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About Thiagarajar School of Management

Thiagarajar School of Management (TSM), Madurai has established itself in the Southern part of India as one of the premier citadels of learning, rendering creditable service to the cause of higher education. TSM was founded in 1962 by the doyen of the South Indian textile industry, Mr. Karumuttu Thiagarajar Chettiar - a great philanthropist who also founded several engineering and arts colleges, polytechnics; teacher's training institutes, and primary and secondary schools.

TSM offers a choice of management education streams: All India Council of Technical Education (AICTE) approved PGDM (Post Graduate Diploma in Management) programme which was launched in 2011 and the MBA (Master of Business Administration) programme - approved by AICTE, accredited by National Board of Accreditation (NBA), autonomous status granted by UGC and affiliated to Madurai Kamaraj University. Both the programmes are 2-year full-time, fully residential. PGDM is the flagship programme of TSM.

TSM is run by the Manickavasagam Charitable Foundation - an organization that has been actively involved in several primary and higher educational projects. Mr. Manickavasagam Chettiar, the prime mover behind TSM, was its Founder Correspondent. TSM prides itself on being one of the few institutions that does not accept any capitation fees from students seeking admission. The school is fully supported and funded by the Loyal Textiles Group. The Chairman & Managing Director of the group, Mr. Manikam Ramaswami, a Gold Medalist from IIT Chennai, is the present Correspondent of TSM.

Eminent faculty members in the areas of Marketing, Finance, Human Resources, Operations and Systems give wider and deeper insights both in theory & practice to the students. Situated in a picturesque location, equipped with a state of art infrastructure, TSM delivers more than what it promises and it is no wonder that a TSM student is academically sound, professionally proficient and ethically correct. The outcome, TSM's excellent placement record and academic performance are the result of the processes that are in place at TSM –processes for excellence in management education.

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(A Double Blind, Peer Reviewed Bi- Annual Journal)

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EDITORIAL

In this issue we have seven articles on various domains, and a perspective by U K Basu. In his perspective, Basu talks about the need for fresh benchmarking on financial indicators like risk, return and rating because different financial instruments have different risk – return profiles and also the securities issued in domestic and global markets are rated by diverse rating agencies.

There are two articles relating to finance, one by Dhanya and another by Prabhakar Nandru. Dhanya and Sivapriya have studied financial and operating performance of ten companies in Petroleum sector and four in Minerals and Metals. The performance of these companies is compared and analyzed during pre- and post- liberalization periods. Financial inclusion and the factors that influence the same have been analysed by Prabhakar, Byram and Satyanarayana. The authors have used factor analysis to understand the financial inclusion with reference to Pondicherry region.

In human resource and organizational behavior, we have two articles focusing on BPO and a manufacturing unit. Sneha and her co- authors studied factors leading to attrition at various levels of an organization with reference to BPO, while Well Haorei talks about the knowledge characteristics among the employees in Lakhsmi Seva Sangham located in Gandhigram, Tamilnadu.

The Marketing area has three unique topics viz; online shopping behavior; tourism; and learning through social media. Neelamegam studied the factors influencing the consumers to shift to online shopping. Venkatesh Prabu worked on the use of social media in the field of education. Biswajit Roy and Shreya Ojha analysed the demographic factors that influence customers' travelling habits with reference to Kolkata, West Bengal. Also, the study identifies specific attributes of promotional activities run by different tourism service providers to attract customers.

With this note, I wish you a happy new year and my hearty congratulations to the authors who have made it to this issue of TSM Business Review.

Gautam Ghosh

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Articles….

Different financial instruments have different risk – return profiles. Investors are risk averse and higher risks warrant higher rates of return. Issue of debt securities via public and rights issues requires mandatory rating. Securities issued in domestic and global markets are rated by diverse rating agencies. Domestic CRAs set the sovereign risk associated with the country of origin at zero, while global rating agencies account for sovereign risk as well. CAPM expresses return from a security as the sum of risk free rate and risk premium, which is proportional to risk. For securities denominated in domestic currency, it has been customary so far to consider gilt edged securities as risk free. However, recent economic turmoil in various economies has necessitated a re-look at this practice and this paper focuses on the same by introducing a fresh benchmark rate for this purpose.

Article **ISSN: 2348-3784**

Financial Inclusion in Pondicherry Region: Evidence from Accessibility and Usage of Banking Services

Prabhakar Nandru, Byram Anand and Satyanarayana Rentala

Abstract

The concept of "financial inclusion" is commonly defined as people having easy access to a wide range of formal banking services which are provided at an affordable cost. These services include ownership of bank accounts, savings, availability of credit, remittance, transfers and insurance. The concept of financial inclusion has attracted significant attention in recent times. Various initiatives have been undertaken by Government of India and Reserve Bank of India to promote financial inclusion at ground level. A declaration by World Bank to achieve universal financial access by 2020 is another evidence of financial inclusion being recognized at the global level. The purpose of this paper is to identify the demographic factors which influence the extent of financial inclusion in Pondicherry region. Results of this study indicate that frequency of usage, ease of using banking products and physical accessibility of bank branch show significant impact on level of financial inclusion in Pondicherry. It is also found that higher income, better education, gender and occupation have a significant influence on frequency of usage, ease of using banking products and physical accessibility of bank branch are highly associated with the level of financial inclusion in Pondicherry region.

Keywords*: Bank account, Banking services, Financial inclusion, Insurance, Savings*

1. Introduction

Financial inclusion is the process of ensuring easy access to a wide range of formal banking services that meet the economic needs of people at an affordable cost. This concept becomes particularly significant in case of low income and marginalised groups in the society. The financial services include having a bank account, savings, availability of credit, remittance, payments etc. (Leeladhar, 2005; Rangarajan, 2008; Chakrabarty, 2011). The rise of financial inclusion as an important policy goal is due to mounting evidence that access to financial products can make a positive difference in the lives of the

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poor (Kendall et al, 2010). Financial inclusion provides individuals with the possibility of having a safe place to save for the future and so can foster financial stability. A high level of use of bank deposits contributes to a more stable deposit base for banks in troubled times (Han & Melecky, 2013).

A well-functioning financial system serves a vital purpose of offering savings, payment, availability of credit and risk management products to people with a wide range of needs. It also allows access to appropriate financial services that are likely to benefit poor people and other disadvantage groups (Demirguc-Kunt & Klapper, 2013). The depth of the financial system (measured by supply of wide range of financial services like savings, credit and stock market capitalization) mechanisms may facilitate investment in productive activities such as entrepreneurship and can contribute to reduce income inequalities and foster economic development (Claessens, 2005 & Demirguc-Kunt & Klapper, 2013). The well-being of population depends on many attributes such as income, health, education and housing. Access to a wide range of financial services can as well be regarded as a basic ingredient leading to human well-being the society. As banking services are in the nature of public good, it is essential that availability of basic banking and payment services to the entire population without discrimination be the primary objective of the public policy.

The banking industry has shown tremendous growth in branch penetration and ATMs penetration during the last few decades (Leeladhar, 2005). Indian banking industry has achieved significant improvements in all the areas relating to financial feasibility, profitability and competitiveness. Despite these improvements, there are concerns that banks have not been able to include vast segment of the population, especially the underprivileged sections of the society, into the fold of basic banking services. Efforts are being made to study the causes of financial exclusion and design strategies to ensure financial inclusion of the poor and disadvantaged at the global level. The reasons may vary from country to country and hence the strategy could also vary but all efforts are being made as financial inclusion can truly lift the financial condition and standards of life of the poor and the disadvantaged (Leeladhar, 2005).

2. Literature review

There are a few recent studies that investigated the financial inclusion indicators at national and international level. Demirguc-Kunt and Klapper (2013) examined the global financial inclusion and identified a new set of indicators that measure how adults use financial services in 148 countries. They identified a set of indicators which focus on ownership of formal account, savings behaviour, source of borrowings, and use of credit cards. The findings reveal that there are significant differences across regions, income groups and individual characteristics. Similarly, Allen et al (2012) studied the individual and country characteristics that are connected with the ownership and use of formal accounts in 123 countries. It was found that greater financial inclusion is associated with lower banking costs, greater proximity to branches and fewer documentation requirements to open an account.

Research by Fungacova and Weill (2015) examined the financial inclusion in China based on Global Findex data base during 2011. A comparative study of China with the other BRICS nations (Brazil, Russia, India and South Africa) revealed that high level of financial inclusion in China is indicated by greater use of formal account and formal savings in comparison to Brazil, Russia and India. Additionally, certain other factors like higher income, better education and gender influence are associated with greater use of formal accounts and formal credit in China. In the context of India, Bhanot et al (2012) indentified that level of financial inclusion is also influenced by income, financial information, distance to financial institutions, awareness about services and education.

Beck et al (2007) examined the access to and use of banking services across various countries. It was found that banking sector outreach is a main indicator, to decide specially to measure the banking services accessibility and usage of deposit money and lending financial services. Nandru and Byram (2014) explored that factors that determine the financial inclusion in the Indian state of Andhra Pradesh. It was found that population size, gender ratio, branch penetration, literacy rate and deposit to credit penetration ratio show significant impact on financial inclusion in Andhra Pradesh.

Prior research studies on the status of financial inclusion in Indian states were confined to very few states. Among the prominent studies in Indian context, Bhanot et al, 2012 reported the status of financial inclusion in two north-eastern states (Assam and Meghalaya) in India. Arora and Meenu (2012) investigated the impact of microfinance as a tool for financial inclusion in the state of Punjab. However, earlier research work has not focused on micro level indicators to measure the status of financial inclusion in Pondicherry region. The main objective of this study is to fill this gap by examining some of the micro level indicators which influence financial inclusion in Pondicherry region. It is important to note that Pondicherry region is considered to be India's best financially included state for three consecutive years in 2014, 2013 and 2012 (CRISIL Inclusix Report, 2015). The results of this research can serve as a guide to understand the impact of demographic characteristics towards the accessibility and usage banking services.

3. Measuring financial inclusion

Financial inclusion has been measured by various financial inclusion indicators by earlier researchers. Table 1 gives an account of various variables that have been used to understand the status of financial inclusion.

Table 1: Various variables used in determinants of financial inclusion by various researchers

S. No	Author(s)	Variables used
1.	Efobi et al (2014)	1. Use of bank services 2. Use of the account to save and 3. Frequency of bank withdrawals
2.	Das (2009)	1. Access to bank accounts 2. Access to savings Schemes 3. Access to credit 4. Taking loan
3.	Allen et al (2012)	1. Ownership of an account 2. Use of the account to save 3. Frequent use of the account (defined as three or more withdrawals per month)
4.	Bendig et al (2009)	1. Savings 2. Loans 3. Insurance
5.	Fungacova and Weill (2014)	1. Formal account 2. Formal savings and 3. Formal credit
6.	Kendall et al (2010)	1. Numbers and volume of deposits accounts 2. Loans 3. Banking infrastructure (branches and ATMs) and financial services usage 4. Per capita income
7.	Demirguc-Kunt and Klapper, (2013)	1. Account ownership 2. Saving behavior 3. Borrowings 4. Use of credit cards
8.	Nino-Zarazua and Copestake, (2008)	1. Having a bank account 2. Savings 3. Credit services
9.	Kuri and Laha	1. Number of bank accounts 2. Number of branches 3. Number of ATMs 4. Amount of bank credit 5. Amount of bank deposit and Socio-economic factors
10.	Gitaharie et al, (2014)	1. Households characteristics 2. Social economic factors 3. Access to technology and information

Source: Authors' compilation

4. Data source and research methodology

4.1 Sampling and Data collection

The data for this research is based on individual level survey which has been collected through structured questionnaire from individuals with respect to the usage of and access to banking services with a sample of 200 people based on convenience sampling method in Pondicherry region. In this survey the gender distribution of the selected respondents is 59.0 per cent males and 41.0 per cent females. The socio-demographic profile of the respondents is shown in Table 2.

Table 2: Demographic characteristics of the respondents

Demographic variables	Characteristics	Percentage
Gender	Male	59.0
	Female	41.0
Age	18-25 Yrs	46.5
	26-35 Yrs	28.5
	36-45 Yrs	18.5
	46-55 Yrs	5.5
	Above 55 Yrs	1.0
Income group	<INR 10,000	49.5
	Between INR10001 and 30,000	28.0
	Between INR 30,001 and INR50,000	13.0
	Between INR 50,000 and 100,000	7.0
	>INR100,000	2.5
Educational Qualification	No formal education	5.5
	10+/Diploma	16.5
	Bachelor's Degree	37.5
	Master's Degree	40.0
	Others	1.0
Occupation	Student	34.5
	Self-employed	18.0
	Employed	41.5
	Unemployed	2.5
	Others	3.5

4.2 Variable Measurement

A structured questionnaire was designed to collect data and measure the financial inclusion by considering micro level indicators with the help of multiple item measures using a 5-point Likert scale with Strongly Disagree representing (1) and Strongly Agree representing (5). A total of 16 items were developed to capture five factors. Each item was measured by the five-point Likert scale. 1= strongly disagree, 2= disagree, 3= neutral, 4=agree and 5= strongly agree. Finally five factors are used to measure the financial inclusion at micro level.

5. Results of factor analysis and scale reliability

Factor analysis represents a set of observed variables X1, X2 ….X3 in items of a number of 'common' factors plus a factor which is unique to each variable. These underlying dimensions are known as factors. By reducing data set from a group of interrelated variables to a smallest set of factors, factor analysis achieves parsimony by explaining the maximum amount of common variance in a correlation matrix using the smallest number of explanatory constructs. Factor loading is considered to be very significant if there are > 0.50 (Hair et al., 2010). In this study items which are loaded under each factor all items are > 0.50 and hence were accepted. It is generally accepted that each item value of 0.7 to 0.8 is an acceptable value for Cronbach's Alpha to test reliability. Values lower than 0.5 indicate an unreliable scale. Kline (1999) noted that although the generally accepted value of 0.8 is appropriate for cognitive tests such as intelligence tests, for ability tests a cut-off point of 0.7 is more suitable. In this study the scale value is 0.778 which exceeds that acceptance level.

Appropriateness of factor analysis is tested using two important measures. The first measure is Kaiser-Meyer–Olkin (KMO) measure which gives the overall sampling adequacy (Kaiser, 1970). The KMO can be calculated for individual and multiple variables and represents the ratio of the squared correlation between variable to the squared partial correlation between variables. The KMO statistic varies between 0 and 1. Kaiser (1974) recommends accepting values greater than 0.5 as barely acceptable. In this study the scales are within the acceptable range i.e 0.691 which falls within the acceptable limit and the composite reliability of all latent constructs exceed the proposed value of 0.5. This implies that the measurement is good. The other measurement is Bartlett's test of sphericity and its value was 771.155 and at 1 per cent level of significance as $p<0.001$. This measure indicates that a highly significant correlation among the items of the constructs in the survey. Table 3 shows the results of the KMO-Bartlett's test. KMO measure indicates that the sample size is adequate. The sample adequacy of 0.69 is considered good. While the Bartlett's test shows that the variables have a significant correlation between them and hence can be grouped.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.691
Bartlett's Test of Sphericity	Approx. Chi-Square	771.155
	Df	91
	Sig.	.000

In analysis part, two items were removed since the extracted values of 0.430 and 0.456 are below the minimum accepted value of 0.5. Hence those two items are removed in the final analysis. All other extraction values in the communities range between 0.797 and 0.555 which are greater than the minimum accepted value of 0.5 were considered in final analysis. But after Varamix rotation all the fourteen items grouped in to 5 factors which all together gave 66.404 of total variance loading. These factors were named as purpose of opening bank account, frequency of usage, convenience, ease of using banking products and physical accessibility of bank branch each with initial Eigen values of 26.71%, 11.93%, 10.37 %, 9.59% and 7.78 % respectively. The results of the total variance explained by different items have been shown in Table 4 and Table 5.

Table 4: The statements identified and a communalities test is run on these statements

Items	Initial	Extraction
Location of bank branch is very near to my residence for accessibility	1.000	0.651
Opening bank account is easy very easy	1.000	0.754
Bank account facility helps in availing bank loan	1.000	0.725
Holding Bank account is useful for saving purpose	1.000	0.712
Holding bank account avail me to enjoy lot of government benefits	1.000	0.797
Holding bank account is helpful to safeguard my money	1.000	0.512
The bank working hours are very convenient to access	1.000	0.657
Getting loan against property document is very easy	1.000	0.555
Comfortable to use ATM's for withdrawing cash 24/7 everywhere	1.000	0.751
Availing education loan through banks with low interest	1.000	0.548
Availing government insurance schemes through banks is very easy	1.000	0.627
Visiting bank branch is very frequently for saving my money	1.000	0.731
Visiting bank branch is very frequently for saving my money	1.000	0.699
The physical distance of AMTs is very comfortable	1.000	0.579

Note: Extraction Method: Principal Component Analysis

The following hypotheses were framed and tested as follows.

H1: There is no significant difference in the perception of respondents towards various micro indicators of financial inclusion between male and female

H2: There is no significant difference between micro indicators of financial inclusion and across various income groups

H3: There is no significant difference between micro level indicators of financial inclusion and across different education groups

H4: There is no significant difference between various micro level indicators of financial inclusion and across various occupational groups

H5: There is no significant mean difference between various micro level indicators of financial inclusion and across different age groups

Table 5: Total variance explained by different items

No	Initial Eigenvalues			Extraction of Squared Loading			Rotation Sums of Squared Loadings		
	Total	%of Variance	Cumulative %	Total	%of Variance	Cumulative %	Total	%of Variance	Cumulative %
1	3.740	26.715	26.715	3.740	26.715	26.715	2.461	17.576	17.576
2	1.670	11.932	38.647	1.670	11.932	38.647	2.048	14.630	32.206
3	1.452	10.373	49.019	1.452	10.373	49.019	1.767	12.624	44.830
4	1.344	9.598	58.617	1.344	9.598	58.617	1.581	11.291	56.121
5	1.090	7.786	66.404	1.090	7.786	66.404	1.440	10.283	66.404
6	.874	6.244	72.647						
7	.748	5.339	77.987						
8	.728	5.197	83.184						
9	.588	4.197	87.380						
10	.460	3.287	90.668						
11	.423	3.019	93.687						
12	.376	2.688	96.375						
13	.266	1.899	98.274						
14	.242	1.726	100.000						

5.1 Data analysis and interpretation

The following indicators are considered for measuring financial inclusion

5.1.1 Purpose of opening bank account

In the process of financial inclusion having a bank account serves as an entry point into the formal financial sector. It makes easy to transfer money, wages, remittances and government payments and receipts and also encourage saving money and access to bank credit. (Demirguc-Kunt and Klapper, 2012). In this study the purpose of opening bank account with male population of mean score is 4.16 which are higher than female mean value is 3.89. This shows that men are more associated with the greater use of banking services. This result is also supported by the findings of (Fungacova and Weill, 2015). The results reveal that the p-value (0.029) is less than 0.05. Hence null hypothesis is not accepted at 5% level of significance. We study the impact of age on purpose of bank account, but results show that the p-value (0.792) is higher than 0.05. Hence null hypothesis is accepted at 5% level of significance. The income perspective the p-vale (0.019) is less than 0.05, so null hypothesis is not accepted at 5 % level of significance and education, occupation perspective the p-value (0.323 and 0.083) are higher than 0.05, so null hypothesis is accepted at 5% level of significance.

