna, 2000). In this context, marketing culture is defined as the pattern of shared values and beliefs that help individuals to understand the marketing function and thus provides them with norms for behavior in the firm (Webster, 1993). With this realization, Webster (1990; 1992; 1993) developed a marketing culture scale consisting of six distinct dimensions, namely service quality, interpersonal relationships, selling task, organization, internal communication, and innovativeness. Marketing culture is positively associated with customer satisfaction, retention and profitability. A significant positive relationship between marketing culture and competitive success in terms of profitability lends credence to the marketing-performance, this postulation is further reinforced by the identification of a strong impact of marketing culture on customer-based performance measures. (Narver and Slater, 1990; Webster, 1993). Growing concern for the issues of implementation in marketing strategy and the development of a customer orientation within firms is also raising questions specifically to organizational culture. This marketing culture helps organization for making quality of service and its process of delivery such as friendliness, courtesy and efficiency and outcomes of services such as

accommodation, food and leisure facilities (Zabkar et al., 2010; Gallarza et al., 2013; Ramseook-Munhurrun et al., 2015). A tourism product is a bundle of elements such as accommodation, food and entertainment at destination level (Zabkar et al., 2010). The tourists have experiences with destinations and their perceptions are influenced by destination facilities, destination accessibility and destination attraction (Chen & Tsai, 2007; Al-Ababneh, 2013). Parasuraman et al. (1985, 1988) developed the SERVQUAL instrument,  which consists of 22 attributes is incorporated in the five dimensions (i.e., reliability,  assurance,  tangibles, empathy and responsiveness).Over the past two decades,  this scale (SERVQUAL) has been most widely cited and used in service management literature (Carman 1990; Chand, 2010). Chand (2010) applied the SERVQUAL measurement instrument to evaluate the tourism services at ten Indian tourist destinations visited by the foreign tourists and suggested that SERVQUAL instrument has a useful diagnostic role to play in assessing and monitoring service quality in tourist destinations, enabling tourism planners to identify where improvements are needed from the tourists' perspective. Researchers recommend that perceived value is measured using a multidimensional scale (Sweeney and Soutar 2001). Sweeney and Soutar (2001) even developed a model of perceived value, named PERVAL. Meng et al (2011) consider that the non-monetary aspects can also be used to evaluate the perceived value in the shipping industry. Cronin et al. (2000) investigated the relationship between quality, value, satisfaction, and behavioral intention in six industries, and found that value influenced customer satisfaction and behavioral intention (in five industries). Suggestion comes from researcher that service quality is related but not equivalent to satisfaction because perceived service quality is a global judgment or attitude relating to the superiority of service.

Destination loyalty has received considerable attention from academics and practitioners as an important benchmark for developing a useful business strategy (Shanka et al., 2010).Petrick (2004) states that loyal visitors can be less price sensitive than first time visitors. The study shows that less loyal tourists and those visiting the destination for the first time tend to spend more money during the visit. Loyalty occurs when the customer feels so strongly that she or he can best meet his or her relevant needs that the competition is virtually excluded from consideration and customers buy almost exclusively from their favourite restaurant or hotel. Kim, Lee, and Yoo (2006) found that satisfied customers exhibit loyalty and provide positive word-of-mouth to the product/ services. Thus, customer satisfaction is considered as most significant antecedents of loyalty. In this vain, Zeithaml et al. (1996) stated that better service quality made customers more loyal to the company and in return enhance overall performance. Osman & Sentosa, (2013) pointed that customer satisfaction have significant and positive partial mediating effect on service quality and customer loyalty relationship in Malaysia rural tourism. They further implied that the relationship of service quality, satisfaction and customer loyalty will lead to rural tourism operator's profitability. Thus, overall satisfaction reflects customers' cumulative impression of a firm's service performance and in turn as a better predictor of customer loyalty. It indicates that quality service delivery and client satisfaction in service organizations have a profound impact on the overall performance.

## RESEARCH GAP

The theoretical construct of marketing culture developed by Karatepe et al (2005) based on the works done by Webster (1990, 1992, 1993) was never empirically tested on the perception of perceived service quality or post-travel behavioural development of tourists namely destination loyalty. Further, the concept of marketing culture which has been studied as a subset of organizational culture was not tested for robustness of its dimensions across the industries. Therefore, identifying the dimensions of marketing culture for tourism industry will be an absolute novel initiative. The theory governing marketing culture hinted towards value creation for the customers and hence hinted towards a probable impact on the perceived service quality in the context of a tourism industry. But the theory was not empirically tested to assess the impact. The literature also revealed the dearth of a managerial implication of marketing culture considering its probable impact on perceived service quality-destination loyalty relationship.

## RESEARCH OBJECTIVE

The study primarily focuses on exploring the relationship between marketing culture, service quality & destination loyalty in the West Bengal tourism. This study also delves into the deployment of suitable marketing culture which can help in making a better customer centric service quality for a corporate application and to have an understanding of the relationship between the three major variables under study namely marketing culture, perceived service quality and destination loyalty.

## HYPOTHESIS AND PROPOSED RESEARCH MODEL
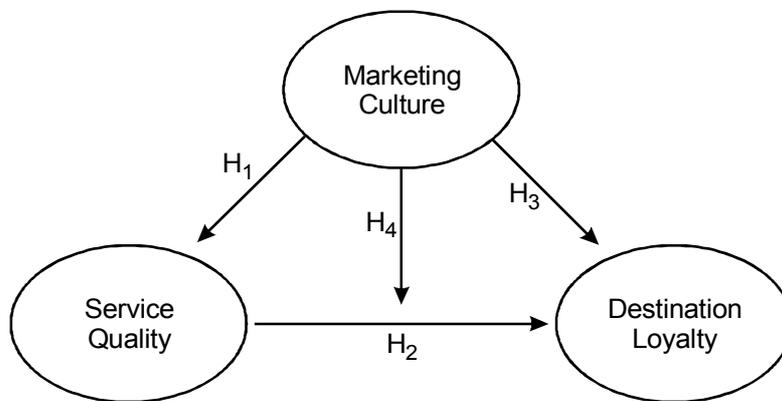


**Fig-1 Proposed Research Model**

The first hypothesis intends to assess the relationship between marketing culture and perceived service quality. The researcher apprehends that marketing culture might have an impact on perceived service quality.

**H$_1$: Marketing Culture has an impact on perceived service quality**

The second hypothesis aims at examining the probable impact of perceived service quality of the tourists on their destination loyalty. The researcher expects that perceived service quality might have an impact on framing destination loyalty and accordingly the hypothesis has been framed as:

**H$_2$: Destination loyalty depends on perceived service quality**

The third hypothesis intends to examine the relationship between marketing culture and destination loyalty as the researcher expects the existence of a relationship between the same. To assess the nature of the relationship the following hypothesis is proposed:

**H$_3$: Marketing culture does have an impact on destination loyalty**

Literature does not provide any substantial evidence about any marketing culture impact on perceived service quality and destination loyalty link.

**H$_4$: Marketing culture does have an impact on service quality & destination loyalty link.**

## METHODOLOGY

The study deployed a causal research design with a cross-sectional sample survey. The study was conducted in two phases. A structured questionnaire was developed to obtain the primary data. Phase-I involved a pilot study to refine the test instrument with the rectification of question ambiguity, refinement of the research protocol and confirmation of scale reliability ware given special emphasis (Teijlingen and Hundley, 2001).The pilot study was conducted with 15 participants representing academicians, researcher, hotelier, traveller, tour-guide, logistic service provider, retailer etc. The final survey instrument had sections comprising of questions to measure constructs namely marketing culture, perceived service quality and destination loyalty. Further, a section was also incorporated to capture the demographic data. A 7 point Likert scale (Alkibisi and Lind, 2011) was used to generate the response. Based on the annual report of Ministry of Tourism Govt. of West Bengal (2015-2016, 2016-2017) four most tourist arrival destination has been chosen namely Darjeeling, Digha, Kolkata and Santiniketan, having maximum tourist traffic over the last few years, were selected as destinations for the study. Mostly visited destinations is selected during special occasion were taken up for the study. The population of this study consisted of tourists who travelled individually or in groups in the destinations selected for the study. Considering the experiential nature of the study and the mobility of the tourist's convenience sampling technique was adopted. Confidence interval approach was used to determine the sample size (Burns and Bush, 1995). The formula for obtaining 95% accuracy at the 95% confidence level is:

$$n = \frac{z^2 pq}{e^2} = \frac{1.96^2 (0.5 \times 0.5)}{0.05^2} - 385$$ Where: n = sample size

z = standard error associated with chosen level of confidence (95%)

p = estimated variability in the population 50%*

q = (1 − p)

e = acceptable error + 5% (desired accuracy 95%)

The amount of variability in the population is estimated to be 50%, which is widely used in social research. From a practical standpoint, most researchers will choose the 50% level of p because it results in the most conservative sample size (Burns and Bush, 1995). Applying this formula, the sample size was set at 385 at 95% confidence level with 95% desired accuracy. Given that on site survey generally obtains a relatively higher response rate than mail survey, the expected response rate was minimum 50%. Assuming a response rate of 50% or above and an unusable rate of 10%, a total of 963 (385/0.4) people ware approached to participate in the survey.

For the hoteliers and other service provider's systematic random sampling was used. From the enlisted hotels and resorts, restaurants, logistic service providers and tour-guides obtained from the local administration a random number between 1 and 10 was chosen to decide on the first sample unit and the successive unit or the interval size (k) was calculated as k = N/n (population size/ sample size). k, in this study was determined as 15 for the hoteliers, 7 for the restaurants, 5 for the logistic service providers and 4 for the tour-guides. 75 hotels & resorts, 28 restaurants, 25 logistic service providers and 20 tour-guides were interviewed.

Hypotheses were utilized to fulfil the objectives of the study. Statistical analyses such as factor analysis, correlation analysis, multiple regression analysis and Analysis of Variance (ANOVA) were used according to the respective objectives of the study. Factor analysis was conducted to create correlated variable composites from the original attributes and to identify a smaller set of dimensions, or factors, that explain most of the variances between the attributes. Multiple regression analysis was used to examine tourists' levels of satisfaction. Analysis of Variance (ANOVA) was used to identify the differences in the overall satisfaction of tourists. SERVQUAL, developed by Zeithaml, Parasuraman and Malhotra (2005), was used to develop a measure for the perception of service quality with adequate modification to suit responses with regard to tourist services.

## FACTOR CONSTRUCT MEASUREMENT

To measure service quality the SERVQUAL scale was used (Parasuraman et al, 1985, 1988) with adequate modifications suited to the tourism sector. Destination loyalty was measured using 10 items representative of destination preference, word-of-mouth communication and revisit intention. The researchers used the studies conducted by Lee, Kyle and Scott (2011), 7 point Likert scale was used to generate a response. Marketing culture has been a relatively understudied domain as evident from the review of the literature. The marketing culture has been measured by using a scale devised by Webster (1990, 1992, 1993) with adequate modification to suit the study.

## DATA ANALYSIS & FINDINGS

### Measurement of reliability and validity of the model

Exploratory factor analysis (EFA) was deployed using orthogonal varimax rotation

with Kaiser normalization to identify data reduction and significant factor loading. Cronbach's alpha was calculated (ranged from .902 to .932) to assess the internal reliability and those factors loaded on values >.70 (Nunally, 1978) were accepted. The final measurement scale had 25 items significantly loaded for service quality, 22 items for marketing culture and 10 items for destination loyalty. EFA (Table-1) explained 72.31 % of the overall variance. Bartlett's test of sphericity (a statistical test for the presence of correlations among the variables) and the KMO (Kaisere Meyere Olkin) measure of sampling adequacy were measured to assess the factorability of the data. The KMO value at .869 exceeds the acceptable minimum value which is .6 (Hair et al., 2006). The Barlett's test of sphericity was found to be significant (Chi-square-2734.512, df = 286, .000 p < .00). To achieve a more meaningful and interpretable solution, some items which loaded on more than one factor were deleted.

| | Dimensions assigned | Scale items | Eigen values | % of variance | Cum variance | Factor loading | α |
|---|---|---|---|---|---|---|---|
| Perceived Service Quality (PERSERVQUAL) | Tangibles | Physical infrastructures of tourism service providers are updated | 5.429 | 14.82 | 14.82 | .816 | .932 |
| | | Physical facilities of tourism service providers at your tourist place are visually appealing | | | | .815 | |
| | | I was served by a well-trained, customer-oriented personnel | | | | .799 | |
| | | Physical ambiance of the premise of the tourism service providers are great | | | | .772 | |
| | | Employees of the tourism service providers are smart in their appearance | | | | .771 | |
| | Convenience | Facilities of tourism service providers at destination are visually appealing. | | | | .709 | |
| | | The tourism service providers are operate at convenient hours | | | | .743 | |
| | | The tourism service providers are conveniently located | | | | .728 | |
| | | The tourism services namely booking an accommodation, can be conveniently availed through internet | | | | .711 | |
| | | The tourism service providers have branch offices in different locations | | | | .701 | |
| | | A number of well distinguished tourist spots are located and easily accessible | | | | .782 | |
| | | This tourist destination, is free from undesirable disturbances | | | | .763 | |
| | | The local tourism sights are well networked by transport network | | | | .734 | |

| | Dimensions assigned | Scale items | Eigen values | % of variance | Cum variance | Factor loading | α |
|---|---|---|---|---|---|---|---|
| Perceived Service Quality (PERSERVQUAL) | Accessibility | The local tourism sights can be accessed easily by roadways | | | | .729 | |
| | | The local tourism sights have adequate accommodation and dining facilities | | | | .719 | |
| | | The local tourism sights have amenities like ATMs, retail outlets etc. | | | | .712 | |
| | | The local tourism sights provide adequate local hospitality | | | | .704 | |
| | Reliability | Tourism service provider are well knowledgeable about tourist place | | | | .827 | |
| | | Tourism service provider are honest & believable | | | | .802 | |
| | | Services delivered were correct from the first time | | | | .788 | |
| | | Services were delivered as promised to tourists | | | | .754 | |
| | Empathy | Prompt Service to the tourists | | | | .745 | |
| | | The service providers exhibit willingness to help tourists | | | | .732 | |
| | | The service providers deals public situation with care | | | | .721 | |
| | | The service providers understands tourists' specific needs | | | | .719 | |
| | Service delivery | The service providers specifically define what exceptional service is. | 1.873 | 23.01 | 37.83 | .821 | .915 |
| | | Employees focus on tourists' needs, desires, and attitudes. | | | | .816 | |
| | | Employees believe that their behavior reflects the service provider's image. | | | | .791 | |
| | | Service providers place emphasis on employees' communication skills. | | | | .783 | |
| | | Employees pay attention to detail in their work. | | | | .772 | |
| | | I share a positive relationship with my tourism service provider | | | | .789 | |
| | | I share a satisfying relationship with my tourism service provider | | | | .819 | |

| | Dimensions assigned | Scale items | Eigen values | % of variance | Cum variance | Factor loading | α |
|---|---|---|---|---|---|---|---|
| Marketing Culture (MARKCUL) | Innovativeness | The tourism service providers are technologically up-to-date | 1.873 | 23.01 | 37.83 | .799 | .915 |
| | | The tourism service providers are receptive to ideas for change | | | | .812 | |
| | Organization | Careful planning is characteristic of each employee's daily routine. | | | | .792 | |
| | | Employees prioritize works | | | | .787 | |
| | | Each employee's work area is well organized. | | | | .771 | |
| | | Each employee manages time well. | | | | .717 | |
| | Selling task | The service providers provides skill-based training and product knowledge to frontline service providers. | | | | .801 | |
| | | The service providers encourage creative approaches to selling | | | | .792 | |
| | | The service provider's recognize high achievers in selling. | | | | .782 | |
| | Internal communication | That each employee understands the mission and general objectives of the service provider. | | | | .762 | |
| | | Service provider management share financial information with all employees. | | | | .728 | |
| | | Frontline service personnel are encouraged to become involved in standard setting. | | | | .703 | |
| | Interpersonal relationships | Employees feel comfortable in giving opinions to higher management. | | | | .816 | |
| | | That managers/supervisors have an "open-door" policy. | | | | .784 | |
| | | Management's interaction with frontline employees is good. | | | | .762 | |
| | Revisit Intention | I would have visited this destination within one year time had I not come to join this festival this year | .813 | 34.42 | 72.31 | .852 | .902 |
| | | This destination shall be on the priority list next time I plan a tour | | | | .828 | |
| | | I shall visit this destination again in next year | | | | .801 | |

| Dimensions assigned | Scale items | Eigen values | % of variance | Cum variance | Factor loading | α |
|---|---|---|---|---|---|---|
| | I would visit this destination even without festivals associated with it | .813 | 34.42 | 72.31 | .795 | .902 |
| Word-of-mouth comunication | I shall say positive things about this destination to other people | | | | .872 | |
| | I shall recommend this destination to visitors | | | | .869 | |
| | I shall encourage my friends and relatives to visit this destination | | | | .883 | |
| Destination preference | I would prefer visiting this destination to visiting other places | | | | .801 | |
| | I consider this destination as the most preferred one compared to others | | | | .823 | |
| | I derive maximum satisfaction by visiting this destination | | | | .816 | |
| KMO | .869 | | | | | |
| Barlett's sphericity results | Chi-square-2734.512 df = 286, sig. = .0000 | | | | | |

**Table 1: Results of Exploratory Factor Analysis**

To test the relationship between the variables bivariate correlation was deployed. Summated mean scores were obtained across the dimensions of the constructs for the analysis. The results are displayed in Table 2

| | | PERSERVQUAL | MARKCUL | DESTLOY |
|---|---|---|---|---|
| PERSERVQUAL | Pearson Correlation | 1 | .302** | .431** |
| | Sig. (2-tailed) | | .008 | .003 |
| | N | 385 | 385 | 385 |
| MARKCUL | Pearson Correlation | .302** | 1 | .187* |
| | Sig. (2-tailed) | .008 | | .018 |
| | N | 385 | 385 | 385 |
| DESTLOY | Pearson Correlation | .431** | .187* | 1 |
| | Sig. (2-tailed) | .003 | .018 | |
| | N | 385 | 385 | 385 |

**Table 2 : Bivariate Correlation results between Perceived Service Quality and Customer retention**

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)

As evident from the results shown in the Table-2 there is a strong and positive relationship between PERSERVQUAL and MARKCUL (r= .302**, p< .01), between PERSERVQUAL and DESTLOY (r= .431**, p< .01) and between MARKCUL and DESTLOY (r= .187*, p < .05).

