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Subscription Information: Global Vistas (ISSN 0975-2110) is a biannual publication.
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Impact of Inventory Management on the Profitability of Listed Cement Companies in Tanzania

Srinivas Madishetti*

Abstract

This study analyses the impact of inventory management efficiency on profitability of Listed cement Companies in Dar es Salaam Stock Exchange (DSE) of Tanzania on the basis of 8 years (from 2006 to 2013) data of all the two DSE listed companies viz; Tanga Cement Company Ltd (TCCL) and Portland Cement Company Ltd (PLCCL) by applying descriptive statistics, correlation and OLS regression. Inventory Turnover In Days (ITID) is taken as independent variable. Current Ratio (CR), size of the firm (measured in terms of natural logarithm of sales, CSLn) has been used as control variables. Log Gross operating income is taken as dependent variable (GOPLn). As per the descriptive analysis, the performance of TPCCL is comparatively better in the case of CR when compared to industry and also TCCL. The performance of TCCL is comparatively better in the case of ITID. Industry correlations between ITID, CSLn and GOP are significant and are in required direction. The regression analysis results showed that there is a positive relationship between INTID and profitability which is against expectation. It can be concluded that there is ample scope for both the companies to invest efforts for improving the impact of ITID on profitability investigating about causes for positive relationship between both variables.

I. Introduction:

The investment in any business, especially corporate sector, broadly can be classified as investment for creating capacities in the form of noncurrent assets/fixed capital and investment for making use of such created capacities efficiently in the form of current assets/working capital. Both aim at maximizing profitability. In this endeavor working capital plays a pivotal role in making use of the created capacities for getting output and channelizing the same for consumers to generate profitability. Business viability, profitability, growth and prosperity are closely associated with efficiency in managing the working capital. The objective of Working Capital Management (WCM) is to maintain the optimum balance of each of components of working capital viz; receivables, inventory and payables and using the cash efficiently for day-to-day operations. Optimization of working capital balance means minimizing the investment in working capital and realizing maximum possible revenues. Efficient WCM increases firms’ free cash flow, which in turn increases the firms’ growth opportunities and return to shareholders.

Working capital is the difference between resources in cash or readily convertible into cash and organizational commitments for which cash will soon be required. It includes all current assets like inventories, receivables, short securities and current liabilities like trade payables and short term commitments. Considerable managerial time and efficiency is required in managing components of working capital because of the very nature of convertibility of Current assets into different forms continuously over a period of operating cycle. They need to be converted from cash to all inputs like material, work in process, finished goods, and receivables and finally cash. Similarly current liabilities are to be honored on time for which efforts are required to maintain sufficient liquidity. This necessitates continuous involvement of management not only for making decisions but also for their effective execution. Taking the conversion efficiencies of all the working capital components and managerial philosophy and industry nature into consideration, the management has to plan the amount of investment in WC. Over- investment in working capital creates idle capital without any benefit and under- investment may keep the firms credit worthiness at stake.
Among the three prime components of working capital, inventory plays a significant role in impacting profitability. The relationship between ability of efficient Inventory management and profitability varies across different industries due to their nature, economic and business environments of countries and approaches followed by the managements. Firms in an industry that has less competition, more suppliers of inventory, continuous supply of inputs would focus on minimizing the investment in inventory compared to firms where competition is high input availability is scarce and very few suppliers are available.

Similarly efficient management of Inventory is closely associated with terms of purchase, purchase quantity decisions taking into account the nature of inputs and terms of purchase, ability of converting inventory into sales and finally into cash and deciding optimum investment in inventories. Over investment may lead to outdated inventory and cause losses and under inventory may lead to shortage and breakdowns in continuous activity. The relationship between ITID and profits indicate the efficiency of management in managing inventories.

II. An overview of Tanzania and cement industry:

**An Overview of Tanzania**

Tanzania is located in eastern Africa bordering the Indian Ocean, between Kenya and Mozambique. Other neighboring countries include: Burundi, Democratic Republic of the Congo, Malawi, Rwanda, Uganda and Zambia. The country encloses an area of 947,300 square kilometers with a coastline of 1424 kilometers and is a home of some of the world’s greatest landmarks The Kilimanjaro – which is the highest mountain in Africa standing at 5895 meters above sea level, Lake Victoria – the world’s second largest freshwater lake and Lake Tanganyika – The world’s second deepest lake. Tanzania is also known for a variety of wildlife with over fifteen national parks and game reserves around the country. In addition to all this, the country has abundant supplies of natural resources which include gold, diamonds, coal, natural gas and a wide variety of gemstones. Population wise Tanzania is home to around 41.05 million among which 21.23 million (2009 estimated) are considered to be labor force. All this makes Tanzania one of the world’s wealthiest nations from a biological point of view. (CIA World fact book). Despite all this wealth, Tanzania is ranked as one of the world’s poorest countries as its population below poverty line was at a record high of 36% (2002 est.), the estimated GDP per capita in 2009 was USD 1400, which is absolutely trivial compared to that of the other member country South Africa which was USD 10,100 in the same year. (CIA Fact book).