5.1.2 Frequency of usage

Ownership of bank account is one side coin of determine the financial inclusion. The other side is to know the "usage" which is the frequency of account use. In our estimation, we focused on frequency of withdrawals and frequency of savings is the actions are actively initiated by the both male and female account holders. In case of gender differences the p-value (0.000) is less than 0.01, so null hypothesis is not accepted at 1% level of significance. The age factor is also show significant impact on frequency of use banking services in this case the p-value (0.002) is less than 0.01, so null hypothesis is not accepted at 1% level of significance. Income, education and occupation level are also show significant impact on frequent usage of banking services, so null hypothesis is not accepted at 1% level of significant and p-value (0.002, 0.000 and 0.000) respectively.

5.1.3 Convenience

Easily available of banking services are essential to all potential user which is measure by the number of access point, such as banks branches and convenient to use ATM's in a given area (Rahman,2013). In case of gender, income and education qualification levels are not showing significant impact on convenience of banking services, the p-value (0.368, 0.054 and 0.246 respectively). But age and occupation point of view show significant impact on convenience of banking services where p-values (0.014 and 0.001) are less than 5% and 1% significant level.

5.1.4 Ease of using banking products

This factor relates to whether it is easy or difficult for people to afford to get loans and also include easy to use mobile banking service. In this all demographic factors show significant impact on easiness in accessing bank products where the p-value (0.004, 0.011, 0.023, 0.018 and 0.005) are less than 0.05 and 0.01, so null hypothesis is not accepted at 5% and 1 % level of significant.

5.1.5 Physical accessibility of bank branch

Distance from nearest banking services is an important determinant of accessing financial services (Topoworski, 1987). Residents of remote and hilly areas are more likely to be financially excluded population (Kempson & Whyley, 1998). Another study on financial inclusion in north-east India reveals that financial services through post office emerges to be far significant than distance form bank. With increasing distance from post office and bank branch the chances of inclusion also decline (Bhanot et al, 2012). In this study the results show that the gender and age do not show significant which means distance of bank does not matter for access but income, education and occupation show significant impact on distance of bank branch for availing services. The results of variance are shown Table 6. And results of independent samples t-test is shown Table 7 and Table 8.

Table 6: Results of analysis of variance (ANOVA)

Factors	Statement of Hypothesis	Results (p<0.05/0.01	Accept /Reject
Purpose of opening bank account	There is no significant difference between purpose of opening bank account and various age groups	0.792	Accept
	There is no significant difference between purpose of opening bank account and various income groups	0.019*	Reject
	There is no significant difference between purpose of opening bank account and various education groups	0.320	Accept
	There is no significant difference between purpose of opening bank account and various occupation groups	0.83	Accept
Frequency of Usage	There is no significant difference between Frequency of Usage and various age groups	0.002**	Reject
	There is no significant difference between Frequency of Usage and various income groups	0.002**	Reject
	There is no significant difference between Frequency of Usage and various education groups	0.000**	Reject
	There is no significant difference between Frequency of Usage and various occupation groups	0.000**	Reject
Convenience	There is no significant difference between Convenience and various age groups	0.014*	Reject
	There is no significant difference between Convenience and various income groups	0.054	Accept
	There is no significant difference between Convenience and various education groups	0.246	Accept
	There is no significant difference between Convenience and various occupation groups	0.001**	Reject
Ease of using bank products	There is no significant difference between Ease of using bank products and various age groups	0.011*	Reject
	There is no significant difference between Ease of using bank products and various income groups	0.023*	Reject
	There is no significant difference between Ease of using bank products and various education groups	0.018*	Reject

	There is no significant difference between Ease of using bank products and various occupation groups	0.005**	Reject
Physical accessibility of bank branch	There is no significant difference between Physical accessibility of bank branch and various age groups	0.080	Accept
	There is no significant difference between Physical accessibility of bank and various income groups	0.023*	Reject
	There is no significant difference between Physical accessibility of bank e and various education groups	0.002**	Reject
	There is no significant difference between Physical accessibility of bank and various occupation groups	0.000**	Reject

*Note: * Denotes significance at 5% level and ** denotes significant at 1 % level*

Table 7: Results of independent samples t-test (Gender Perspective)

Factors	Statement of Hypothesis	Results (p<0.05/0.01	Accept /Reject
Purpose of opening bank account	There is no significant difference between Purpose of opening bank account and male and female	0.029*	Reject
Frequency of Usage	There is no significant difference between Frequency of Usage and male and female	0.000**	Reject
Convenience	There is no significant difference between Convenience and male and female	0.368	Accept
Ease of using banking products	There is no significant difference between Easiness in accessing bank and male and female	0.004**	Reject
Physical accessibility of bank branch	There is no significant difference between Distance of bank branch and male and female	0.836	Accept

*Note: * Denotes significance at 5% level and ** denotes significant at 1 % level*

6. Conclusion

Well structure of financial system serve a key role in offering various kind of financial services which include savings, payments, availability of credit and insurance products to people with an affordable cost. This inclusive financial system allow broad access to appropriate financial services to the benefit of public specifically economic development of the poor people and other disadvantaged groups in society.

This study mainly focused on user-side data set of financial inclusion indicators that are measured by accessibility and usage of banking services. This paper also studied on how adults save, borrow and ease of banking products with relation to how the demographic factors influence on banking services as determines the level of financial inclusion in Pondicherry region.

Table 8: Independent samples test for the perception of respondents towards various micro indicators of financial inclusion between male and female

Factors	F	T-value
Purpose of opening bank account	12.272	2.194*
Frequency of Usage	19.510	3.861**
Convenience	1.474	-.903
Ease of using banking products	28.963	2.940**
Physically accessibility of bank branch	.244	-.208

** Denotes significance at 5% level and ** denotes significant at 1 % level*
Note: consider equal variances assumed

There is a strong association among house hold location, income, better education, ICT inclination and gender with greater use of banking services (Beck & Brown, 2011; Efobi, 2014 Fungacova & Well, 2015). This study reveals that the higher income, better education, gender and various occupation groups are influenced on frequency of usage, ease of accessing banking products and physical distance of bank branch. These are greatly associated with the accessibility and use of banking services as determination of financial inclusion in Pondicherry region.

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Factors Influencing the Consumers to do Online Shopping: A Study with reference to Virudhunagar Town

R Neelamegam and D Kalpaga

Abstract

Now-a-days, technologies have developed in a rapid way. Especially internet, it provides a widest platform where the buyers and sellers meet together for sale and purchase of goods and services. The internets' have the ability to reach the customer's home. The physical delivery has changed to electronic delivery and physical products have changed to electronic products displayed on the various websites like Flipkart, and Snapdeal, the payment also made on online through debit and credit card, the transaction is purely electronic. The present paper focuses on the factors influencing the consumers to do online shopping in Virudhunagar town.

***Key words**: Online shopping, Factor analysis, Multiple regression analysis*

Introduction

Internet shopping, also known as online shopping; is the process where consumers purchase products/services over the internet. It is a network of linked computers enabling millions of people to communicate and search for information as well as to sell and buy products. Online shopping is a recent phenomenon. Online shopping is becoming a well accepted way to purchase a wide range of products and services. It offers a new environment distinguished from the traditional ways of doing business. It allows shopping for required products without going to the store physically. Internet shopping is great because people are able to shop 24 hours a day without having to leave their home or work place.

Review of literature

Hoffman and Novak (1996) indicated that interactivity is the key distinguishing feature between marketing communication on the Internet and traditional mass media. Today, online consumers have more control and bargaining power than consumers of physical stores because the internet offers more interactivities between consumers and product/service providers as well as greater availability of information about products and services.

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Peterson et al. (1997) commented that it is an early stage in internet development in terms of building an appropriate dedicated model of consumer buying behavior. Decision sequences will be influenced by the starting point of the consumer, the relevant market structures and the characteristics of the product in question. Consumers' attitude towards online shopping is a prominent factor affecting actual buying behavior.

A consumer's trust in an internet store can be thought as the consumer's trust directly in the store. Nevertheless, Hoffman et al. [1999] argued that the effectiveness of third-party trust, certification bodies and the public key encryption infrastructure for ensuring financial security, are the central success factors for building consumer trust in internet shopping.

Shu (2003) in his research tried to identify the factors that affect consumers' willingness to indulge in internet shopping. For the research purpose, 296 university students were selected as research participants, securing 175 usable and meaningful responses. The survey results showed that 50.9% of the respondents were between the age group of 20-30 years. Most of the respondents (53.7%) were undergraduate students. Majority of the respondents had more than one year experience in working with the internet. The results showed that consumers' willingness to indulge in internet shopping correlated positively and significantly with trust placed in internet shopping, perceived ease of use, usefulness, playfulness, security, privacy, information quality, and service.

Filling the research gap

The earlier studies have not explored certain key variables connected with online shopping like variables influencing consumer's preference for online shopping. The present study titled the "Factors influencing the consumers to do online shopping in Virudhunagar town" fills this gap by focusing on these left out variables of online shopping.

Objectives

- To find out the factors influencing the consumers to do online shopping in Virudhunagar town.
- To perform multiple regression analysis for finding the effect of six independent variables (obtained from the factor scores of factor analysis) on the dependent variable of respondents' money saving in online purchase.

Hypothesis

H_0: There is no difference in respondents' time saving in online shopping for different levels of factor occupation.

Data and methodology

Data Source

The present study depends upon both primary data and secondary data.

Sample frame

Concrete sampling frame did not exist for the online shoppers.

Sampling Method and Size

Due to the absence of sampling frame, non-random sampling method of snow-ball sampling was used.

Sample Size

Considering the time and resources, as well as the frame work of analysis, it is thought fit to have an adequate sample size of 260 sample online shoppers residing in Virudhunagar Town.

Statistical tools

- Percentage calculation
- ANOVA
- Factor Analysis
- Multiple regression analysis

Results and discussion

Occupation of Respondents

Table 1: Respondents' occupation

S.No	Particulars	Frequency	% to total
1.	Student	161	61.9
2.	Teacher	17	6.5
3.	Businessman	22	8.5
4.	Professional	26	10.0
5.	Employee	34	13.1
	Total	260	100.0

Source: Primary data

It is clear from the above table that the majority of 61.9% of the respondents are the students.

Hypothesis testing – Performance of ANOVA

Analysis of variance (ANOVA), is performed to find the effect of different levels of respondents' occupation on their time saving to do online shopping. For this, the following null hypothesis was formulated and tested by (one way) ANOVA.

H_0: There is no difference in respondents' time saving in online shopping for factor the different levels of their occupation.

Output

Table 2: ANOVA occupation

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	36.216	4	9.054	4.153	.003
Within Groups	555.918	255	2.180		
Total	592.135	259			

Source: Primary Data, Result Calculated

Analysis of Output

From the output table of one way ANOVA, the significance of F test is found to be 0.003. It means that at the significance level of 5 per cent, the F test proves significant, and hence the null hypothesis is rejected. So, one concludes that there is a difference in the respondents' time saving to do online shopping for the different levels of their occupation.

Factor Analysis

Application of Multi-Variate Technique

Here, factor analysis was performed in order to explore the factors that influence the respondents to do online shopping.

Eigen value is a measure of explanatory power of each factor; only the factors' Eigen value of 1 or more than 1 is considered for the selection of factors. For example as shown in Table 3, the first factor with the largest Eigen value of 2.164 explains total variance 12.023%. Eighteen variables were reduced to six orthogonal factors which account for an overall variance about 62% indicates that the variance of original variables was well captured by the six factors. All these particulars are shown in Table 3 titled total variance explained.

Rotated matrix

The first important stage in factor analysis is extraction of factors. A common method, namely, principal component analysis (PCA) is used for extraction. It is used to transform a set of correlated variables into a set of uncorrelated latent variables called factors, so that the factors are unrelated. The present researchers used varimax rotation for the rotation of factors which is meant for interpreting the factors. The following table shows rotated component matrix.

Table 3: Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.998	27.764	27.764	4.998	27.764	27.764	2.164	12.023	12.023
2	1.558	8.653	36.417	1.558	8.653	36.417	2.110	11.720	23.742
3	1.236	6.866	43.283	1.236	6.866	43.283	1.998	11.101	34.844
4	1.178	6.544	49.827	1.178	6.544	49.827	1.774	9.858	44.702
5	1.071	5.948	55.775	1.071	5.948	55.775	1.633	9.071	53.772
6	1.037	5.761	61.536	1.037	5.761	61.536	1.397	7.763	61.536
7	.890	4.945	66.481						
8	.804	4.464	70.946						
9	.758	4.212	75.158						
10	.636	3.531	78.689						
11	.629	3.493	82.182						
12	.600	3.334	85.517						
13	.560	3.111	88.628						
14	.527	2.927	91.555						
15	.462	2.569	94.124						
16	.421	2.340	96.464						
17	.334	1.854	98.317						
18	.303	1.683	100.000						
Extraction Method: Principal Component Analysis.									

The above table shows the variables with high loading on the respective factors influencing online shopping. For the factor F1, variable guarantee/warranty and customer service has the higher factor loading of 0.844; free delivery has the higher factor loading of 0.718 on F2, convenient mod of payment has the larger factor loading of 0.676 on F3, price range and product quality has the larger factor loading of 0.861 on F4, sales promotion and packaging has the higher factor loading of 0.797 on the factor F5, and status symbol has the higher factor loading of 0.727 on F6.

Table 6: Variables with high loading on the factors influencing online shopping

S.No.	Name of extracted factor	Name of variable with high loading	Factor loading
1	Product warranty and customer service	Guarantee/warranty for product	0.844
2	Product Features	Free delivery	0.718
3	Benefits of product	Convenient mode of payment	0.676
4	Price Range and Product Quality	Price range	0.861
5	Sales promotion cum. Packaging	Attractive package	0.797
6	Symbol of Status	Status symbol	0.727

Source: Primary data, Result calculated

Table 4: Rotated component matrix

Variable	Component					
	1	2	3	4	5	6
Guarantee/warranty for Product	0.844					
Customer Service	0.71					
Genuiness of Product	0.549					
Free delivery		0.718				
Brand image		0.7				
Usability of product		0.613				
Convenient mode of payment			0.676			
Availability of product			0.649			
Delivery time			0.565			
Time saving			0.449			
Price range				0.861		
Quality of product				0.619		
Reusability of product				0.506		
Attractive package					0.797	
Buy one get one offer					0.635	
Money saving					0.393	
Status symbol						0.727
Promotional method of marketer						0.493

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 9 iterations.

Table 9 shows the co-efficient of independent variables. This table is useful to find out which independent variable is stronger in making variation in the dependent variable. The independent variable that has the higher coefficient is stronger in causing variation in dependent variable. Accordingly, the independent variable in the order of sales promotion (.371), features (.371), benefits of products (.348), and product warranty (.317) are powerful in effecting variation in the dependent variable of money saving in online purchases. It may be noted one independent variable, namely, status symbol (.174) has a negative impact on money saving, i.e., an increase in status symbol would cause a fall in money saving.

Table 5: Component score coefficient matrix

	Component					
	1	2	3	4	5	6
If Yes Factors Price Range	-.158	-.143	-.048	.618	-.011	.054
Quality Of Product	.029	.026	.085	.357	-.171	-.090
Delivery Time	-.198	-.122	.316	.154	.081	.183
Promotional Method of Marketer	.045	.003	.079	.048	-.193	.344
Availability Of Product	-.055	-.019	.384	-.019	.014	-.165
Usability Of Product	-.127	.321	-.023	.104	-.042	.052
Reusability Of Product	.227	.191	-.320	.268	.013	-.218
Brand Image	-.107	.404	.048	-.129	-.101	.093
Free Delivery	-.035	.470	-.207	-.090	.006	.040
Buy One Get One Offer	-.098	-.128	-.144	.083	.437	.350
Convenient Mode Payment	.028	-.148	.475	-.146	-.152	.114
Customer Service	.394	-.257	.019	-.092	.128	.092
Guarantee Waranty for Product	.512	-.044	-.079	-.104	-.080	-.068
Time Saving	.005	.001	.172	.039	.233	-.197
Money Saving	.123	.102	.085	-.033	.186	-.264
Genuiness Of Product	.267	.047	.100	-.106	-.124	.018
Attractive Package	-.036	.007	-.043	-.144	.568	-.080
Status Symbol	-.043	.112	-.088	-.108	-.028	.562

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Component Scores.

Multiple regression analysis

After naming the six factors, the factor scores of the factor analysis for the six factors known, namely, product warranty and customer service, product features, benefits of products, price range and product quality sales promotion cum packaging and symbol of status were used in the following multiple regression analysis where these six factors were regarded as independent variables (Xs), determining variation in the dependent variable of money saving of online shoppers (Y). The standardized variable values multiplied by the corresponding factor score coefficient as shown in Table 4 shall give factor scores.

The main objective of multiple regression analysis is to explain variation in the dependent variable of money saving based on the variation in the six independent variables. Here, the

Dependent variable

Y = money saving

The independent variables

X_1 = product warranty and customer service
X_2 = product features
X_3 = benefits of products
X_4 = price range and product quality
X_5 = sales promotion cum. packaging
X_6 = symbol of status

The following null hypothesis was formulated.

H_0: There is no linear relationship between Y and Xs.

Input data

First, the data for 260 observations relating to the dependent and independent variable were fed into the computer. To perform multiple regression analysis, the following regression model was developed.

Y = a+b1x1 + b2x2 + b3x3 + b4x4 + b5x5 + b6x6

Analysis of output

Table 7: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.784[a]	.615	.606	.592

a. Predictors: (Constant), REGR factor score 6 for analysis 1, REGR factor score 5 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 3 for analysis 1, REGR factor score 2 for analysis 1, REGR factor score 1 for analysis 1

The calculated value of R approximately 0.8 (0.784) and R2 (0.615) are found to be satisfactory. The value of R2 denotes that 61% of variation in dependent variable is caused by six independent variables considered for the study. This is shown in table 7 model summary.

Table 8: ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	141.456	6	23.576	67.376	.000[a]
	Residual	88.529	253	.350		
	Total	229.985	259			

First, the regression as a whole was tested by ANOVA; it is found p-value 0.000 is far less than the assumed significance level at 5%. Hence, the regression model is statistically valid and above null hypothesis is rejected.