To test the first hypothesis regression analysis was used. The regression results were tabulated in Table 3. The model summary exhibited Rand $R^2$ to be as .789 and .623 marketing culture (MARKCUL) measures 62.30% of the variation in perceived service quality (PERSERVQUAL) which is considered to be significant enough for predictability of the model. ANOVA established that the variation showed by the perceived automated service quality was significant at 1% level (f=387.217, p<.001). Regression coefficients confirmed a strong associationship between PERSERVQUAL and MARKCUL ($\beta$=.529, t=21.092, p<.001) and that MARKCUL could be an effective predictor to PERSERVQUAL thereby suggesting dependency of PERSERVQUAL on MARKCUL. Hypothesis 1 was accepted.

| Model Summary | | | ANOVA | | Regression coefficients | | |
|---|---|---|---|---|---|---|---|
| R | $R^2$ | adjusted $R^2$ | F | sig | $\beta$ | t | sig. |
| .789 | .623 | .621 | 387.217 | .000 | .529 | 21.092 | .000 |

**Table 3: Summary of regression results**

a. Dependent variable : PERSERVQUAL

b. Predictor: MARKCUL

The strength of association between the variables and the predictability of the dependent variable was assessed as a part of testing hypothesis-2 by applying regression analysis (Table-4). The model summary showed R and $R^2$ to be as .732 and .535 indicating that PERSERVQUAL measures 53.50% of the variation in destination loyalty (DESTLOY) which is considered to be significant enough for predictability of the model. ANOVA established that the variation showed by the perceived automated service quality was significant at 1% level (f=214.009, p<.001). Regression coefficients confirmed a strong associationship between PERSERVQUAL and DESTLOY ($\beta$=.273, t=12.724, p<.001) and that PERSERVQUAL could be an effective predictor to DESTLOY thereby suggesting dependency of DESTLOY on PERSERVQUAL. Hypothesis 2 was accepted.

| Model Summary | | | ANOVA | | Regression coefficients | | |
|---|---|---|---|---|---|---|---|
| R | $R^2$ | adjusted $R^2$ | F | sig | $\beta$ | t | sig. |
| .732 | .535 | .532 | 214.009 | .000 | .273 | 12.724 | .000 |

**Table 4 : Summary of regression results**

a. Dependent variable: DESTLOY

b. Predictor: PERSERVQUAL

Hypothesis-3 was also tested with regression. The results were displayed in Table-5. The model summary showed Rand $R^2$ to be as .697 and .486 indicating that MARKCUL measures 48.60% of the variation in DESTLOY which is considered to be significant

enough for predictability of the model. ANOVA established that the variation showed by the perceived automated service quality was significant at 1% level (f=176.210, p<.001). Regression coefficients confirmed a strong associationship between MARKCUL and DESTLOY ($\beta$=.152, t=8.342, p<.001) and that MARKCUL could be an effective predictor to DESTLOY thereby suggesting dependency of DESTLOY on MARKCUL. Hypothesis 3 was accepted.

| Model Summary | | | ANOVA | | Regression coefficients | | |
|---|---|---|---|---|---|---|---|
| R | $R^2$ | adjusted $R^2$ | F | sig | $\beta$ | t | sig. |
| .697 | .486 | .484 | 176.210 | .000 | .152 | 8.342 | .000 |

**Table 5 : Summary of regression results**

a. Dependent variable: DESTLOY

b. Predictor: MARKCUL

The binary interaction between PERSERVQUAL and MARKCUL was also tested on by applying hierarchical regression analysis (Table-6). Standardization was applied to avoid interference with regression coefficients arising out of multicollinearity between interaction variables (Irwin and McClellan, 2001; Aiken and West, 1991). The VIF (variance inflation factor) corresponding to each independent variable is less than 5, indicating that VIF is well within acceptable limit of 10 (Ranaweera and Neely, 2003). The binary interaction between PERSERVQUAL and MARKCUL showed positive and significant impact on DESTLOY ($\beta$ = .293**, t=17.219, p<0.01) Link. Hypothesis 4 was accepted.

| | Dependent variable : DESTLOY | | |
|---|---|---|---|
| Independent        Variables | Model-1 $\beta$ /t /Sig. | Model-2 $\beta$/t/Sig. | VIF |
| PERSERVQUAL*  MARKCUL | | .293**/17.219/.00 | 1.943 |
| R | .697 | .729 | |
| $R^2$ | .485 | .531 | |
| F-value | 19.11 | 21.87 | |

**Table 6 : Regression models testing the interaction effects**

a. Dependent variable: MARKCUL

b. Independent variable-1: DESTLOY

c. Independent variable-2: PERSERVQUAL

Apropos to the literature reviewed and findings thereof and present study in the context of tourism services the dimensions of the perceived service quality has been fixed as tangibles (PERSERVQUAL-1), convenience (PERSERVQUAL-2), accessibility (PERSERVQUAL-3), reliability (PERSERVQUAL-4) and empathy (PERSERVQUAL-5). Six specific dimensions were identified for marketing culture: service delivery (MARKCUL-1), innovativeness (MARKCUL-2), organization (MARKCUL-3), selling task (MARKCUL-4), internal communication (MARKCUL-5) and interpersonal relationships

(MARKCUL-6). Three dimensions were assigned for the variable destination loyalty: revisit intention (DESTLOY-1) word-of-mouth communication (DESTLOY-2) and destination preference (DESTLOY-3). The hypothesized measurement model has been represented in Fig.2
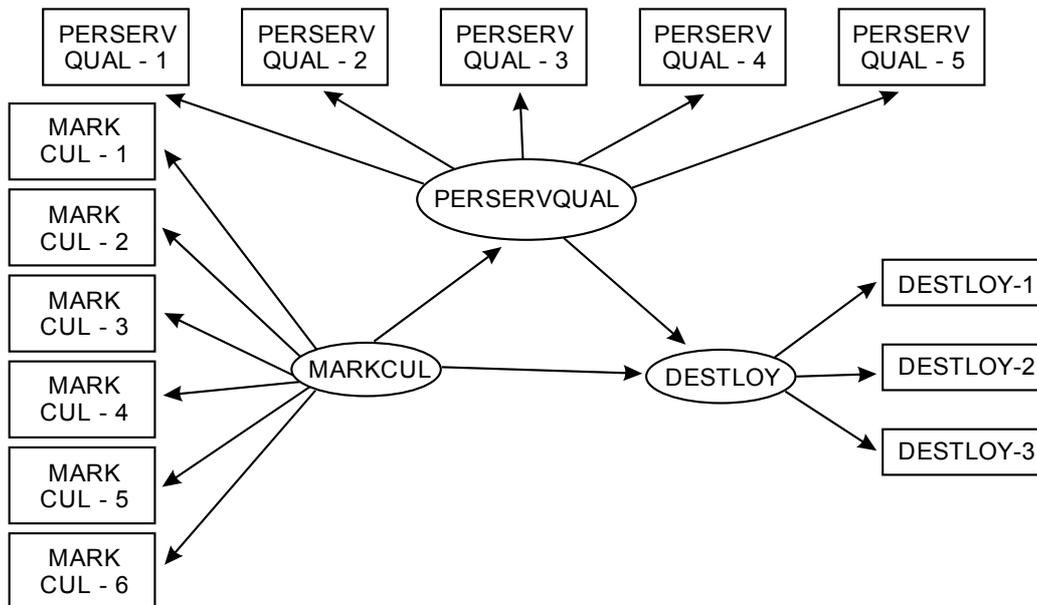


**Fig.-2 Hypothesized model for measurement**

The measurement model was evaluated before the structural model as per recommendation of Jackson et al. (2009). Confirmatory factor analysis was used to assess the measurement model to understand whether measured variables are adequate to explain the latent variables. Average variance extracted (AVE) was also acknowledged to be an index of reliability of measurement (Fornell & Larcker, 1981) apart from construct reliability. The measurement model met the requirements of reliability and validity (Table-7). The average factor loading for PERSERVQUAL, MARKCUL and DESTLOY were 0.635, 0.698 and 0.708 respectively which is > 0.6 (Barclay et al., 1995, Fornell & Larcker, 1981), thereby establishing convergent validity. The variance extracted between the variables (PERSERVQUAL, MARKCUL & DESTLOY) was 0.684. The correlation matrix between the variables were found to be 0.197 resulting in a squared correlation of 0.038. Since the variance extracted between the variables was found greater than the squared correlation, discriminant validity was established (Hair et al, 2014).

| Measurement variables | No. of dimensions | No. of items | AFL | AVE (>0.5) | Variance extracted between the variables | Corr. matrix | Squared correlation | CR (> 0.7) |
|---|---|---|---|---|---|---|---|---|
| PERSERVQUAL | 5 | 25 | 0.797 | 0.635 | | | | 0.9324 |
| MARKCUL | 6 | 22 | 0.836 | 0.698 | 0.684 | 0.197 | 0.38 | 0.9729 |
| DESTLOY | 3 | 10 | 0.842 | 0.708 | | | | 0.8723 |

**Table 7: Results of Confirmatory Factor Analysis**

Structural equation model (SEM) was used to test the relationship among the constructs of the hypothesized measurement model. Confirmatory factor analysis clarified the dimensionality, discriminant validity and convergence of data fit to pursue SEM. SEM was specifically used to identify the latent variables that best describe the model fit. A number of goodness-of-fit statistics (Table- 8) were obtained to assess the robustness of the model (Schreiber et al., 2006).

| Index | Accepted value | Results (n=1532) |
|-------|----------------|------------------|
| $x^2$, df | ———— | 2234.091, 1530 |
| $x^2$, df | <2.0 | 1.46 |
| p value | <.05 | .000 |
| RMSEA | <.05 (Kline, 2005) | .04 |
| SRMR | <.10 (Hu and Bentler, 1998) | .09 |
| GFI | >.9 (Hu and Bentler, 1998) | .97 |
| AGFI | >.9 (Hu and Bentler., 1998) | .94 |
| NFI | >.9 (Bentler and Bonett, 1980) | .95 |
| CFI | >.9 (Kline, 2005) | .93 |

**Table 8 : Goodness-of-fit indices**

The final measurement model with the coefficients is shown in Fig.3
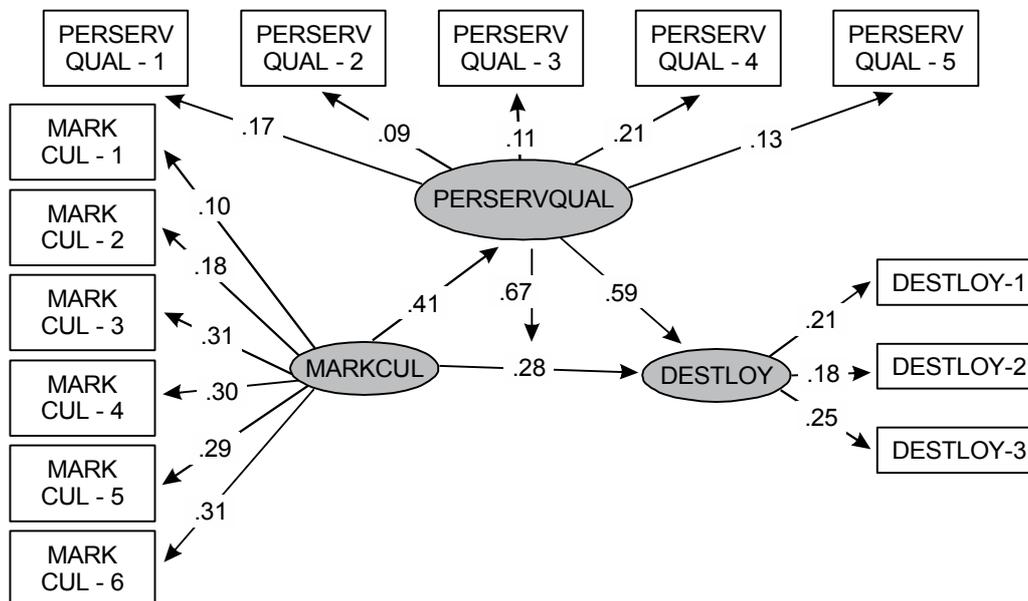


**Fig-3 Final structural model**

## CONCLUSION

The prevailing theory of marketing culture assumes service quality as an integrated component in measuring the same. Previous studies by Webster (1990, 1992, 1993) focused primarily on organizational culture and its impact on perceived value and satisfaction level of customers. Karatepe et al. (2005) devised a measurement instrument to measure the specific issue of marketing culture and identified six dimensions namely service quality, organization, selling task, innovativeness, interpersonal relationship and internal communication. The instrument has never been tested in the context of tourism industry to measure its impact on services quality & destination loyalty. This study posits marketing culture as a subset of organizational value chain which aims at enhancing service quality perception amongst the tourists which may lead to destination loyalty for West Bengal tourism. The existing theories have identified service quality as an antecedent to customer satisfaction and loyalty. Although we have study to measure service quality of tourism service providers in isolation, namely hotels and restaurants, but hardly there has been a study to assess service quality of tourism service providers as a whole. This study conceptualizes the tourism service providers as an aggregate of hoteliers, logistic service providers, restauranters, guide-service providers and other facilitators. The study was taken up by selecting four specific tourist destination of West Bengal, well known for their tourist destination and perennial inflow of tourists. Tourism in West Bengal, being a vibrant and diversified tourist destination, provided the scope to take up the study. The dimensions of marketing culture were identified to be service delivery, organizational alignment, innovativeness, interpersonal relationship and internal communication, thereby confirmed the existing study of Karatepe et al (2005).The measurement instrument of marketing culture was tested for its robustness too by confirmatory factor analysis. Marketing culture, as a subset of organizational culture, was already dimensionalised in the previous studies and this study extended the concept for testing its impact on perceived service quality and destination loyalty. The study affirmed a positive and significant relationship between marketing culture, perceived service quality and destination loyalty. Marketing culture was found to have a significant and positive impact on perceived service quality. The role of perceived service quality as an antecedent to destination loyalty was confirmed. The study also confirmed a strong and positive mediating effect exit between perceived service quality & destination loyalty link. This effect can be good predictor for tour operator for making marketing culture for delivery of superior service quality for creating destination loyalty among tourist.

The study had a few limitations. It was restricted to five selected states only and was primarily focused on domestic tourists. Further study is required to chart comparative issues pertaining to domestic and overseas tourists in the context of the variables taken into account for the study. Other pertinent variables namely travel motive and share-of-wallet may be taken into consideration to have a better understanding about the economic impact of destination loyalty. Studies may be taken up involving marketing culture as a component for destination branding.

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# Construction of portfolios to beat the market–
# A study on NSE 500 stocks based on
# ROE-ROCE approach

**Ankur Choudhury***

## ABSTRACT

*Beating the market has long been the main objective of active investors and portfolio managers across the globe. The market is said to be beaten if the investor or the portfolio manager is able to achieve a better return than the market portfolio at the same or lower risk assumed by the market portfolio. A suitable broad-based market index serves as the proxy of the market portfolio. However in the short run, the retail investors' trading strategies are largely influenced by the returns rather than the risks. The future returns over a short investment horizon are often assessed by retail investors on the basis of the past returns only. This paper attempts to select stocks on the basis of ROE and ROCE for a particular year to assess the returns on it in the succeeding year. The stocks of companies having the highest ROE and ROCE of the immediately preceding year have been selected from the NSE 500 companies to construct portfolios. The study shows that such portfolios have constantly beaten the market for five consecutive years till 2016-17. The findings of the study provide inputs for construction of portfolios to beat the market by active retail investors.*

**Key words:** *Beating the Market, ROE ROCE, NSE 500*

## INTRODUCTION

Beating the market has long been the ultimate goal of the investors and a challenge for the active stock-pickers. In most of the cases, performance of a company is taken to be the basis of predicting its future. A very common tool to assess the performance of a company is the use of financial ratios. Out of such numerous ratios, the Return on Equity (ROE) and the Return on Capital Employed (ROCE) are two of the mostly used ratios.ROE is the amount of net income returned as a percentage of shareholders equity. It measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. The ROE is useful for comparing the profitability of a company to that of other firms in the same industry. ROE offers a useful signal of financial success since it might indicate whether the company is growing profits without pouring new equity capital into the business.

A steadily increasing ROE is a hint that management is giving shareholders more for their money, which is represented by shareholders' equity. ROE is, in effect, a speed limit on a firm's growth rate, which is why money managers rely on it to gauge growth potential. A rising ROE suggests that a company is increasing its ability to generate profit without needing as much capital. Likewise, a high level of debt can artificially boost ROE; after all, the more debt a company has, the less shareholders'

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* Final Year MBA Student, Institute of Business Management, NCE Bengal, (Affiliated to Jadavpur University); Email: ankurchoudhury25@gmail.com

equity it has (as a percentage of total assets), and the higher its ROE is.

ROCE is that financial ratio which measures a company's profitability and the efficiency with which its capital is employed. ROCE is a useful metric for comparing profitability across companies based on the amount of capital they use. A higher ROCE indicates more efficient use of capital. ROCE should be higher than the company's capital cost; otherwise it indicates that the company is not employing its capital effectively and is not generating shareholder value. ROCE is especially useful when comparing the performance of companies in capital-intensive sectors such as utilities and telecoms. This is because unlike return on equity (ROE), which only analyzes profitability related to a company's equity, ROCE considers debt and other liabilities as well. This provides a better indication of financial performance for companies with significant debt. For a company, the ROCE trend over the years is also an important indicator of performance. In general, investors tend to favor companies with stable and rising ROCE numbers over companies where ROCE is volatile and bounces around from one year to the next. The main drawback of ROCE is that it measures return against the book value of assets in the business. As these are depreciated the ROCE will increase even though cash flow has remained the same. Thus, older businesses with depreciated assets will tend to have higher ROCE than newer, possibly better businesses. A high ROCE indicates that a larger chunk of profits can be invested back into the company for the benefit of shareholders. The reinvested capital is employed again at a higher rate of return, which helps to produce higher earnings-per-share growth. A high ROCE is, therefore, a sign of a successful growth company.

## OBJECTIVE OF THE STUDY

The objective of this study is to construct a portfolio with the stocks having the highest ROE and ROCE numbers to beat the market. Beating the market in this study, is having a higher return than the market ignoring the associated risk of the portfolio. Such an objective is justified on the ground that on a short term, most retail investors consider the returns only as the sole determining factor for picking stocks to maximize returns.

## REVIEW OF LITERATURE

The review of relevant literature, as detailed in Bibliography section, disclosed that ROE and ROCE are often used to assess the performance of a corporate entity. This choice is generic across sectors and industries.

## METHODOLOGY OF THE STUDY

This study envisaged all the 500 companies constituting the CNX NSE 500 Index. The ROE and ROCE numbers for all the companies for the last 6years i.e. from 2011-12 to 2016-17 were taken from ACE Equity ® data product. The annual return on the stocks as well as for NIFTY for each of the said five years was also taken from Ace Equity ® data product. The stocks having both ROE & ROCE above 30 were filtered out for each of the five years. It was assumed that investors shall construct the portfolios on the basis of ROE and ROCE numbers of the immediately preceding year.  It was also assumed that the portfolio would be an equal-weighted

portfolio consisting of all the filtered out stocks. The annual returns of this portfolio vis-à-vis that on NIFTY was calculated for the five years from 2012-13 to 2016-17. Then the returns on the portfolio was compared to those on NIFTY.

## SCOPE & LIMITATIONS OF THE STUDY

This study Considered minimum criteria being 30% as the return on equity and return on capital employed respectively so as to have high cash efficient stocks in the portfolio. Risk associated with stock price fluctuations and market sentiments were ignored. Only two ratios i.e. ROE & ROCE were used as parameters for selection of stocks in the portfolio. The period of six years from 2011-12 to 2016-17 have been considered in this study to capture the recency effect. Stocks which do not have a six years continuous price history have not been considered. Dividends as part of the returns from the stocks have been ignored. This study has excluded companies having consolidations of shares or stock-splits in the last 6 years.

## ANALYSIS OF THE DATA COLLECTED

The comparative returns of the constructed portfolios vis-à-vis that on NIFTY for the five years for the period from 2012-13 to 2016-17 are appended below in Table 1:

| Year | Nifty 500 Index | Equal Weighted Portfolio Return |
|---|---|---|
| 2016-2017 | 24% | 26% |
| 2015-2016 | -9% | 1% |
| 2014-2015 | 33% | 107% |
| 2013-2014 | 17% | 33% |
| 2012-2013 | 5% | 7% |

**Table 1 : Comparative statement of returns**

*Source : Ace Equity ® data product and author's own calculations.*

## FINDINGS OF THE STUDY

It is evident from Table 1 above that the constructed portfolios have consistently beaten the market in all of the five years from 2012-13 to 2016-17.

## CONCLUSION

From the findings of the study, it may be concluded that investors with short investment horizons, say a year, and with investment objective of maximization of returns, may pick those stocks which have the highest ROE and ROCE numbers.

## RECOMMENDATIONS

It is recommended that investors may rely on ROE and ROCE for picking stocks to construct portfolios to beat the market in a short run, i.e. a year if they can ignore the risk factors evolving out of fluctuations in share prices. However, there remains a scope of testing the validity of the findings of this study for shorter as well as for longer investment horizons and that too on a sectoral basis as well as on a broad-based basis.

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# A Study on Student Satisfaction Based on Service Quality of Private Business School (B-School) - Kolkata Region

**Puja Singh (Ghosh)* & Archita Banerjee****

**ABSTRACT**

*This is an empirical study on determining the satisfaction level of first year management students in contrast to the final year students in regards to their expectations, hopes and aspirations prior to joining a B-school and after passing out from the course.*

*The variables which were considered in testing satisfaction level of students were infrastructure, teaching pedagogy, extracurricular activities, additional courses offered by the B-School, including grooming and placement received as college service was also put for consideration.*

*To understand the essentiality of services in both academics and administrative functions of A-listed colleges, initially a survey was utilised to carry out this study. The Survey was conducted at AIM, Kolkata*

*The finding indicates that majority of the students are either moderately satisfied or extremely satisfied with the current teaching program and few showed concern and dissatisfaction towards the extra courses.*

***Key words :** Aspirations, satisfaction, perception on service cater pedagogy*

## INTRODUCTION

Education is the essential need for development of human, nation and a flourishing society (Sivakumar & Sarvalingam, 2010). For proper delegation of higher education government should shoulder responsibility with the private institutions (Rahman and Uddin,2009) as it helps in shaping social and economic image of the country(Brienan and Teichler,2008).