**Cement industry in Tanzania**

Tanzania, as a developing country, committed for undertaking planned activities for its economic development relying on the philosophy of Liberalization Privatization and Globalization. As a part of this program it has included in priority for infrastructure development such as roads, bridges, factories, projects, housing, universities etc. which necessitates basic inputs like iron and steel, cement. The cement makers operating in the country include Tanzania Portland Cement Company Ltd(TPCCL), which is 69.3 per cent owned by a subsidiary of Germany’s Heidelberg Cement AG; Tang Cement Company Ltd( TCC), 62.5 per cent owned by Afrisam Mauritius Investment Holdings Limited; and Mbeya Cement, 62.76 per cent owned by France’s Lafarge SA. Lake Cement and Lee Cement Factory are two latest entrants in Tanzania’s cement manufacturing and marketing sector with their core products under brand names of Nyati cement and Kilwa cement respectively. Tanzania expects to double its cement output over the next few years according to a report by the Daily News. The news agency reported that Tanzanian Deputy Minister for Industry and Trade, Janet Mbene expects the country’s annual cement production to rise to 6 million tons with the future opening of seven new factories. According to the article, cement consumption is viewed as a barometer for construction activity, which is one of the main drivers of economic growth in the country. Tanzania’s cement output rose by 18.9% last year, to slightly above 3 million tons on the back of higher demand. Mbene said the rise in output would mean Tanzania would produce a surplus to be exported (Infrastructure News, internet source).

Out of all the companies existing today only two companies are public companies registered in Dar es Salaam Stock Exchange and remaining are private companies. Further, from those private companies, two
companies started their activity in the last year. Hence, this study is confined to two listed companies only.

III. Purpose of this study:
The main purpose of this study is to study the impact of managerial efficiency in Inventory management on profitability of under researched cement industry in Tanzania. The specific objectives of the study include:

i. To find the impact of Inventory turnover in days on profitability

ii. To find the impact of size on the profitability of Cement companies in Tanzania.

The subsequent aspects deal with the review of the empirical literature, methodology in terms of sample size, data source, variables used, measurement of variables and estimation techniques. It also presents analysis and results of the study, conclusion and suggestion for improvement.

IV. Review of Literature:
The reviewed literature along with findings on the relationship between measures of working capital efficiency and profitability is presented below:

- Deloof (2003) in his paper, “Does Working Capital Management Affect Profitability of Belgian Firms?” using correlation and regression tests apart from other variables of working capital, found a significant negative relationship between gross operating income and inventories. On the basis of these results he suggested that managers could create value for their shareholders by reducing the number of days’ inventories to a reasonable minimum.

- Ioannis Lazaridis, and Dbyntrios Ttryfonidis (2006) in their research work “Relationship Between Working Capital Management and Profitability of Listed Companies in the Athens Stock Exchange” investigated the relationship of corporate profitability and working capital management using a sample of 131 companies listed in the Athens Stock Exchange (ASE) for the period of 2001-2004 to establish a relationship that is statistically significant between profitability, the cash conversion cycle and its components. The results of the research showed that there is statistical significance between profitability, measured through gross operating profit, and the inventory management.

- Kesseven Padachi in his paper (2006) “Trends in Working Capital Management and its Impact on Firms’ Performance: An Analysis of Mauritian Small Manufacturing Firms” examined the trends in working capital management and its impact on firms’ performance. The trends in working capital needs and profitability of firms are examined to identify the causes for any significant differences between the industries. The dependent variable, return on total assets is used as a measure of profitability and the relation between working capital management and corporate profitability is investigated for a sample of 58 small manufacturing firms, using panel data analysis for the period 1998–2003. The regression results show that high investment in inventories and receivables is associated with lower profitability.

- Abdul Raheman and Mohamed Nasr (2007) in their paper “Working Capital Management And Profitability – Case Of Pakistani Firms” studied the effect of different variables of working capital management including the Average collection period, Inventory turnover in days, Average payment period, Cash conversion cycle and Current ratio on the Net operating profitability of 94 Pakistani firms listed on Karachi Stock Exchange for a period of 6 years from 1999 – 2004. Debt ratio, size of the firm (measured in terms of natural logarithm of sales) and financial assets to total assets ratio have been used as control variables. Pearson’s correlation, and regression analysis (Pooled least square and general least square with cross section weight models) are used for analysis. The results show that there is a strong negative relationship between variables of the working capital management including inventory turnover in days and profitability of the firm.

- Vedavinayagam Ganesan (2007) in his study “An Analysis of Working Capital Management Efficiency in Telecommunication Equipment Industry” analyzed the relationship between working capital management efficiency and profitability using correlation and regression analyses. ANOVA analysis is done to study the impact of working capital management on
profitability. Using a sample of 443 annual financial statements of 349 telecommunication equipment companies covering the period 2001-2007, this study found evidence that even though “days working capital” including inventory is negatively related to the profitability, it is not significantly impacting the profitability of firms in telecommunication equipment industry.

- Ghosh and Maji (2003) in their paper made an attempt to examine the efficiency of working capital management of the Indian cement companies during 1992 – 1993 to 2001 – 2002. For measuring the efficiency of working capital management, performance, utilization, and overall efficiency indices were calculated instead of using some common working capital management ratios. Setting industry norms as target-efficiency levels of the individual firms, this paper also tested the speed of achieving the target level of efficiency by an individual firm during the period of study. Findings of the study indicated that the Indian Cement Industry as a whole did not perform remarkably well during this period.

- Sushma Vishnani and Bhupesh Kr. Shah (2007) made a pragmatic analysis of Indian Consumer Electronics Industry to determine the impact of working capital policies & practices on profitability for the period 1994–95 to 2004–05. They found a negative relationship between the determinants of WCM including Inventory turnover in days and profitability for most of the companies in their sample. The same results were also confirmed in their industry-wide analyses.