Table 9: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.992	.037		108.825	.000
	product warranty and customer service	.317	.037	.336	8.617	.000
	product features	.371	.037	.393	10.085	.000
	benefits of products	.348	.037	.369	9.472	.000
	price range and product quality	.139	.037	.148	3.795	.000
	sales promotion cum. Packaging	.371	.037	.393	10.086	.000
	symbol of status	-.174	.037	-.185	-4.738	.000

a. Dependent Variable: Money Saving

Suggestion and conclusion

Factor analysis was performed to explore the factors that influenced the respondents to do online shopping. In the process of data reduction, 18 variables were reduced to six factors such as product warranty and customer service, product features, benefits of products, price range and product quality, sales promotion cum packaging and symbol of status.

Based on factor scores for the six factors obtained from the factor analysis, multiple regression analysis was performed with money saving as dependent variable and product warranty, product features, benefits of products, sales promotion etc as independent variables. It is a revelation that the independent variables in the order of sales promotion (.371), product features (.371), benefits of products (.348), product warranty (.317), are powerful variables in causing variation in the dependent variable of money saving in online purchases. Marketers of online products may concern about these variables in order to enhance the satisfaction of respondents with their online purchases.

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Talent Repellents in Business Processing Outsourcing Industry

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Abstract

Over the past decade, the Indian IT-BPO sector has become the country's premier growth engine, crossing significant milestones in terms of revenue growth, employment generation and value creation. 'People are our greatest asset' is a mantra that companies have been chanting for years. But only a few companies have started putting Human Resources Management (HRM) systems in place that support this philosophy. The issue of employee attrition/turnover has been found to be making huge economic impact on the organizations. High attrition is one of the major challenges faced by IT/BPO sectors. Also it is a noteworthy hidden cost in a business and can amount to as much as six months' salary and there are also other costs such as the negative impact to company's employment brand. The costs of this turnover not only have an impact on organizations but also would affect the morale of the stayers. In this research, a humble attempt has been made to understand the factors causing attrition at various levels of an organization and remediate the phenomenon.

Keywords*: Attrition, Job discrepancy, Employer – employee relationships, Ethics*

1. Introduction

Employee turnover is an enormous problem for any company and creates negative bottom-line impacts. The costs associated with employee turnover show up in such areas as advertising for new employees and the time and money necessary to screen the applicants, training new employees, lost productivity, decreased accuracy and quality of work among the employees left behind who are upset about their colleague's departure, using expensive contract and temporary employees to do the work until a permanent employee is hired, and the expenses associated with replacing lost business.

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Employee turnover costs can amount to thousands of dollars, annually. It can also prevent companies from pursuing their growth opportunities and acquiring new business & Attrition rate is the rate of shrinkage in size or number.

Types of attrition

- *Market driven* – based on the demand for a particular skill or ability in temporarily low supply (self-correcting in normal markets). The typical initial reaction by employers to market driven attrition is to increase wages, offer better benefits, escape the market by relocation or site migration or relax hiring standards.
- *Workload or stress driven* – on the actual capacity to perform the work required. This is when there are not enough of the right people.
- *Process driven* – variables associated with job design and/or the organization. In some industries and organizations there is a belief that attrition has always been there and always will be there. Addressing this scenario produces the most lasting results.

Attrition cycle & drivers

Typically, in organizations experiencing systemic or chronic attrition, a cycle develops as: Attrition normally brings decreased productivity. People leave causing others to work harder. This contributes to more attrition, which contributes to increasing costs, lower revenue. This often forces additional cost reductions and austerity measures on an organization. This in turn makes working more difficult, causing the best performers with the most external opportunities, to leave.

There are two primary drivers of voluntary attrition. These are, no one likes to feel inadequate and, in most organizations, it is easier to leave than stay and try to alleviate the problem. People feel inadequate when communication is either incomplete or unreliable.

Choices are either absent or insufficient. Often, the challenges in these situations are unclear, unsatisfying or overwhelming. People will give up trying to change things when promises are not specific, not kept or are not fulfilled in a timely manner. Additionally, when expectations are thwarted, changed arbitrarily or unfulfilled, people will lose motivation.

Other common de-motivators are when commitments are unacknowledged, vague or incompatible. Rarely do organizations create environments where employees can meaningfully participate in activities, which will reduce turnover. Attrition is commonly thought of as people terminating employment. Another form of classifying types of attrition is:

- Empty chair attrition: Employees quit and leave
- Warm chair attrition: Employees quit and stay.

"The rate of shrinkage in size or number of employees" is known as attrition rate. It is usually expressed in percentage. An attrition rate also known as churn rate, can be a measure of two things. It can be a measure of how many people leave over a certain period of time or how many employees leave over a certain period of time.

2. Industry profile

Business process outsourcing

In Business Process Outsourcing (BPO), a specific business function is outsourced to a third party service provider. Earlier, manufacturing firms used to opt for business process outsourcing. But nowadays, service oriented firms' contract operations of a business function to third party service providers.

Classification of BPO

BPO can be classified under two categories: back office outsourcing and front office outsourcing. Back office outsourcing involves business functions like billing and purchasing. Front office outsourcing includes functions like marketing and technology support.

Offshore and onshore

Onshore business process outsourcing is a term used when work is outsourced to a service provider located in the same country. Contrary to this we have offshore business process outsourcing where work is outsourced to a company located in a different country.

Size of BPO industry

According to McKinsey, global business process outsourcing industry is estimated to be worth about $122- $154 billion. Major business operations and functions outsourced to third party service providers include retail banking, insurance, finance, accounting and HR, and travel or hospitality.

Top BPO destinations in the world include countries like India, Philippines, Morocco, Egypt, and South Africa. Business operations and functions are also outsourced to China and Eastern European countries. India accounts for about 5-6 percent of total BPO industry. But it holds a lion's share (63%) as far as offshore division of BPO industry is concerned.

High Attrition is one of the major challenges faced by IT/BPO sectors. Also it is a noteworthy hidden cost in a business and can amount to as much as six months' salary and there are also other costs such as the negative impact to company's employment brand. The costs of this turnover not only have an impact on organizations but also would affect the morale of the stayers. Prior research has examined the costs of an employee's decision to voluntarily leave an organization. In the ITES/BPO sector, however voluntary turnover is reaching alarming proportions. Employee turnover reflects a company's internal strengths and weaknesses. All this has a significant impact on the strength of a company in managing their business to gain competitive advantage. It becomes very important to study this questionable nature of large-scale attrition, as India most preferred destination to start ITES/BPO companies. An attempt has been made in this research to investigate on the employee turnover antecedents of ITES/BPO sector in India. The more the people leave an organization, the more it is a drain on the company's resources like recruitment expenses, training and orientation resources and the time.

The business process outsourcing industry in India is growing at a phenomenal pace. Exports were worth $ 5.2 billion in 2004-05, growing at 44.5 per cent, and are projected to have 41 per cent growth in 2005-06 to $ 7.3 billion (NASSCOM).

3. Review of literature and research design

3.1. Review of literature

Employee turnover affects the whole organization in terms of productivity (Bernardin, 2009). Turnover is defined "as an individual motivated choice behavior" and has been a widely studied outcome variable in industrial and work psychology literature for over a long period by now. Managing the turnover, hence, becomes an important task. When asked about why employees leave, low salary comes out to be a common excuse (Armstrong Kogan, 2009).

(Borkowski, 2005) say that the organization must first understand what types of things will motivate their staff because what works for one individual may not be a reward that is desirable to another individual. A lack of proper training on the new skills necessary for direct care staff has increased the stress that employees feel and has led to increased turnover and low morale among workers (Larson and Hewitt, 2005). Direct support professionals voices from the frontlines says that additionally, 62% of individuals stated the conduct of other workers, high turnover, and lack of support and recognition, all contributed to an extremely stressful job and providing services to clients served even more difficult (NYSACRA, 2009).

(Mary, 1995) opined that the better the match between recruits and the organization the more likely you are to retain them. According to (Zineldin, 2000), it is a commitment to continue to do business or exchange with a particular company on an ongoing basis. Employee retention refers to the efforts by which attempt of employers is to decrease employee turnovers, training costs, and loss of talent. By implementing lessons learned from key organizational behavior concepts employers can improve retention rates and decrease the associated costs of high turnover.

3.2 Statement of the problem

Over the past decade, the Indian IT-BPO sector has become the country's premier growth engine, crossing significant milestones in terms of revenue growth, employment generation and value creation. 'People are our greatest asset' is a mantra that companies have been chanting for years. But only a few companies have started putting Human Resources Management (HRM) systems in place that support this philosophy. The issue of employee attrition/turnover has been found to be making huge economic impact on the organizations. The average costs of replacing today's defecting work force are eating away the profitability of even the healthiest organizations. Karnataka has witnessed exceptional growth in the IT services and product companies proving to be a large employment base for the state's engineering graduates. Bangalore is the choice destination for more than 450 MNCs, 66 global Fortune 500 companies apart from innumerable home grown companies. The IT-BPO industry in Karnataka state in India has become one of the main pillars of the local economy. Karnataka stands first among all the states of India in terms of revenue generated from exports. The achievement has earned Karnataka's capital city, Bangalore the sobriquet of Silicon Valley of India. This is because of the presence of major technology companies in Bangalore and the revenue and employment generated by them. Though most software companies are located in Bangalore, some have expanded in other cities like Mysore, Mangalore and Hubli in Karnataka. This favorable situation has led the researcher to select Karnataka as one of the population base. The biggest problem faced by BPO organizations located in Karnataka today is the increased employee attrition, which varies between 20%–50%.Bangalore has one of the highest attrition rates, next only to Shanghai, particularly in the information technology sector, an attrition survey has shown. An analysis of the talent Neuron Research Survey conducted by Zinnov showed that the other cities having high attrition rates are Mexico City, Budapest, Moscow and Silicon Valley. The population of the study includes the employees working in the BPO sector organizations located in the states of Karnataka. A comprehensive study to identify the critical factors causing high employee attrition in the BPO sector in Karnataka state has been found to be the need of the hour. Also there existed a strong need to make an in-depth study on the factors causing high employee attrition in the BPO sector companies located in Karnataka state. This study is an earnest attempt to make a detailed analysis of the above issue.

3.3 Objectives of the study

- To understand the attrition scenario in ITES sector of Bangalore region
- To study various factors contributing to attrition of ITES sector
- To ascertain the impact of employer – employee relationship on attrition
- To evaluate the infant attrition scenario in ITES sector
- To suggest measures to minimize attrition in the ITES sector

3.4 Research design

Type of research

The study will be descriptive in nature

Population

Employees who are working in ITES sector in Bangalore City

Sample Size
The sample for the study would be limited to 105 respondents.

Sampling Unit
For this study the respondents will be the employees of ITES sector

Type of Sampling
Simple random sampling method will be used for the study.

Tools of data collection
The primary data required for the study have been collected from select employees working in BPO organizations located in Bangalore. Primary data will be collected using a well-structured questionnaire has been developed and pre-testing of the questionnaire has been done. The secondary data related to the study are collected from different sources including text books, articles published in journals, newspapers, periodicals National Association of Software Companies (NASSCOM) websites, Mckinsey study reports company websites, government's IT department sites doctoral research thesis and various other related sites.

Hypotheses stated for the study
Hypothesis 1
Null Hypothesis (H_0): Gender and attrition are independent of each other
Alternative Hypothesis (H1): Gender and attrition are not independent of each other

Hypothesis 2
Null Hypothesis (H_0): Income level and attrition are independent of each other.
Alternative Hypothesis (H1): Income level and attrition are not independent of each other.

4. Data analysis and interpretation
Hypothesis 1
Null Hypothesis (H_0): Gender and attrition are independent of each other
Alternative Hypothesis (H_1): Gender and attrition are not independent of each other

Chi-Square tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.408[a]	4	.843
Likelihood Ratio	1.476	4	.831
Linear-by-Linear Association	.200	1	.654
N of Valid Cases	105		

From the above table the Chi-Square value is 1.408, Degree of Freedom is 4 and significance is 0.843. Since significance level is more than 0.05. Thus, null hypothesis accepted that is gender and attrition are independent of each other

Inference

The research infer that the main reason for attrition is not only the gender, there are other reason like salary structure, working culture, reward system, recognition and lack of facilities that can overall contribute to attrition. The other factors that involved are not directly related to gender differences; hence the same cannot be attributed to be a cause for attrition that can be spread out through an organization.

Career growth, compensation and supervision are the most important reasons which contribute to attrition. Due to monotonous nature of the job, employees change their jobs frequently and the average period is two years. In a human resource context, attrition is the rate at which an employer gains and losses employees. Simple ways to describe it are 'how long employees tend to stay' or 'the rate of traffic through the revolving door'. Attrition intent is an employee's conviction to leave his organization. Attrition intent generally results in actual turnover. High attrition can be harmful to a company's productivity if skilled workers regularly leave the organization and the workers population contains a high percentage of novice workers. In addition, the employees who remain in the organization also experience lower satisfaction owing to turnover of their colleagues.

Hypotheses 2

Null Hypothesis (H_0): Income level and attrition are independent of each other.
Alternative Hypothesis (H_1): Income level and attrition are not independent of each other.

Chi-Square tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.465[a]	16	.062
Likelihood Ratio	23.257	16	.107
N of Valid Cases	105		

Data analysis

From the above table 2.25.2 the Chi-Square is 25.465a, Degree Of Freedom is 16 and significance is 0.062. Since significance level is more than 0.05. Thus, Null hypothesis accepted that is income level and attrition are independent of each other.

Inference

The research concludes from the above table that income is not main cause for attrition. There are other reasons like ambience, quality of work life and motivation.

The research infer that the main reason for attrition is not only the income, there are other reason like salary structure, working culture, reward system, recognition and lack of facilities that can overall contribute to attrition. The other factors that involved are not directly related to income; hence the same cannot be attributed to be a cause for attrition that can be spread out through an organization.

5. Findings, suggestions and conclusion

Findings

- The study has found that 51% of respondents from presidential level 34% of respondents from higher management level
- It is observed that 46% of respondents possess salary between 0-2, 00,000.
- From the survey it is found that, 39% of the respondents said attrition rate is there between 30%-40%.
- From the survey it is found that, 26% of other (operation, quality assurance, IT, administration, training, etc.) departments having highest attrition rate and second most 22% of business transformation and technologies department having highest attrition rate.
- It is observed that 41% of the respondents Agree that attrition affects other process in the organization
- It is found that 47% attrition exists in the Middle Level of management was and 43% Second most attrition exists in the Lower Middle Level of management.
- It is found that 51% of the respondents Agree that Attraction for the better salary packages elsewhere is contributing to the attrition in an organization.
- It is found that 42% of the respondents agree that stagnation in career path is contributing more to the attrition in an organization.
- It is found that 42% of the respondents agree that long duty hours are contributing more to the attrition in an organization.
- It is observed that 37% of the respondents Agree that night shifts is contributing more to the attrition in an organization
- It is observed that 39% of the respondents agree that unfavorable HR policies is contributing more to the attrition in an organization
- It is observed that 33% of the respondents agree that monotonous work which offers no challenge is contributing more to the attrition in an organization.

Suggestions

- As maximum number of employees has left the company for better salary so company should give hike in their salary at regular time interval.
- As per their salary the work load is too much for employees so the company should decrease the work load for employees.
- Conduct "stay interviews," in which managers let people knows how important they are to the company and ask what kinds of things will keep them. Employees should ask for solicit feedback on the work environment.
- Many employees have suggested ethical practices and transparency can minimize the attrition in this survey. So the companies should give attention to the factors which it can improve itself internally.
- Operation, quality assurance, IT, Administration, training departments having high attrition. So concentrate on those departments.

- The companies should conduct regular meetings to know about what exactly employees expect. Organizations should focus on exit interviews.
- Attend to concerns about the uneasy relationship with peers and managers. Cultivate friendly, supportive relations.
- Share information with employees about the company's strategic direction and plans.
- It is observed that 38% of the respondents agree that lack of promotion is contributing more to the attrition in an organization.
- It is observed that 33% of the respondents agree that higher education is contributing more to the attrition in an organization.
- It is observed that 41% of the respondents agree that Insufficient lave is contributing more to the attrition in an organization.
- It is observed that 32% of the respondents agree that physical & psychological is contributing more to the attrition in an organization.
- It is observed that 39% of the respondents neutral that no personal life factor is contributing more to the attrition in an organization

Conclusion

Based on the findings of the study, it can be concluded that most of the employees possess salary of 0-2, 00,000. Other major findings are that attrition exists in the middle level of management. Attraction for the better salary packages elsewhere was a major factor that greatly contributed to high attrition rates in the organization. From this study it observed that operation, quality assurance, IT, Administration, training departments having high attrition. The study also found out that one of the critical parameter is most of the respondents resigned with probation or with six months of association with the employer. Therefore the human resource management failed to identify the core reasons that influenced employees to leave the organization. Lack of competitive reward program greatly contributed to high employee attrition rates in the organization since the organization's reward package was not competitive and also lacks the elements of Totality in its reward system. Finally it can be concluded that the attraction of better salary, lack of rewards, lack of benefits, long duty hours and uneasy relationship with peers and managers are contributed more high employee attrition. Benefits which were given to employees for retention were not satisfactory. Other strategies like alternative work schedule, leave benefits, employee assistance program are not offered to the employees. Career BPO is not viewed as secured in long term basis. Stagnation in the career and long duty hours are viewed as a problem. This is job insecurity in the organization. Working hours are not satisfactory. Other facilities like cafeteria, transport and hygienic food are not available to the employees. Respondents' opinion that communication with the employer is facilitated the organization, job description, ethical practices and transparency, rewards and recognition can minimize the attrition.

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A Study on Perceived Importance of Use of Social Media in Education among B-School Students in Coimbatore District

M Venkatesh Prabu

Abstract

The technology plays a major role in today's competitive world. Learning is continuous processes that enable anyone develop their knowledge and skill. Adopting technology has become a part of student learning process. It facilitates the faculty and students to develop better outcome. The adoption and use of technology has varied criteria and the students use it to nurture their talents in many possible ways. This study is intended to investigate the use of social media in education among the MBA students for enhancing more learning. The researchers developed structured a questionnaire and collected data. This questionnaire has about 15 variables belonging to different sets of uses of social media by a student. These variables were measured along the standard measurement scale (Five-point scale of Likert) ranging from "5" = very important to "1"= not at all important. The researchers have analysed the data by using simple descriptive analysis. The results are presented in tables and diagrams with suitable interpretations.

Keywords: *Social media, Perceived value, Perceived importance, Education*

1. Introduction

With all the changes in the technology, the world is moving around to the better use of technology in all spheres of human life. The business today operates with apparent use of technology to build relationship. Every individual is thriving to make more relationship to utilize the opportunities that can bring benefits to their life. The need and necessity of the digital usage has increased rapidly. The developing countries like India started adopting this trend very quickly.