Many researches on this topic have been carried out and have tried to identify reasons for students' satisfaction or dissatisfaction, but as per Gibson (2010) researchers have not pointed out the major constraints in educational programme.

William Collins, 1977, defined student as an individual who learns or explore; and teachers or academic administrative staffs as who are related to branches of learning procedure or the learned professions.

In the higher education sector competition is growing enormously. Thus competition in students, teachers, administrative staff, and new sources of funding has become very fierce. In this relevance, institutions have a distinctive image to countenance successfully the competition taking place in the near future. There are a few published articles/papers in the same framework which analyze the professed image from a

*    Research Scholar, Aliah University, West Bengal; E Mail: pujasingh0211@yahoo.co.in
**   Research Scholar, MAKAUT, West Bengal; E-mail:archita.banerjee@rediffmail.com

graphic point of view. Since many institutions choose not to reveal information that might affect their planned position by opening up weaknesses to their competitors (Landrum et al., 1998)

## LITERATURE REVIEW

The students are observed as the patrons of the institutions (Watty, 2006).The institutes plan movement by taking students satisfaction toward teaching corrigendum, teaching flair, learning environment provided assessment methods, research activities and success after passing out. Institutes providing higher education should understand the essence of creating a smart image of quality education in order to form a body of loyal clientele. Concentrating only on the demands of student satisfaction might not yield appropriate results, so higher education institutes should also administer the opinions of parents of the same college students as an element of the improving institute's in-house education quality (Briukhanov, Kiselev, Timchenko, & Vdovin, 2010).Wilkinson and Yussof,(2005) mentioned in their work the general objective of private institutions is to capture their domain in profitable areas only.

These higher education institutes need to maintain a standard quality of service to continue in the market. Rather these have become service centres like any other money-spinning organizations (Akareem & Hossain, 2012).

Hence, to cater '**quality**' in higher education, '**quality assertion'** is mandatory. Studies have shown the dimensions to determine quality especially for higher education as quality of students, faculty credentials, academic features, and administrative supports (Akareem & Hossain, 2012)

In this paper, quality is defined as 'appropriateness for functionality' and quality assertion is defined as 'those scheme, measures, methods and behaviour projected to lead to the success, continuance, supervision and development of quality' (Woodhouse, 1998)

As per the previous studies education quality could be determined by multiple dimensions that help the higher education institutions to plan appropriate value orientations. The factors which influence the students' sensitivity towards these dimensions were relatively unexplored. Some authors focussed on students' evaluation of individual classes or the evaluations of individual faculties to measure the quality of education (Ginns, Prosser, & Barrie, 2007). Others focussed on students' sensitivity towards learning environment (Lizzio, Wilson, & Simons, 2002)

The gap in the previous study was identified and hence, this motivated to select the topic on student satisfaction based on service quality of Private Business School by categorising them into two groups as entrant level and exit level.

## OBJECTIVES

1. To study the student aspirations before taking admissions and after completion of the course in business schools

2. To study the relationship between student satisfactions based on service quality factors by business schools post their admissions

## METHODOLOGY

For undergoing the study, we had taken a sample from an A-grade private management college. The respondents chosen belonged to the final year whose satisfaction level was mapped keeping their entrant level and exit level perception. The questionnaire used in the study was referred from Quaker valley School District, Pennsylvania, USA "Quality on VET SCHOOLS FIN-02B-F-PP-126704" who used it to measure their students satisfaction level Samples chosen were mostly placed and few were still appearing for interviews in different companies provided by college or through job-portals where they had uploaded their resumes. A simple random sampling technique was chosen to collect the sample which was of 30 in size from a total population of 120.

The mean score has been calculated for each factor to understand the preference. For analysis we have used the basic bar chart.

## FINDINGS AND INTERPRETATION

Total no of respondents were 30. Out of which male were 18 or 60% and female were 12 or 40%.
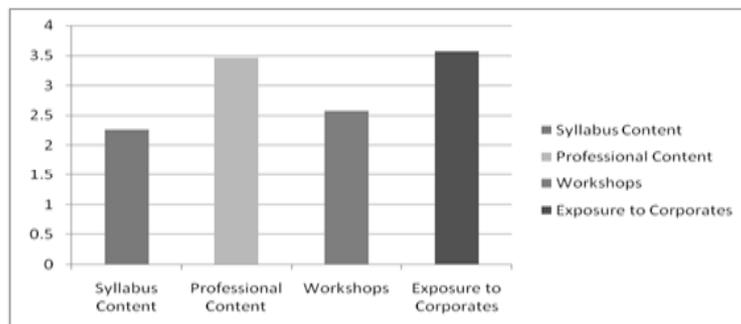


**Fig-1. Student satisfaction (Entrant level)**

The above graph belonged to the students group in their entrant level. It is clearly visible that Student satisfaction is highly dependent on Exposure to Corporate, followed by Professional Content, Workshop and Syllabus content scores the lowest among the four variables.

The study shows that students are looking for more of their exposure to corporate than to any other factor and to bring the opportunities to them the college has to engaged into Industry Academia Interaction program, Internship Program, Short term projects in mentoring through some corporate, Alumni meets in regular intervals, so that they gain practical knowledge.

The same set model was again implemented once the students have reached to their final semester, and the results are:
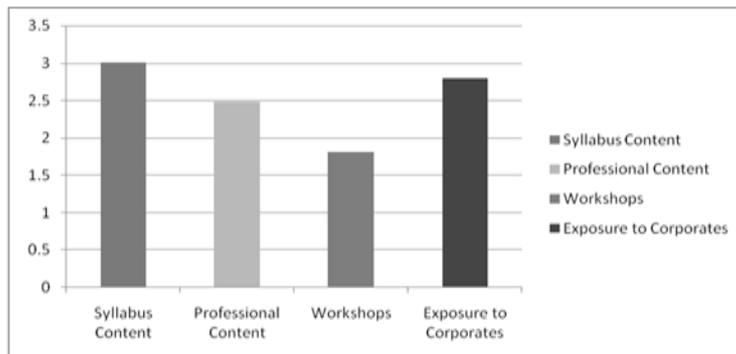
**Fig-2. Student satisfaction(Exit level)**

The results shows that the major focus of the mangement Institute is more towards the Syllabus content,followed by Exposure To corporates but the institute is lacking as far as Professional content knowledge and workshops are concerned which was in high demand at the time of students entering to the college.

The point of concern is that the expectations doesn't meet with the reality and this has an impact on placements,admissions and other related aspects of the institute.

## CONCLUSION

The final line drawn from above analysis would be:

1.  Student aspiration at the entrant level is quite high

2.  It slowly decreases with the course of time, once the B-schools service does not match with the kind they had dreamt of

3.  Students are more interested with corporate exposures rather than a closed room study

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# A Contemporary Marketing Practice: Match-Up-Theory : An Important Way To Choose Celebrity For Celebrity Endorsement

## Dr Khushboo Sahu*

## ABSTRACT

*Today, celebrity endorsement is a very successful and commonly practiced strategy for major firms to create and improve company's brand image. The Use of celebrities for promoting any brand has become a common trend for making the brand's and the company's image positive. Celebrity Endorsement is an accepted advertising approach which is used by many companies. It is very important that the selection of celebrity for the endorsement should be done properly. So, now companies are very worried to use celebrities in their ads as investment of large amount of money is at stake.*

*According to the research, companies should focus on endorser characteristics like credibility, expertise, reputation and match between the brand and the endorser. As a method of research, researcher has taken cricketer ViratKohli as a celebrity endorser and some of his endorsed brands to analyze its implementation through source credibility model and match up theory. Researcher found that by the presence of correct celebrities in the advertisement, customers are able to recognize brands. It is also found that Celebrity endorsement is effective but not for all products and segments of the customers. Sometimes the celebrity overshadows the brand and the audience will remember the celebrity and not the brand because the personality of the celebrity is not matching with the brand personality.*

*Keywords : Celebrity Endorsement, Brand, Match up model and advertising*

## INTRODUCTION

Today, celebrity endorsement is a successful and commonly practiced promotional strategy for major firms to create and improve company's brand image. In few studies celebrity advertising and non-celebrity advertising have been compared to find out their relative effectiveness. It is observed that hundreds of crores of Rupees are invested in Celebrity endorsements every year, and is widely preferred by marketers to promote their products. The characteristics and qualities of celebrities are used to establish an analogy with the products specialties aiming to position them in the minds of the target consumers. Therefore, celebrity endorsement is one of the powerful tools adopted by companies/marketers to consolidate their brands in the marketplace.

It was seen that consumers prefer those products which have some reputation in the market and brand is popular among the consumer.In India there is a huge potential for a celebrity endorsement and because of that companies are motivating consumers to go in for the product. These brand ambassadors are energetic, attractive and likeable by the audience and they have all the qualities of attracting a customer.

* Asst. Professor, IICMR Pune; Email : khushboosahu.iicmr@gmail.com; Ph: +919766030180

Basically the brand ambassador is any kind of celebrity who enjoys public recognition by a large number of people. A celebrity should have many attributes like extraordinary lifestyle, attractiveness, or special skills and also some different position in the society. They should also be known to maximum number of people. A Brand Ambassador is not only a spokesperson for the brand but he/she also plays a very important role of supporting decision maker for consumer at the time of decision making process.

Marketers also claim that celebrities affect the credibility of the claims made, increase the memory ability of the message, and may provide a positive effect that could be generalized to the brand (Cooper, 1984). Despite the potential benefits they can provide, celebrity advertising increases the marketers' financial risk. Indeed, it is believed that using celebrities are an unnecessary risk unless they are very logically related to the product (Beverage Industry 1989; USA Today 1995).

India is one country, which has always idolized the "stars" and kept them at the top of its head and heart. Therefore it makes great sense for the companies that they hire celebrities for endorsing their brands.

## LITERATURE REVIEW

Applbaum and Anatol, 1971, Ohanian, 1990, describe the number of empirical investigations which have examined the effectiveness of using credible spokespersons to enhance the persuasiveness of messages. Several researchers in the field of speech communication have uncovered the perceptual structure of source credibility (Applbaum and Anatol, 1972). This study measured the credibility of the celebrity endorser from the viewers' perspective. (DeSarbo and Harshman, 1985; Simpson and Kahler, 1980-81; Wilding and Bauer, 1968; Wynn, 1987), Hovland and his associates (1953) have developed scales to measure the effectiveness of celebrity endorsers. The source-credibility model proposed by Hovland and his associates in 1953 concluded that two factors – expertise and trustworthiness – underscore the concept of source credibility.

Hovland, Janis, and Kelley (1953) defined expertise as "the extent to which a communicator is perceived to be a source of valid assertions," and trustworthiness as "the degree of confidence in the communicator's intent to communicate the assertions he considers most valid."Atkin and Block(1983), Freiden(1984), Friedman, Termini and Washington(1977), Kamins, Brand, Hoeke and Moe (1989),in their past empirical researches have discussed about likeness of celebrities and attractiveness. The study examined the strategy designed for enhancing the credibility of a celebrity spokesperson by the use of a two-sided appeal. They compared the two-sided format with traditional one-sided format which only claims positive aspects of a celebrity. According to the analysis, the two-sided communication draws out considerably higher advertising credibility and effectiveness ratings. It was suggested that the use of a celebrity appeal in a two-sided form was an effective advertising strategy. Research also shows that the positive and negative effectiveness of using celebrity endorsers

A study conducted by Till and Shimp (1998) used fictitious celebrities as well as real celebrities to examine the negative effects of celebrity endorsers. They hypothesized that subsequent negative information about the celebrity lowers brand evaluations if the link between real celebrity and a brand is strongly associative (Till and Shimp,

1998). Based on the review of source-credibility literature, credible sources are hypothesized to be more persuasive than are less credible sources (Ohanian, 1990).

Mishra and Beauty in 1990, Petty et al in 1983 and Menon et al in 2001 indicate that celebrity endorsements enhance mind recall. Petty et al find that customers like the product more when it was endorsed by the famous athlete than by the average citizen of Baber field, California. Mishra and Beauty found that subject tended to rate the product as better and of higher quality if it was endorsed by a congruent celebrity. Horstmen and Clark in 2003 provide a model that explains the success of fictional Celebrity endorsement. They find that if there are two celebrities that achieve the same audience variable cost, then the firm prefers the celebrity with lower fixed cost.

## THE MATCH-UP HYPOTHESIS

Till and Buster in 1998 examined the congruency between celebrity endorsers and brands to explain the effectiveness of using famous persons to promote the brands. The result shows that some celebrity endorsement proved very successful and others completely failed. According to this theory the celebrity spokesperson and endorsed brand should fit to each other. It is not necessary that every commercial which contain celebrity will be able to change consumer attitude towards the brand. As per this model the physical attractiveness of a celebrity endorser increases evaluations of the products characteristics only if the characteristics of the product match with the image conveyed by the celebrity. Hence while deciding the endorsement of any product by any celebrity, the entire image of the celebrity has to be considered in addition to attractiveness and creditability.

McCracken's in 1989 suggested that a representative "match" should occur between the celebrity image and the brand image for the effectiveness of celebrity endorsement. A general, well-liked celebrity endorsement will not be able to give same effect as a celebrity endorsement because the image of the celebrity should match with the image of the brand.

## BRAND ENDORSED BY VIRATKOHLI & MATCH UP THEORY

The young and very popular cricket captain of Indian team is one of the most famous and known images in Indian market. In India, cricket is likened to religion and Indians are crazy about cricket. In India cricketers are revered like gods and people of India worship them. The captain of Indian cricket team, ViratKohli is a brand himself and attracts marketers as a potential endorser for the market. ViratKohli has been successfully used in different advertisements as brand ambassador. After analyzing Virat's success the first thing comes in our mind is that what makes Virat so popular and a most powerful Indian Brand icon.

### List of Brands Endorsed by ViratKohli

Now-a-days ViratKohli is endorsing approximately 24 brands including Adidas, Audi, Boost, Cinthol, Colgate-Palmolive, Fair & Lovely, Fastrack, Flying Machine, Herbalife, Manyavar, Mattel Toys, MRF, Nestle Munch, Nitesh Estates, Oakley, PepsiCo, Red Chief Shoes, SangamSuitings, Smaaash, Tissot, Toyota Motors, TVS Motors, United Spirits, and Vicks.

| Brand | Brand Personality | Endorser personality |
|---|---|---|
| Uber - Uber is known as one of the world's top-ranked service provider and valued start-up which prove themselves very successful in a short span of time. | 1. Uber is a known for world-class performance.<br>2. Also gives great delivery and quick recall<br>3. Focused and successful | 1. Virat personifies dynamism, integrity, grit, ability and passion<br>2. He inspires billions of people, and bring joy to their lives.<br>3. Virat Kohli is also known for his love of cars. |
| PNB-PNB has established itself as a major player in Indian Banking space | 1. PNB has remained a trusted name in banking sector.<br>2. PNB is very popular and known to each one in the country | 1. Virat Kohli, is an energetic young sportsman who is having mass appeal on the youth of our country<br>2. Virat is having qualities like determination, focus and winning is a habit. |
| PEPSI- They have always chosen the young popular stars as a face of young India. So the main reason of using Virat is full of the youthful swag that advertisers want. | 1. Brands like Pepsi are vibrant and youthful,<br>2. Pepsi is awise brand which associates itself with excitement and pleasure. | 1. Virat is a young man with a bold personality.<br>2. He is smart having an attitude of swag which company want.<br>3. He is the captain of youthful cricket team, fun loving young guy with clear character. |
| Too Yumm snacks- Too Yumm snacks is the division of Apricot Foods, which is owned by Apricot. Capt. Virat Kohli joined Too Yumm brand as a brand Ambassador and has been associated with Apricot since Dec 2017 | 1. The brand is lively and dynamic..<br>2. Too Yumm is a wise brand which associates itself with enjoyment and delight.<br>3. It also shows its brave attitude, naughty behavior and sociable nature. | 1. Virat Kohli indicates the youth of India as a personality.<br>2. He is stylish, very humble and full of life.<br>3. He is the head of youthful team who is full of enjoyment and joy and Too Yumm is also doing same with the brand. |

**Table 1.1 Relationship of Brand personality and Endorser Personality**

| Brand Name | Celebrity's fit with the brand image | Celebrity & Target audience match | Celebrity associated values | Costs of acquiring the celebrity |
|---|---|---|---|---|
| **Uber** | Kohli stands for world-class performance, great delivery and quick recall which also fits with attributes of Uber repre-sented through its service | Star cricketer Virat is having mega appeal across age, language and cultural demography of the country. | Kohli's universality as a youth icon would help pave the way in Uber's journey to move forward. | Kohli charges incrores a day for shooting a brand activity taking his yearly brand endorsement which is very high in cost |
| **PNB** | Punjab National Bank is a widely present bank in India with operations spread in personal, rural as well as corporate segments | The qualities of Virat like determination, focus for winning encourage the customer to walk on the path of Virat | The association of Virat with PNB helps PNB to sustain positive image after having NiravModi Scam of PNB | The cost of acquiring Virat is in crores but he will be worthwhile to improve the spoiled image of PNB |

*Continue*

| Brand Name | Celebrity's fit with the brand image | Celebrity & Target audience match | Celebrity associated values | Costs of acquiring the celebrity |
|---|---|---|---|---|
| Pepsi | As mentioned earlier, the good quality of Viratmatches with the rooted qualities of the soft drink. The personalities of Virat and Pepsi join as two successive part as a perfect match for Pepsi's brand image | Young generation of India gets excited and motivated with the presence of Virat. The young generation wants to see Virat's it recalls the fun of Cricket. | The worth related with Virat is very high. Virat's existence in an advertisement constructs a positive move toward the product in the mind of customer which forces them to believe about the endorsed product. | Fees of using Viratas the endorser of Pepsi is very high and appointing Virat as a brand ambassador is a costly deal. But as Pepsi is a multinational company the fee amount istrivial for them as they are getting high brand awareness through Virat. |
| Too Yumm | Being a sportsperson, ViratKohli is a strong believer in eating right and staying fit. The Advertisement shows that the snack is baked and not fried and it is much healthier to eat. So it matches with thebrand and endorser's personality. | Young age groups of India feel affection for Virat, and know him as an idol of sports industries. Too Yumm is not related to any of the sports industries as they tried to make healthy snacks. Virat as a brand endorser is able to change consumer preference towards a healthy diet | The value linked with Virat is extremely high. So Virat's appearance in an advertisement creates very positive impact for the product in the mind of customers which pushes them to consider the product. | The cost of using Virat's the endorser is very high for Too Yumm but they believe that Virat is generating the huge amount of brand awareness for the company. |

**Table 1.2 Relation of Brand with Match up theory**

| Brand Name | Celebrity controversy risk | Celebrity popularity | Celebrity physical attractiveness | Celebrity credibility | Celebrity prior endorsements |
|---|---|---|---|---|---|
| Uber | If we analyze the controversy level of Virat, it is very low, which increases the possibilities of success of Uber in Indian market. | The popularity of Virat is very high which will help Uber to increase the brand awareness and brand recalling capacity. | Kohli stands for world-class performance, great delivery and quick recall which also fits with attributes of Uber represent through its service. | Virat's commitment to India on and off the field is commendable. It will help Uber in creating good image, capturing big market and popularity among consumers. | Earlier advertising experience with numerous companies has established his spontaneity in his acting ability and self-confidence to face the camera. Hence, all the ability which makes an Ad acceptable and successful is above average. |
| PNB | Here in this case the controversy is with PNB not with Virat but still it will affect Virat's Image. Because of it he is thinking of discontinuing as a brand ambassador for PNB. | The popularity of Virat helps PNB to improve their brand image and also to earn trust for PNB | The physical attractiveness of Virat is not much important for PNB but they can use his qualities like determination, and focus to sustain themselves in the market | The credibility of Virat is very high in the market. PNB must know how to use it to improve its brand name. | Virat is a brand ambassador of almost 24 brands which helps the companies to predict the result for Virat as a brand ambassador. |

*Continue*

| Brand Name | Celebrity controversy risk | Celebrity popularity | Celebrity physical attractiveness | Celebrity credibility | Celebrity prior endorsements |
|---|---|---|---|---|---|
| Pepsi | Virat is known as high-quality young-ster among the ce-lebrities. If we exam-ine his controversy Level, it is very low, which boosted the brand image of Virat and of Pepsi. | Virat is one of the most well-known per-sons in India. His pop-ularity is so strong that people want to have his name for their children. Virat's attractiveness sup-ports Pepsi to in-crease the popularity of the brand. | As a cricketer Virat has an athletic phy-sique and adding up to that he has great image and a beauti-ful smile, which makes Virat more eye-catching and pleasing | Celebrities are judged by their trust-worthiness. Celebrity advises consumers about the product and they follow at the time of decision mak-ing. | Earlier advertising ex-perience with numer-ous companies has established his spon-taneity in his acting ability and self-confidence to face the camera. Hence, all the ability which makes an Ad accept-able and successful is above average. |
| Too Yumn | Virat is known as ex-cellent young man among the celebri-ties. If we analyze his controversy level it is very low, which increases the brand image of self as well as of Too Yumm. | In India, cricket is very famous and prestigious sport and it is played and watched by huge population of India. As cricketers are very famous in India and audience admire them so they can be easily accepted by the audience | As a sportsman, Virat has an athletic phy-sique. He is known for healthy diet. So if he is endorsing some-thing then it will make them more striking and appeal-ing. | Celebrity is evalu-ated by the society whether to come in the advertisement or not. Celebrities indi-rectly advise the con-sumers what to do and what not to. This will help them in tak-ing right decision. | Virat's personality matches with the im-age of the product be-cause he belongs to the sport industry. People can easily re-late the brand with Virat as he is a sports person. In the adver-tisement he actually has to project himself as an unconven-tional personality, which exaggerates his "performance" in the Ad. |

**Table 1.3 Other Component of Match-up Models**

**FINDINGS**

1. By the presence of celebrities in the advertisement customers are able to recognize brands.
2. Celebrity endorsement is effective but not for all products and segments of the customers.
3. Sometimes the celebrity overshadows the brand and the audience will remember the celebrity and not the brand.
4. The credibility, effectiveness and popularity of the celebrity helps the marketers to get noticed their products.