- Pedro Juan García-Teruel and Pedro Martínez-Solano (2007) were probably the first to make an experimental analysis about the effects of WCM on the Profitability of Small and Medium Enterprises. In their article, “Effects of Working Capital Management on SME Profitability”, they took a sample of 8,872 small and medium-sized Spanish firms for the period 1996-2002 for the purpose of constructing an empirical relationship between WCM and profitability. Their correlation analyses displayed a very significant negative relationship between the Return on Assets and number of days inventory apart from other working capital components.

- Malaysian authors Zariyawati (et al, 2009) also endeavored to investigate the relationship between corporate profitability and working capital management of firms in six different Economic Sectors of the Malaysian Industry. The justification they had to conduct the study was that most of the previous studies, in their opinion, focused on large and/or developed markets. Thus reinvestigating the issue in the emerging markets of Malaysia could provide further insight on the impact of working capital management on profitability. Their results also were indicative of a strong and significant negative association between the two variables of study.

- An attempt to explore the relationship between the variables of Working Capital Management and Profitability was made by Haitham Nobanee and Maryam AlHaja(2009). Their analysis was based on a sample containing 2123 Japanese non-financial firms listed in the Tokyo Stock Exchange for the period from 1990 to 2004. The authors, after analyzing the results, suggested that Japanese firms should focus on shortening their Inventory Conversion Period apart from Receivables Conversion Period and Cash Conversion Cycle to enhance profitability.

- The impact of working capital management on profitability was also observed by Cote and Latham (1999) who discovered that management of inventory, receivables and payables had a direct influence on a company’s Cash Flows which could ultimately affect its profitability.

The foregoing review reveals that in most of the studies negative relationship is found between Inventory turnover in days and profitability of the companies. Further studies on the impact of INTID on profitability of cement companies are peripheral specially in Tanzania. With regard to dependent variable (profitability) different proxies like ROA, ROE, EBIT, GOP are used. Some studies used control or intervening variables like CR, Debt ratio, company sales. Taking these review as the base the independent variable is taken as INTID and Log GOP is taken as dependent variable because the efficiency of Working capital reflects primarily in gross operating profit and it excludes the effects of overhead costs.
V. Methodology:

The research primarily aims at identifying the relation between efficiency in inventory management of cement companies registered in DSE of Tanzania and Gross operating profit. For the purpose, in this section, the data set and sample, variables used and their measurement, expected relationship of independent variables with dependent variable, hypotheses, model specification and data analysis tools are discussed.

Data Set & Sample

The data used in this study was acquired from annual reports of the two cement companies listed in DSE of Tanzania by browsing the websites of the concerned companies. The period covered by the study extends to most recent 8 years from 1996 to 2013. The confinement to this period is due to limitation of availability of annual reports and other related information. Out of five cement companies existing in Tanzania only two companies are listed in DSE and remaining are in private sector. Among three companies in private sector two companies started their operation in the last year only. Availability of data of private companies is another limitation which necessitated confining to listed companies. Finally, from the annual reports, the data was collected relating to required variables of this study and relevant ratios were computed.

Variables

The choice of variables used in this study is influenced by the previous studies on components working capital management and its effect on profitability. One independent variable, two control variables and one dependent variable are used in this study. In this study, Log of Gross operating profit is taken as dependent variable because it will not have the effect of overheads and also the impact of managerial efficiency in working capital will be on gross profit and subsequently on other aspects.

Inventory Turnover In Days (ITID))

ITID is used as proxy for the efficiency of the management in utilizing amount invested on inventories and it is considered as an independent variable. It is calculated dividing inventory by cost of goods sold and multiplying with 365 days.

Current Ratio (CR)

CR which is a traditional measure of liquidity is calculated by dividing current assets by current liabilities. It is used as control variable because the GOP is affected by this proportion.

Natural logarithm of Company Sales (CSLn)

CSLn is used as proxy for size of the company. It is taken as control variable because the profitability of the company is also affected by this variable apart from the efficiency of working capital management. Many studies have also applied Debt ratio as control variable. Since the companies used in the study have meager long term debt that too not continuously this ratio is not taken into account.

Key variables and their expected impact on GOP

The variables used in this study along with their expected impact on gross operating profit are presented in the following table:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable type</th>
<th>Expected coefficient sign</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory Turnover</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In Days (ITID)</td>
<td>Independent variable</td>
<td>negative</td>
<td>ITID↑GOP</td>
</tr>
<tr>
<td>Company Size (CS)</td>
<td>Control variable</td>
<td>Positive</td>
<td>CS GOP</td>
</tr>
<tr>
<td>Current Ratio(CR)</td>
<td>Control variable</td>
<td>Positive</td>
<td>CR GOP</td>
</tr>
</tbody>
</table>

Source: prepared on the basis of review of literature
VI. Hypotheses Testing:

Since the objective of this study is to examine the relationship between profitability and working capital management, the study makes a set of testable hypothesis (the Null Hypotheses H0 versus the Alternative ones H1).

**Hypothesis 1**

H01 : There is no relationship between efficiency in Inventory management and profitability of Listed Cement Companies in DSE of Tanzania.

H11: There is a possible positive relationship between efficiency in inventory management and profitability of listed cement companies of Tanzania. Firms more efficient in managing their inventory are expected to pose high level of profitability and vice versa.