According the study conducted by Ernst and Young in 2013 it was revealed that the organizations today are very optimistic about the role of social media in their organizations. The organizations today have realized that it plays a crucial role in generating insights and engaging with market place on a continued basis. Social media has helped organizations to create their own communities of fans, customers, and prospects. The study revealed that in the future, organizations hope to focus more on social media and are looking forward greater adoption within their organizations.

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Internet capabilities and applications have evolved a larger space in the use of technology by any individual. The tools and technologies that are adopted in the education is facilitating to cater the increasing use of interactive, highly accessible, affordable, and specialized relationship among users. The concept of "Web 2.0" (O'Reilly 2005) is a resultant variable of all these activities stated above. This concept made the evolution of social media possible. Web 2.0 is sometimes referred to as the "read/write Web" and the social Web. It is a broad term used comprehensively to refer to technologies that enable users to consume, contribute, share, and augment content online, often in the context of social media (Tuten 2008).

According to Tracy Tuten and Melanie Marks (2012), social media are the online means of communication, conveyance, and collaboration among interconnected and interdependent networks. These capabilities are affecting many areas of life, including how businesses are run, how individuals behave, and even how students learn.

2. Objectives

The previous studies have stated that the use of social media tools is not widespread in the college classroom. However, the applicability of social media tools is better enhanced by the students. The concept of out of class room learning is becoming more popular and the new generation learners in management education have necessity to gain more exposure and experience in using the technology based learning. Social media is a primary access to majority of the students today for their personal and professional developments. In this regard, this study is intended to investigate the use of social media in education among the MBA students for enhancing more learning.

3. Methodology

The present study is descriptive in nature and convenience sampling method is used. There are more than 70 institutions in Coimbatore district offering MBA programme and an average of 60 students pursuing the course in each institution. The data was collected through a structured questionnaire from 150 respondents who are presently pursuing their MBA programme from the b-schools in the Coimbatore district. This questionnaire has about 15 variables belonging to different sets of uses of social media by a student. The variables are Course Management, Social Networks, Discussion Forums, Instant Messaging, Media Sharing Sites, Online Lectures with Audio/ Video, Content Creation Tools, Collaborative Documents, Social Bookmarking, Wikis, Online Meetings, Games, Blogs and Microblogs, Social News, and E-Portfolios. These variables were measured along the standard measurement scale (Five-point scale of Likert) ranging from "5" = very important to "1"= not at all important. The researchers have analysed the data by using simple descriptive analysis. The results are presented in tables and diagrams with suitable interpretations.

4. Use of social media in education

There are many researchers studied about the increasing importance of social media in various fields. The academic researchers have anticipated an increasing importance and its role in student-learning process. Armstrong and Franklin (2008) revealed the important role of social media in education. It was identified that there are certain social media tools students primarily use in their day-to-day life. The list of tools includes blogs, wikis, social networks, media-sharing sites, and media production services. There are several possible benefits associated with using the tools as educational technologies. According to Hargadon (2010), there is a significant shift in the use of technology, particularly social media. The upgradation of constant continued developments and the necessity of learning practices, users starting exploring the social media to interact and some extent to produce their own contents. This shift is vitalized from the user to just read, receive, and research.

In recent days, larger the young population is using the social media tools. Prensky (2001), in his study described about the students as 'digital natives'. This means that those who have never known a world without semantic Web sites, blogs, and virtual digital worlds. There is a natural shift to the maximum of social media technology for enhancing more knowledge. Thus, their cultural and communication experiences have largely revolved around digital tools and access to digital resources.

Further to this, during 2010, there were lots of studies conducted on the use of social media among the students (Lenhart et al.; Smith and Caruso). From these studies, it was identified that the majority of the students use at least one social networking site; the students' frequency of use and adoptability is high; perhaps the active experiential learning was assumed by most of the students among those who use social media technology for education. Some of the studies focusing on the students' perception revealed that use of social media support to enhance student knowledge because they engage students, facilitate peer learning, enhance communication skills (Renner 2006; Barnes and Tynan 2007; Berlanga et al. 2007; Brown and Adler 2008; Drexler, Baralt, and Dawson 2008). Thus, social media tools offer marketing educators solutions to course management problems and opportunities to meet course objectives. Ultimately this would be result of the students engaging and interactive ways of acquiring knowledge.

In contrast to the above, there are several arguments stated the barriers in using the social media technology among the learners. According to a study reported by Buzzard et al. (2011) of instructors and students, a higher percentage of students and instructors found traditional digital tools to be more effective than social tools. Thus, there is necessity for the learners to determine if social tools are worth the investment for the engagement and learning outcomes potentially affected by the tools. As per Armstrong and Franklin (2008), though the technology usage has the barriers to overcome many practical issues, it is the need of the future. Social tools exist alongside other digital educational technologies, including traditional tools such as web sites, email, and office software; and course/learning tools such as lectures, white boards, virtual classes, course management systems and so on.

The corporate world today is changing dynamically. The use of technology in any organisation is gaining more importance. The continued and instant learning becomes a key for any student those who are looking for the career development in the industry today. Hence, given the potential benefits of use of social media among the b-school students, particularly in the developing countries like India, there are limited numbers of studies on the relevant topic. The main purpose of this paper is to explore the use of social media for enhancing knowledge among MBA students in Coimbatore district.

5. Perceived importance of using social media in education

In a study reported by Buzzard et al. (2011) of instructors and students, a higher percentage of students and instructors found traditional digital tools to be more effective than social tools. In this study, the respondents were asked to indicate how important they felt it was for them to use social media tools in their work as management students. Responses used a five-point scale ranging from “not at all important” to “very important,” as indicated in Table 1.

Table 1: Perceived importance of use of social media in education

Tool	% Not at All Important (1)	% Little Important (2)	% Moderate Important (3)	% Important (4)	% Very Important (5)
Course Management	6.2	4.6	8.4	14.4	66.4
Social Networks	18.3	12.3	27.2	26.9	15.4
Discussion Forums	22.4	18.8	27.2	17.3	14.4
Instant Messaging	22.4	18.8	27.2	17.3	14.4
Media Sharing Sites	32.2	17.9	23.5	17.2	9.2
Online Lectures with Audio/ Video	33.3	22.5	22.7	13.5	8.0
Content Creation Tools	35.1	20.5	22.7	14.6	7.1
Collaborative Documents	46.4	27.8	16.2	6.6	2.9
Social Bookmarking	37.3	26.6	20.0	12.2	3.9
Wikis	40.1	23.4	20.2	12.4	3.9
Online Meetings	46.4	22.0	21.3	7.2	3.1
Games	45.5	24.9	20.0	6.8	2.7
Blogs and Microblogs	38.3	21.4	21.4	12.4	6.6
Social News	53.4	23.4	11.6	8.0	3.6
E-Portfolios	51.5	25.6	15.0	5.2	2.7

Table 2: Overall mean and distribution of responses of use of social media

Tool	Overall Mean	Standard Deviation
Course Management	4.28	1.18
Social Networks	3.29	1.31
Discussion Forums	3.01	1.33
Instant Messaging	2.40	1.34
Media Sharing Sites	2.38	1.28
Online Lectures with Audio/ Video	2.53	1.33
Content Creation Tools	2.27	1.26
Collaborative Documents	2.19	1.17
Social Bookmarking	2.17	1.19
Wikis	1.99	1.11
Online Meetings	1.96	1.08
Games	1.92	1.07
Blogs and Microblogs	1.82	1.12
Social News	1.64	1.04
E-Portfolios	1.14	0.97

Table 2 provides the mean responses related to perceived importance sorted from most important to least important, as well as the distribution of responses. The mean responses ranged from 1.14 (E-Portfolios) to 4.28 (course management). However, it should be noted that only three activities had a mean response greater than 3.0 viz., course management, social networks, and discussion forums. There were 6 activities for which the mean response fell in between "not at all important" (value of 1) and "little importance" (value of 2). There were 6 activities for which the mean response fell in between "little importance" (value of 2) and "moderate importance" (value of 3).

6. Conclusion

The results revealed that the use of social tools such as wikis, online meetings, games, blogs and microblogs, social news and e-portfolios is relatively low. On the contrary, particularly compared to the use of course management, social networking, and discussion forums have perceived high value. Results also suggest that the critical learning variables such as online lectures, content creation, and collaborative documents have perceived a moderate level of importance and usefulness. Based on the literatures available this is consistent (Buzzard et al., 2011). The earlier studies on the use of social media among educators have also perceived the same kind of value. This study proves that most students using social media tools utilize the tools for discussions as well. However, the social networking is their priority. There is high amount of perception among the students in Coimbatore district as they use the social media tool for their course management. More research is needed on the relative value of social tools compared to other educational technologies and how best to apply the tools to enhance learning outcomes and accomplish course objectives. Also, the perception of students among other streams can also be studied for a comparative analysis. The study can be expanded to understand the relative importance of the social medial tools compared to personal use of the same.

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A Study on Knowledge Characteristics among the Employees in Lakhsmi Seva Sangham (LSS),Gandhigram

Well Haorei

Abstract

Knowledge management is a systematic, explicit and deliberate building, renewal and application of knowledge to maximize enterprise knowledge – related effectiveness and returns from its knowledge assets (Biswajeet Pattanayak, 2005). The effective knowledge management will greatly contribute to improved excellence, which is to dramatically reduce costs, provide potential to expand and grow, increase value and/or profitability, improve products and services and, respond faster. The broad objective of the present research work was to study the knowledge characteristics among the employees in Lakhsmi Seva Sangham, Gandhigram and the specific objectives were to explore; (i) In terms of their specialization, (ii) Requirement of processing information to carry out their activities, (iii) Problem solving ability, (iv) Skill variety efficiency and, (v) ability to handle job complexity easily. The study concluded that employees in Lakhsmi Seva Sangham (LSS) does not require much of information processing to carry out the activities of the job, the requirement of specializations of the factors of knowledge characteristic were similar and the mean age of the employees was between 37.5 years and 48.71 years that indicates that employees were in their productive age.

Keywords: *Knowledge characteristics, specialization, Information processing, Problem solving, Skill variety and job complexity*

Introduction

Knowledge has become increasingly relevant for organizations becomes of the shift from an industrial economy based on assembly lines and hierarchical control to a global decentralized, information-driven economy. Organizations now work, compete and cooperate on a worldwide scale. As a consequence, they must be able to maintain and enhance their core competence and corporate identity regardless of the geographical distances and linguistic and cultural differences of the markets in which they operate. At the same time, they must be capable of creatively enriching such competences with knowledge coming from the local communities that participate in their global workplaces. Furthermore, they must be able to help people with in fast pace of the worldwide competition by optimizing the time to market and by being into preserving, reusing and generating and services. Ultimately, they must put maximal effort into preserving, reusing and generating intangible assets, in the form of competitive prices in the global

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marketplace. Intangibles cannot be bought, because they have no material value but they originate from the principles and goals of the organization.

Review of related literature

Hong Zhan, Tian Tang and Yue Zhang (2013) in their research work on, "Characteristics of Knowledge Workers and Their Motivating Factors: A Review and Comparison Study" concluded that, the studies reviewed many aspects of the issue on knowledge workers' incentive preferences. However, they were almost all on the characteristics of knowledge workers and their needs. Also, they attempted to derive the incentive measures from the two. There had been few that analyzed the incentive factors from the knowledge workers' behavioral dynamics. The researches in China, especially conceptual studies, can be seen based on or adapted from researches of western countries. "Take the management sciences that originated in the western society, whose social psychology, culture, and behavioral norms are all very different, and introduce them into an environment with totally different psychology and culture, then the introduced management would totally likely be set idle or be distorted". They suggested that future researches must consider the unique characters and the culture of China, through theoretical and empirical studies, to identify the incentive preferences for China's knowledge workers.

Tomislav Hernaus and Josip Mikulic (2013), in their empirical research that was conducted through a field study of the largest Croatian organizations with more than 500 employees. Cross-sectional and cross-occupational research design was applied in order to include knowledge workers – managers and professionals – from a variety of different jobs and occupations. They found that task characteristics of knowledge workers have a statistically significant and stronger effect on task performance than contextual performance. Although such results are not aligned with the existing literature, they clearly emphasize the need to take distinct work design approaches towards manual (non-knowledge) and knowledge workers. While previous research efforts and findings were dominantly focused on the former, who primarily conduct routine and non-challenging tasks, the present study examined managers and professionals, who handle very complex and non-repetitive tasks on a daily basis. Their knowledge and cognitively-demanding tasks do not only have enriched task characteristics, but they also presumably create higher value directly through their work tasks. In such circumstances, knowledge workers probably feel more responsible for the work itself and are keen to offer greater task performance.

Katie Truss et al (2013) in their white paper, "Job Design and Employee Engagement stated" stated that, 'we also know that job design needs to take account of factors in three additional domains such as; job content the actual content of the job should be designed to enable people to find their work meaningful. In addition, people need to have a sense of responsibility, and be able to see the link. Job context, this includes factors such as ergonomic job design, work setting, technology, and flexible working options. Work

Relationships, studies have shown, and common-sense tells us, that people are more likely to be engaged when they are in open, trusting and harmonious work settings. Line Manager, the line manager has a vital role to play in bringing the individual's job design to life. Simply having a well-designed job will count for nothing with an unsupportive line manager who provides no feedback'.

Dr.Shin-Tien Chen and Dr. Bao-Guang Chang (2012) in their research work on, "The Effects of Knowledge Characteristics and Absorptive Capacity on the Performance of Knowledge Transfer for SMEs: Moderation Views of Organizational Structure", based on the sample of 171 SMEs, found that: (1) The higher the level of knowledge complexity, and the higher the staff's absorptive capacity, the better the performance of knowledge transfer within the organization. (2) An organization structure with higher levels of coordination is more likely to affect positively the relationship between tacit knowledge and absorptive capacity. (3) An organization structure with higher levels of specialization is more likely to affect negatively the relationship between tacit knowledge and absorptive capacity. (4) An organization structure with higher levels of specialization is more likely to affect positively the relationship between knowledge complexity and absorptive capacity.

Tao Long, Xue Liu, and Xiaojing Liu (2012) in their study on "Motivating Knowledge Workers Based on Behavioral Science" found that knowledge workers have different needs than ordinary employees and suggested that pay more attention to improve their own ability as well as growth in the enterprise space, for this feature, companies should focus on the ability of knowledge workers expertise, arrange appropriate training, to meet employees improve their ability needs to pay attention to the appropriate professional positions, given the development of the space. Usually work at the same time should be more than authorized, in the exercise of their ability, but also improve the sense of accomplishment and confidence in the enterprise.

Ben Akpoyomare Oghojafor and Moruf Akanni Adebakin (2012) based on the findings of their survey on job design and job satisfaction among doctors and nurses in Lagos, Nigeria hospitals, the researcher recommends that: 1) Jobs in organizations should be redesigned constantly and consistently to meet changing needs of workers as well as changes in the work environment. 2) Organizations should therefore take job design very seriously because it is one of the most potent forms of incentive, which could trigger workers' motivation and satisfaction. 3) Despite the achievements of this research effort, there shall always be need to conduct further researches on similar issues both as a means of certifying the validity and reliability of the present research, and to explore further and uncover more facts. 4) Although, this study is an addition to existing literatures on job design and job satisfaction, more researches need to be conducted especially in other manufacturing or service organizations outside the medical field where job design may prove to be the major determinants of job satisfaction.

Bojan Krstic and Bojan (2012) Petrovic made an attempt to point out the importance of developing and implementing an effective system of knowledge management in the modern enterprises for innovativeness. Examining of knowledge management in the function of improving innovativeness and competitiveness of an enterprise opened up new dimensions of knowledge management. The research points out the need for a change of managing practice in contemporary enterprises in the era of knowledge economy in the direction of consistent implementation of the concept of knowledge management. In inadequate comprehending the importance of knowledge management concept and its inconsistent implementing in the practice of an enterprise, there may be serious barrier in its adapting to demands of dynamic business environment.

Abdel Nasser H. Zaied, Gawaher Soliman Hussein and Mohamed M. Hassan (2012) attempted in their research work to provide an understanding of factors that involved in implementing knowledge management concept to enhance organizational performance and to explore the role of knowledge management in enhancing the performance of an organization and to identify the best predictor of the organizational performance, multiple regression analysis was used to analyze the results and the results showed that knowledge management capabilities (infrastructure and process) explained 48 percent (R2=0.48) of the variance in the organizational performance. This confirms the effect of knowledge management capabilities elements in the organizational performance. The results also show positive relationship between knowledge management and organization performance (R=0.69).

Jelena Rasula, Vesna Bosilj Vuksic and Mojca Indihar Stemberger (2012) studied on the impact of knowledge management on organizational performance among the 329 companies both in Slovenia and Croatia with more than 50 employees and the results showed that knowledge management practices measured through information technology, organization and knowledge positively affect organizational performance.

Kumar and Suneel (2011) in their research work on, "Motivating Employees: An Exploratory Study on Knowledge Workers", found that motivated human resource is strategically important for corporate competitiveness. As new age employees are involved in complex knowledge processing which requires a particular set of organizational forces traditional means of motivating employees are no more effective.

Danijela Jelenic (2011) in their research paper aimed to show the great importance of knowledge as a vital strategic resource for modern business, at the beginning 21st century. The study concluded that the globalization brought the enormous changes in business thinking and technologies that had impact on many worldwide organizations. The organizations who want to survive in unpredictable and complex competitive markets should quickly adapt to the new dynamics of business.

Asmahan M. and Altaher (2010) from their empirical case study on the effect of knowledge characteristics in student's performances revealed that knowledge characteristics are important to the student performance. Modifiability knowledge effect student performance but not all types of knowledge can be codifying some kind of knowledge can be articulated, represent the tasks and the way of doing that knowledge. In addition explicitness has the greater effect on student performance because in Jordan they focus in classifying explicit knowledge more than tacit; in general argue that explicit and tacit knowledge kinds of knowledge at the tow end of a continuum. Explicit knowledge high in explicitness and tacit knowledge low. In other hand knowledge teach-ability has second stage; some knowledge could be high in teach ability, however many assignments given to student and case study. In the other hand some knowledge could be low teach-ability like fix problem in computer, adding the advance technology, or documented the new issues.

Nicolai J. Foss, Dana B. Minbaeva, Torben Pedersen, and Mia Reinholt (2009) in their research work on, "Encouraging Knowledge Sharing Among Employees: How Job Design Matters", with the main purpose to further their understanding of how different aspects of job design foster different types of individual motivation (i.e., intrinsic, and external motivation), as well as how these motivation types influence employees' knowledge-sharing behavior. Their results show that (1) job autonomy increases employees' intrinsic motivation toward knowledge sharing, (2) task identity was positively linked to motivation toward knowledge sharing, and (3) feedback on the job has a positive impact on employees' external motivation to engage in knowledge sharing.