**CONCLUSION**

It is proven that celebrities are the easiest way for mass appeal, attracting the customers, credibility building and for brand building than any other options. As per the researcher, the choice of a celebrity surely affects the customers and product sales. The use of celebrity in advertising is a tough task and the successful endorsement depends on many factors as discussed in the details above. The right

selection of celebrity helps to match with the target segment and brand values. The advertisers can use the Match-up model which is discussed above. Companies are using many celebrity personalities from a variety of fields to appeal to different consumers. Match up model can help the advertiser to select the right celebrity for right brand. Improper analysis can lead to the image damage, reduction of sales or sometimes brand switching also.

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# Factors Responsible for not Buying Micro Insurance in West Bengal : A Literature Review on MSME Labours

**Shafique Ahmed\* & Dr. Samiran Sur\*\***

## ABSTRACT

*In the present era, employment and income are the main concerns of the maximum working population and employable population. Due to Inflation, income-expenditure-savings calculations are mismatching and resulting in more number of child labour and lower number of higher education students as people are bound to stop their higher education. Due to overtime and excessive work pressure their health are alsodeteriorating. Due to lack of proper financial planning they are unaware about securing their future through life insurance or through savings. With approximately 53 Lakhs MSME( Micro , Small and Medium Enterprises)  in West Bengal (Ministry of MSME Annual Report 2016-17), it is the biggest contributor to employment. In this state, 68.13 percent of the population lives in rural areas (Census 2011) out of which 28.6 percent consists of BPL (Below Poverty Line)  population (Ministry of Social Justice and Empowerment, 2004-05). Even the Government schemes of Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY) or Rashtriya Swasthya Bima Yojana (RSBY) have partially covered the population.*

*Micro insurance is the only viable option for the labours of MSME to secure their future with their low to moderate income. Government, banks, private as well as public insurance companies have several micro insurance policies, yet the penetration level is low. This study is to find out the factors which are holding back these populations to purchase Micro Insurance. Our aim is to find out the deficiencies with respect to the customers or the insurance providers.This paper is also to study the different needs of the customers towards insuring and securing their future as well as to understand the different reasons behind rural people not getting insured through Micro Insurance.*

**Keywords :** *MSME, Micro Insurance, BPL, Rural Insurance*

## INTRODUCTION

With every passing year, the needs for the customers are changing drastically. People are becoming future centric wherein they are becoming serious about securing their future. There is an increase in different diseases specially dengue, cancer, diabetes etc. The hospital expenses are also increasing rapidly. The cost of living is also growing with the upper trends which is making the customers turn towards Insurance to take care of their future health needs, future education needs of their children or future expense needs of the marriage of their children. To keep pace with the different

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\*   Ph.D. Research Scholar, Department of Management & Business Administration, Aliah University Kolkata, India; Email: shafique1985@gmail.com; Ph: 7407310898

\*\*  Dr.Samiran Sur, Assistant Professor, Department of Management & Business Administration, Aliah University, Kolkata, India; Email: samiran_sur@rediffmail.com

changing needs of the customers, the Government as well as Private and Public Insurance companies of India are coming up with different low cost Insurance products. These products are trying to help the people secure or insure their future needs in case of any mishaps.

These products are designed in such a way so that it covers almost every future needs without digging deep into the pockets of the customers. India, with a huge population of approximately 1.30 Billion (Census 2011), with agriculture being the main occupation, having approximately 27.5 percent population in the Below Poverty Line (BPL) bracket (Ministry of Social Justice and Empowerment report, India, 2004-05), with 805.24 Lakhs workers (Ministry of MSME Annual Report 2016-17) associated with Registered and Unregistered Micro Small Medium Enterprises (MSME) sector, catering to the needs and demands of these populations is itself a challenge. To cater to these low incomes level workers, Government is giving different options in the form of Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY) or Rashtriya Swasthya Bima Yojana (RSBY). The concept of Micro Insurance is mainly to cater to these, wherein, wherein the premium amount is affordably for these workers.

With 91 Million populations, 77 percent of them literates, West Bengal is the 4th largest state in terms of population in India. Among these, 68.13 percent lives in rural areas (Census 2011), 28.6 percent consists of BPL population (Ministry of Social Justice and Empowerment report, India, 2004-05). The state is also having the highest number of MSME establishments, approximately 53 Lakhs (Ministry of MSME Annual Report 2016-17). This sector is an integral part of this state in terms of employment, revenue generation as well as production of low cost products. With a major chunk of the working population of the state associated to MSME sector, the need to insure these workers and secure their future needs is too important not only for them but also for the country as they are the force behind the movement of the country from developing to developed.

This paper endeavours the march of different Micro Insurance products as well the Government schemes and enumerates the main reasons of MSME labours in West Bengal for not purchasing Micro Insurance products.

## CONCEPTUAL FRAMEWORK

Micro, Small and Medium Enterprises Development (MSMED) Act 2006, classifies MSME into two classes:

1.  Manufacturing Enterprises: The enterprises which use components or raw materials with the help of plant or machinery to manufacture or produce goods.

2.  Service Enterprises: The enterprises which are occupied in providing services.

The limit of investment in manufacturing or services enterprises for purchasing machineries or setting up a plant or setting up a service unit has been fixed by the Ministry of MSME.

| CLASSIFICATION OF MSME (As per Micro, Small and Medium Enterprises Development Act, 2006) | | |
|---|---|---|
| Enterprises | Ceiling on investment in Plant & Machinery in INR (Manufacturing Enterprises) | Ceiling on investment in Equipment in INR (Service Enterprises) |
| | Manufacturing Enterprises | Service Enterprises |
| Micro | Upto 25 Lakhs | Upto 10 Lakhs |
| Small | 25 Laks to 5 Crores | 10 Lakhs to 2 Crores |
| Medium | 5 Crores to 10 Crores | 2 Crores to 5 Crores |

**Table 1 : Source : Ministry of MSME**

Insurance in India started in the year 1818 with the establishment of Oriental Life Insurance Company in Calcutta (IRDAI). Ever since its inception the scenario has changed. In 1956 Life Insurance Corporation of India (LIC) for life insurances and for non-life insurances, General Insurance Corporation of India (GIC) was formed in the year 1973. To regulate and develop the insurance industry, Insurance Regularity and Development Authority (IRDA) was constituted in 1999. In present scenario, 23 general insurance companies, 6 health insurance companies and 24 life insurance companies are operating in India (IRDAI Annual Report 2016-17).

The draft paper prepared by the Consultative Group to Assist the Poor (CGAP) working group on micro-insurance defines micro-insurance as "the protection of low income households against specific perils in exchange for premium payments proportionate to the likelihood and cost of the risk involved."

The Government has also tried to cover these populations through many central policies namely PMJJBY (with an annual premium of Rs. 330, the nominee will get Rs. 2 Lakhs in case of death of the insurer), PMSBY (with an annual premium of Rs. 12, in case of accidental death or full disability the nominee will get Rs. 2 Lakhs and Rs. 1 Lakhs in case of partial permanent disability) (GOI) or RSBY (it is a medical insurance wherein BPL families will get Rs. 30000 per year for inpatient medical care) (GOI).

Micro insurance (MI) are the insurance products specifically designed for the poor with low income and limited access to mainstream insurance products to protect them 'against perils in exchange for regular premium payments' (Churchill 2006). Poor people, mainly those who lives in poverty or have low income to sustain their livelihood are more vulnerable to financial shocks caused due to droughts, floods, inflation, job loss and family illness or death. This is because, they have either less savings or assets or no insurance to cover them in such perils (Mosley 2003). In such type of situations, these poor people have to use their savings or take loans in order to finance their problems (Duggal, 2007). Due to weaker social and economic position, women are also vulnerable with risks related to maternity, domestic violence, widowhood, etc. (Ahmed and Ramm 2006). Due to their low income, regular payment of small insurance premiums becomes attractive to them (Mosley 2003). The mismatch

of income and expenditure on healthcare has led to 24 percent of all hospitalised Indians falling below the poverty line (Ahuja, 2004). The access to healthcare service and its proper utilization is the direct benefits of micro health insurance (Aggarwal 2010; Atim 1998; Jakab and Krishnan 2001; Jutting and Tine 2000; Schneider and Diop 2001). Micro health insurance enhances the health status, productivity of labours and it also reduces the work day loss (Hamid et al. 2010). In a developing country, like India, the prime source of employment are self-employment and household enterprises (Mel et al. 2009).

Low income and poverty are the major concerns of almost every developing country. The leading cause behind this is that major portion of the population of these countries are not adequately protected risk exposures like illness, unemployment, natural calamities, etc. This decreases the efficiency level and the ability to build wealth (Loewe 2006). International Labour Office's agreed unanimously in the conference of governments' representatives, employers and workers' organization that 'the highest priority should be given to policies and initiatives which could bring social security to those who are not covered by existing systems' (ILO, 2005). As there is no insurance cover of the workers of informal sector, they fall in the trap of poverty whenever any unanticipated events strikes them (Guha-Khasnobis and Ahuja, 2004).

According to Brown and Churchill (1999), "Insurance reduces vulnerability as households replace the uncertain prospects of large losses with the certainty of making small, regular premium payments. Affordable premiums, flexibility of payments and ease of collections are the important factors that encourages these informal sector workers to go for micro insurance (Guha-Khasnobis and Ahuja, 2004; Sinha, 2002; Tenkorang, 2001). This is mainly because of low and uncertain income of labours. The capacity to pay for an insurance premium is directly proportional to their income (Beenstock et al., 1986; Browne and Kim, 1993; Outreville, 1996). Not only low income is a factor but also the proper management of financial means creates a huge factor in purchasing insurance products (Matul, 2005). Expectation is a major factor as this is related directly with issues like trust, payment of claims promptly and the expected value of micro insurance products (McCord, 2008). Many low-income households also thinks that there is no need of insurance. This thought is more prevalent only because of their less educated background, lack of confidence in insurers and poor understanding of the risk-pooling concept (McCord and Osinde, 2005; Cohen and Sebstad, 2005; Manje and Churchill 2002; Herrera and Miranda, 2004; Matul, 2005; McCord, 2008)

**OBJECTIVES**

1. To study the key concepts of micro insurance with respect to the different government initiatives.

2. To study the need for micro insurance.

3. To understand the real problems of the labours in not purchasing micro insurance products.

## RESEARCH METHODOLOGY

The present study is exploratory in nature. It makes an effort to gain insights pertaining to factors which are obstacles in purchasing of micro-insurance products in case of MSME labours based in West Bengal. The study is based on the secondary data collected from different research papers, journals, Government websites, insurance company's websites and different reports of private research firms. Micro insurance is not a new concept and literature regarding that is abundant but, very few literature have covered the poor class specially the labours with none focussing on MSME labours. We had to rely on Government data to understand the penetration level of micro insurance products among poor people of India.

## FINDINGS

Studying various literatures and reports, we have categorized the findings into two parts. First one is the factors which are showing the benefits of micro insurance products and another one are the factors showing the hindrances of the labours or workers in not purchasing micro insurance products.

## BENEFITS OF MICRO INSURANCE:

1. Affordable premiums: Due to low coverage, micro insurance products have smaller premiums.

2. Flexibilities in payment: As Micro Insurance targets low income group, payments are usually monthly basis or a smaller amount is deducted on a yearly basis.

3. Ease of collection: Many micro insurance products by the government are generally associated with the bank accounts, so, giving premiums becomes easy for the poor people.

4. Health coverage: Healthcare expenses take away the major chunk of the income of the workers. MI (Micro Insurance) gives health coverage not only to the individual but also to his family.

5. Coverage of loss from natural perils: Loss due to fire, flood or drought are also covered by MI.

6. Security from out-of-pocket expenses: The extra expenses at the time of unexpected events are also covered in MI.

7. Investment cum security cum savings: MI is not only a security tool against any mishap, but it can also be used as investment or savings.

8. Benefit to women: In certain cases of maternity, widowhood etc., women are directly benefitted from it.

9. Protection from future poverty: If our uncertain expenses are taken care properly then the chances of low income group people falling in the poverty trap will be less.

## HINDRANCES IN NOT PURCHASING MICRO INSURANCE PRODUCT

1. Low income: A large number of workers associated with unorganised/informal sector of MSME have comparatively low income. They have a family to feed and take care off.

2. Poverty: The income is not enough to sustain a normal life with a somewhat big family and their different expenses. Poverty is a common factor in rural parts of India.

3. Proper management of financial resources: The resources are scarce; still they don't employ a proper budget or plan to manage their income-expense calculations.

4. Expectation: They have a huge expectation from the government, for the insurers in getting the benefits properly and getting their claims promptly.

5. Low confidence in insurers: The poor people have faced a trauma filled experiences in getting their claims. Also due to some improper channel of investment, they have lost their deposits.

6. Proper knowledge of insurance benefits: The education level of MSME labours are less and that is the major reason that they don't have a proper knowledge of MI.

7. Many people thinks that insurance is waste of money or useless: Education, poverty, low income, big family or sometimes religion makes the rural people think that insurance is not needed at all.

## CONCLUSION

There are different schemes of the government which can directly benefit the poor workers of MSME in covering their health expenses, loss due to natural calamities or unanticipated mishaps. With all these benefits, still the coverage or reach of these schemes is average. The labours are less educated, have a low income, big family to feed and have a fear of losing their deposits. Also, it becomes difficult for them to take several leaves from their work to enrol for these schemes and to get their claims. The government should approach them and educate them the benefits of insuring their health and life and also help them in managing their expenses properly so that they can save some extra penny and be ready for mishaps. Government should also regularize the incomes of different works so that the workers get the proper pay for their labour.

## RECOMMENDATIONS

1. Educating the labours regarding the benefits of micro insurance products should be done at government level.

2. Getting enrolled to different government initiatives should be made easy and hassle free.

## LIMITATIONS

The study is done with the limited resources depending upon government data and few journals and research paper, the present practical scenario is not covered by it. In almost every paper the problems of poor people are shown but MSME labours are not covered in it. To know the real and current problems, literature or government data is not enough.

## FUTURE SCOPE

This study will give us the factors or parameters which can be used in future studies to carry out field survey with a structured questionnaire covering these factors. As the penetration level is low for micro insurance products in India, this study will lead many researchers or academicians to focus on the root causes to find out the answer of why people are not getting themselves covered with a micro insurance product. This study will also lead a way to find out the answer of why, with enough resources, the government or the insurance companies are failing to cover the whole poor population.

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# Relation between Components of the Du-Pont Analysis and Certain Selected Financial & Valuation Ratios – A Study on the Real Estate Sector in India

Paromita Dutta* & Rahul Gupta**

## ABSTRACT

*Du-Pont Analysis has long been a very effective tool in breaking down the ROE of an organization for any period so as to link the important constituents of the financial statements to ROE. This analysis helps in allocating scarce resources to competing SBUs so that ROE can be maximized. However, the financial performance of an organization is still assessed primarily on the basis of certain financial ratios and valuation ratios. This paper is all about delving deeper to assess the relation between the components of the Du-Pont analysis and the most used financial and valuation ratios in the companies of the real estate sector in India. The real estate sector has been chosen on the basis of its employment potential, its contribution to the national GDP and its relevance for infrastructure development in India. Simple bi-variate Pearsonian coefficient of correlation has been used to obtain objective measurement of relation or degree of association between the components of Du-Pont Analysis and the most used financial and valuation ratios. The findings of the study identify a few financial and valuation ratios which have significant relation with the components of Du-Pont analysis. These findings can help to identify the linkage between the Du-Pont analysis – a tool frequently used by the financial managers and the financial & valuation ratios used by the other stakeholders of the organizations. This in turn will enable the managers to take decisions which will be better aligned with the objectives of the other stakeholders of the organization.*

**Key words :** Du-Pont analysis, Real estate sector, Financial ratio, Valuation ratio.

## INTRODUCTION

Since the separation of management from ownership of business constitutions with the rise of joint stock companies, managers have become increasingly accountable to the shareholders for the running of the business. So managers have been continuously looking for tools which would aid in taking and executing effective decisions. The ultimate goal towards which all decisions are meant to be directed at is the maximization of shareholders' value. The shareholders measure returns from the business to them in terms of Return on Equity (ROE). ROE is a derived figure arrived which is linked with numerous financial variables. Some of these financial

* Final Year MBA Student, Institute of Business Management, National Council of Education Bengal, (Affiliated to Jadavpur University), Kolkata – 700 032; Ph: 9804086876;
EMail : paromitadutta93@yahoo.com
** Final Year MBA Student, Institute of Business Management, National Council of Education Bengal, (Affiliated to Jadavpur University), Kolkata – 700 032; Ph: 9748578804; EMail: rhlgupta107@gmail.com

variables are found in the income statement and some in the balance sheet. Du-Pont Analysis, in essence, connects the ROE to all the financial variables which are linked with ROE.

Thus Du-Pont Analysis, since 1920s, is a time-tested tool for effective decision making by managers. It decomposes the ROE into the returns on assets and the equity multiplier. The return on assets is again broken down into the post-tax profit margin and asset turnover. However, Du-Pont Analysis does not relate to the measurements of value i.e. the valuation ratios. Moreover, it relates to only a few of the financial ratios and not all of them which are usually used for financial analysis. It is thus interesting to link the components of the Du-Pont Analysis with the prominent valuation ratios and other financial ratios to filter out those ratios which have a significant linkage with the components of Du-Pont Ratio. This paper delves into identify such linkages in the companies constituting the real estate sector in India.

## OBJECTIVE OF THE PAPER

The objective of this paper is to compute and assess the associations between the constituents of DuPont analysis with certain other selected financial ratios and valuation ratios. The broader objective is to identify associations among Du-Pont ratios and other financial & valuation ratios to help corporate managers to analyze the associations and understand the interactions between the Du-Pont ratios and the financial and valuation ratios considered in this study.

## REVIEW OF RELEVANT LITERATURE

The study of relevant literature has been primarily aimed at knowing the angles from which authors and scholars have attempted to use Du-Pont Analysis for enabling managers to take better informed decisions. Hull and Avey (2007) in their research analyzed the financial performance of automobile manufacturers and opined that such analysis have limited success in assessing future performance. Herciu et al (2011) stated through Du Pont Analysis method, that the most profitable companies are not the most attractive for investors. Mehta (2014) found that investor uses DuPont analysis to indentify whether a company is a profit creator due to its management efficiency. Isberg stated in his research The Du Pont ratio can be used as compass by directing the analyst toward significant areas of strength and weakness evident in the financial statements. It is not a replacement for detailed, comprehensive analysis. The review of literature survey revealed that the association of Du-Pont ratios and the valuation ratios has not received considerable attention by scholars and hence a gap was identified relating to the association of Du-Pont Analysis and valuation ratios.