**Hypothesis 2**

H02: There is no relationship between size of listed cement companies of Tanzania and profitability.

H12: There is a positive relationship between the firm size and its profitability. This may be due to the ability of large firms to reduce liquidity levels and cash gaps.

**Model Specifications**

The following OLS multiple regression model is applied in this study to test the relationship between ITID and GOPLn.

\[ \text{GOPLn}_{it} = \beta_0 + \beta_1 (\text{ITID}_{it}) + \beta_2 (\text{CR}_{it}) + 2 \beta_3 (\text{COSLn}_{it}) + \epsilon \]

Where:
- \( \text{GOPLn} \) : Log of Gross Operating Profit
- \( \text{ITID} \) : Inventory Turnover in Days’
- \( \text{COSLn} \) : Natural logarithm of company Sales
- \( \epsilon \) : The error term.

**Analysis Used in the Study**

Two types of data analysis viz; descriptive and quantitative is applied in this study.

**Descriptive Analysis**

Range, minimum and maximum, average and standard deviations of all the variables applied in this study are calculated using SPSS and analyzed as first step to understand the nature of the variables.

**Quantitative Analysis**

In this analysis Pearson’s correlation is applied to measure the degree of association between different variables under consideration followed by Regression analysis to estimate the causal relationships between profitability variable and other chosen variables.

**VII: Data analysis and findings:**

The following sections deal with analysis of data based on descriptive statistics, correlations and OLS regression.

**Descriptive analysis**

The range, minimum, maximum, mean and standard deviation of the variables used in this study for TCCL, PLCCL and industry are calculated and presented in table 2.

**Table 2: Descriptive Statistics of DSE Registered Cement Companies Selected Variables (2006-2013)**

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>COMPANY</th>
<th>N</th>
<th>RANGE</th>
<th>MINIMUM</th>
<th>MAXIMUM</th>
<th>MEAN</th>
<th>STD.DEVIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOPLn</td>
<td>TCCL</td>
<td>8</td>
<td>0.7297</td>
<td>24.1788</td>
<td>24.9085</td>
<td>24.6686</td>
<td>.23870</td>
</tr>
<tr>
<td></td>
<td>PLCCL</td>
<td>8</td>
<td>1.0459</td>
<td>24.4847</td>
<td>25.5306</td>
<td>25.0927</td>
<td>.34650</td>
</tr>
<tr>
<td></td>
<td>INDUSTRY</td>
<td>16</td>
<td>1.3518</td>
<td>24.1788</td>
<td>25.5306</td>
<td>24.8806</td>
<td>.35874</td>
</tr>
<tr>
<td>ITID(days)</td>
<td>TCCL</td>
<td>8</td>
<td>35.8696</td>
<td>73.6849</td>
<td>109.5545</td>
<td>90.7197</td>
<td>12.6681</td>
</tr>
<tr>
<td></td>
<td>PLCCL</td>
<td>8</td>
<td>41.8828</td>
<td>93.2558</td>
<td>135.1386</td>
<td>114.2499</td>
<td>17.9146</td>
</tr>
<tr>
<td></td>
<td>INDUSTRY</td>
<td>16</td>
<td>61.4537</td>
<td>73.6849</td>
<td>135.1386</td>
<td>102.4843</td>
<td>19.2945</td>
</tr>
<tr>
<td>CR</td>
<td>TCCL</td>
<td>8</td>
<td>2.5969</td>
<td>1.4049</td>
<td>4.0018</td>
<td>2.6351</td>
<td>.87561</td>
</tr>
<tr>
<td></td>
<td>PLCCL</td>
<td>8</td>
<td>4.9527</td>
<td>0.9052</td>
<td>5.8579</td>
<td>2.9976</td>
<td>1.4816</td>
</tr>
<tr>
<td></td>
<td>INDUSTRY</td>
<td>16</td>
<td>4.9527</td>
<td>0.9052</td>
<td>5.8579</td>
<td>2.8163</td>
<td>1.1905</td>
</tr>
<tr>
<td>COSLn</td>
<td>TCCL</td>
<td>8</td>
<td>.9200</td>
<td>25.0800</td>
<td>26.0000</td>
<td>25.6050</td>
<td>.3229</td>
</tr>
<tr>
<td></td>
<td>PLCCL</td>
<td>8</td>
<td>1.1300</td>
<td>25.1100</td>
<td>26.2400</td>
<td>25.8387</td>
<td>.3744</td>
</tr>
<tr>
<td></td>
<td>INDUSTRY</td>
<td>16</td>
<td>1.1600</td>
<td>25.0800</td>
<td>26.2400</td>
<td>25.7219</td>
<td>.3587</td>
</tr>
</tbody>
</table>

Source: compiled on the basis of annual reports of the companies from 2006 to 2013
The following observations can be made from the table:

- The ITID of TCCL ranges between 73.68 and 109.55 days with average of 90.72 days and Standard Deviation of 12.66 days. As against this the ITID of PLCCL ranges between 93.26 and 135.14 days with average of 114.25 days and Standard Deviation of 17.91 days. Comparatively TCCL is utilizing inventory effectively as its minimum and maximum range, average and Standard Deviation are less than PLCCL as well as industry.

- The average CR of PLCCL is 2.997 which is comparatively higher than TCCL (2.64) and industry (2.816) average. Its Standard Deviation is lowest compared to TCCL and industry.