William R. King (2009) theoretically analyzed on knowledge management and organizational learning and concluded that knowledge management is a set of relatively new organizational activities that are aimed at improving knowledge, knowledge-related practices, organizational behaviors and decisions and organizational performance. KM focuses on knowledge processes – knowledge creation, acquisition, refinement, storage, transfer, sharing and utilization. These processes support organizational processes involving innovation, individual learning, collective learning and collaborative decision making. The "intermediate outcomes" of KM are improved organizational behaviors, decisions, products, services, processes and relationships that enable the organization to improve its overall performance.

Salina Daud and Wan Fadzilah Wan Yusuf (2008) examined how small and medium enterprises apply knowledge management processes in their daily business activities and analyze the relationship between knowledge management processes and organizational performance. In their study found that, knowledge management processes have a significant relationship with organization performance where knowledge acquisition is the main process that contributes to the organization performance. Knowledge acquisition consists of accumulating, creating, acquiring, generating, capturing and collaborating activities that were used by SMEs in acquiring new knowledge. Due to their small size, SMEs has an opportunity to gain direct and faster knowledge from their customers which enable them to sustain in the market. Besides that, they will also have an advantage of obtaining information on competitors' actions and behavior, market trends and other developments.

Bhojaraju G. (2005) studied on how the KM initiative has been adopted at ICICI OneSource, to support the achievement of its Business Process Outsourcing objectives and concluded that KM requires a holistic and multidisciplinary approach to management processes and an understanding of the dimensions of knowledge work. KM should be the evolution of good management practices sensibly and purposively applied. KM presents a major shift in focus regarding the development and use of knowledge and information in increasing the effectiveness of any organization.

Karl-Erik Sveiby and Roland Simons (2002) in their empirical study on collaborative climate and effectiveness of knowledge work found that collaborative climate tends to improve with age, education level and managerial role. Contrary to 'common sense' collaborative climate also seems to improve with organizational size at least up to mid-size, an inverted U-shape. They have further found that employees tend to experience a U-formed appreciation of the collaborative climate; very positive at recruitment, then deteriorating during the first 5 years and later improving again closely correlated with seniority in the organization. They have to some degree confirmed theories proposing that people reach a 'professional plateau' after around 15 years in the same profession (an S-formed curve) when it begin to rate lower than in their earlier years what they learn, what they receive from their nearest work environment and their managers. They have also confirmed earlier empirical evidence that distance is bad for collaboration. They found that gender has no impact on the perceptions of collaborative climate. Finally, they have found collaborative climate in the private sector to be generally better than in the public sector.

Muhiniswari Govindasamy (1999) in his study on, "Factors affecting Affective Organizational Commitment among Knowledge Workers in Malaysia" revealed that by working in teams, knowledge workers can build positive relationships with their team members while having an opportunity to share knowledge amongst them. As such, organizations wanting to increase knowledge worker's affective organizational commitment should endeavour to create a knowledge sharing environment conducive for team work and close relationship building amongst workers, have strong organizational policies to encourage such knowledge sharing activities. The sharing of knowledge is also between the top management and the employees. As such, to enable a smooth exchange of knowledge and information, members of the management team members need to be available and approachable by the workers. This may indicate that they are not subjected to hierarchical order or red tape and prefer a more free and easy relationship with the organization's top management they are not subjected to hierarchical order or red tape and prefer a freer and easy relationship with the organization's top management.

Aija Leiponen examined empirically the structure of relationships between business service firms and their clients; in particular, the allocation of control rights to the intellectual assets created in joint projects and concluded that alternative measures of firms' knowledge bases are the knowledge creation strategies. These are also found to influence the allocation of control rights. Consistent with the results, clients are more likely to obtain ownership of service output of KIBS firms whose knowledge was accumulated through incremental learning by doing and on the job training. Individual-based skills are typically accumulated through learning and training of individual experts, rather than team-based and cooperative learning processes. Thus the characterizations of resource bases and learning activities of business service firms present a coherent picture.

Niels-Ingvar Boer and Hans Berends attempted to show relation models theory is able to integrate different existing models of knowledge sharing, such as gift giving and internal knowledge markets, and might be able to explain contradictory research findings. The attempt revealed that the analysis of knowledge sharing interactions within the NatLab shows that each of the theoretical models of knowledge sharing presented in Table 1 has a limited applicability. This has several implications. First, knowledge management instruments and advices that are based on these models have a limited applicability. As Boer et al. (2002) have argued, knowledge management measures should fit the relational models in use. Second, the demonstration that relational models and therewith existing theories of knowledge sharing have a limited scope may explain the contradictory findings in the literature. For example, with regard to the importance of rewards, Van der Bij et al. (2002) found that the presence of formal rewards for knowledge sharing did not correlate with the amount of knowledge sharing, whereas others found or hypothesized that it did. But Van der Bij et al. studied technology-intensive organizations, comparable to the one they studied.

Objectives of the study

The broad objective of the present research work was to study the knowledge characteristics among the employees in Lakhsmi Seva Sangham, Gandhigram and the specific objectives were to explore;

- In terms of their specialization,
- Requirement of processing information to carry out their activities,
- Problem solving ability,
- Skill variety efficiency and,
- Ability to handle job complexity easily.

Study area

The vision of founder of Gandhigram, Dr. T. S. Soundaram, to create rural employment; hard work of Padmashree V. Padmanabhan and Sri. V. Krishnamuthy along with the expert guidance of Dr. Kondal Rao (founder of IMPCOPS,Chennai) to make quality and affordable Indian medicines, formed the genesis of the Lakhsmi Seva Sangham (LSS), Gandhigram, in 1977. Initially started with about 17 preparations, the Siddha and Ayurvedic drug manufacturing unit today produces 240 preparations with herbs and medicines collected by traditional herb collectors, the processing done under hygienic condition with strict quality control systems monitored by doctors and technicians. The unit provides employments directly to 150 women and 50 men in the processing, packaging and marketing of the medicines, particularly to the destitute, widows and handicapped. So a research has been carried out about how the unit was maintaining their work design.

Methodology adopted

Exploratory method has been adopted to study the work design of LSS and it is empirical case study in nature. The study was confined to the work design of the LSS whereby secondary data was collected from the registers and annually audited statements maintained by the unit. Also using a pre-tested interview schedule the researcher collected primary information directly from 80 men employees and 40 women employees of the study unit as the researcher could meet the stated 120 employees during data collection period. The present study employed tools like percentage, mean, and standard deviation for data analysis.

Major findings

Percentage analysis of knowledge characteristics among the employees:

- Absolute majority (57.13%) of the managers was men and half of the computer and mathematical employees were men in the study unit.
- Minority of the employees in the sales and related department, production assistants department and office and administration support were men.
- Absolute majority of the incumbent population of the study unit were Production Assistants employees (70 %) and Computer and Mathematical employees were minority (1.66 %).
- Nearing to half of the employees (46.66 %) stated that their job was not at all complex and not difficult to perform their activities, 37.5 % of the employees' job was very complex and difficult and, 15.83 % of the employees' job was not very complex and difficult.
- Close to half of the employees (47.5 %) stated that their job requires great deal of information, 41.5 % of the employees' job requires no information and 1.83 % of the employees' job requires less information.
- The study revealed that 41.66 % of the employees' job involved less problem solving activities, 35 % of the employees' job Involved less problem solving

activities and 23.33 % of the employees' job involved great deal of problem solving activities.

- Majority of the employees' job does not required varieties of skill, 41.66 % of the employees' job required varieties of skills and 6.66 % of the job required less variety of skills among the employees in the study unit.
- Half of the employees' job in the study unit required less specialization, 33.33 % of the job need not be specialized and 20 % of the job required highly specialized.

Mean score of knowledge characteristics among the employees:
The mean score of knowledge characteristics among the employees revealed that:

- Requirements of information processing while performing their activities in the job with mean score of 2.0583 concentrated around the score 2 which signifies that employees' job in the study unit required average information to carry out their activities.
- The mean score for the knowledge characteristics such as, complexity and difficulty of the activities and requirement of skill variety to perform the job with mean scores of 1.9083 and 1.9000 respectively concentrated just below the score 2. Hence, these two knowledge characteristics required not much knowledge to perform the activities of the job.
- Knowledge characteristics such as, nature of specializations of the job and problem solving involvements in the job the mean scores for both was 1.8333 that concentrated below the score 2. Hence, these two knowledge characteristics required very less specialization and problem solving to perform the activities of the job.

Standard deviation of knowledge characteristics among the employees:

- The standard deviation that measures how concentrated the data are around the mean; the more concentrated, the smaller the standard deviation and a large standard deviation means that the values in the data set are farther away from the mean, on average, the present study reveals that;
- The calculated Standard Deviation (SD) value lies between .96493 and .69007 concentrating to the Mean Score between 1.8333 and 2.0583 for the 5 knowledge characteristics that was considered for the present study as presented in table 2. Hence, the study found that there was less deviation from the mean score.

Ranking of knowledge characteristics among the employees:
The study found that;

- Requirements of information processing to carry out the activities of the job was ranked 1st among the 5 knowledge characteristics that was considered for the present study, 2nd rank was given to the complexity and difficulty of the activities of the job, requirements of variety of skills to perform the activities of the job was ranked 3rd, 4th rank was given to the involvement of problem solving to carry out the activities of the job and requirement of specializations to perform the activities of the job was placed in the last rank.

Conclusion and suggestions

The study concludes that employees in Lakhsmi Seva Sangham (LSS) requires processing of information to carry out the activities of the job, requirements of specializations of the factors of knowledge characteristic were similar and the mean age of the employees was between 37.5 years and 48.71 years that indicates that employees were in their productive age. Hence, it is suggested that the study unit requires looking into the switching over to the new technology of production process instead of following the out dated technology of production process.

Table 1: Incumbent population by occupation

Sl.No.	Occupation category	Nos.	Age (years)		Job experience (years)		Sex (%men)
			Mean	SD*	Mean	SD*	
1	Management	07	48.71	5.22	8.57	1.9	57.13
2	Computer and mathematical	02	37.5	2.5	7.5	2.5	50
3	Sales and related	10	42.1	4.3	13.8	6.41	20
4	Protective services	05	46.6	7.83	17	9.27	100
5	Office and administration support	09	37.37	3.99	8.55	5.94	44.44
6	Transportation and material moving	03	40	7.78	7.33	2.05	100
7	Production assistants	84	42.57	5.44	12.9	6.08	28.6
Total		120					

Sources: Primary data
*Note: * Standard Deviation*

Table 2: Knowledge characteristics among the employees

knowledge characteristics		knowledge level		
complex and difficult		score 3	score 2	score 1
		The job was very complex and difficult	The job was not very complex and difficult	The job was not at all complex and difficult
	No.	45 (37.5)	19 (15.83)	56 (46.66)
	Mean Score	1.9083		
	SD	.91666		
	Rank	II		
Requirements of		Requires great	Requires less	Requires no

information processing		deal of information	information	information
	No.	57 (47.5)	13 (1.83)	50 (41.66)
	Mean Score	2.0583		
	SD	.94643		
	Rank	I		
Problem solving involvements in the job		Involves great deal of problem solving activities	Involves less problem solving activities	Involves less problem solving activities
	No.	28 (23.33)	50 (41.66)	42 (35)
	Mean Score	1.8833		
	SD	.75796		
	Rank	IV		
Skill variety requirements		Requires varieties of skills	Requires less varieties of skills	Varieties of skills not required
	No.	50 (41.66)	08 (6.66)	62 (51.66)
	Mean Score	1.9000		
	SD	.96493		
	Rank	III		
Nature of specializations of the job		Requires highly specialized	Requires less specialization	Need not be specialized
	No.	20 (16.66)	60 (50)	40 (33.33)
	Mean Score	1.8333		
	SD	.69007		
	Rank	V		

Source: Primary data.

Note: Figure in the parenthesis represents the percent of respondents to the total respondents

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Financial and Operating Performance of Petroleum and Metals & Minerals Sectors in India – Evidences before and after Disinvestment

Dhanya Alex and Sivapriya E S

Abstract

This article examines the financial and operating performance of companies belonging to Petroleum and Metals & Minerals sector, before and after disinvestment. The operating performance of the companies is measured using three items - operating performance based on sales, operating performance based on investment and asset usage. The financial performance is measured using two items, corporate liquidity and corporate solvency. The study covers all the ten companies in Petroleum sector and four in the Minerals and metals sector which have undergone disinvestment from 1992-93 to 2007-08. Data for five years before and after the disinvestment is collected. The analysis is done using Paired T test. Analysis shows that there is significant improvement in the liquidity of both sectors after disinvestment.

***Keywords**: Disinvestment, Operating performance, Financial performance*

1. Introduction

Public sector undertakings in India were viewed as a mechanism for structural transformation of the economy and to ensure economic growth with equity and social justice. Eventually, the perception that public sector should acquire the commanding heights of the economy, led to Government involvement in diverse areas of economic activity, many of which could have been performed by the private sector. The public sector thus lost its original role and strategic focus, and shifted to supply of goods and services on subsidized rates and creation of employment. This led to inefficiencies, neglect of resource mobilization for modernization, increased dependence on unproductive borrowings, lack of motivation to improve efficiency and increase in fiscal deficit of the Government. The process of disinvestment in India began in 1992 under the aegis of new economic liberalization policy put forward then Finance Minister, Dr. Manmohan Singh. Disinvestment was supposed to be a tool in the hands of the Government to improve the functioning and profitability of public sector enterprises and also to raise funds to mitigate its fiscal deficits.

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In the context of this study, disinvestment means the sale of shares of public sector undertakings by the government. The shares of government companies held by the government are earning assets at the disposal of the government. If these shares are sold to get cash, then earning assets are converted into cash. So it is referred to as disinvestment (Nanjundappa, 1998). According to Sudhir (2003), there are two major reasons given by the government for disinvestment. One is to provide fiscal support and the other is to improve the efficiency of the enterprise. The fiscal support argument runs as follows: Government`s resources are limited. These resources should be devoted to areas of social priority such as basic health, family welfare, primary education and infrastructure. More resources can be devoted to these priority areas by releasing resources locked up in nonstrategic public sector enterprises. The demands on the governments, both at the centre and in the states are increasing. There is need to expand the activities of the state in priority areas. It is, therefore, legitimate that a part of the additional resources needed for supporting these activities are derived from the sale of shares built up earlier by the government out of its resources.

The second reason for disinvestment is that it will improve the efficiency of the working of the enterprise. If the extent of disinvestment is such that the enterprise is privatized and management of the enterprise is taken over by the private sector, it will be free from the control of the government and will be able to function more efficiently. It is here taken for granted that efficiency is higher for a private sector than for a public sector unit. Even if the extent of disinvestment is less than 50 percent, the induction of private ownership can have a salutary effect on the functioning of an enterprise. It increases the accountability of management. The share-holders have expectations about returns on their investments and their expectations are to be fulfilled. This will compel the enterprise to run more efficiently and earn more profits. Flexibility in ownership structure can, in effect, impart efficiency.

Patnaik (2006) argues that the main rationale for disinvestment is to increase the efficiency in utilization of resources (labour and capital) of the economy. Researchers have opined that the divestment of public sector enterprises is an economic necessity (Sankar & Mishra, 1994). Sankar & Reddy (1989) have presented the decision of divestment into a matrix form and have stated that state owned enterprises (SOEs) are considered high or low on three factors, namely, social purpose, profitability and resource mobilization. According to their model, SOEs operating in competitive markets having low social purpose and also low resource mobilization are most suitable candidates for disinvestment. Even partial privatization, with the government retaining control, has yielded improved productivity. Disinvestment of profit-making enterprises by public offering of shares is desirable as it leads to dispersed shareholding and avoids concentration of economic power (Patnaik, 2006).

Table 1: Government share after disinvestment in the public sector enterprises of India

Cognate group	Percentage of disinvestment	Percentage of total Govt. holding after disinvestment
1. Steel		
(a) Steel Authority of India Ltd.	14.18	85.82
2. Minerals & Metals		
(a) Hindustan Copper Ltd.	1.24	98.76
(b) Hindustan Zinc Ltd.	24.08	75.92
(c) Kudermukh Iron & Ore Co. Ltd.	1.00	99.00
(d) National Aluminum Co. Ltd.	12.85	78.38*
(e) National Mineral Development Co.	1.62	96.36*
3. Petroleum		
(a) Bharat Petroleum Corporation Ltd.	33.80	66.20
(b) Bongaingaon Refinery and Petro Chemical Ltd.	25.54	74.46
(c) Cochin Refinery Ltd.	6.12	55.04*
(d) Gas Authority of India Ltd.	17.03	82.97
(e) Hindustan Petroleum Corporation Ltd.	48.94	51.06
(f) Indian Oil Corporation Ltd.	18.74	81.14*
(g) Madras Refineries Ltd.	16.92	53.80*
(h) Oil and Natural Gas Corporation	16.38	83.62
4. Fertilizers		
(a) Fertilizers & Chemicals Ltd.	1.70	97.30
(b) National Fertilizers Ltd.	2.35	97.65
(c) Rashtriya Chemcials & Fertilizers Ltd.	7.50	92.50
5. Chemical & Pharmaceuticals		
(a) Hindustan Organic Chemical Ltd.	41.39	58.61
(b) Indian Petrochemicals Corporation Ltd.	40.05	59.95
6. Heavy Engineering		
(a) Bharat Heavy Electrical Ltd.	32.28	67.72
7. Medium and Light Engineering		
(a) Bharat Electronics Ltd.	24.14	75.86
(b) Andrew Yule	9.60	62.84*
(c) Hindustan Machine Tolls Ltd.	8.44	91.56
(d) Indian Telephone Industries	22.98	76.67*
8. Transport Equipment		

(a) Bharat Earth Movers Ltd.	39.19	60.81
Enterprises Rendering Services		
9. Transport Services		
(a) Container Corporation of India Ltd.	36.92	63.08
(b) Dredging Corporation of India Ltd.	1.44	98.56
(c) Shipping Corporation of India Ltd.	19.88	80.12
10. Telecommunication Services		
(a) Mahanagar Telephone Nigam Ltd.	43.80	56.20
(b) Videsh Sanchar Nigam Ltd.	47.00	53.00

**The balance equity is held by state Governments/other collaborators.*
Source: Department of Disinvestment, India (2014)

The objective of this article is to examine the financial and operating performance of companies belonging to Petroleum and Metals & Minerals sector, before and after disinvestment. This paper is organized as follows; Section 1 gives an introduction followed by section 2 on review of literature. Section 3 and section 4 explain the research methodology and analysis, followed by the concluding remarks in section 5.