## METHODOLOGY OF RESEARCH

As this study is a pilot exploratory study, it has been done on the basis of audited annual reports for the year 2016-17 of 124 listed companies in National Stock Exchange which constitute the real estate sector in India. The real; estate sector has been chosen on the basis of its employment elasticity, growth potential and contribution to the national Gross Domestic Product. The data has been sourced from Ace Equity © data product. The list of 124 companies is contained in Appendix A.

The three ratios i.e. ROE, asset turnover and equity multiplier have been taken as the constituents of Du-Pont analysis i.e the Du-Pont Ratios.

Seventeen financial ratios have been considered with which the association of Du-Pont Ratios have been tested i.e. EPS, CEPS, DPS, DPO, EBIDTM, EBITM, PBT, PATM, CPM, ROA, ROCE, TDE, CPS, PCFR, FCFS, PFCF & FCFY.

Eight valuation ratios have been considered with which the association of Du-Pont Ratios have been tested i.e. TDMC, APE, PBV, DIVY, EVNS, EVEBITDA, EVEBIT & EVCE.

Bi-variate Pearsonian coefficient of correlation have been calculated for each of the three Du-Pont ratios with all the twenty five other financial and valuation ratios. Each coefficient of correlation has been tested for its statistical significance at 5% level of significance by using t test. The hypotheses formulated for this purpose were:

$H_0$: There is no statistically significant correlation among the two variables considered; and

$H_1$: There is a statistically significant correlation among the two variables considered

The correlations for which the null hypotheses have been rejected were considered to be statistically significant. These correlations have been used as an indicator of a significant association between the two financial variables to have an understanding which of the other financial and valuation ratios are associated with Du-Pont Ratios significantly.

**SCOPE OF PAPER & LIMITATIONS**

The scope of the paper is limited on certain aspects. Firstly, the study is related to the year 2016-17 as well as to the 124 companies listed in National Stock Exchange which constitute the real estate sector in India. Secondly the study, apart from the three Du-Pont ratios, have considered only seventeen other financial ratios and eight valuation ratios from hundreds of other possible ratios. The selection has been done on the basis of frequency of usage of ratios by analysts and only those most frequently used ratios have been considered. Thirdly, the bi-variate Pearsonian coefficient of correlation has been used as the measure of association. This study has not considered the use of measures of covariance and of $R^2$.

**ANALYSIS**

Out of the seventy five coefficients of correlation and their statistical significances, only nine have been found to be showing significant associations. The table containing the significant coefficients of correlations is contained in Appendix B.

The ROE has been found to have a weak positive correlation with Price to Book Value. The Asset Turnover Ratio has been found to have weak positive correlations with Price to Book Value and Enterprise Value to Capital Employed. However it has been found to have a moderately positive correlation with Return on Capital Employed. The Equity Multiplier Ratio has been found to have weak positive correlations with Pre-Tax Profit Margin, Total Debt to Equity and Cash Profit per Share. However it has been found to have a moderately positive correlation with Enterprise Value to Net Sales and Earnings Before Interest, Depreciation & Tax Margin.

**FINDINGS**

The findings of this study are indirectly corroborated by the findings of Herciu et al (2011). Profitability has not been found to be having a significant association with the Du-Pont Ratios except the Operating Cash Profit Margin i.e. Earnings Before Interest, Depreciation and Tax Margin which has been found to have a moderate positive effect on the Equity Multiplier Ratio. The Pre-Tax Profit Margin has also been found to have a weak positive effect on the Equity Multiplier Ratio.

The ROE and Asset Turnover Ratio have both been found to be positively correlated, though weak in nature, with Price to Book Value. Thus increasing ROE has limited contributions in upward movements of market price of stocks.

The Price to Book Value and Enterprise Value to Capital Employed have a limited positive relation with the Asset Turnover Ratio while ROCE has a stronger positive effect on the Asset Turnover Ratio.

The Pre-Tax Profit Margin and the Total Debt to Equity have been found to have a limited positive effect on the Equity Multiplier Ratio. Thus the Equity Multiplier is enhanced by both the profitability and financial leverage factors which holds good only if the return on assets exceed the cost of capital. The Equity Multiplier Ratio is however found to have a moderate positive association with Enterprise Value to Net Sales. Thus a higher Enterprise Value moderately affects in enhancing the Equity Multiplier Ratio. The Operating Cash Profit Margin i.e. Earnings Before Interest, Depreciation and Tax Margin has also been found to have a moderate positive effect on the Equity Multiplier Ratio.

**CONCLUSIONS**

The findings of this study reveal that the Price to Book Value Ratio, an important valuation ratio can be enhanced by increasing the Asset Turnover as well as the ROE. Two other valuation ratios i.e. Enterprise Value to Capital Employed and Enterprise Value to Net Sales can be increased by higher values of Asset Turnover Ratio and Equity Multiplier Ratios. Managers focusing on these constituents of DuPont Analysis, can have a positive effect on the key valuation ratios like. Price to Book Value, Enterprise Value to Capital Employed and Enterprise Value to Net Sales. Among the profitability measures, only the Operating Cash Profit i.e. Earnings before Depreciation, Interest & Tax Margin has a moderately positive effect on the Equity Multiplier Ratio. However, these findings may be tested for their validity in companies constituting other sectors as well. It may also be tested for generic nature across industries in India. Moreover, the findings of this study may be tested for its validity in the past years also. The study may also be extended to companies of other countries as well.

**RECOMMENDATIONS**

Managers may lay stress on enhancing the ratios of Asset Turnover and Equity Multiplier which have a positive effect on key valuation ratios like Price to Book Value, Enterprise Value to Capital Employed and Enterprise Value to Net Sales. Among the measures of profitability, the Cash Operating Profit Margin i.e., Earnings Before

Depreciation, Interest & Tax Margin should be stressed on as it has a moderately positive association with the Equity Multiplier and as a sequel, on the ROE.

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## APPENDICES

## APPENDIX A

| Serial No. | Name of the Companies | Serial No. | Name of the Companies |
|---|---|---|---|
| 1 | AGI Infra Ltd. | 13 | Asahi Infrastructure & Projects Ltd. |
| 2 | Ahluwalia Contracts (India) Ltd. | 14 | Ashiana Housing Ltd. |
| 3 | Ajmera Realty & Infra India Ltd. | 15 | Bhagyanagar Properties Ltd. |
| 4 | Alchemist Realty Ltd. | 16 | Bhagyodaya Infrastructure Development Ltd. |
| 5 | Anant Raj Ltd. | 17 | BL Kashyap & Sons Ltd. |
| 6 | Anna Infrastructures Ltd. | 18 | Brigade Enterprises Ltd. |
| 7 | Ansal Buildwell Ltd. | 19 | BSEL Infrastructure Realty Ltd. |
| 8 | Ansal Housing & Construction Ltd. | 20 | Capacite Infraprojects Ltd. |
| 9 | Ansal Properties & Infrastructure Ltd. | 21 | CHD Developers Ltd. |
| 10 | Arihant Foundations & Housing Ltd. | 22 | Chembra Peak Estates Ltd. |
| 11 | Arihant Superstructures Ltd. | 23 | DB Realty Ltd. |
| 12 | Arvind Smartspaces Ltd. | 24 | Dhanuka Realty Ltd. |

| Serial No. | Name of the Companies | Serial No. | Name of the Companies |
|---|---|---|---|
| 25 | Dilip Buildcon Ltd. | 64 | Nitesh Estates Ltd. |
| 26 | DLF Ltd. | 65 | Oberoi Realty Ltd. |
| 27 | DS Kulkarni Developers Ltd. | 66 | Omaxe Ltd. |
| 28 | Eldeco Housing & Industries  Ltd. | 67 | Orbit Corporation Ltd. |
| 29 | Emami Infrastructure Ltd. | 68 | Pansari Developers Ltd. |
| 30 | ETT Ltd. | 69 | Park Chambers Ltd. |
| 31 | Ganesh Housing Corporation Ltd. | 70 | Parsvnath Developers Ltd. |
| 32 | Garnet Construction Ltd. | 71 | Peninsula Land Ltd. |
| 33 | GeeCee Ventures Ltd. | 72 | Phoenix Mills Ltd. |
| 34 | Global Land Masters Corporation Ltd. | 73 | Poddar Housing and Development Ltd. |
| 35 | Globus Power Generation Ltd. | 74 | Prajay Engineers Syndicate Ltd. |
| 36 | Godrej Properties Ltd. | 75 | Premier Energy &  Infrastructure Ltd. |
| 37 | Hazoor Multi Projects Ltd. | 76 | Prerna Infrabuild Ltd. |
| 38 | HB Estate Developers Ltd. | 77 | Prestige Estate Projects Ltd. |
| 39 | Housing Development & Infrastructure Ltd. | 78 | Prime Property Development Corporation Ltd. |
| 40 | Hubtown Ltd. | 79 | Prozone Intu Properties Ltd. |
| 41 | IITL Projects Ltd. | 80 | PSP Projects Ltd. |
| 42 | Indiabulls Real Estate Ltd. | 81 | Puravankara Ltd. |
| 43 | IVRCL Assets & Holdings Ltd. | 82 | PVP Ventures Ltd. |
| 44 | Jainco Projects (India) Ltd. | 83 | QVC Realty Co. Ltd. |
| 45 | Jaypee Infratech Ltd. | 84 | Radhe Developers (India) Ltd. |
| 46 | JMC Projects (India) Ltd. | 85 | Raghunath International Ltd. |
| 47 | Kamanwala Housing Construction Ltd. | 86 | Rama Petrochemicals Ltd. |
| 48 | Kanak Projects Ltd. | 87 | RDB Realty & Infrastructure Ltd. |
| 49 | Kolte Patil Developers Ltd. | 88 | Ritesh Properties & Industries  Ltd. |
| 50 | Lancor Holdings Ltd. | 89 | Ritman Infra Ltd. |
| 51 | Lavasa Corporation Ltd. | 90 | Rodium Realty Ltd. |
| 52 | Lok Housing & Constructions Ltd. | 91 | RPP Infra Projects Ltd. |
| 53 | Mahindra Lifespace Developers Ltd. | 92 | RTCL Ltd. |
| 54 | Manjeera Constructions Ltd. | 93 | S&T Corporation Ltd. |
| 55 | Marathon Nextgen Realty Ltd. | 94 | Saag R R Infra Ltd. |
| 56 | Marg Ltd. | 95 | Sahara Infrastructure & Housing |
| 57 | Martin Burn Ltd. | 96 | Samruddhi Realty Ltd. |
| 58 | Max Heights Infrastructure Ltd. | 97 | Sanathnagar Enterprises Ltd. |
| 59 | MVL Ltd. | 98 | Satra Properties (India) Ltd. |
| 60 | NBCC (India) Ltd. | 99 | Shaival Reality Ltd. |
| 61 | Neo Infracon Ltd. | 100 | Shervani Industrial Syndicate Ltd. |
| 62 | Nila Infrastructures Ltd. | 101 | Shradha Infraprojects (Nagpur) Ltd. |
| 63 | Nimbus Projects Ltd. | 102 | Shree Balkrishna Commercial Co Ltd. |

| Serial No. | Name of the Companies | Serial No. | Name of the Companies |
|---|---|---|---|
| 103 | Shri Krishna Devcon Ltd. | 114 | Supreme Holdings & Hospitality (India) Ltd. |
| 104 | Shristi Infrastructure Development Corp. Ltd. | 115 | TCI Developers Ltd. |
| 105 | Simplex Projects Ltd. | 116 | Thakkers Developers Ltd. |
| 106 | Simplex Realty Ltd. | 117 | Tirupati Sarjan Ltd. |
| 107 | Sobha Ltd. | 118 | Tivoli Construction Ltd. |
| 108 | SRS Real Estate Ltd. | 119 | Unishire Urban Infra Ltd. |
| 109 | SRS Real Infrastructure Ltd. | 120 | Unitech Ltd. |
| 110 | SSPDL Ltd. | 121 | Victoria Mills Ltd. |
| 111 | Starlite Global Enterprises (India) Ltd. | 122 | Vipul Ltd. |
| 112 | Sterling Green Woods Ltd. | 123 | Welspun Enterprises Ltd. |
| 113 | Sunteck Realty Ltd. | 124 | Yogi Infra Projects Ltd. |

**APPENDIX B**

| Du-Pont Factor | Correlation with | Coefficient of Correlation | Nature of Correlation |
|---|---|---|---|
| ROE | PBV | 0.179 | Weak Positive |
| Assets Turnover | ROCE | 0.501 | Moderate Positive |
| Assets Turnover | PBV | 0.268 | Weak Positive |
| Assets Turnover | EVCE | 0.206 | Weak Positive |
| Equity Multiplier | EBIDTM | 0.439 | Moderate Positive |
| Equity Multiplier | PBT | 0.206 | Weak Positive |
| Equity Multiplier | TDMC | 0.195 | Weak Positive |
| Equity Multiplier | EVNS | 0.453 | Moderate Positive |
| Equity Multiplier | CPS | 0.317 | Weak Positive |

## GLOSSARY

| Serial No. | Financial Ratio | Serial No. | Valuation Ratio |
|---|---|---|---|
| 1 | Earning Per Shares (EPS) | 1 | Total Debt To Mcap |
| 2 | Cash Earnings per Share (CEPS) | 2 | Adjusted Price earnings ratio (PE) |
| 3 | Dividend Per Share (DPS) | 3 | Price / Book Value |
| 4 | Dividend Payout Ratio | 4 | Dividend Yield |
| 5 | Profit Before Interest Depreciation and Tax Margin (PBIDTM) | 5 | Enterprise value (EV)/Net Sales |
| 6 | Earnings Before Interest and Tax Margin (EBITM) | 6 | Enterprise value (EV)/ Earnings Before Interest Tax Depreciation and Amortization (EBITDA) |
| 7 | Profit before Tax (PBT) MARGIN | 7 | Enterprise value (EV)/ Earnings Before (EBIT) |
| 8 | Profit After Tax (PAT) MARGIN | 8 | Enterprise value (EV)/CE |
| Serial No. | Financial Ratio | Serial No. | DuPont Ratio |
| 9 | CPM | 1 | Return on Equity (ROE) |
| 11 | Return on Capital Employed (ROCE) | 2 | Sales To Total Assets |
| 12 | Total Debt To Equity | 3 | Assets To Equity |
| 13 | Price to Cash Flow Ratio | | |
| 14 | Free Cash Flow per Share | | |
| 15 | Price to Free Cash Flow | | |
| 16 | Free Cash Flow Yield | | |
| 17 | M Cap / Sales | | |

# Employee Benefits towards Financial Performance: Reflection from State Bank of India

## Sapana Mishra* & Debjyoti Dey**

## ABSTRACT

*Service sector in India is the major contributor of Gross Value Added (GVA); it is contributing around more than fifty percent of the GVA followed by industrial and agricultural sector. Among the service sectors financial service sector is the most promising as well as it is growing at a rapid speed. It is noteworthy to mention that financial service providers are coming with new strategies to market their products but the fruitful execution of the strategies lie in the hand of the employees. Because the employees are the face of the company, they are representing the company to its customers. So success of a company proving the financial services depends upon qualified, well trained and satisfied employees. The present study is an overview of endeavour taken by State Bank of India, India's largest public sector bank, for the benefits of employees and also on the contribution of the employees towards the financial performance of the Bank over a period of 5 years i.e. from financial year 2012-13 to 2016-17. The study is based on secondary data and information has been collected from various sources like books, journals, magazines, SBI annual reports and websites. The study is to look into SBI and its initiatives for organizational excellence through the employee benefit programs and its impact on financial performance.*

**Key words :** *Employee Benefits, Public Sector Bank, Financial Services Performance*

## INTRODUCTION

Human resources are a very important part in the banking sector because of the people intensive nature of the work. The HR policy of SBI is constantly being synchronised to meet business goals, and to increase employee empowerment. It is committed toprovide an enabling workplace, ensuringemployee welfare and offering opportunitiesto develop and grow. SBI is presently the 5th largest employer in India with total employee strength of 2, 09,567 out of which there are 23% women employees and 45.16% SC, ST and OBC employees which is an indicator of the fact that the bank provides equal job opportunities to all sections of people in the society. It also encourages young talent by providing better work environment, digital means of learning, specialized training facilities, various retirement plans, flexible time of working and a number of leave schemes. SBI understands the importance of employee job satisfaction as it can affect the performance and efficiency of the employees.

## LITERATURE REVIEW

Jothi Basu (2014) in his article "A study on Employee Job Satisfaction in the Indian Cements (P) Ltd, Ariyalur District of Tamil Nadu" found that salary and other allowances

\* Assistant Professor; J D Birla Institute; Email: sapanamishra875@gmail.com
\*\* Assistant Professor; J D Birla Institute; Email: debjyoti.dey1@gmail.com

provided to most of the respondents was satisfactory for them.The author highlighted the importance of maintaining co-operation between the employees. He suggested that the firm needs to motivate its employees and take suggestions from them in introducing new work methods.

Sumana Devi and Ajay Sunja (2013) in their study "Job satisfaction among bank employees: A comparative study of public sector and private sector banks", found that there are some differencesbetween the employees of private and public sector banks. The authors highlighted the importance of empowerment of employees and suggested that the public sector banks should focus more on employees' job satisfaction by increasing their pay.

Ekta Sinha (2013) in her study "A Research Work on Employee Satisfaction Measurement with special reference to KRIBHCO, Surat" did not find any differencein the level of satisfaction among various levels of employees. The author suggested that organization could providebetter opportunities and specialised training toemployees belonging to different age groups.

Krishna and Rao (1997) carried out an empirical study on"Organisational and HRD Climate in BHEL: An Empirical Study", and found that the middle and senior managerswere encouraged to experiment with new methods and try out creative ideas due to a positive Human Resource Development climate in the organisation.

Swarnalatha.C (2013) in her article "Workplace Harassment and Job Satisfaction: An Empirical Study among Employees of Automotive Industries in India" found dissatisfaction among both male and female employees in matters relating to work place safety and management treatment. The author suggested thatmanagement needs to have proper communication with the employees. Management should discuss the problems of employees and try to build a healthy relationship with them by reducing the risk of work place harassment problems.

Sharma and Pooja Purang (2000) in their study "Value Institutionalization and HRD Climate: A Case Study of a Navratna public sector organisation", found a positive relationshipexists between value institutionalization and HRD climate in a large public sector organisation, meaning thereby that a better and more ethical environment of the organization shall lead to abetter HRD climate for the organisation.

Vijaya Banu.(2007) in his study "A Study on HRD Climate with Special Reference to Public Sector CementCorporation", concluded that HRD climate is ofcrucial importance for the survival of Indian public sector organizations.According to Kaya (1995) Job Satisfaction is a primary aspect of job attitude. Low rate of job satisfaction is the main factor for an organization's condition getting worse.

Leaman and Bordass (1999) reported that a number of different factors can influence satisfaction of an employee with their workspaces, including building design, air quality and temperature, noise and lighting, ability of employees to personalize their workspaces and workspace design and management etc. It is generally understood that unfavourable conditions of office environment can have negative influences on employees' satisfaction, cause health problems and increase short-term sick leave.

Ahmed and Uddin (2012) suggested that organisations should follow simple and

transparent operatingprocedure to make the employees feel at home. This will result in high job satisfaction among the employees as working procedure would be easily understandable to them. In this regard provisions in service training and guidance should be provided to perform banking job efficiently.

## RESEARCH GAP

From the existing literature review it has been found that there are number of works on the relation between employee satisfaction and profitability in different sectors but the existing research works are basically based on primary survey and they are area specific i.e. the works are based on a particular area or region. There is very less number of work available on different employee benefits provided by SBI.For this reason we have selected this as the topic for our research.

## OBJECTIVES

The objective of the present research is:

1.  To study the benefits that SBI has been providing to its employees over a period of last five financial years starting from financial year 2013-14.