On the basis of above analysis it can be concluded that PLCCL performance is comparatively effective in the case of CR and TCCL performance is comparatively better in the case of ITID.

**Correlation analysis**

Pearson’s Correlation analysis is applied to identify the relationship between INTID management and profitability. In efficient working capital management, the relationship between INTID and GOP is expected to be negative. This is so because as there is decrease in the time lag between expenditure for purchases of raw material and the collection of sales of finished goods working capital is considered as used more effectively to generate more sales consequently increasing profitability. The correlations between variables are presented in Table 3.

### Table 3: Correlation of the Study Variables

<table>
<thead>
<tr>
<th>RATIO</th>
<th>COMPANY</th>
<th>COR</th>
<th>CSLN</th>
<th>.910</th>
<th>.002</th>
<th>-.130</th>
<th>.581</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSLN</td>
<td>TCCL</td>
<td>COR</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SIG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PLCCL</td>
<td>COR</td>
<td>1</td>
<td>.896</td>
<td>.003</td>
<td>.415</td>
<td>.378</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>INDUSTRY</td>
<td>COR</td>
<td>1</td>
<td>.893</td>
<td>.000</td>
<td>.364</td>
<td>.004</td>
</tr>
<tr>
<td></td>
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<td>SIG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GOPLn</td>
<td>TCCL</td>
<td>COR</td>
<td>.910</td>
<td>.002</td>
<td></td>
<td>.140</td>
<td>.450</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SIG</td>
<td></td>
<td></td>
<td></td>
<td>.742</td>
<td>.264</td>
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<tr>
<td></td>
<td>PLCCL</td>
<td>COR</td>
<td>.937</td>
<td>.001</td>
<td></td>
<td>.293</td>
<td>-.301</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SIG</td>
<td></td>
<td></td>
<td></td>
<td>.481</td>
<td>.468</td>
</tr>
<tr>
<td></td>
<td>INDUSTRY</td>
<td>COR</td>
<td>.893</td>
<td>.000</td>
<td></td>
<td>.533</td>
<td>.032</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SIG</td>
<td></td>
<td></td>
<td></td>
<td>.033</td>
<td>.905</td>
</tr>
<tr>
<td>ITID</td>
<td>TCCL</td>
<td>COR</td>
<td>-.130</td>
<td>.759</td>
<td>.140</td>
<td>.742</td>
<td>-.553</td>
</tr>
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<tr>
<td></td>
<td>PLCCL</td>
<td>COR</td>
<td>.415</td>
<td>.307</td>
<td>.293</td>
<td>.481</td>
<td>.406</td>
</tr>
<tr>
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</tr>
<tr>
<td></td>
<td>INDUSTRY</td>
<td>COR</td>
<td>.364</td>
<td>.166</td>
<td>.533</td>
<td>.033</td>
<td>.193</td>
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</tr>
<tr>
<td>CR</td>
<td>TCCL</td>
<td>COR</td>
<td>.581</td>
<td>.131</td>
<td>.450</td>
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<tr>
<td></td>
<td>PLCCL</td>
<td>COR</td>
<td>-.378</td>
<td>.356</td>
<td>-.301</td>
<td>.406</td>
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<td>SIG</td>
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</tr>
<tr>
<td></td>
<td>INDUSTRY</td>
<td>COR</td>
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<td>.990</td>
<td>.032</td>
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<td></td>
<td>SIG</td>
<td></td>
<td></td>
<td>.905</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: compiled on the basis of data from annual reports of the concerned companies.
The following observations can be made from the analysis of the information contained in the table.

- The correlation between ITID and GOP of TCCL, PLCCL and Industry are showing positive coefficients as against expectation (.140; .293 and .533 respectively), but not significant at \( p = 1\% \) \((p value .742 and .481)\). However the correlation of the industry in this regard is significant at \( p = 1\% \) \((.033)\). These results indicate that the relationship of both companies and the industry is not as expected.

- The correlation between CR and GOP of TCCL and Industry are showing positive coefficients as expected (.450; .032 respectively) but not significant (.264; .905). The correlation of PLCCL is negative showing against expectation (.468)

- The correlation between CS and GOP is positive in both companies and also Industry (.910; .937 and .893) the relationships are significant in all the three at \( p = 1\% \) (.002; .001 and .000)

The above analysis showed mixed results. The relationship between INTID and GOPLn is positive against the expectation for both companies and industry. The correlation between CS and GOPLn is positive as expected.

Regression analysis

OLS multiple regression analysis was done for GOPLn with CR, CSLn and ITID to investigate further, the association between the inventory management efficiency measures and the profitability measures. In this model GOPLn is taken as dependent variable and ITID is taken as independent variables and CSLn, CR are taken as intervening variables. All the variables are accepted by the model. The adjusted \( R^2 \), also called the coefficient of multiple determinations, which is the percent of the variance in the dependent variable explained uniquely or jointly by the independent variables, is 79.9%. The F statistic is used to test the significance of \( R \). Overall the model is significant as F-statistics is 20.858 (Critical values of F for the 0.05 significance level 3.37 with df1 6 and df2 9.) and the significance of F change is .000. Further the Durbin Watson test is 0.958 which is within the limits (0.502-2.388). The Durbin-Watson statistic ranges in value from 0 to 4. A value near 2 indicates non-autocorrelation; a value towards 0 indicates positive autocorrelation; a value toward 4 indicates negative autocorrelation. The VIF of all other variables are below 10. Hence this model is considered as significant. The
The C is the constant, where the regression line intercepts the Y axis, representing the amount of the dependent Y will be when all the independent variables are 0. Here C is 24.582. The following observations can be made from the analysis of regression coefficient table:

- The coefficient of INTID is positive (.004) which is against the expectation indicating that increase in this ratio also increases GOP and vice versa. However it is not significant at $\alpha = 0.05\% (.165)$.
- The coefficient of current ratio is negative (.025) with GOP indicating decrease in this ratio, increases GOP and vice versa. It is not as expected but not significant at $\alpha = 0.05\% (.503)$.
- The company sales coefficient positively vary with GOP (.295) indicating increase in sales increases GOP. The relationship is significant at $\alpha = 0.05\% (.000)$

### VIII: Conclusions and suggestions:

As per the descriptive analysis, the performance of TPCCL is comparatively better in the case of CR when compared to industry and also TCCL. The performance of TCCL is comparatively better in the case of ITRID. The correlation analysis showed mixed results. Most of the relationships between independent variables and dependent variable are as expected but not significant. Industry correlations between ITRID, CSLn and GOP are significant and are in the required direction. The regression analysis results present that the impact of ITID on GOP is positive against the expectation.

On the basis of above results with regards to first hypotheses it can be concluded that the performance of TPCCL, TCCL and industry in inventory management in terms of its impact on profitability is positive which is against expectation; hence it needs the attention of the companies. It is also the area for further probe. It indicates that increase in the inventory conversion period causes an increase in the profitability of the listed cement companies. This may be due to scarcity in availability of inventory or price level changes which needs further research.

With regard to second hypothesis, the study results endorsed that there existed a positive relationship between the firm size and its profitability as the increase in sales resulted significant increase in GOP. This may be due to the ability of firms to reduce liquidity levels and cash gaps.

In view of positive relationship between ITID and GOP it can be suggested that there is ample scope for both the companies to invest their efforts to investigate the causes for such undesired results and take measures for improvement.

### XI. References:


Determinants of Profitability: Evidence From Indian Microfinance Institutions

Dharmendra S. Mistry*

Abstract

Throughout the world, financial sustainability of microfinance institutions has been one of the issues that has recently captured the attention of many researchers due to its importance in the livelihood of microfinance institutions. The present study is an attempt to examine the association between determinants of profitability (such as operating expenses ratio, write off ratio and debt equity ratio) and the profitability (Return on equity) of the selected microfinance institutions in India. The study’s findings lead to the conclusion stating that the operating expense ratio, write off ratio and debt equity ratio are the statistically significant predictor variables in determining return on equity in selected MFIs in India.

I. Introduction:

Evolution of Microfinance institutions, as an economic development tool, was with an intention to benefit low income people. The goals of microfinance institutions as development organizations are to service the financial needs of unserved or underserved markets as a means of meeting development objectives such as to create employment, reduce poverty, help existing business grow or diversify their activities, empower women or other disadvantaged population groups, and encourage the development of new business (Ledgerwood, 1999). However, the positive impacts of microfinance institutions on the socio-economic welfare of the poor can only be sustained if the institutions can achieve a good financial and outreach performance. Throughout the world, financial sustainability of microfinance institutions has been one of the issues that has recently captured the attention of many researchers due to its importance in the livelihood of microfinance institutions. The financial sustainability of microfinance institutions is an indispensable condition for institutional sustainability. Several studies have also been conducted, as well, to determine factors affecting the financial sustainability and profitability of MFIs using large and well developed MFIs in various countries. The level of significant of these factors in affecting the financial sustainability and profitability of MFIs, however, varies with studies. Some of the determinants are found to be significant in one economy or applicable to a set of MFIs, some are not significant (Cull, et al., 2007).

The present study is an attempt to examine the association between determinants of profitability (such as operating expenses ration, write off ratio and debt equity ratio) and the profitability (Return on equity) of the selected microfinance institutions in India. With a view to accomplish the objective of the study, and to measure the effect of determinants on profitability of the selected microfinance institutions, a linear regression model has been developed.

II. Literature Review:

The following literature has been reviewed for the current study:

- Ugur (2006) found that the deposits of microfinance institutions under the study also increased continually throughout the years suggesting that they were able to serve an increasing number of customers. Furthermore, they were able to make a more efficient use of their assets and equity, expressed through the increase in the ROAA and the ROAE.

- Asarf et al (2014) with an aim to analyze whether performance measures and their factors for microfinance institutions (MFIs) in Muslim

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countries are significantly different from those in their non-Muslim counterparts, found that country gross domestic product size was positively related with profitability, and the percentage of women borrowers was also significant in driving loan recovery and firm profitability in the other Islamic countries sample, but they were otherwise not significant for the rest of the world sample.

- Shakil & Tanweer (2014) found that better disclosure had a statistically significant positive impact on operational performance of MFIs; second, it also showed that improved financial performance results in better financial disclosure. Keeping the endogenous nature of the relationship between disclosure and performance, the paper used a three-stage least squares method to show that disclosure and financial performance positively affected each other simultaneously.

- Kyereboah-Coleman & Kofi (2008) found that governance played a critical role in the performance of MFIs and that the independence of the board and a clear separation of the positions of a CEO and board chairperson had a positive correlation with both performance measures.

- Dissanayake (2012) that the Cost per Borrower and Debt/Equity ratios were statistically significant predictor variables in determining return on equity in a MFIs.