2. Review of literature

The impact of disinvestment on the performance of the companies has been an area of interest for the researchers. Literature suggests that after disinvestment, improvement in operating and financial performance has been observed in many countries. In India, mixed results have been obtained in the case of various industries which have undergone disinvestment. Gowland & Aiken (2003) examined the performance measurement and accountability factors and the related changes to accounting systems after the privatization of organizations. The outcome has been determined by reviewing prior research and by undertaking a survey of organizations privatized in Australia between 1990 and 1998. Although the government's primary motivation might have been the reduction of government debt overall, changes in performance indicators, accountability factors and information systems suggest that efficiency remains an ongoing goal of the new management arrangements. The article concludes that there have been changes in performance measurement and accountability and accounting information systems. Megginson, et.al. (1994) developed a proxy variable methodology to test whether a significant operational and financial performance changes exist between pre and post privatization period of divested firms. They compare both pre and post privatization 3-year average performance ratios for 61 firms in 18 countries over the period 1961-1989. The finding indicates significant increases in output, operating efficiency, profitability, capital investment spending and dividend payments are found along with significant decreases in leverage. The changes in employment after privatization are found to be insignificant.

Boubakri et.al (1998) examined post-privatization financial and operating performance of 79 companies in 21 developing countries and 32 industries between 1980-1992.The study concluded that there are economically and statistically significant post-privatization increases in output (real sales), operating efficiency, profitability, capital investment spending, dividend payments, and employment as well as significant decreases in leverage. D' Souza & Megginson (1999) compared the pre- and post–privatization financial and operating performance of 85 companies in 28 countries and 21 industries that were privatized through public share offerings for the period between 1991 and 1996. Reported that privatization has led to significant increases in profitability, output, operating efficiency and dividend payments as well as a significant decrease in leverage ratios. Porta & Silanes (1999) addressed significant improvements in output and sales efficiency of 218 Mexican privatized firms through June 1992, and found that the gap in performance between privatized firms and privately controlled firms narrows. They also found a significant decrease in the level of employment. Harper (2001) examined privatization in the Czech Republic and concluded that this process resulted in improved profitability, higher efficiency and lower employment levels in divested firms in the second wave of privatization but caused the opposite results in the first divestment round.

Torero (2003) analyzed the impact of privatization through a detailed statistical and econometric analysis of first difference (the difference between pre- and post-privatization performance), and second difference (change in performance of privatized firms relative to the change in performance of SOEs) of several indicators on profitability, operating efficiency, employment, leverage and convergence. The results indicate that privately owned firms are more efficient and profitable than state-owned firms. Omran (2004) examined the performance of 54 newly privatized Egyptian firms in relation to the State Owned Enterprises (SOE). The analysis show that privatized firms do not exhibit significant improvement in their performance changes relative to SOEs. Muslumov (2005) analyzed the impact of financial and operating performance of privatized companies in the Turkish cement industry. Document that privatization in cement industry results in significant performance deterioration. Banaluddin (2007) evaluated the impact of privatization on operating and financial performance of the privatized firms in Malaysia. The results showed that the performance proxies, Return on Sale, Return on Assets and Return on Equity deteriorated and real sales and net profit of the firms improved upon privatization.

In India, a number of researchers have analyzed the effect of disinvestment after 1991. The comparison of the pre- and post-disinvestment financial and operational performance of 15 PSEs of India that experienced partial disinvestment during the period of 1991-92 to 2002 was done by Ravinder & Rupinder (2007). The empirical evidence supported the positive effects of privatization on PSEs' performance. These privatized units have significantly improved the level of profitability, sales, operational efficiency, earnings per share and dividend payments after disinvestment. Singh & Paliwal (2010) examined the impact of disinvestment which took place during 1985-86 to 2004-05 on the performance of selected units of competitive and monopoly units of Indian PSEs. The grouping of enterprises has been done on the basis of their contribution to total industrial production/service. Operating performance of competitive firms based on sales has shown decline in the profitability during the post-disinvestment period. On the other hand, monopoly firms have been efficient in generating profit and controlling their expenditures. The study documented that the performance of monopoly firms show an improvement during the after-disinvestment period when compared to competitive firms.

Gupta & Seema (2011) assessed the financial performance of disinvested Central Public Sector Enterprises in India on the basis of several dimensions on pre and post disinvestment bases over the life span of more than two decades (i.e. 1986-87 to 2009-10). Financial performance has been measured on the basis of select profitability, efficiency, liquidity, leverage and productivity ratios. The findings suggest that partial or small amount of disinvestment has not yielded desired results in majority of dimensions. It may be virtually due to variety of problems faced by PSEs even after disinvestment, such as high cost and noncompetitive industrial structure, operational inefficiency due to high governmental interference and environment restrictions. They concluded that government's intervention in the functioning of the firm and managerial decision-making should be a matter of last resort.

Koner & Jaydeb (2014) examined the behaviour of different measures of liquidity given by different ratios of the divested central public sector enterprises in India. For this purpose they take the financial data of ten divested central public sector enterprises namely BEML, BEL, SAIL, BHEL, ITI, SCI, ONGC, IOCL, GAIL and CONCOR during the period 2000- 2010.They consider two different measures of short term liquidity such as current ratio (CR), Debt – Equity ratio (D/E). They obtained mixed result for the change in D/E ratio and short term liquidity ratio over the period. Naib (2003) examined the impact of the partial divestiture of disinvested enterprises in India. The results indicate that in case of partial divestiture, where divested equity is thinly spread with the majority shareholding still the government, there has been no improvement in terms of profitability and operational efficiency. Chundawat & Shurveer (2005) compared the pre- and post disinvestment financial and operating performance of the selected disinvested Central Public Sector Enterprises (CPSEs) of Indian Manufacturing sector based on cognate groups after disinvestment. Joshi (2002) analyzed the impact of change in the ownership on financial performance of public sector enterprises in general and Bharat Heavy Electricals Limited in particular. In this study, disinvestment of the government shareholding was taken as an event and pre – disinvestment mean value of various financial parameters for financial years (1986-91) is compared with post disinvestment mean value of financial years (1992-2000). Result shows that disinvestment improves the profitability and liquidity position of BHEL while it has affected the dividend payout negatively.

3. Research methodology

Disinvestment is widely perceived as a tool in the hands of the Government to improve the functioning and profitability of public sector enterprises and also raise funds to mitigate its fiscal deficits. In India, Petroleum sector and Minerals & Metals sector are the two sectors in which a large number of companies were disinvested in the past. The objectives of this research are (1) To study the financial performance of petroleum and minerals & metal industries before and after disinvestment. (2) To study the operating performance of petroleum and minerals & metal industries before and after disinvestment. The public sector companies in Petroleum and Metals & Minerals sector which have undergone disinvestment between the time period 1992-93 and 2007-08 were chosen for the study. There are ten companies in Petroleum sector and four companies in Metals & Minerals sector which have undergone disinvestment during this period. The companies selected for the study are as follows: (a) Petroleum Sector - Oil and Natural Gas Corporation, Madras Refineries Ltd. ,Indian Oil Corporation Ltd, Hindustan Petroleum Corporation Ltd., Gas Authority of India Ltd., Cochin Refinery Ltd., Bongaingaon Refinery and Petro Chemical Ltd, and Bharat Petroleum Corporation Ltd. (b) Metals & Minerals sector ; National Mineral Development Co, National Aluminum Co. Ltd. Hindustan Zinc Ltd. and Hindustan Copper Ltd. : The time period selected is from 1992-93 to 2007-2008. The criterion for selecting the sample period is to avail the data for the five years after the year of disinvestment and five years before the disinvestment. The data is taken from CMIE database.

Figure 1: Variables chosen for this study

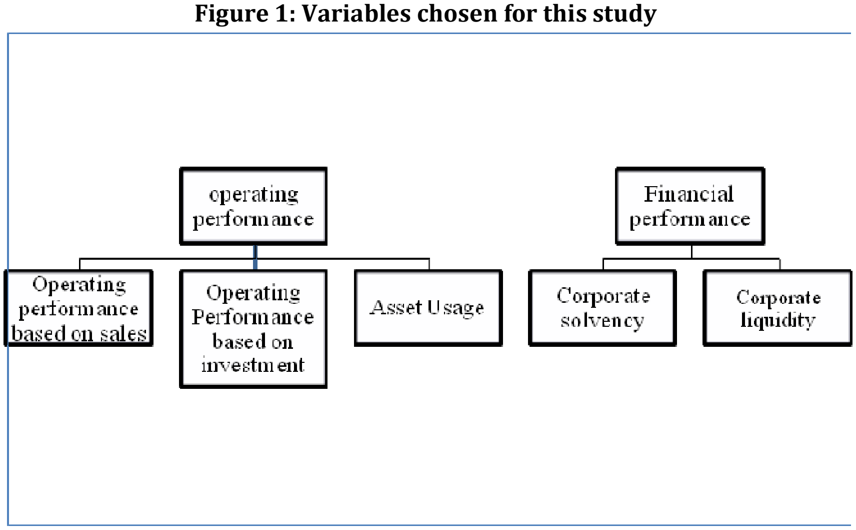

Table 2: Variables and measurement

Variables	Measured using
Corporate solvency	D/E Ratio Proprietary Ratio Solvency Ratio Fixed Asset to Net worth Interest coverage ratio
Corporate Liquidity	Current ratio Quick ratio
Operating Performance based on sales	GP ratio NP ratio Operating Profit Ratio Material Cost/Net sales Manpower Cost/ Net sales
Operating Performance based in investment	ROA ROCE
Asset Usage	Inventory turnover ratio Inventory conversion ratio Debtors turnover ratio Fixed Asset turnover ratio Working capital turnover ratio capital turnover ratio.

Paired sample t-test is used for analysis. It is a statistical technique that is used to compare two population means in the case of two samples that are correlated. Paired sample t-test is used in 'before-after' studies, or when the samples are the matched pairs, or when it is a case-control study. The limitation of the study is that business cycles, economic policies or other macroeconomic developments affect most companies' performance in any economy. These disturbances can lead to opposite or unexplained relationships and can distort the final results.

4. Analysis

Paired sample t test is used in a situation where

- The sample sizes are equal, i.e. , n1=n2=n , say and
- The sample observations(x1,x2,….,xn) and (y1,y2,…yn) are not completely independent but they are dependent in pairs i.e., the pairs of observations(x1,y1),(x2,y2),….(xn,yn) correspond to the 1st,2nd,…nth unit respectively.

  Suppose the sample observations(x1,x2,….,xn) are observations before the occurrence of an event and observations (y1,y2,…yn) are observations after the occurrence of an event, i.e. the two sets of observations are not completely independent but they are dependent in pairs i.e., the pairs of observations(x1,y1),(x2,y2),….(xn,yn) correspond to the 1st,2nd,…nth unit respectively.

Let di = xi-yi (i=1,2,…n) denotes the difference in observation for the ith unit.
Under the null hypothesis that the increment in observations (y1, y2,…yn),are just by chance due to the occurrence of the event, i.e. H0= μx=μy, the test statistics is

$$t = \frac{\bar{d}}{s/\sqrt{n}} = \frac{\bar{d}}{s2/\sqrt{n}} \sim t_n - 1$$

Where d= x-y, $\bar{d} = \frac{1}{n}\sum d$ and $s^2 = \frac{1}{n-1}\sum(d-\bar{d})^2 = \frac{1}{n-1}\left[\sum d^2 - \frac{(\sum d)2}{n}\right]$

Table 3: Paired samples statistics for Petroleum Sector

	Paired Differences					T	Df	Sig. (2-tailed)
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Corporate solvency(PRE - POST)	-5.59237	6.7986	2.14991	-10.455	-.72894	-2.601	9	.029*
Corporate liquidity(PRE – POST)	.02631	.20392	.06448	-.11956	.17219	.408	9	.693
Operating performance based on sales(PRE – POST)	-.00661	.01242	.00393	-.01549	.00227	-1.683	9	.127
Operating performance based on investment (PRE – POST)	-4.88032	12.59	3.98240	-13.889	4.12849	-1.225	9	.251
Asset usage(PRE – POST)	-4.36548	4.3448	1.37395	-7.47355	-1.2574	-3.177	9	.011*

Source: Authors' compilation using SPSS

Table 3 shows the significance (2 tailed) value for the paired variables. Corporate solvency (pre-post) and asset usage (pre-post) show significant difference between the post disinvestment period and the pre disinvestment period as their respective significance (2 tailed) values are below .05. The table shows that only two variables i.e.

corporate solvency and asset usage show an increase in their means in the post disinvestment period, whereas all other variables declined in their mean value during post disinvestment period ,compared to the pre disinvestment period.

Table 4: Paired samples statistics for Minerals and Metal sector

	Paired Differences					T	Df	Sig. (2-tailed)
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Corporate solvency(PRE -POST)	-.54287	.09141	.04571	-.68833	-.39742	-11.877	3	.001*
Corporate liquidity(PRE – POST)	.06809	.34323	.17161	-.47806	.61424	.397	3	.718
Operating performance based on sales(PRE – POST)	.01425	.01537	.00768	-.01020	.03870	1.855	3	.161
Operating performance based on investment (PRE – POST)	.05868	.04512	.02256	-.01312	.13049	2.601	3	.080
Asset usage(PRE – POST)	-.31427	.48320	.24160	-1.08315	.45461	-1.301	3	.284

Source: Authors' compilation using SPSS

From table 4 it is evident that only Corporate solvency shows significant difference between the pre disinvestment period and post disinvestment period as the significance (2 tailed) value is .001 i.e. significant at 1% level. All other variables do not show significant difference between pre disinvestment period and the post disinvestment period.

Talking about the financial performance in terms of corporate solvency, it has been found that there is a significant improvement in the mean score of solvency ratios of disinvested firms in petroleum sector during the post disinvestment period on an average. The change is significant at 5 percent level of significance. In the case of Minerals and metal sector, the improvement in corporate solvency is significant at 1 percent level of significance. The analysis of corporate liquidity of the Petroleum sector and Minerals and Metal sector reveal that the managements' efficiency in managing liquid asset has declined in the post-disinvestment period, as the mean score of corporate liquidity declined in both the sectors, as compared to the post-disinvestment period. But the change is not significant.

The analysis of operating performance based on sales of Petroleum sector revealed that there is an increase in the mean value during the post disinvestment period, but it is insignificant. In the case of Minerals and Metal sector, sales has shown decline in the mean scores during the post-disinvestment period. However the change is not significant. Analysis of the operating performance based on investment of the Petroleum sector reveals that there is an increase in the mean scores of return on total assets and return on net capital employed ratios in the post-disinvestment period as compared to the pre-disinvestment period. . But the change is not significant. The examination of the operating performance based on investment reveals that the units engaged in Minerals & Metals failed in the efficient utilization of their resources. However the change is not significant. The mean values of asset usage of Petroleum sector and Minerals and Metal sector have shown increase in the post disinvestment period. But it is significant only in the case of Petroleum sector, while insignificant in the case of Minerals and Metal sector.

Conclusion

Ever since independence PSUs are the main pillars of the Indian economy, which includes central, state and local bodies. But the performance of PSUs was poor over the years due to several reasons which resulted in monetary losses, over capitalization, wrong policies, faulty control and inefficient management. The disinvestment and privatization policy that the government adopted was closely related to efficient channelization and utilization of resources, but the progress often was not that satisfactory. In the international scenario, the studies on the impact of disinvestment on the financial and operating performance of the companies have suggested that the performance tend to improve after disinvestment and the results were almost consistent. But in Indian scenario, previous research findings gave mixed results on the impact of disinvestment on the performance of the firms, depending upon the sectors which have undergone disinvestment. In this research, it is evident that the companies belonging to both Petroleum sector and Metals & Minerals sector have shown improvement in their corporate solvency after disinvestment. It indicates the improved financial strength of the firms and their ability to meet the long term debt obligations. The improvement shown in asset usage by petroleum sector companies indicates that the utilization of resources has improved as a result of change in ownership in the post-disinvestment period as compared to the pre-disinvestment period.

The results also reveal that disinvestment has positive effect on the solvency levels of the firms in petroleum and Metals and Minerals sector companies. Improved asset usage in petroleum sector companies indicates efficient working capital management which in long run can result in increased profitability.

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The Effect of Customer Demography and Perceptual Factors for Selecting a Tourism Service Provider

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Abstract

Travel and tourism is one of the growing sectors these days. People from all over the world love to travel. Taste of tourism along with the habit of travelling varies in different manners. The industry today is globally recognized as a major economic contributor and employment generator. On the other hand people's behaviour in the urban environment depends upon their perception and attitudes. Their actions are conducted in the environment as perceived. Therefore, to understand whether demographic factors have any impact over the different travelling habits along with the perception of people towards becoming the tour ambassador. Tourism in India is economically important and is growing rapidly.

The study was conducted in Kolkata, West Bengal in order to understand how much the demographic factors influence the customers and also this study can provide a clue for the marketers about how to improve the obstacles in order to reach to the larger mass. Thus the research and findings concludes that there is way to minimize the problem if and only of the services are improved and thus changing the mind of people towards investing more in travelling as this alternatively improves the economic condition as well as increases the employment of the nation as a whole. The study also identified some specific attributes of promotional activities run by different tourism service providers to attract customers to become the ambassadors for promoting their service to others. A business model is also been proposed in this research.

This paper also, tried to identify some specific demographic attributes of customers, following which a tourism service marketer can identify their target customers in future.

Key Words: *Tourism, Demographic, Ambassador, ANOVA, Logistic regression*

1. Introduction

Tourism industry is emerging as a big service sector in all over the world. Different tourism companies are competing hard with each other by introducing new business policies to attract customers. Some of those competing farms are also introducing new marketing tools to increase their business growth.

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The World Travel & Tourism Council calculated that tourism generated Rs.6.4 trillion (USD 96 billion) or 6.6% of the nation's GDP in 2012. It supported 39.5 million jobs, 7.7% of its total employment. The sector is predicted to grow at an average annual rate of 7.9% till 2023 making India the third fastest growing tourism destination over the next decade. India has a large medical tourism sector which is expected to grow at an estimated rate of 30% annually to reach about Rs.95 billion (USD 1.4 billion) by 2015 (http://kallaionline.com/web/Tourist.aspx).

The tourism industry is made up of a number of different sectors including the travel, hospitality and visitor services sector. This particular industry is developing itself as it has an increasingly competitive environment. Thus this industry now feels the importance to measure customer satisfaction and takes it as a part of their quality assurance programs. In order to compete and survive successfully in today's dynamic environment, all the service providing organization focus on enhancing their customer base that arise after the fulfillment of needs and wants of customers to maximize their ultimate profitability.

With the increasing competition in service sector the importance of service quality and its management is growing exponentially. No player in service sector can afford to overlook the management of service quality now. With the increasing competition in service sector the importance of service quality and its management is growing exponentially. No player in service sector can afford to overlook the management of service quality nowadays.

This research has been conducted in Kolkata, the capital of the state West Bengal, India considering all the available tourism service providers (both group and individual marketers) available there during the research process. The study initially attempts to study the characteristics of individual consumers such as demographics and behavioral variables in an attempt to understand people's wants. Here customer is defined as any person as individual or as a part of a group, has taken any service during tour management.