2.  To study the contribution of the employees towards financial performance of the bank.

## RESEARCH METHODOLOGY

The study is based on secondary data collected basically from State Bank of India's website and its annual report for last five years starting from financial year 2012-13 to 2016-17. For determining employee's contribution towards the profitability of the bank the following indicators has been used: Human Capital Value Added, Human Capital Return on Investment, Business per employee and Profit per employee

## RESULTS AND DISCUSSIONS

The key to success of any organisation lies in the hands of employees of that organisation, and the performance of the employees depends upon how efficiently they are managed. As far as banking industryis concerned, it is witnessing a paradigm shift in the recent years, and in order to compete with the multinational players, public sector banks also have to recruit specialists from the various areas such as credit and risk management, IT operation, treasury management etc. As our study is based on SBI, it is noteworthy to mention that SBI is the highest recruiter in the banking sector and it is making significant efforts and contributions towards achieving its goal through employee benefits. SBI has taken various steps over the last few years for meeting the business challengeswhich includes

1.  Recruiting young and **high qualified** candidates in large numbers.

2.  Improving the **working condition** of the employees representing a wide diversity of group

3.  **Re-skilling** the employees through training intervention, workshop, seminars, video conferencing;

4. Providing **scientific** and objective approach **performance appraisal** system which is renamed as Career Development System during FY 2016.

5. Incentivising the top performer and various measures for **talent retention**.

All these factors have played significant role to generate highly satisfied employees which eventually have a positive and significant impact on bank performance. SBI's workforce strength of last 5 years is given in the following table:



| | 2012-2013 | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 |
|---|---|---|---|---|---|
| ■Officers | 80796 | 79755 | 78540 | 80818 | 81041 |
| ■Associates | 109686 | 101648 | 94455 | 88606 | 92979 |
| ■Subordinate Staff and Others | 37814 | 40630 | 40243 | 38315 | 35547 |
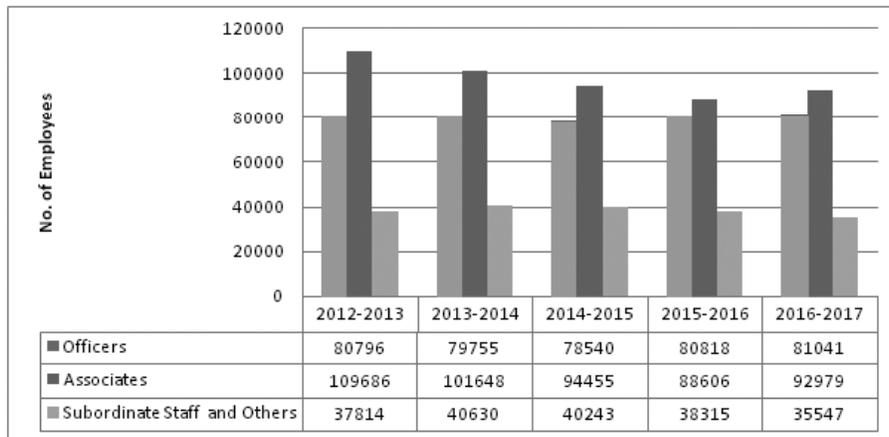
**Figure 1 : SBI's Workforce Strength**

*Sources : SBI Annual Report from Financial Year 2012-13 to 2016-17*

**Performance Appraisal System**

Performance appraisal is one of the most important areas in the field of human resource management. It can be recognised as a basic developmental tool for the organisation. It is basically a system of evaluating the performance of the individuals in an organised way. The parameters of measuring the performance are not same for all the types of organisation. Performance appraisal is required to undergo many researches as far as banking sector is concerned.  India's most valued public sector bank SBI, employing over more than two lakhs on its roll has introduced a scientific system of performance appraisal named as "**Saksham**" of the individual employees, where each and every employee can analyse their monthly  performance against assigned targets. It is basically a career development system, being introduced by the bank. This is an attempt that brings transparency and objectivity. For all roles 70 per cent of marks are based on **Key Result Areas (KRAs)** and 30 per cent on assessment by supervisor and it has been made standardised across officers and clerical staff assigned similar work. This system also compares the employees working in same level but significantly it states that the system is not introduced to identify the low performer rather it is introduced to find out the high performer to incentivise them. Essentially there are three roles in the system budgetary, measurable and non measureable and this new system has five types of grades AAA, AA, A, B and C, it is to mention that entire system is IT driven. All the employees of the bank have been assigned KRAs and almost 90% of the positions have been made budgetary

and measurable. The system extracts business data which are required of KRA and calculates scores. This system also has the provision for the developmental needs of the individual employees through competency assessment. The main challenge that the newly introduced system is facing that it is unable to differentiate properly the one employee from other in terms of performance because 80 per cent of the assessed employee scored more than ninety percent. But this system is the eye opener for the players in this same industry.

To ensure '**Right Person for the Right Job**' according to specialization of skills, SBI is in the process of deploying a scientific postings allocation process through the use of automated tool '**PROSPER**'.

**Strategic Training Unit**

In order to enhance the quality of training and to make employees more knowledgeable, SBI has taken initiatives to create **Apex Training Institutes (ATIs)** and **State Bank Learning Centres**. It has created a Virtual Knowledge University within the institution, with a capacity of classroom training of 3,400 employees per day in all areas of Banking, Economy, Leadership, Ethics, Marketing, Administration and Soft Skills. Apart from this many other training initiatives have been taken by SBI for its employees like:

1. **Agradoot :** For imbibing motivation among the subordinate staff and guards for providingbetter customer service, a mass communication programme named 'Agradoot' was organised by the company all across the country. Around 32,000 members of subordinate staff were trained and many of them opined it was a highly motivational learning experience for them.

2. **Certification Programme on Credit** : Officials in the loan department of the bank were provided with adequate credit skills required to handle the entire loan life cycle of advances through this certification programme.

3. **Inclusion Centre :** For differently abled employees, the bank has opened a special Inclusion Centre to enable financial inclusion, training,empowerment and upgradation of skills in a systematicway.Specially designed programmes havebeen conducted like training for visuallyand hearing impaired employees of the bank.The centre has also been entrusted with redressing the grievances of such employees. Bank has also provided Talking software and OCRReaders/Scanners to its employees. It is noteworthy to mention that SBI has received '**Hellen Keller Award'** for providing equal employment opportunities to differently abled people.

4. **STU Website :** The website of the StrategicTraining Unit has been completely revamped.It is now the epicentre, where all learningmaterials for the employees are accessible by all Apex TrainingInstitutes and State Bank Learning Centres (SBLCs) at one place via the Intranet.

Few key recent interventions undertaken by the Bank are mentioned below :

1. **Performance Linked Incentive (PLI) :** SBI provides additional incentives to its employees on the basis of their performance to motivate them to perform more efficiently.

2. **Work from home**: SBI also gives employees the option to serve the bank from home. This provides a platform to the employees (specially the female employees) to balance both personal andprofessional aspirations.

3. **Smart Compensation Package**: To attract more young people in the workforce, SBI isin the process of introducing 'SmartCompensation Package' for officersupto Scale III from FY2018 onwards.Compensations in the form of leasedhousing, medical reimbursements,cashless treatment at over 100hospitals, and other employeefriendly policies like sabbatical, flexitimescheme and medical insurancefor retired employees has also beenformulated to attract young talent.

4. **Sabbatical Leave**: Such leave is provided to the employees to give them a rest from work which can be for a period of two months to a year. However Arundhati Bhattacharya, the first woman to head State Bank of India, initiated some changes in the sabbatical leave policy of the bank. It has now been extended to two years for the female employees in addition to the maternity leave for purposes like children's education etc. Apart from female employees even the single men employees, differently abled employees &employees having differently abled dependants are given such leave by the bank.

5. **Vacation Leave**: For increasing the efficiency, productivity and risk mitigation, SBI offers a leave of ten working days in one go for the staff members posted in sensitive positions in each financial year.

6. **Flexi-time scheme**: To create an employee friendly environment and to promote a healthy work life balance, SBI has introduced flexi-timing/ flexi-hour scheme giving employees an option to select his/ her own work hours within limits laid by the management on grounds of looking after family and health.

7. **Chummery accommodation for women employees**: SBI provides special accommodation facilities to its female officersupto the grade of Scale V who are posted in rural/ semi urban/ urban areas to enable them to complete their assignments in a hassle-free environment.

8. **Alertness Award**: Employees are awarded with special alertness award to encourage them to be more alert in prevention or detection of frauds which have operational risk with potential to cause serious damage.

9. **Group Medical Insurance for retired employees**: SBI also offers group medical insurance plans for its retired employees to attract young generation to join the bank.

10. **'SBI Buddy'-'SAATHI'**: SBI has started a programme named 'SBI Buddy'-'SAATHI' to help the Probationary officers in clearing their doubts related to technical and administrative activities at the initial stages of their work.

**Inclusiveness and Diversity**

SBI is presently the 5th largest employer in India and it has a total employee strength of 2,09,567 which comprises of 46,676 women employees in total across the country and it is noteworthy to mention that nearly 2,000 branches are headed by women officers.

**Zero tolerance Policy :** SBI maintains a zero tolerance policy against sexual harassment of female employees at workplace. An appropriate mechanism for prevention and redressal of complaints of sexual harassment at workplaces has been put up by the bank to ensure that women work with dignity and without fear. The total number of cases of sexual harassment reported in SBI and the total number of cases disposed off are depicted below through a table and graph :

| Financial Year | Total no. of cases filed | Total no. of cases cases disposed off | Percentage of cases disposed off |
|---|---|---|---|
| 2013-2014 | 30 | 20 | 66.66667 |
| 2014-2015 | 14 | 10 | 71.42857 |
| 2015-2016 | 27 | 23 | 85.18519 |
| 2016-2017 | 21 | 15 | 71.42857 |

**Table 1 : Cases filed and disposed off on sexual harassment in workplace**
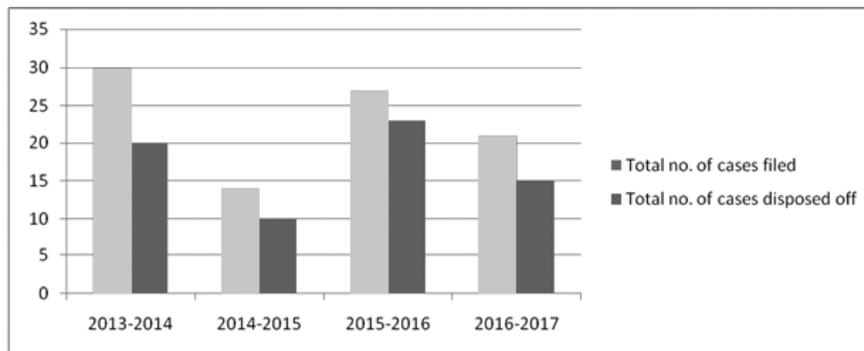


**Figure 2 : Cases filed and disposed off on sexual harassment in workplace**

*Source : SBI Annual Reports*

**Reservations**: SBI provides reservations to the Scheduled Castes, Schedule Tribes, Other Backward Classes and Persons with Disabilities (PWDs) as per Government of India directives. Liaison officers have also been appointed at all 14 centres apart from the corporate centre at Mumbai to redress the grievances of the reserved employees.
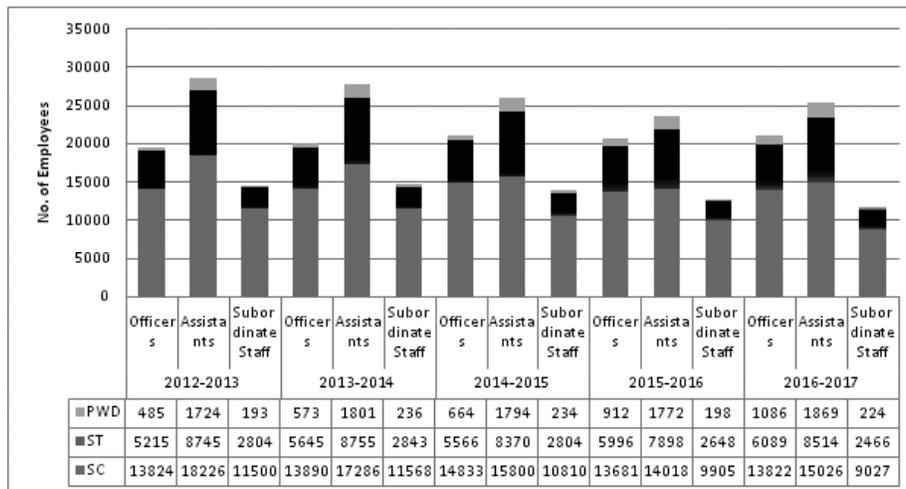
**Figure 3 : Composition of SC, ST and PWD employees in total workforce of SBI**

*Sources : SBI Annual Report from Financial Year 2012-13 to 2016-17*

**Contribution of the Employees towards Financial Performance**

To measure the human capital contribution towards the profitability of the largest public sector bank of India, following techniques were used:

1.  **Human Capital Value Added :** It is one of the performance measurement indicator used to measure the contribution of the employees in an organisation. Real financial impact of the employees can be understood by using this indicator. We calculated HCVA by subtracting all corporate expenses except pay and benefits from revenue generated and dividing the adjusted profit by number of full time employees, total costs are the difference between revenue and profit before taxes, employee costs are pay and benefits.
    **HCVA** = [Revenue from Business - (Total Costs-Employee Costs)] / average headcount.

2.  **Human Capital Return on Investment**: it considers return on investment in terms of profit for monies spent on human capital employment costs. Human capital return on investment is calculated with the help of following formula:

    **HCROI** = (Operating Profit + Employee Costs) / Employee Costs

| Year | Operating Profit (Rs. in Crore) | Employee Cost (Rs. in Crore) | Net Operating Profit Before Tax + Employee Cost (Rs. in Crore) | No. of Employee | HCVA (Rs. in Crore) | HCROI |
|---|---|---|---|---|---|---|
| Mar'17 | 50847.89 | 26489.28 | 77337.17 | 209567 | 0.369033149 | 2.91956482 |
| Mar'16 | 43257.82 | 25113.82 | 68371.64 | 207739 | 0.329122794 | 2.722470735 |
| Mar'15 | 38913.5 | 23537.07 | 62450.57 | 213238 | 0.292867922 | 2.653285647 |
| Mar'14 | 32109.24 | 22504.28 | 54613.52 | 222033 | 0.245970284 | 2.426805923 |
| Mar'13 | 31081.72 | 18380.9 | 49462.62 | 228296 | 0.216660038 | 2.690979223 |

**Table 2 : Human Capital Value Added and Human Capital Return on Investment**

It is seen in the above table that HCVA has been increasing over the years of study starting from financial year 2012-13. It means every employee of SBI has contributed Rs. 21.66 lakhs, Rs. 24.5 lakhs, Rs. 29.28 lakhs, Rs. 32.91 lakhs and Rs. 36.9 lakhs towards the operating profit of the bank including their salary in 2013,2014,2015,2016 and 2017 respectively.

| Year | Employee Cost (Rs. in Crore) (1) | No. of Employee (2) | Employee Cost Per Employee (Rs. in Crore) (3 = 1/2) | HCVA (4) | Net HCVA (5=4−2) | % of HCVA Used for Employee Benefits (6=5/4*100) | % of HCVA Retained in The Organisation (7=100−6) |
|---|---|---|---|---|---|---|---|
| Mar'17 | 26489.28 | 209567 | 0.126400053 | 0.369033149 | 0.242633096 | 34.25168001 | 65.74831999 |
| Mar'16 | 25113.82 | 207739 | 0.120891214 | 0.329122794 | 0.208231579 | 36.73134066 | 63.26865934 |
| Mar'15 | 23537.07 | 213238 | 0.110379341 | 0.292867922 | 0.182488581 | 37.68911957 | 62.31088043 |
| Mar'14 | 22504.28 | 222033 | 0.101355564 | 0.245970284 | 0.144614719 | 41.20642654 | 58.79357346 |
| Mar'13 | 18380.9 | 228296 | 0.080513456 | 0.216660038 | 0.136146582 | 37.16119364 | 62.83880636 |

**Table 3 : Percentage of HCVA used for employee benefit and retained in the organisation**

The above table shows whatever an employee contributes towards the value addition of the bank, 37.16%, 41.02%, 37.68%, 36.73% and 34.25% of that is used as employee benefit costs by the bank, leaving around 60% of value addition in the bank itself.

Human capital return on investment (Table1) indicates contribution is made by employeefor every one rupee of employee benefit costs incurred by the Bank, it is seen over the years it is increasing and it is more than 2 for all the years for the above study. Say for example in 2017, HCROI was 2.91it means for every 1 rupee of employee benefit expenses Rs. 2.91 is contributed by the employees. Now if we deduct 1 from the HCROI 2.91, we get 1.91 which indicates net return on per one rupee of employee costs.

**Improvement in Employee Productivity**

Profit per employee is very common indicator used by many organisations to measure the contribution of each employee towards the profitability of the organisation, whereas business per employee measures contribution of each employee towards the business of the organisation. Interest per employee is an indicator mainly used by bank and financial institution as interest is the main source of income for them. In the present study we tried to find the trend in the above three indicators.

The large-scale recruitment of Gen-next employees in theOfficers as well as in the Assistant grade over the last three fouryears has not only brought about a far reaching attitudinalchange among staff in their customer interface andservices across the

branches, it has also become a catalyst in enhancing/improving the productivity and efficiency ofthe employees, there by resulting in increasing growth in business and profitability for the Bank. The business per employee (BPE) has increased during the period from financial year 2012-13 to 2016-17 as per data furnished below. In this connection,the profit per employee (PPE) has also decreased from Rs. 6.17 lakhs in 2012-13 to Rs. 4.09 lakhs in 2013-14.It is primarily due to higher provisioning, increase in overheads and staff cost during the year. However, the PPE has increased to 6.14 lakhs in 2014-15, because various cost control measures or practices have been reiterated for adoption/compliance at all levels to improve the Bank's profitability.

| Indicators | 2016-2017 | 2015-2016 | 2014-2015 | 2013-2014 | 2012-2013 |
|---|---|---|---|---|---|
| Interest Income/ Employee (Rs.) | 8375280.48 | 7879372.97 | 7146806.39 | 6141015.07 | 5241313.86 |
| Net Profit/ Employee (Rs.) | 500274.5 | 478997.86 | 614410.66 | 490520.33 | 617837.58 |
| Business/ Employee (Rs.) | 172538127.5 | 153770974.8 | 134911208.6 | 117290548.3 | 98484254.1 |

**Table 4 : Interest, Net Profit and Business Per Employee,**

*Source : SBI Annual Reports, 2013 to 2017 and compiled by author*

The above table shows that interest income per employee is increasing gradually over the years.Net profit per employee is showing a fluctuating movement over the last five years of study starting from 2012-13 to 2016-17.But business per employee has been increasing continuously since 2012-13.
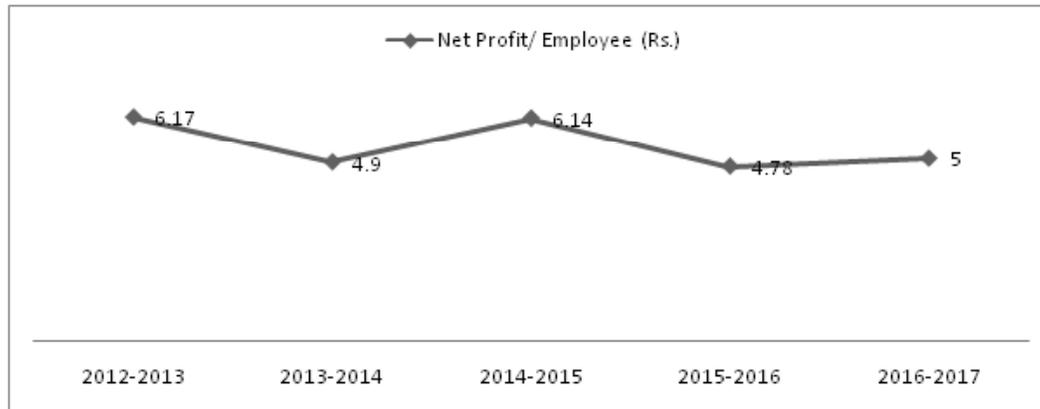


**Figure 4 : Net Profit/Employee (Rs. in Lakhs)**
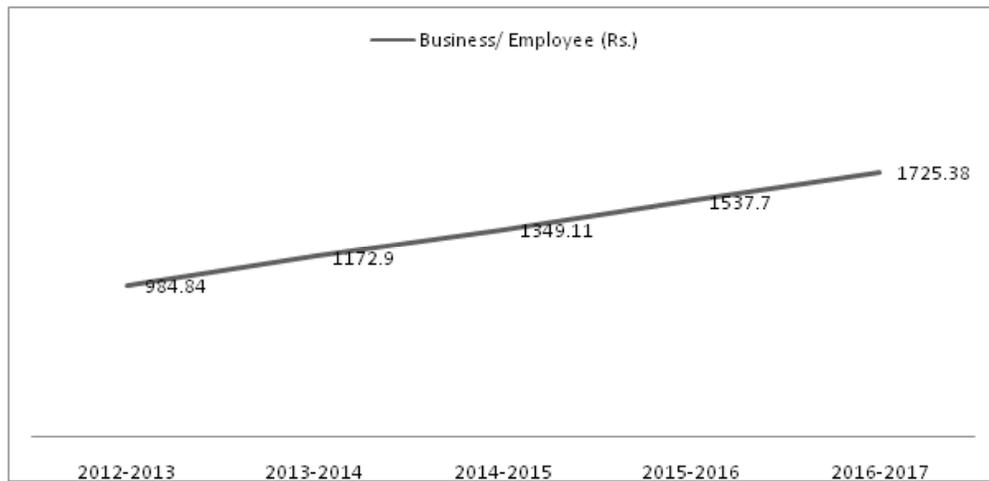
**Figure 5 : Business/ Employee (Rs.in Lakhs)**

The above two charts shows the net profit per employee and business per employee of state bank of India over a period of five years starting from financial year 2012-13. It indicates net profit per employee is fluctuating over the last five years and business per employees is continuously moving up.