- Kipesha & Zhang (2013) concluded that, the possibility of tradeoffs existed between outreach to the poor with profitability measures as compared to the outreach with financial sustainability. The presence of tradeoffs between financial performance and outreach to the poor also depended on the variables used and estimation model specification. Some variables which indicated the existence of tradeoffs under Welfarists views did not show such impact under Institutionalist views.

- Tehulu (2013) found that MFIs’ financial sustainability was positively and significantly driven by loans intensity and size. However, management inefficiency and portfolio at risk had a negative and significant impact on the financial sustainability. Breadth of outreach and deposit mobilization was not important determinants of financial sustainability. Thus, management inefficiency, portfolio at risk, loans intensity, and size were important determinants of microfinance institutions’ financial sustainability in East Africa.

- Kinde (2012) found that microfinance breadth of outreach, depth of outreach, dependency ratio and cost per borrower affected the financial sustainability of microfinance institutions in Ethiopia. However, the microfinance capital structure and staff productivity had insignificant impact on financial sustainability of MFIs in Ethiopia for the study periods.

- Anthony (2007) found that most of the microfinance institutions employed high leverage and financed their operations with long term as against short term debt. Also, highly leveraged microfinance institutions performed better by reaching out to more clientele, enjoyed scale economies, and therefore were better able to deal with moral hazard and adverse selection, enhancing their ability to deal with risk.

- Bhanot & Bapat (2015) found that the sustainability score for MFIs ranges from a maximum score of 0.80 to a minimum of 0.26. Gross loan portfolio, No. of borrower per staff member, portfolio at risk>30 days and return on assets, were significant contributors to sustainability scores of Indian MFIs.

- Dutta & Das (2014) indicated that in 2010-2011, the linear regression model seemed to be good fit to the data, whereas in 2011-2012 and 2012-2013, the appropriateness of the linear regression models seemed questionable (the error distribution seemed to be skewed). It was observed that square root of the dependent variable exhibited adequate fit for 2011 and 2012. Therefore, a substantial change in the model for estimating sustainability of Indian MFIs was observed in the post-AP crisis era. It was observed that portfolio quality and capital management were important determinants for the financial sustainability of the MFIs.
Siwar & Talib (2001) evaluated the performance of three MFIs, namely Amanah Ikhtiar Malaysia (AIM), Yayasan Usaha Maju (YUM) and Koperasi Kredit Rakyat (KKR). The paper provided a microfinance capacity assessment to identify the issues and constraints especially with respect to outreach, viability or sustainability, resource mobilisation, and policy environment.

From the above review of empirical works, it is clear that different authors have approached study of sustainability and profitability of microfinance institutions in different ways in varying levels of analysis. These different approaches helped in the emergence of more and more literature on the subject over time. It gives an idea on extensive and diverse works on sustainability and profitability of microfinance institutions. It has been noticed that the studies on sustainability and profitability of microfinance institutions in various aspects provide divergent results relating to the study period overlap or coincide. The main reason for divergence in the results is use of different method for the measurement of sustainability and profitability of microfinance institutions. All the studies aimed to analyze the sustainability and profitability of microfinance institutions in India & abroad with number of factors. The survey of the existing literature reveals that no specific work has been carried out to determine the profitability of the microfinance institutions in India. The present study is an attempt in this direction and therefore, aims to enrich the literature on sustainability and profitability of microfinance institutions.

III. Objective of the Study:

The present study aims to examine the association between determinants of profitability (such as operating expenses ration, write off ratio and debt equity ratio) and the profitability (Return on equity) of the selected microfinance institutions in India.

IV. Study Methodology:

Sample, Sampling Techniques and Geographical Coverage

Keeping in view the limitation of time, efforts and cost; it is not possible to study all the microfinance institutions of India. For the purpose of study; sample, using convenient sampling method, of eleven (11) out of twenty three (23) Indian microfinance institutions in Tier 1 (Tier 1 refers to big microfinance institutions in terms of size i.e. having client outreach of more than 2.5 lakhs) have been selected. The selected institutions for the study were:

1. Arman Financial Services Ltd.
2. CASHPOR Micro Credit
3. Equitas Micro Finance Pvt. Ltd.
4. ESAF Microfinance and Investments Pvt. Ltd.
5. Grameen Financial Services Pvt. Ltd.
6. L & T Finance Ltd.
7. Satin Creditcare Network Ltd.
8. SKS Microfinance Ltd.
10. Suryoday Microfinance Pvt. Ltd.
11. Ujjivan Financial Services Pvt. Ltd.

Hypothesis:

It is hypothesized for the study that there is no significant effect of determinants on the profitability of the selected microfinance institutions in India.

Period of the Study

The study has been undertaken for the period of five years (2009-2010 to 2013-14).

Source of Data

The study would be mainly based on secondary data. Secondary data would be collected from annual reports of the selected microfinance institutions under the study.