The study also tries to assess influences on the consumer demographical attributes and other societal characteristics from groups such as family, friends, sports, reference groups, and society in general. The study is also based on consumer buying behaviour in different aspects. Demography is one of the external factors that shape tourism demand and development. The structure of societies is continuously changing, and for both public and private organizations working in the tourism field it is relevant to study these changes in order to anticipate and react upon them in the most competitive way. Translated into the marketing area, demographic changes are likely impact on the patterns of travel demand, including frequency, length of stay. This study also concentrates on a new concept that is emerging as a marketing tool in the tourism industry called "Tour Ambassador". The concept has been coined by a well known tourism management company. But for maintaining confidentiality, the name of the same is not disclosed in this research work.

Tour Ambassador is described to be a person who would be independently working with the views and ideas of the organization. The person is expected to explain the benefits a person is supposed to get after becoming the tour ambassador. Tour Ambassador would work for the organization as a part time work or may be full time where the person is to bring in another interested person who would give the company the leads who would like to travel and understand the travel habits as well. If anybody enrolls as an ambassador then they are supposed to get holiday packages and other goodies as well and subsequently increasing the business of the company as well as increasing its own funds and prizes as well. The number of ambassador enrolled the higher amount of incentives can be achieved. This study also tries to find out the general perception among the customers about this concept of tour ambassador.

2. Literature review

In his research, Lexhagen, has identified that the internet has also seen an increasing importance of user-generated content and utilization of the Internet as a social medium. In this study the concept of customer value, based on the typology of consumer value (Holbrook, 1994; 1999) and the value hierarchy model (Woodruff & Gardial, 1996; Woodruff, 1997), is used to identify dimensions and expressions of what customer-perceived value is in travel and tourism websites and how it is created. Moderately structured in-depth interviews are used to collect data. In the analysis connections between different types of value are presented and the lack of certain types of value is discussed (Lexhagen M, 2008).

In 2010, The World Tourism Organisation and the European Travel Commission published an article on "Demographic change and tourism". According to them, Demography is one of the external factors that shape tourism demand and development. The structure of societies is continuously changing, and for both public and private organizations working in the tourism field it is relevant to study these changes in order to anticipate and react upon them in the most competitive way. Translated into the marketing area, demographic changes are likely impact on the patterns of travel demand, including frequency, length of stay. The overall objective of the report is to deliver a comprehensive analysis of demographic trends, how these are impacting and will impact on tourism demand in specific generating markets, and how consequently destinations and companies can benefit from and adapt to such trends in order to become increasingly competitive in the market place (The World Tourism Organisation And The European Travel Commission, 2010).

For other service sectors like banks, some similar type of research work has already been done. The effects of demographic factors on perceived customer satisfaction between public and private banks in Turkey, was conducted by A. Emin Serin et al. To achieve this aim, they conducted a survey among the six geographic regions in Turkey. They choose the big cities for sample (İstanbul, İzmir, Ankara, Antalya, Kahramanmaraş and Sinop). They used a composite scale, which were used for several studies (SERVQUAL, Parasuraman, Zeithalm and Berry (1985) Wu ve Liang (2009)). They run Explanatory factor analyses, t-tests, correlation and regression analyses using SPSS 20.0. As a result, they found that, selection had a positive and significant relation with Competence and Credibility. In addition, gender had a positive and significant relation with Accessibility and negative relation with Sensitivity. Moreover, age and marital status had positive and significant relation with Credibility (Serin A Emin et al, 2013).

Mishra N Vishu has identified the importance of service quality and its management. According to the study, one of the most popular ways to measure the service quality is SERVQUAL. It has explained that Expectancy disconfirmation is the gap between perceived quality and expected quality. This paper attempts to measure impact of demographic factors on expectancy disconfirmation of private sectors. With the increasing competition in service sector the importance of service quality and its management is growing exponentially. No player in service sector can afford to overlook the management of service quality now. Service quality is now one of the most important aspects. To manage the service quality effectively and efficiently its measurement becomes important. The measurement of service quality also helps in assessing the performance of services, diagnosing problems, if any, and ensuring a smooth service delivery (Mishra N Vishu,2014).

Zarrad.H and Debabi.M, has conducted a research to identify the theoretical arguments and hypotheses about the interrelationships between electronic word of mouth (eWOM) and tourists' attitudes towards specific destinations and actual travel intentions. To this end, they conducted a Structural Equation Model (SEM) to test the relationship between some research variables. An empirical test of the model is reported using data collected from a sample of 219 foreign tourists who participated in online communities and travelled to Tunisia throughout the research period. Their results illustrate that e-WOM communication has a credible influence on both attitude and intention to revisit Tunisia as a destination. Some further theoretical and marketing implications are discussed in this study (Zarrad.H et al, 2015).

3. Objectives

The objectives of the study are:

- To find out the influence of general perceptual factors among respondents towards becoming a tour ambassador.

- To find out the influence of demographic specifications on choosing a tourism service provider.

4. Research methodology

4.1 Research design

The study has followed Causal Research design.

4.2 Data Collection

Both primary and secondary data were collected for the study. A significant amount of effort was given to collect primary data. A Structured, undisguised, self designed questionnaire was used for collecting primary data for face to face mode of interviews. Secondary data were collected from Internet mainly through social media. Simple Random Sampling technique is used for data collection.

4.3 Sample Size

100

4.4 Sampling Error

The sampling error has been calculated by using the following formula.

$$S = \frac{\rho\ (1-\ \rho)\ z^2}{e^2}$$

$$\Rightarrow 100 = \frac{0.71\ (1-\ 0.71)\ (1.96)}{e^2}$$

$$\Rightarrow e^2 = \frac{0.71\ (1-\ 0.71)\ (1.96)^2}{100}$$

$$\Rightarrow e^2 = 0.0079$$

$$\Rightarrow e = \sqrt{(0.079)}$$

$$\Rightarrow e = 0.088$$

Therefore the sampling error is 8.8%.

5. Results

5.1 Influence of general perceptual factors among respondents towards becoming a Tour Ambassador

To find out the influence of general perceptual factors among respondents towards becoming a Tour Ambassador, the following analysis of Logistic Regression has been done.

Here the respondents have replied with “yes” or “no” towards willingness of becoming tour ambassador, which is considered as dependent variable. Whereas the independent variables considered are responses of the customers of various tour and travel service providers on their opinion about the Tour Ambassador scheme as- interesting, relevant, exciting, appealing, fascinate, valuable, needful, involvement. The respondents have rated these independent variables on the basis of a 5 point scale.

Table 1: Case processing summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	100	100.0
	Missing Cases	0	.0
	Total	100	100.0
Unselected Cases		0	.0
Total		100	100.0

a. If weight is in effect, see classification table for the total number of cases.

Table 2: Dependent variable encoding

Original Value	Internal Value
Yes	0
No	1

Table 3: Classification Table[a,b]

	Observed		Predicted		
			Ambassador		Percentage Correct
			Yes	No	
Step 0	Ambassador	Yes	0	29	.0
		No	0	71	100.0
	Overall Percentage				71.0

a. Constant is included in the model.
b. The cut value is .500

Table 4: Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	TA_relvnt_scheme	-1.194	.265	20.378	1	.000	.303
	Constant	4.332	.849	26.025	1	.000	76.115
Step 2[b]	TA_relvnt_scheme	-.790	.303	6.789	1	.009	.454
	TA_excitng_scheme	-.630	.278	5.127	1	.024	.533
	Constant	4.949	.958	26.693	1	.000	141.052

a. Variable(s) entered on step 1: HA_relvnt_schme.
b. Variable(s) entered on step 2: HA_excitng_scheme.

The model

The logistic regression equation will be as follows-

$$\Rightarrow \log_e \frac{YES}{NO} = ß_0 + ß_1X_1 + ß_2X_2 + \ldots\ldots\ldots + ß_nX_n$$

$\frac{\text{YES}}{\text{NO}} = e^{ß_0} + ß_1 e^{X_1} + ß_2\, e^{X_2} + \ldots\ldots\ldots + ß_n\, e^{X_n}$

$= \text{Exp}(ß_0) + \text{Exp}(ß_1)*X_1 + X_2\, \text{Exp}(ß_2)$

$\frac{29}{71}$ = 141.052 + 0.454(TA_relevant scheme) + 0.533(TA_exciting scheme)

$\frac{29}{71}$ = 141.052 + 0.454 (TA_relevant scheme) + 0.333 (TA_exciting scheme)

⇨ 0.454 (TA_relevant scheme) + 0.333 (TA_exciting scheme)+140.644=0

where TA stands for "Tour Ambassador"

5.2 The influence of demographic specifications on choosing a tourism service provider

Here the dependent variable is the rating given to a particular tourism service provider and independent variable is customer's demographic specifications like occupation, income group and gender.

A Three Way ANOVA is used to analyze data as follows.

Table 5: Between-subjects factors

		Value Label	N
Occupation	1	Private Sector	48
	2	Govt. Sector	18
	3	Business	6
	4	Student	12
	5	Homemaker	7
	6	Others	9
Income	1	Less than 25000	15
	2	25000-49999	55
	3	50000-74999	29
	4	75000 Above	1
Gender	1	Male	71
	2	Female	29

Table 6: Descriptive statistics for three way ANOVA

Dependent Variable: rate_Tourism service provider

Occupation	Income	Gender	Mean	Std. Deviation	N
Private sector	Less than 25000	Male	.57	.976	7
		Total	.57	.976	7
	25000-49999	Male	2.34	1.861	22
		Female	2.73	1.794	11
		Total	2.47	1.820	33
	50000-74999	Male	.50	1.225	6
		Female	2.00	2.828	2
		Total	.88	1.642	8

	Total	Male	1.67	1.819	35
		Female	2.62	1.850	13
		Total	1.93	1.857	48
Govt. sector	Less than 25000	Male	.00	.	1
		Total	.00	.	1
	25000-49999	Male	2.50	2.179	3
		Female	3.00	.	1
		Total	2.63	1.797	4
	50000-74999	Male	3.94	.391	9
		Female	4.00	.000	4
		Total	3.96	.320	13
	Total 2	Male	3.31	1.507	13
		Female	3.80	.447	5
		Total	3.44	1.305	18
Business	25000-49999	Male	1.00	1.732	3
		Total	1.00	1.732	3
	50000-74999	Male	1.67	1.528	3
		Total	1.67	1.528	3
	Total	Male	1.33	1.506	6
		Total	1.33	1.506	6
Student	Less than 25000	Male	3.75	1.041	4
		Female	1.00	1.414	2
		Total	2.83	1.751	6
	25000-49999	Male	4.00	.	1
		Female	.00	.	1
		Total	2.00	2.828	2
	50000-74999	Male	3.25	.354	2
		Female	4.00	.	1
		Total	3.50	.500	3
	75000 Above	Female	.00	.	1
		Total	.00	.	1
	Total	Male	3.64	.802	7
		Female	1.20	1.789	5
		Total	2.63	1.760	12
Homemaker	25000-49999	Male	3.00	.	1
		Female	1.25	1.500	4
		Total	1.60	1.517	5
	50000-74999	Male	1.00	1.414	2
		Total	1.00	1.414	2
	Total	Male	1.67	1.528	3

		Female	1.25	1.500	4
		Total	1.43	1.397	7
Others	Less than 25000	Male	4.00	.	1
		Total	4.00	.	1
	25000-49999	Male	.00	.000	6
		Female	.00	.000	2
		Total	.00	.000	8
	Total	Male	.57	1.512	7
		Female	.00	.000	2
		Total	.44	1.333	9
Total	Less than 25000	Male	1.77	1.889	13
		Female	1.00	1.414	2
		Total	1.67	1.809	15
	25000-49999	Male	1.92	1.877	36
		Female	2.00	1.826	19
		Total	1.95	1.843	55
	50000-74999	Male	2.36	1.767	22
		Female	3.43	1.512	7
		Total	2.62	1.746	29
	75000 Above	Female	.00	.	1
		Total	.00	.	1
	Total	Male	2.03	1.834	71
		Female	2.21	1.840	29
		Total	2.08	1.828	100

Figure 1: The effect of different demographic attributes on preferring a tourism service provider

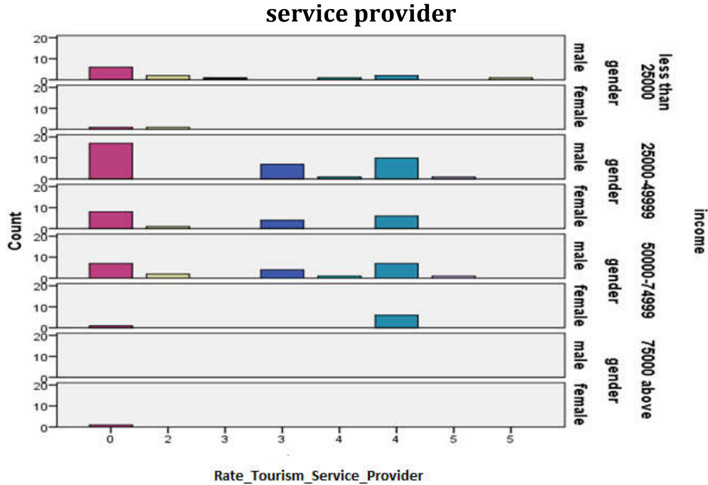


Table 7: Tests of between-subjects effects

Dependent Variable: rate_Tourism service provider

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	186.964[a]	25	7.479	3.846	.000	.565
Intercept	2.809	1	2.809	1.444	.233	.019
rate_crnt_booking_sys	17.707	1	17.707	9.106	.003	.110
Occupation	15.869	5	3.174	1.632	.162	.099
Income	16.781	3	5.594	2.877	.042	.104
Gender	.709	1	.709	.364	.548	.005
Occupation * income	48.963	7	6.995	3.597	.002	.254
Occupation * gender	7.103	4	1.776	.913	.461	.047
Income * gender	15.973	2	7.986	4.107	.020	.100
Occupation * income * gender	8.885	2	4.442	2.284	.109	.058
Error	143.896	74	1.945			
Total	763.500	100				
Corrected Total	330.860	99				

Table 8: Between-subjects factors

		Value Label	N
Occupation	1	Private Sector	48
	2	Govt. Sector	18
	3	Business	6
	4	Student	12
	5	Homemaker	7
	6	Others	9
Income	1	Less than 25000	15
	2	25000-49999	55
	3	50000-74999	29
	4	75000 Above	1
Gender	1	Male	71
	2	Female	29

Thus it can be concluded that scores given to a tourism service provider is significantly varying with different income groups, occupation with income, and income with gender.

Table 9: Tests of between-subjects effects

Dependent Variable: rate_ Tourism service provider

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	186.964[a]	25	7.479	3.846	.000	.565
Intercept	2.809	1	2.809	1.444	.233	.019
rate_crnt_booking_sys	17.707	1	17.707	9.106	.003	.110
occupation	15.869	5	3.174	1.632	.162	.099
income	16.781	3	5.594	2.877	.042	.104
gender	.709	1	.709	.364	.548	.005
Occupation * income	48.963	7	6.995	3.597	.002	.254
Occupation * gender	7.103	4	1.776	.913	.461	.047
Income * gender	15.973	2	7.986	4.107	.020	.100
Occupation * income * gender	8.885	2	4.442	2.284	.109	.058
Error	143.896	74	1.945			
Total	763.500	100				
Corrected Total	330.860	99				

a. R Squared = .565 (Adjusted R Squared = .418)

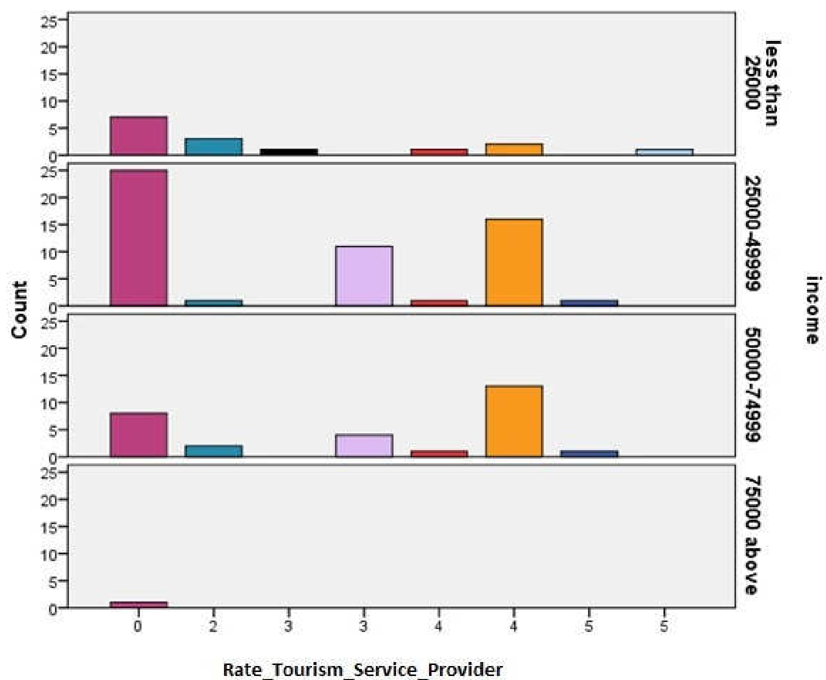
The above figure shows the people of different income groups. The income group that earns less than 25000 has given, 5 male respondents of which has rated 0 and 1 female has given 1 to the service provider the service provider which the highest in that group. For the income group of 25000-49999 18 people rated as 0 and 8 female rated the service provider as 0. So the same way other groups have also rated the service provider in the same manner.

Figure 2. Shows that only one person in the income group of 75000 has rated the tourism service provider as 0. In the income group of 50000-74999 7 people rated the Tourism Service Provider as 0, 2 rated as 2, none of them rated 3, 11 of them rated 4, 1 of them rated 5 and so on.

6. Conclusion

The proposed methods in this study can be used to understand the perception of customers of different tourism service providers. The paper also suggests some tool for understanding customers' response towards some exclusive marketing tools, if applied by the service providers.

Figure 2: Figure depicts the income group wise variations in rating a tourism service provider



The study finds that customers can be the marketing agents by themselves on behalf of tourism service providers if they find the scheme is itself a relevant one and is very exciting in nature. A new model has been proposed in this paper for the purpose. This study also tries to find out the effect of different demographic attributes on preferential rating scores of different service providers. This paper identifies that the rating given to a service provider is varying significantly across different income groups, occupation with income groups and income group with gender.

And finally the study concludes that, there is a huge business opportunity for the people of Kolkata. Some Demographic factors have significant effect on preferring a service provider and tourism companies can concentrate on those to get edge over their competitors and to prosper in their business.

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Risk, Return and Rating - Need for a Fresh Benchmarking

U K Basu

Abstract

Different financial instruments have different risk – return profiles. Investors are risk averse and higher risks warrant higher rates of return.