## CONCLUSION

From the above study it has been found out that over the years SBI has undertaken a number of schemes which is meant for benefitting its employees. The HR policy of the Bank is formulated keeping in mind the matters related to job satisfaction of the employees. It is also found from the study that Human Capital Value Added has been continuously increasing over the period of study and the return on employee benefit cost per rupee is also showing an increasing trend except for the year 2014. From the study it is evident that the contribution of the employees towards the business and profitability of the bank is ascending continuously.

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# Building Customer Loyalty among Online Buyers through Generation of Trust

**Umama Haque\* & Dr Rabin Mazumder\*\***

## ABSTRACT

*In today's time, the online market environment is quite competitive and the organizations have to make sure to focus on continuously meeting the current and also the potential needs of the customers. Loyalty is a physical and emotional commitment given by the customers in exchange for meeting their expectations. If the customers have trust in the brand, they are more likely to be more loyal towards that particular brand. Customer loyalty is primarily achieved by satisfying customer's expectations. A loyal customer has trust in the product/service and plans to buy it repeatedly in the future, organizations need to retain the customers. In online shopping, since the products are intangible, it is important to build trust among the customers. Organizations need to understand thoroughly the consumer behavior and consumer needs in order to create and implement effective customer retention strategies. This paper attempts to find out factors which lead to customer loyalty by generating trust among the customers since trust is the glue that holds the customer relationship together in the current competitive market. Data are collected through the structured questionnaire. The results of this study legitimate the idea that trust of the customer acts as a mediating factor which enhances the loyalty of the customer in regards to the further purchase and consumption of the particular product or service. The implications of the study will help in the managerial perspectives and also the research perspectives.*

**Keywords :** *Customer Trust, Customer Loyalty, Customer Expectation, Customer Needs*

## INTRODUCTION

The main idea of relationship marketing comprises of creating and keeping lasting relationship with the customers so as to strengthen a company's competitive edge. The customer firm relationship relies on many factors some of which being product or service, brand name or the firm itself. Beyond these aspects, customer trust plays a vital role in maintaining the loyalty of the customers towards the particular brand. Creating online customer loyalty and retaining existing customers is a necessity for online vendors. The aim of this study is to find out whether this aim can be achieved through increased customer trust.

Attracting new customers costs online vendors at least 20% to 40% more than it costs vendors who are selling in the equivalent traditional market (Reihheld & Schefter, 2000). In order to cut down these costs and gain some profit, online vendors in particular have to retain the customers and create higher customer loyalty, which means convincing the customers to return for additional purchases to their sites. Part

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\*   Research Scholar, University of Engineering and Management, Kolkata;
    Email : umama.haque01@gmail.com
\*\*  Associate Professor-Economics, Department of Business Management, Institute of Engineering and Management, Kolkata; Email: rabin.mazumder@iemcal.com

of the success of Amazon.com, for example, is attributed to its high degree of customer loyalty, with 66% of purchases made by returning customers who order again. (The Economist, 2000).

The success of some well-known websites, such as eBay has been because of their ability to cut the costs of attracting new customers through such a referral system (Reichheld & Schefter, 2000). It should not be surprising for both academicians and practitioners to understand that how should customer satisfaction, trust and loyalty be increased because not only this has to be understood but also organizations have to evaluate the effect of customer satisfaction, trust and loyalty on their pattern of repurchase intention.

In general, customer loyalty increases profit and growth in many ways (Chow & Reed, 1997; Heskett et al., 1994) to the extent that increasing customer loyalty by 5% can lead to increasing the profitability by 30% to 85% , depending upon the type of industry involved (Reichheld & Sasser, 1990). Reason for this is that loyal customers are willing to pay a higher price and they are more understanding when things go wrong. (Chow & Reed, 1997; Fukuyama, 1995; Reichheld & Sasser, 1990; Reichheld & Schefter, 2000; Zeithamal el at. 1996). Therefore, Marketing managers are also keen on knowing the level of trust or loyalty that can be translated into increased customer retention and thus sustainable development and long term profitability.

After satisfaction, trust has been considered as a pre-condition for patronage behavior (Pavlou, 2003) and the development of long term customer relationship (Doney & Cannon, 1997; Papadopoulou et al., 2001; Singh & Sirdeshmukh, 2000). In previous studies, various relationships have been proposed between trust, satisfaction and loyalty in an online context (Reichheld & Schefter, 2000). In a recent study, Corbitt et al. (2003) suggests a strong positive effect of trust on loyalty to online firms. However theoretical foundations and empirical confirmations are lacking (Anderson & Srinivasan, 2003; grabner- Krauter & Kalusha, 2003).

In this study we try to find out how we can build customer loyalty among online customers through generating trust among the consumers.

## LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### Customer loyalty

Customer loyalty is defined as a commitment towards repurchase of a preferred product/service consistently in the future which may lead to repetitive same-brand purchasing in spite of situational influences and marketing efforts (Li & Petrick, 2008). This definition of customer loyalty may also apply to online customer loyalty. However, Anderson and Srinivasan (2003, p. 125) also provided a more specific definition, which defines e-loyalty as the customer's favorable attitude towards a particular electronic business which results in repeat purchasing behavior. Customer loyalty deals with customer intentions to do more business with the vendor and to recommend that vendor to other customers as well (Gefen, 2002). The study conducted by Gefen, (2002) explains the importance of service quality in creating customer loyalty among online vendors. The study indicates the importance of service quality and customer trust .Online customers apparently value service quality even if the entity they interact

is a website rather than a human being. This point is important because service quality creates loyal customers who are valuable to the vendors as they allow the vendors to outperform competitors even with smaller operating expenses.

**Customer Trust**

Trust is proposed as an important antecedent of loyalty (Reichheld et al., 2000).). According to Singh and Sirdeshmukh, (2000), trust is consistently related to the vulnerability of the trustor since without the vulnerability of the trustor upon the trustee, trust becomes irrelevant. Trust has been found to be an important factor for building and maintaining relationships (e.g. Rousseau et al., 1998; Singh and Sirdeshmukh, 2000) while Moorman et al. (1992) has defined trust as the willingness to rely on an exchange partner in whom one has confidence. This particular definition of trust is in accordance with the early research which associated trust with confidence in other's intentions and motives, a definition that still holds (Lewicki et al., 1998, p. 439). Bramall, Schoefer and Mc Kechnie (2004) concluded that customer's needs in achieving satisfaction and long term profitability can be gained through promise and reputation of the brand. Swaen and Chumpitaz (2008) stated that, there are three major aspects of customer which includes perceived credibility, perceived integrity and perceived benevolence. A study conducted by Nguyen (2013) confirmed the significant of the impact of the effect identity image reputation on customer trust which has an impact on customer loyalty.

**Customer Satisfaction**

According to (Geyskens et al., 1996) there is a direct relation between customer satisfaction and interpersonal trust and is also considered to be an antecedent of trust. A positive effect of customer satisfaction on trust can also be expected in the online market, as well although there is not much empirical research in this particular domain. In the book for e-tailing industry (Pavlou, 2003), a positive effect of customer satisfaction on trust with respect to the service provider has been demonstrated. In light of these studies, customer's satisfactory experiences with a specific e-tailer was expected to increase if they have more trust in the particular online retailer.

**Repurchase Intention**

Hellier, Geursen, Carr and Rickard, (2003) explained that customers intend to buy a particular service depending on the present situation and several possible circumstances. Doina Olaru, Sharon Purchase and Nathan Peterson (2008) stated that Customer's repurchase behavior depends largely on benefit that they have received in their past encounters. While according to Kaynak, (2003) the value added benefits received by the customers will generate satisfied loyal customers and hence will strengthen the competitive position. One study done by Muthaly (2010), showed that repurchase intentions show the existing customer's self judgement about the purchase of the particular product/service and their wish to repurchase from the same service provider in the future.

## DESIGN OF HYPOTHESES

In the last few decades, the evolution of the internet as a marketing medium has become a global phenomenon, leading to a rapid growth of e-commerce. With the

increasing number of users of computers and technologies business to customer (B2C) e-commerce have increased remarkably. Customers now-a-days are trying to save their time for shopping. They find more perceived benefits than risks through online shopping. Trust is found to be an important factor for online purchasers. Secure transaction, confidentiality, high quality of services and reputation of the websites develop trust in online shopping. Marketers are also trying to build a strong base of loyal customers who will be the assets of the firm. The present study conducted on building customer loyalty among online buyers through generation of trust. Therefore, we hypothesize,

$H_1$: High level of service quality is positively related to customer trust.

$H_2$: Good website quality is positively related to customer trust.

$H_3$: Reliability of the online buyers results in higher levels of customer trust.

Many past studies shows that customer's willingness to buy from online shall increase once they gain the trust and confidence. Trust enhances the number of loyal customers. Therefore, the following is hypothesized.

$H_4$: Higher level of customer trust leads to increase the number of loyal customers.

## METHODOLOGY

### Sampling and questionnaire design

For this research, a structured questionnaire was developed and used. The questionnaire was distributed to individuals among the age group of 17 to 45.Participants were assured of confidentiality of their returned questionnaires. Each questionnaire was self-administered by the researcher in order to ensure a better response rate. A total of 150 questionnaires were distributed. However, only 142 were fully completed and used for the data analysis.

The first part of the questionnaire consisted of demographic questions which included personal information questions like gender, age, education qualification, marital status, occupation and personal income. Brackets were used for age and personal income. Closed ended questions were used for the screening process which consisted of 21 questions to understand the basic choices of the respondents. We operationalized all the scales using multi-item, five-point Likert scales (1 = "Strongly Disagree" to 5 = "Strongly Agree"). The instrument was further tested with 40 students, and reliability was acceptably evaluated for the data set, through the calculation of Cronbach's alpha coefficient with the result of 0.845. The Cronbach's alpha values of the constructs were either more than or very near to the figure of 0.7. Since the items were not further altered, the test sample was incorporated into the final sample. Independent sample *t*-tests were conducted on items of interest to assess the non-response bias. The results indicated no significant difference between early and late respondents on any constructs of interest at the 95% confidence level. So we conclude that non response did not create any major bias in the items for construct measurement. We further examined the convergent and discriminant validity using confirmatory factor analysis (CFA) for all the constructs. After examining convergent and indiscriminant validity, we analyzed the hypothesized structural model using structural equation modeling.

## RESULTS AND DISCUSSION

### Demographic analysis

Table 1 shows the percentage distribution of respondents on the basis of demographic and socio-economic variables. The percentage of sample were more inclined towards age category of 26-35 (about 71%) followed by the age group of 19-25 (about 22%), above 36 is about 5% and about 2% from lower age category. Education provides insight to a buyer and likely to have better knowledge of the product and its quality. It is expected that frequency of buying will enhance with the increase in level of education. Majority of the respondents were post graduates and above (about 74%), followed by graduates 16% and 8.5% completed up to higher secondary level education. Survey result showed that 14% respondents were married whereas the number of unmarried respondents was about 85% followed by others category 0.7%. As occupation of respondents was concerned, about 77% were engaged in the service sector, 16% were students followed by 4% were professional and 3% were involved in business (Table 1). There was a variation in the households' income of the respondent. About 70% respondent's income was in the range of Rs. 25,001 to Rs. 40,000, approximately 14% respondents' income is in the range of Rs. 10,001 to Rs. 25,000 and the higher income category (above Rs. 40,000) shows the least percentage (9.2%).

| Variable Name | Description | Percentage |
|---|---|---|
| **Gender** | Male | 50 |
| | Female | 50 |
| **Age (Years)** | Below 18 | 2.1 |
| | 18-25 | 21.8 |
| | 26-35 | 71.1 |
| | 36 and above | 4.9 |
| **Education** | Secondary level | 1.4 |
| | Higher secondary level | 8.5 |
| | Graduation | 16.2 |
| | University level | 73.9 |
| **Marital Status** | Married | 14.1 |
| | Unmarried | 85.2 |
| | Others | 0.7 |
| **Occupation** | Student | 16.2 |
| | Service | 76.8 |
| | Business | 2.8 |
| | Professional | 4.2 |
| **Personal income (Rs./month)** | d" Rs. 10,000 | 7.0 |
| | Rs. 10,001 - Rs.25,000 | 14.1 |
| | Rs. 25,001 - Rs. 40,000 | 69.7 |
| | Above Rs. 40,000 | 9.2 |

**Table 1: Percentage distribution of selected demographic and socio-economic variable;**
*Source : Primary survey*

## Constructs of customer loyalty

Dimensions of customer loyalty were not clearly distinctive as a result of exploratory factor analysis, confirmatory factor analysis (CFA) was conducted. Cronbach's $\alpha$ of constructs was measured to prove internal consistency of each variable. First, a model to test the validity of the activities resulted in a satisfactory fit with the data: $\div2$=138.5, AGFI=.88, GFI=.93, NFI=.94, IFI=.96, CFI=.95, RMSEA=.05. The five constructs of customer loyalty were then verified (Table 2). The first construct related to having service quality factor loading of each item was .95, .92, .92, .90, .85, .93 and .86 with a high Cronbach's $\alpha$ of .94.

| Construct | Items | Factor Loading | Cronbach's $\alpha$ |
|---|---|---|---|
| Service quality | The products on this website are always available. | .95 | .94 |
| | Delivery is on time. | .92 | |
| | This website provides exchange of products and refund of money. | .92 | |
| | Option for alternative payments | .90 | |
| | Trustable brands and keep a track of favourites. | .85 | |
| | Purchase protection is available | .93 | |
| | Order Never Arrives or It arrives very late. | .86 | |
| Website quality | This website is user friendly. | .90 | .87 |
| | This website is simple to navigate. | .92 | |
| | This website has a detailed product description. | .92 | |
| | Superior image options and search functions. | .93 | |
| | This website helps to get easy access to your order and wish lists. | .78 | |
| Reliability | This website has high payment reliability. | .83 | .83 |
| | I am willing to use my credit card/debit card/PIN number to purchase products on this website. | .75 | |
| | I am willing to buy products from this website in future. | .73 | |
| Trust | Transaction through online store is safe. | .86 | .86 |
| | Transaction through online store is reliable | .92 | |
| | Transaction through online store is trustworthy | .92 | |
| Customer Loyalty | I shall continue to purchase the product through online | .93 | .75 |
| | I shall rely purchasing the product through online | .90 | |
| | I shall recommend others to purchase product through online | .92 | |

**Table 2 : Confirmatory factor analysis of building customer loyalty among online buyers**

**Model fit: $\div2$=138.5, AGFI=.88, GFI=.93, NFI=.94, IFI=.96, CFI=.95, RMSEA=.05**

*Source : Primary survey*

The second construct related to items representing website quality. Factor loadings ranged from .78 to .93, with a Cronbach's $\alpha$ of .87. The third construct represented

reliability, factor loadings and Cronbach's $\alpha$ were qualified. Construct four represents trust in online purchasing, factor loadings were .92, .92 and .86, with Cronbach's $\alpha$ of three items at .86. The last construct included customer's loyalty where factor loadings and Cronbach's $\alpha$ were qualified. A standardized factor loading of every item in the model was at a significant level (p<.001). Result indicates that trust of the consumers for online purchasing increase through the improvement of the service quality, website quality and reliability.

**Test of Measurement Validity**

CFA on the whole set of constructs in the structural equation model was conducted to test for convergent factor validity of the conceptual model and Cronbach's $\alpha$ was applied to test the reliability of each construct. We analyzed the convergent and discriminant validity of the five constructs. Average variance extracted (AVE) for all the five constructs was greater than the recommended value of 0.50, demonstrating satisfactory convergent validity. Discriminant validity was established since the AVE for each construct was greater than any squared correlations. Convergent validity was also checked by using the normed fit index (NFI) (score = 0.921), which shows a suitable convergent validity of the model.

**Model Testing**

With the results of the CFA in the previous section, the conceptual model was tested by standardized coefficients and other fit statistics. Figure 1 shows the findings, where we provide the model with the direct effect of self-concept clarity on low self-esteem, as well as the indirect factors including uncertainty elements on attitude to luxury brands.
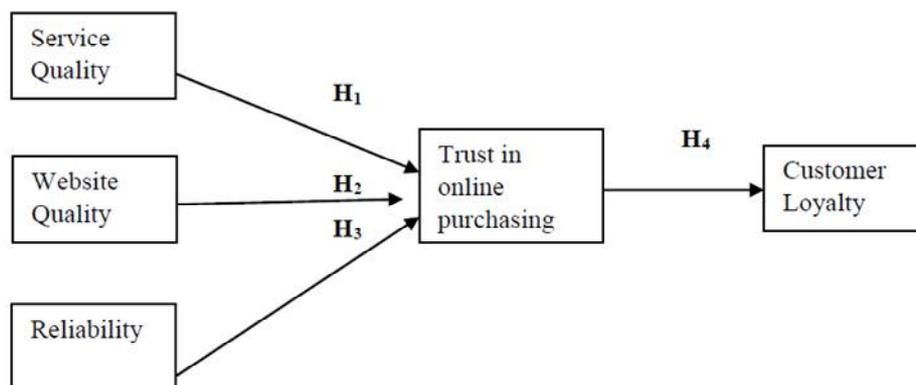


**Figure 1 : The conceptual model**

Overall model fit was satisfactory. The chi-square statistic ($\div^2$=183.5) was at a significant level (p=.000), and the fit indices were within accepted standards (RMR=.04, NFI=.91, IFI=.93, CFI=.93, GFI=.92, RMSEA=.05). After the overall model fit was approved, hypotheses were tested via structural equation modeling. All the direct and

indirect relationships between the constructs in the conceptual model of are calculated and treated by structural equation modeling as shown in Table 3.

| Hypothesis | Path Coefficients | Results |
|---|---|---|
| Service quality $\rightarrow$ Trust in online purchasing | 0.323 ($p < 0.05$) | $H_1$ Accepted |
| Website quality $\rightarrow$ Trust in online purchasing | 0.139 ($p < 0.05$) | $H_2$ Accepted |
| Reliability $\rightarrow$ Trust in online purchasing | 0.401 ($p < 0.01$) | $H_3$ Accepted |
| Trust in online purchasing $\rightarrow$ Customer loyalty | 0.119 ($p < 0.05$) | $H_4$ Accepted |

**Table 3 : Hypothesis Confirmation using Total Population Data**

**Conclusion and Limitation**

The objectives of this study were to find out the factors that affect trust in online purchasing and which in turn leads to customer loyalty. The empirical study was done on the basis of three important characteristics factors as antecedents of trust. The study showed in-depth results that trusts of the online buyers were positively related to customer loyalty and as a result consumers were engaged in an online shopping. The e-commerce industry in India is in nascent stage as compared to western world. User friendly website, easy to navigate, clear and detailed description of the product marked a clear image of the product of the company. Cyber security is a major concern for the buyers. The study result found that buyers were satisfied with the website quality and the payment gateway provided by these companies. Higher perception of security, privacy and reputation of online vendor will create more trust towards online website and subsequently, purchase intention will be increased.

Limitations exist in the current research and should be taken into account for further studies. This research study can be generalized further by taking other online shoppers like rural online shoppers, role of uncertainty among the child while purchasing the product through online, and so on. Secondly this research might consider other factors like social presence and self efficacy which could have been included in the model. Finally, the study results could have differed if study is conducted in other cities.

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# Key Drivers of Talent Management for Creating and Sustaining High Levels of Employee Engagement : A Critical Study

**Rajarshi Chakraborty\* & Parveen Ahmed Alam**

## ABSTRACT

*Social and regulatory changes of the past two decades like globalization, demographic and technological changes and environmental management initiatives have made business more challenging and competitive. To survive and succeed in such turbulent times, it is imperative that organizations take recourse to sustainable talent management (TM) initiatives - a key tool in enhancing organizational capabilities and improving competitiveness. "Without the development of talent and its retention, the long term viability of a firm is tenuous." (Doh et al, 2011). Demand for talented individuals has skyrocketed in recent decades, since they are in short supply and the business environment is highly volatile and competitive. As Manpower (2006) has noted "demographic shifts (aging populations, declining birthrates, economic migration), social evolution, inadequate educational programs, globalization and entrepreneurial practices (outsourcing, off shoring, on-demand employment) are between them causing shortages, not only in the overall availability of talent but also and more significantly in the specific skills and competencies required". This makes finding and retaining talent all the more difficult and a major priority for organizations. But a company does not stand to gain anything by merely attracting or retaining talent without properly engaging them.*

*Employee engagement is a heightened emotional, mental and intellectual connection that an employee has with his job and the organization. It is the basis of transfer of talent towards organizational productivity and performance. It also helps in achieving enhanced levels of retention. The challenge for Human Resource (HR) managers is to increase the strength of this connection for business prospects. This paper focuses on finding out those strategies and practices of talent management which will help in achieving high levels of sustained employee engagement. This is a conceptual paper based on insights from various academic literatures both on the topic of talent management as well as employee engagement.*

**Key words :** *Talent, engagement, competitiveness.*

## INTRODUCTION

Intense competition and the challenge of going global have forced companies to look for talented individuals to enhance organizational capabilities and optimize performance. This has created an intense demand for talent causing shortages in its availability. This makes acquiring, developing and retaining talent a major priority for organizations. There is a risk of losing talent to rival firms. So talent management has acquired an important dimension in today's environment. It has become one of the primary

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\*    Visiting Faculty, Dept. of Business Administration, Techno India, Salt Lake; Email: rajrshi.chakraborty@gmail.com

\*\*   Associate Professor, Dept. of Management & Business Administration, Aliah University, Kolkata

management tools for 21st century human asset management (Cappelli, 2008). The need for talent is further enhanced considering that the present economy is knowledge driven instead of production driven of the earlier ages.

The concept of talent management started evolving when McKinsey & Company published its now famous report titled 'The War on Talent' in 2001. Since then a number of concepts and practices have been proposed by scholars to attract, develop, deploy and retain talent. Research conducted by McKinsey highlighted the importance of talent in a competitive business environment.

The word "talent" denotes a natural ability or aptitude to excel in a particular field and achieve success. It was defined by Michaels et al (2001) as "the sum of a person's abilities... his or her intrinsic gifts, skills, knowledge, experience, intelligence, judgement, attitude, character and drive. It also includes his or her ability to learn and grow." Talent is now considered an expensive commodity and the way it is managed can greatly impact the performances of organizations.

According to Tansley and Tietze (2013), "Talent management contains strategies and protocols for the systematic attraction, identification, development, retention and deployment of individuals with high potential who are of particular value to an organization." Talent management is a systematic process of identifying, recruiting, rewarding , developing and retaining talented people (CIPD, 2015).

According to Lockwood (2006), "talent management is the implementation of integrated strategies or systems designed to increase workplace productivity by developing improved processes for attracting, developing, retaining and utilizing people with the required skills and aptitude to meet current and future business needs".

**CONTEXT**

There is intense competition amongst companies to acquire and retain talent. But one thing that most literature on the topic overlooks is that, without active engagement of talent, mere acquiring and retaining talent cannot deliver value. It is more important to achieve meaningful engagement of talent in suitable jobs to bring about a complete union between the job and the individual. Disengaged talent is actually a liability to the organization. So 'engagement' emerges as the single most important factor for achieving competitive advantage.

Employee engagement therefore indicates an intense connection between the job and the individual as well as an employee's commitment and towards his or her organization and its values. It can be defined as a heightened emotional, mental and intellectual connection that an employee has with his job and the organization. Every organization should take steps to increase the strength of this connection. To achieve this, a HR manager should try to find out the factors that help in achieving high levels of engagement and develop policies and programs based on these factors.

Employee engagement is integral to driving successful organizations. Engaged employees are satisfied and feel a sense of attachment to their job and employer. They promote the very best in the organization to their friends and family and work towards its success.

Increased levels of employee engagement is associated with a number of

organizational outcomes that include higher productivity, higher revenue growth and profit margins, increased levels of customer satisfaction - outcomes which are actually the objectives of talent management.

In this paper, a critical study of the various factors (known as the drivers of engagement) has been made that has a significant impact on employee engagement in an organization.

## OBJECTIVES OF THE STUDY

1. To understand the factors influencing the engagement levels of talented employees.

2. To make a critical study of the factors that help in creating and sustaining high levels of employee engagement.

## LITERATURE REVIEW

Kahn was the first to make use of the term 'engagement' propounding that it is different from job involvement, commitment, or intrinsic motivation and focused on how psychological experiences of work shape the process of people presenting and absenting themselves during task performances (Kahn, 1990).

Reilly and Brown (2008) noted that the terms 'job satisfaction', 'motivation' and 'commitment' are generally being replaced now in business by 'engagement' because it appears to have more descriptive force and face validity.

Engagement was defined by Kahn as "the 'harnessing of organizational members' to their work roles; in engagement, people employ and express themselves physically, cognitively and emotionally during role performances" (Kahn, 1990: 694). Harter et al., (2002: 205) further defined employee engagement as "the individual's involvement and satisfaction as well as enthusiasm for work".

A comprehensive definition of engagement was given by Robinson et al., 2004, "as a positive attitude held by the employee towards the organization and its values. An engaged employee is aware of business context, and works with colleagues to improve performance within the job for the benefit of the organization. The organization must work to nurture, maintain and grow engagement, which requires a two-way relationship between employer and employee."

Employee Engagement is the positive feeling that employees have towards their jobs and also the motivation and effort they put into it (Macey & Schneier, 2008). To be fully engaged is to be involved in and enthusiastic about one's work (Falcone, 2006). Schaufeli and Bakker (2003) defined work engagement as 'a positive, fulfilling, work related state of mind that is characterized by vigor, dedication and absorption. Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective cognitive state that is not focused on any particular object, event, individual, or behavior. Vigor is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties.'

The three dimensions of Vigor, Dedication and Absorption together make up the

construct of Employee Engagement and it brings the association of positive attitudes at work, positive mental health and good performance (Schaufeli & Bakker, 2003). According to Wellins and Concelman, (2005), "engagement is the illusive force that motivates employees to higher levels of performance. This coveted energy is an amalgam of commitment, loyalty, productivity and ownership (Wellins & Concelman as cited in Onday, 2016).

Drafle and Kossen (2002) found opportunities to learn and grow at work as one of the most important factors for employee satisfaction, retention and engagement. The top 4 factors for employee engagement are exciting work / challenge, career growth / learning, relationships / working with great people; and supportive management / great boss (Butler and Waldroop, 1999, as cited in Onday, 2016). According to Perrin, (2003), "It is organizational culture that ultimately determines employees' engagement and retention of talent". Lockwood (2005) asserts that the process of building employees' engagement is an ongoing one. Beyond compensation and benefits, employees' engagement is best fostered through a meaningful and emotionally enriching work experience. "Effective employee engagement—a mixture of tangible and intangible factors—fosters an environment of stimulation, development, learning, support, contribution and recognition" (Lockwood, 2006). Gubman (2003) adds, "the challenge today is not just retaining talented people, but fully engaging them, capturing their minds and hearts at each stage of their work live".

Lockwood (2006) concludes that it is the work experience and ultimately, the organizational culture that determine employee engagement and retention of talent. Effective talent management requires strong participatory leadership, organizational buy-in and employee engagement.

A study on drivers of engagement by Mani (2011) predicted four drivers, namely employee welfare, empowerment, employee growth and interpersonal relationships. Wallace et al (2006) made a study and identified three factors of employee engagement - contributions, connections, growth and advancement. (Wallace et al. as cited in Mani, 2011). IES Survey 2003 (Robinson, 2003) has identified the following factors: job satisfaction, ethnicity, feeling valued and involved, health and safety, length of service, communication, equality of opportunity, co-operation. IES' engagement research (Robinson et al., 2004) indicates that the following areas are of fundamental importance to engagement: good quality line management, two-way open communication, effective co-operation, a focus on developing employees, a commitment to employee well-being, clear, accessible HR policies and practices, fairness in relation to pay and benefits, a harmonious working environment.

A study by RBS (Royal Bank of Scotland, 2003) identified the following factors of engagement: leadership, product brands and reputation, relationships, total reward, recognition, performance and development, work life balance and physical environment, and work itself.

Macey *et al* (2009) noted that: 'engagement requires a work environment that does not just demand more but promotes information sharing, provides learning opportunities and fosters a balance in people's lives, thereby creating the bases for sustained energy and personal initiative.'

The benefits of 'engagement' are immense. Studies have proved that 'engagement' is needed for achieving high level organizational performance and productivity. Studies by Harter *et al.,* 2002; Schaufeli and Bakker, 2004; Bakker *et al.*, 2007; Hallberg *et al.*, 2007; Lewicka, 2011 and Saks, 2006 have established that employee engagement could be a strong factor behind organizational performance and success as it improves employee retention, loyalty and productivity. It can also influence customer satisfaction, organizational reputation and overall stakeholder value.

According to Gallup, "A high number of engaged employees will help an organization attract more talented people while disengaged employees will cost an organization such as lower productivity, higher absenteeism, recruitment and training cost". (Gallup, 2005 as cited in Andrew & Sofian, 2012).

## METHODOLOGY

The study is based on secondary sources of data on talent management and employee engagement.

## DISCUSSION: CRITICAL STUDY OF THE DRIVERS OF ENGAGEMENT

From the literature review conducted and the table presented in Annexure I charting the development of the concept of Employee Engagement, the factors for achieving effective engagement can be summarized as: a supportive workforce, meaningful and enriching work experience (job characteristics), organizational communication, opportunity for learning and growth prospects, sound leadership, recognition for achievement, work-life balance, pay and rewards and organizational culture. These factors are discussed below:

## LEADERSHIP

Leadership may be defined as the process of influencing and motivating others and thereby winning the support and active participation of these people in the accomplishment of a common goal. According to Xu and Thomas Cooper, leadership is a key antecedent of engagement. (Xu & Thomas Cooper, 2010, as cited in Pandita & Bedarkar, 2014). Trust and support from leaders is extremely important for high levels of engagement. The leader is also responsible for the creation of a positive work environment, another determinant of engagement. These factors directly influence the engagement levels of talent.

Papalexandris and Galanki identified two factors which are positively linked with engagement, namely, management and mentoring behaviours such as imparting confidence to followers, power sharing, communication, providing role clarification and articulation of vision. (Papalexandris & Galanki, 2009, as cited in Pandita & Bedarkar, 2014).

## COMMUNICATION

Poor communication is a barrier to engagement. Communication plays an important role in ensuring employee engagement (Kahn 1992; MacLeod and Clarke, 2009). MacLeod and Clarke (2009) emphasized that employees require clear communication

from superiors to relate their role with leadership vision. Internal communication is an organization practice, which effectively conveys organizational values to all employees and thus, obtains their support in reaching organizational goals (Pandita and Bedarkar, 2014). Employees need clear instructions regarding their work and organizational goals. Hakanen et. al. (2006) emphasizes that availability of information is positively related to engagement, as access to information increases the chances that the task at hand will be completed successfully and that work goals will be achieved. Organizational structure and reporting roles need to reinforce openness and clarity of information and there should be forums where employee should be listened to without fear of reprisal.

## SUPPORTIVE WORK-FORCE

Interpersonal relationship is another factor influencing engagement. Support from colleagues and supervisors have a strong positive correlation with engagement. Schaufeli and Bakker (2004) assert that social support satisfies employees' need to belong. Study by Kahn (1990) suggested that supportive and trusting interpersonal relationships as well as supportive management promoted psychological safety. This feeling of psychological safety leads to increased levels of engagement. But interpersonal relationships may not affect engagement. Saks (2006) has shown that there is no significant connection between perceived supervisor support and employee engagement.

## JOB CHARACTERISTICS

Every individual is best suited for a particular type of job. If the job matches with the employee's aptitude and interests, the employee will automatically get engaged in the job. Challenging, innovative and exciting work is a great determinant of engagement of talented people. Kahn (1992) emphasizes that employees who are involved in jobs which are high on core job characteristics, are more likely to be engaged. Castellano (2015) notes that employees react positively to five core dimensions: skill variety, task identity, task significance, autonomy, and feedback. These characteristics add meaningfulness to jobs and this in return helps in improving engagement levels of employees.

It is important to have freedom and autonomy in the workplace regarding the things they do, decision making and the choices they make. Employees can be highly engaged if the workplace environment respects their freedom and self-expression.

## WORK LIFE BALANCE

Work Life Balance is an important driver of employee engagement. Work-life balance means to achieve a balance between one's work and lifestyle. Work Life Balance usually refers to one of the following: organizational support for dependent care, flexible work options, and family or personal leave (Estes & Michael, 2005 as cited in Garg and Rani, 2015). Flexi-time allows the employees to vary their beginning and end hours of work according to their suitability, compressed work week, working from home, sharing a full-time job between two employees (job sharing), etc. But work-life balance may not be a great determinant of engagement.

## LEARNING AND GROWTH PROSPECTS

A talented individual will be guided by the opportunity to learn new things, develop new skills in the organization. If there is no opportunity to learn and develop new skills and knowledge, the employees might not feel interested in the organization. He will become disengaged. Opportunity for growth and career advancement is also important for engagement. If the employee feels there is no prospect for growth and his career is stagnated, he might feel disengaged.

## ORGANIZATIONAL/CORPORATE CULTURE

Corporate culture is the implicit, invisible, intrinsic and informal consciousness of the organization, which guides the behavior of the individuals, and at the same time, shapes itself out of their behavior (Scholz, 1987). An organization should have a culture comprising of the eight HRD (Human Resource Development) values of openness, trust, pro-action, confrontation, collaboration, authenticity, autonomy and experimentation (OCTAPACE culture). Such a culture can positively impact engagement and performance of employees to a great extent.

Organizational culture has a strong bearing on the performance of employees. "Organizational culture is the key to organizational excellence" (Schein 1992) He also emphasized that the "function of leadership is the creation and management of culture". So creation of an effective culture of engagement and performance rests on the leadership of the organization.

## PAY AND BENEFITS

Pay and benefits impacts employee engagement. External and internal equity must be maintained with remuneration in the organization. Compensation & benefits like pay, cash bonuses, stocks or stock options have the capability to produce highly engaged employees. But pay and benefits may not have a direct bearing with engagement. Highly paid employees may not be highly engaged in jobs but poorly paid employees will become disengaged.

## RECOGNITION FOR ACHIEVEMENT

Recognition and praise for achievement, feeling valued and important is also an important driver of engagement. It brings a sense of fulfillment in the employees. But this driver again is a function of leadership. Effective leaders always give due credit and recognition to his team members.

## FINDINGS

The present study aimed at identifying and critically analyzing those factors of talent management which have a significant effect on engagement of talented employees at workplace. It is also found that working environment, salary and benefits are highly sensitive to the demographical variables. These factors should therefore be a part of the policies and programs of the organization regarding its workforce.

Organizational culture and recognition for achievement is a function of leadership. A good leader helps in building a positive culture throughout the organization and always

gives due credit to his subordinates. Again, pay and benefits may not actively influence engagement levels. In fact, pay and benefits is a maintenance factor in that, it can prevent an employee from becoming disengaged if the employee perceives it to be fair and at par with other firms but a higher pay package may not help in achieving higher levels of engagement. Therefore, it can be said with all certainty that the drivers of effective engagement of talent are: leadership, job characteristics, supportive work-force, communication, work-life balance and learning and growth prospects.

Engagement is much dependent on the nature of the individual as it is related to the factors as stated above. It is linked to his state of the mind, his emotional aspects like rationality and satisfaction. Stress, both work related or family and relationship oriented will affect the engagement levels of employees. A person with high self esteem, positive emotional state, right attitude, mind-set and behavior will have high levels of job involvement and engagement even if some of the above factors are absent. In layman's terms Engagement is the degree to which an organization has captured the hearts and minds of its employees. 80% of the employees are engaged in a best employer organization.

Individual personality traits that are exhibited like conscientiousness, high extraversion, internal locus of control, low neuroticism, and active coping style are also responsible for achieving high levels of engagement. Engaged employees consistently says positive things about the organization, intends to stay longer with the organization and strives to achieve over and above what is expected from them.

## CONCLUSION

Engagement of talent is one of the most important factors behind the success of any organization. Employees should have the liberty at workplace and the work should be exciting and challenging so that they emotionally and cognitively integrate themselves with the work. Employee engagement should not be a one-time exercise but a continuous process of learning, development and action.

Talent Management practices and policies should focus on engagement to have a more committed and productive workforce. Employee Engagement and Talent Management combined can make or break the bottom line (Lockwood, 2006).

Engagement is human behavior at workplace that is not about influencing employees to work harder but a stimulation to achieve complete integration between the man and the job. According to CIPD (2012) "Engagement is not about driving employees to work harder but about providing the conditions in which they will work more effectively – it is about releasing employees' discretionary behavior".

Effective talent management policies and practices that demonstrate commitment to human capital result in more engaged employees and lower turnover. Consequently, employee's engagement has a substantial impact on employees' productivity and talent retention. John Purcell (2013) asserts that: 'Employee engagement is worth pursuing, not as an end in itself, but as a means of improving working lives and company performance'.

The factors that influence employee engagement may vary from organization to organization, industry to industry, from region to region and from sector to sector. It may also vary by age groups and time. As Robinson (2007) reports, "It is unlikely that a 'one size fits all' approach is effective, as levels of engagement and its drivers vary according to the organisation, employee group, the individual and the job itself. It is therefore important that organizations identify the factors specifically suitable in order for engagement to be successful in that specific organization.

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**ANNEXURE I**

## Development of the Concept of Employee Engagement

| Author & Year | Concept |
|---|---|
| Kahn, 1990 | People employ and express themselves physically, cognitively and emotionally during role performances |
| Butler and Waldrop, 1999 | Exciting work / challenge, career growth / learning, relationships / working with great people; and supportive management / great boss. |
| Drafke and Kossen, 2002 | Opportunities to learn and grow at work. |
| Harter et al., 2002 | Individual's involvement, satisfaction and enthusiasm for work. |
| Perrin, 2003 | Organizational culture. |
| Schaufeli and Bakker, 2003 | Vigour, dedication and absorption resulting in positive attitudes at work, positive mental health and good performance. |
| IES, 2004 (Robinson et al.) | A positive attitude held by the employee towards the organisation and its values. |
| Wellins and Concelman, 2005 | Engagement is the illusive force that motivates employees to higher levels of performance. This coveted energy is an amalgam of commitment, loyalty, productivity and ownership. |
| Falcone, 2006 | Involvement and enthusiasm about one's work. |
| Lockwood, 2006 | Work experience and organizational culture determines employee engagement and effective engagement fosters an environment of stimulation, development and learning, support, contribution and recognition. |
| Wallace et al , 2006 | Three factors of engagement: contributions, connections, growth and advancement. |
| Reilly and Brown, 2008 | Engagement appears to have more descriptive force and face validity than job satisfaction, motivation and commitment. |
| Macey & Schneier, 2008 | Positive feeling towards own jobs and motivation and effort employees put into it. |
| Macey *et al*, 2009 | Work environment promotes information sharing, provides learning opportunities and fosters a balance in people's lives, thereby creating the bases for sustained energy and personal initiative. |
| Mani, 2011 | Employee welfare, empowerment, employee growth and interpersonal relationships. |

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