Issue of debt securities via public and rights issues requires mandatory rating. Securities issued in domestic and global markets are rated by diverse rating agencies. Domestic CRAs set the sovereign risk associated with the country of origin at zero, while global rating agencies account for sovereign risk as well.

CAPM expresses return from a security as the sum of risk free rate and risk premium, which is proportional to risk. For securities denominated in domestic currency, it has been customary so far to consider gilt edged securities as risk free. However, recent economic turmoil in various economies has necessitated a re-look at this practice. A reformulation of CAPM incorporating impact of sovereign risk seems called for and it may be appropriate to introduce a fresh benchmark rate for this purpose.

Introduction

Many of us invest our hard-earned savings in financial instruments with a view to securing a reasonable rate of return. In particular, those who have been superannuated or do not have any other avenue for income rely solely on such investment income. For investment in Bonds/Debts held till maturity, the income is primarily by way of periodical interest and finally the redemption proceeds, whereas the cash inflow from shares held on a long term basis is primarily in the form of dividend.

The rate of return for any instrument depends on the market scenario as well as the risk associated with it. For instance, the level of interest rate in Japan continues to be quite low. USA and Europe are also currently witnessing an era of low interest rates. The central banks of these regions are maintaining a low interest rate regime deliberately with the aim of reviving the economies from their current weak position. Japan's second quarter GDP for 2014-15 fell 1.6% after falling 7.3% in the first quarter. Thus, Japan slid into recession with the Japanese economy unexpectedly contracting for a second straight quarter during July-September. Mr. David Cameron, the British premier stated that six years from the financial crash that had brought the world to its knees, red warning lights might once again be flashing on the dashboard of the global economy. According to him, the euro zone was teetering on the brink of a possible fresh recession and emerging markets, which were the drivers of growth in the early stages of the recovery, are now

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slowing down. Several countries in Europe – such as the PIIGS countries (Portugal, Ireland, Italy, Greece and Spain) and Cyprus – continue to face serious economic crises. In USA, however, the unemployment figure has recorded some optimistic number and analysts think that the adverse financial position in the wake of the Global Financial Crisis might have finally taken a turn for the better. The market is thus agog with expectations for an upward revision in the benchmark US interest rates (The Economic Times, 09 November, 2015). Such an improvement in the risk – return perception about the US economy is widely believed to result in an increased investment in US based assets and consequential decline in foreign capital inflows to emerging economies including India, resulting in declines in the stock indices and exchange value of the domestic currency. The recent devaluation of Yuan, the currency of the largest Asian economy, may also trigger a depreciation of the Indian currency from considerations of export competitiveness.

As for risk, different economies face different levels of sovereign risks, which are captured by the respective country risk ratings. Within a country, different business groups and companies have different risks associated with them. Even for a given company, the risks associated with various instruments issued by it are not identical. For instance, risk associated with the equity share of any company is always higher than that associated with bonds issued by it because the claims of different groups of investors enjoy different levels of priority.

Return, risk and inflation

Every rational investor is risk - averse. That is, the expected return should be higher in order that he would agree to bear a higher risk on investment. Thus, the rate of return for equity share of a company has to be higher than that for its long term bond, which - in turn - has to be higher than that for its short term debt such as commercial paper. Also, for identical instruments, a company or a project with a higher risk (i.e. larger uncertainties of operating cash flows) would have to offer a higher return. For instance, a company's bond having AAA rating (highest credit rating) would sail through in the market with a lower coupon rate than that of another company's bond with a worse rating.

Further, the rate of return normally depends on the level of inflation. Higher the rate of inflation, higher should be the nominal rate of return. This would ensure a near uniform level for the real rate of return [(1+RNominal) = (1+ RReal) (1+IInflation)] across nations. This real rate of return should be positive so that there is an increase in the purchasing power of the investor over time - as a reward for his forgoing liquidity and also agreeing to accept a certain degree of risk.

The scenario in India in recent times, however, failed to ensure a fair rate of return for the investors. Investors have received, over a long stretch of time, negative real rates of return. As reported in newspapers (The Times of India, 10 July 2013), a study conducted by a professor of IIT Mumbai's Department of Mathematics showed that for most of the five years since 2008-09 real returns on bank fixed deposits have been negative. This position was also amply highlighted by the EPFO report that Rs. 100 contributed by an investor in 2005, when marked to inflation, was worth only Rs. 97 after a period of eight years (live mint, 09 November 2015), although the nominal value without factoring the impact of inflation was Rs 193. So, there was a 3% erosion of purchasing power for an investor over an 8 year period. It is thus not surprising that the IMF working paper suggested in October, 2015 that RBI may need to raise interest rates in order to deal with the persistently high inflation rates. Surprisingly, this viewpoint is just opposite of what the Indian business houses and government have repeatedly pitched for. A retired Indian citizen relying on bank's fixed deposits might have earned interest at rates lower than the consumer inflation rate. On top of it, such interest income was subject to usual rates of taxation. Very recently, however, inflation in India has shown welcome signs of abatement and RBI has come up with an additional fifty basis point reduction of the benchmark REPO rate.

The rate of return on investment that an investor can reasonably look forward to can normally be split up into two parts – the risk-free rate and the premium over and above the risk–free rate on account of risk undertaken (termed as the risk premium). The risk-free rate, i.e. the rate of return on a risk free asset (like the treasury bill/bond denominated in home currency), can be viewed as the reward for the investor on account of forgoing liquidity. In addition, the investor would expect another component of return as risk premium, which should be proportional to the risk associated with the investment (CAPM).

The idea behind accepting the treasury bills/bonds as avenues for risk free investments is the belief that that a sovereign government can never default in meeting its home currency denominated obligations. It is presumed that the government would be able to repay even in an extreme situation by simply printing currency notes. However, this perception has faced many serious challenges in recent times. For instance, in order to avert the projected fiscal cliff and save USA from possible default, the government of USA had to shut down, in late 2013, many routine services (The Guardian, 16 October 2013) pending necessary approval from the US Congress to push up the government's debt ceiling. Standard & Poor's had already lowered the long-term sovereign credit rating on the United States of America to 'AA+' (excellent) from 'AAA' (outstanding) on August 5, 2011.

Risk and rating

A credit rating is issued by a credit rating agency (CRA). A credit rating assigned to U.S. sovereign debt is an expression by the assigning CRA of how likely it is that the U.S. will pay back its debts as per schedule.

As we have already seen, treasury bills/bonds are treated as risk-free investments due to the belief that a sovereign government can never default in meeting its home currency obligations. However, this line of thinking has received a severe jolt in recent times. Although Germany, Australia, Canada, Switzerland and UK have the AAA rating, USA and France no longer enjoy this highest credit rating. While Greece and Cyprus enjoy ratings of B and B+ respectively, India's rating is BBB-. Japan and China have both credit rating of AA-.

The happenings in USA during the financial cliff have demonstrated that it may not be feasible for a government to print currency notes at will to meet its requirements from time to time. The governments in Greece and Cyprus are clearly bankrupt in as much as they are not in a position to meet their committed financial obligations.

Successive governments in Greece borrowed much more than what they were capable of servicing. After the first package to bail out Greece failed to yield the desired result, there are efforts to stitch together another package (World Public Library; Greek Government – Debt Crisis) that warrants a reduction of 53% (Euro 107 billion or $ 142 billion) in the face value of Greek government bonds. A 53% write-off can hardly be the feature of a risk free security. The current country rating of Greece also captures this distressed economic condition.

The position in Cyprus is no better. The bail-out package mooted by the EU-IMF to revive the economy of Cyprus requires that every depositor of the Bank of Cyprus having a balance of more than Euro 100,000 forgoes as much as 60% of his deposit (JCB Capital Performance – Wealth, March, 2013). 37.5% of holdings over Euro 100000 would be converted into shares of Bank of Cyprus and the remaining 22.5% would be transferred to a fund with zero interest which may be subject to further write-offs. Even the balance 40%, which would attract interest, would be paid only if the bank performs well. If this is risk free investment, what is not! The country rating of Cyprus is also indicative of such an overall weakness of the economy.

The Indian scenario

In view of the foregoing, it may not be out of context to have a look at the overall scenario close at home.

Although Indian economy has grown steadily over the years, the persistent fiscal and current account deficits have been the cause for considerable stress and anxiety from time to time. The strength of the Indian currency as well as the stock market continues to be highly dependent on the volume of foreign capital inflows, which are influenced by various external parameters beyond our control. The crash of the Indian currency and stock prices during the global financial meltdown has amply demonstrated this.

The outstanding internal and external debt and other liabilities of the Government of India (Budget Analysis, 2015) at the end of 2015-2016 is estimated to amount to Rs 68,94,690.99, as against Rs 62,78,553.97 crore at the end of 2014-2015. In the budget for

2015-16, the targeted borrowing by the government (Budget Analysis, 2015) has been set at Rs 6 lakh crore. It has also been pointed out by certain analysts that, with inflation adjustment, the public debt might have overtaken the country's GDP. Recent reports about the extremely high levels of Gross NPA (including restructured debts) for several banks in the wake of a perceptible economic slowdown reveals the overall stress for the financial system. Persistent high inflation, uneven distribution of wealth and never ending growth of population, together with possible corruption at high places, has only compounded the position.

The rating of India is a moderate BBB- (the outlook on India's Sovereign rating was raised to stable from negative in September, 2014) and any slippage in fiscal and/or current account deficits is apt to push it down further with all attendant consequences. The Rating accorded by Moody's Investor Service to India continues to be Baa3, meaning Investment Grade, which is a notch above the Junk Bond status. However, in view of the steps initiated by the policymakers in India in the recent past to boost the country's economic growth and financial resilience, on 09/04/2015, Moody's has raised India's rating outlook to positive from stable.

Of course, we do come across ratings like AAA and AA for bonds issued by financially strong companies in the Indian market. For instance, the latest INR denominated Tax Free Bonds issued by PSUs have all this kind of coveted ratings. The point is that such ratings accorded to the instruments by India based Credit Rating Agencies (CRAs) do not consider the sovereign rating of India. The sovereign rating comes into play only while rating instruments, such as foreign currency bonds, meant for issue in the global market, and such ratings are accorded by the global rating agencies. Thus, no global issue by any Indian entity can enjoy a rating higher than India's sovereign rating (although, in a rare exception, an MTN issue by SBI was rated Baa2 by Moody's (The Economic Times, 07 December 2004), which bettered India's sovereign rating of Baa3). Similar practice is followed in other countries as well. In other words, every domestic rating agency sets the sovereign risk at zero for issues denominated in the local currency. This practice may no longer be acceptable to investors for reasons discussed above and may require a reformulation.

Rating mechanism and nomenclature

In India, no issuer is allowed to issue debt securities for providing loan to or for acquisition of shares of any person who is part of the same group or who is under the same management.

Every Debt Instrument, whether long term or short term, to be offered to the public in India must be rated. Debt Instruments issued by the union government and commercial banks are of course exempted from rating.

The ratings accorded to a Corporate Bond, a long term instrument issued by companies, can be as follows:

AAA - Instruments with this rating are considered to have the highest degree of safety regarding timely servicing of financial obligations. Such instruments carry lowest credit risk.

AA - Instruments with this rating are considered to have high degree of safety regarding timely servicing of financial obligations. Such instruments carry very low credit risk.

A - Instruments with this rating are considered to have adequate degree of safety regarding timely servicing of financial obligations. Such instruments carry low credit risk.

BBB - Instruments with this rating are considered to have moderate degree of safety regarding timely servicing of financial obligations. Such instruments carry moderate credit risk.

BB - Instruments with this rating are considered to have moderate risk of default regarding timely servicing of financial obligations.

B - Instruments with this rating are considered to have high risk of default regarding timely servicing of financial obligations.

C - Instruments with this rating are considered to have very high risk of default regarding timely servicing of financial obligations.

D - Instruments with this rating are in default or are expected to be in default soon.

Modifiers {"+" (plus) / "-"(minus)} can be used with the rating symbols for the categories AA to C. The modifiers reflect the comparative standing within the category.

Rating symbols should have the Credit Rating Agency's (CRA) first name as prefix (SEBI Circular of 15/06/11). For instance, the rating may be CRISIL AAA or ICRA A or CARE BBB+.

For a Bond with 5 year maturity, the concerned CRA has to maintain surveillance and review the rating regularly over the entire period.

Commercial Papers (CPs) are Short Term Debt Instruments with original maturity of up to one year. CPs can be issued by companies satisfying certain requirements and can have the following ratings:

A1 – Instruments with this rating are considered to have very strong degree of safety regarding timely payment of financial obligations. Such instruments carry lowest credit risk.

A2 - Instruments with this rating are considered to have strong degree of safety regarding timely payment of financial obligations. Such instruments carry low credit risk.

A3 - Instruments with this rating are considered to have moderate degree of safety regarding timely payment of financial obligations. Such instruments carry higher credit risk as compared to instruments rated in the two higher categories.

A4- Instruments with this rating are considered to have minimal degree of safety regarding timely payment of financial obligations. Such instruments carry very high credit risk and are susceptible to default.

D - Instruments with this rating are in default or expected to be in default on maturity.

Modifier {"+" (plus)} can be used with the rating symbols for the categories A1 to A4. The modifier reflects the comparative standing within the category.

For Short Term Ratings too, Rating Symbols should have CRA's first name as prefix.
According to the latest guidelines issued by RBI, the regulator for the Money Market, eligible participants/issuers shall have to obtain credit rating for issuance of CP from any one of the SEBI registered Credit Rating Agencies (CRAs). The minimum credit rating has to be 'A3' as per rating symbol and definition prescribed by SEBI in order that the company may go ahead with the issue of CPs (RBI Master Circular, 01/07/2015). The issuer has to ensure at the time of issuance of the CP that the rating so obtained is current and has not fallen due for review.

However, in a bid to facilitate development of a vibrant primary market for corporate bonds in India, the Securities and Exchange Board of India (SEBI) has allowed (SEBI Circular, 03/12/2007) corporates to issue even bonds that are rated below the investment grade, popularly termed as junk bonds, to the public to suit the risk/return appetite of investors. "In a disclosure-based regime, it should be left to the investor to decide whether or not to invest in a non-investment grade debt instrument," SEBI felt and implemented. Earlier, SEBI Guidelines required that the debt instruments proposed to be issued through a public/rights issue should be at least of investment grade, i.e. BBB. Moreover, SEBI also required earlier that at least 2 ratings be obtained by an issuer company for issue sizes above a threshold. At present, rating from any one SEBI registered rating agency would suffice. However, where credit ratings are obtained from more than one credit rating agency, all the ratings, including the unaccepted ones, need to be disclosed in the offer document. At the same time, SEBI has tweaked the regulation so that every public or rights issue of debt instruments now requires to be compulsorily rated by a SEBI registered Credit Rating Agency irrespective of the maturity/conversion period of the instruments, as against 18 months or more earlier.

Moreover, the much maligned (due to huge losses of AIG during the Global Financial Crisis) Credit Default Swap (CDS) was put to use in India in 2012, with two deals covering 100 million rupees ($1.9 million) worth of bonds. The deals, both 1-year trades, were between ICICI Bank and IDBI Bank (underwriter), at 90 basis points and covered 50 million rupees each of 10-year bonds issued by Rural Electrification Corp (REC) and India Railway Finance Corp. RBI has since then allowed banks to begin hedging their banking and trading books using CDS, signaling that the infrastructure is finally in place for the launch of the instruments in Asia's fourth biggest bond market. However, in recent times, there have not been many such deals.

It should be clearly understood that rating in India is of the instruments to be issued and not of the issuer company. A Debt Instrument like a Bond is supposed to fetch for the investor, over the life of the instrument, periodical coupon payments (unless a zero coupon instrument) and redemption pay-outs (unless fully convertible). The rating is supposed to reflect the chances of such payments taking place on the respective due dates. This is arrived at basically by looking at the estimated overall annual cash flows of the issuer company over the life of the instrument and its total annual payment/repayment obligations during the same period. This is reflected by what is known as the Debt Service Coverage Ratio (DSCR). DSCR basically estimates the number of times the annual payment obligations of the issuer is covered by its annual cash accrual and is worked out by dividing the Annual Cash Accrual of the issuer by its Annual Payment Obligations. Higher this ratio, higher is the chance for the scheduled payments by the issuer and better is the rating of the instrument. Thus, by ensuring an escrow mechanism or any special arrangement, the rating of a particular instrument may be enhanced. A few such mechanisms for Credit Enhancement are enumerated below.

- Guarantee including Sovereign Guarantee (Guarantor may, in turn, require underlying Escrow Mechanism for his protection)
- Letter of Comfort
- Escrow Mechanism (e.g. Power Purchase Agreement (PPA), Escrow Mechanism along with matching agreements for Fuel (Coal) Supply and Railway Rake Allocation etc.)
- Tranching – Senior and Subordinated Debts with different Return and Risk Profiles

The ratings of the debt instruments in such cases carry the additional mark (SO). For instance a Bond issued with such structuring may have a rating of say ICRA – A (SO), where SO stands for Structured Obligations.

In terms of its circular dated 06/01/2010, SEBI requires an internal audit to be conducted on a half yearly basis by practicing professionals who do not have any conflict of interest with the CRA. The audit is supposed to cover all aspects of CRA's operations and procedures, including investor grievance redressal mechanism, adherence to the guidelines issued by SEBI from time to time and also to comment on the adequacy of systems adopted by the CRA for compliance with various requirements.

The report has to cover the methodology adopted, deficiencies observed, and consideration of response of the management on the deficiencies. It should include, inter alia, the number of instances where violations / deviations were observed while making observations on the compliance of any regulatory requirement. In effect, the primary responsibility for keeping a check on the credibility of the rating exercise has been passed on to the auditor.

Need for a fresh benchmarking

As we have already seen, it has been customary so far to treat the return on government securities as the risk free rate and add to it a suitable risk premium in order to work out the expected return on any given instrument. But, it would be impossible to convince any investor or analyst to accept the Greek or Cyprus government securities as risk free today. In the situation, it would be necessary to rewrite the equation for return (as per Capital Asset Pricing Model - CAPM) by attaching a suitable risk to the government securities. Then, the rate of return for any financial instrument would be the rate for the corresponding government security plus a premium commensurate with the additional risk (over and above the risk of the government security) associated with the instrument. The return for the corresponding government security in turn would reflect the influence of the sovereign rating.

Alternatively, the return on the government security can be expressed as an "absolute" risk free rate (say, that for the country with the best sovereign rating) plus the sovereign risk premium. This will introduce a new benchmark rate and also an explicit dependence of the rate of return on the sovereign rating. This approach may turn out to be more useful in view of a recent study by Fernandez et al (SSRN-id2684740) showing that there is huge dispersion of both the Risk-Free Rate and Market Risk Premium used by analysts in USA and Europe in 2015.

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