Variables

The study investigates the significant determinants of microfinance profitability in Indian microfinance institutions and their effect on the profitability. For the purpose, three (3) measures have been used as independent variables which were extracted from (Damain, et al., 2003) as mentioned below in Table 1.
Model

To measure the effect of determinants on profitability of the selected microfinance institutions, a linear regression model was developed as shown below in functional form:

\[ y = b_0 + b_1 x_1 + b_2 x_2 + \ldots + b_k x_k \quad \text{(1)} \]

Where, \( y \) - The Dependent Variable,

- Independent Variables

\( b_0, b_1, b_2, \ldots, b_k \) - The Regression Coefficients

\[ \text{ROE} = (b_0 + b_1 \text{OER} + b_2 \text{WOR} + b_3 \text{DER}) \quad \text{(2)} \]

Where, \( \text{ROE} \) - Return on Equity

\( \text{OER} \) - Operating Expenses Ratio

\( \text{WOR} \) - Written-off Ratio

\( \text{DER} \) - Debt-Equity Ratio

Hypotheses

With the help of literature in this area, the following hypothesis is stated below:

\( H_0 : \) there is no significant effect of determinants on the profitability of the selected microfinance institutions in India

\( H_1 : \) there is significant effect of determinants on the profitability of the selected microfinance institutions in India

V: Result and Analysis:

<table>
<thead>
<tr>
<th>Table 2 Correlation Matrix</th>
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</thead>
<tbody>
<tr>
<td>ROA</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>ROA</td>
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<tr>
<td>OER</td>
</tr>
<tr>
<td>WOR</td>
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<tr>
<td>DER</td>
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</tbody>
</table>
As revealed from Table 2, correlation analysis has been carried out to investigate the relationship between independent and dependent variables. From the correlation result, it is seen that the relationship between dependent and independent variables had been in accordance with the result predicted in Table 1. Both operating expenses ratio and write off ratio had negative correlation with return on equity which meant that that changes in predictor variables would negatively contribute towards the return on equity. As far as debt equity ratio was concerned, a strong positive correlation was found between debt equity ratio and return on equity ratio; which meant that debt equity ratio was statistically significant variable or had a strong influence on return on equity ratio under the analysis of correlation.

<table>
<thead>
<tr>
<th>Table .3</th>
<th>Model Summary</th>
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<tr>
<td><strong>R</strong></td>
<td><strong>R Squared</strong></td>
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<tr>
<td>0.738371</td>
<td>0.545192</td>
</tr>
</tbody>
</table>

The result of coefficient of determination as reflected in Table 3 indicates that 0.54 of the variation noticed in return on equity ratio can be explained by the independent variables. This means that about 46% of variations in return on equity ratio noticed among the selected micro finance institutions are accounted for by other factors not captured by the model. Similarly, the result on the Goodness of Fit test also complements the coefficient of determination result which indicates clearly that the value of the dependent variable can be explained or predicted by about 54% of the independent variables.

<table>
<thead>
<tr>
<th>Table .4</th>
<th>Annova Result</th>
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<tr>
<td><strong>Df</strong></td>
<td><strong>SS</strong></td>
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<tr>
<td>Regression</td>
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<tr>
<td>Residual</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
</tr>
</tbody>
</table>

However, the F-test result as presented in Table 4 indicates clearly that the model as specified explains the variations in the level of return on equity ratio. It in essence shows simultaneously that the independent variables altogether are associated with the dependent variable. As significance F is more than 0.05 at 5% significant level, there is no significant relationship between return on equity ratio and independent variables. Hence, null hypothesis is accepted and alternate hypothesis is rejected.

<table>
<thead>
<tr>
<th>Table .5</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coefficients</strong></td>
<td><strong>Standard Error</strong></td>
</tr>
<tr>
<td>Constant</td>
<td>0.086451</td>
</tr>
<tr>
<td>OER</td>
<td>-0.08238</td>
</tr>
<tr>
<td>WOR</td>
<td>-0.53246</td>
</tr>
<tr>
<td>DER</td>
<td>0.041341</td>
</tr>
</tbody>
</table>

Predictors: (Constant), Operating expenses ratio, Write off ratio, debt equity ratio
Dependent Variable: Return on equity
Confidence level: 95%
Consequently, a quick review of the regression analysis as depicted in Table 5 reveals that significant negative relationship existed between two independent variables i.e. the operating expenses ratio and write off ratio and return on equity ratio and hence changes in the operating expenses ratio and write off ratio would result into decrease in return on equity ratio of the selected microfinance institutions. It can be said that 1% change in Operating expense ratio and write off ratio would result into decrease of 0.08 and 0.53 in return on equity respectively. It is also revealed that a significant positive relationship existed between the debt equity ratio and return on equity ratio and hence change in debt equity ratio would have positive impact on return on equity of the selected microfinance institutions. It can be said that 1% change in debt equity ratio would result into increase of 0.04 in return on equity.

VI: Findings, Suggestions and Conclusion:

The study found that changes in predictor variables i.e. operating expenses ratio and write off ratio would negatively contribute towards the return on equity; while debt equity ratio was statistically significant variable or had a strong influence on return on equity ratio under the analysis of correlation. It is also seen from the result of coefficients that 1% change in Operating expense ratio and write off ratio would result into decrease in return on equity; while 1% change in debt equity ratio would result into increase in return on equity. From the coefficient of determination result, it is found that the value of the return on equity ratio can be explained or predicted by about 54% of the independent variables i.e. operating expenses ratio, write off ratio and debt equity ratio.

It is suggested that MFIs should control operational expenses to increase profitability and with a view to reduce costs, delegation of costs can be diminished via diversification; while to enhance operational efficiency, economic incentive schemes to staff productivity would be significant. It is also suggested with a view to bring institution’s commercial and social objectives into balance, MFIs should strive for cost effective operations. The emphasis on cost efficiency is in line with their social objectives, because increase in cost efficiency allows commensurate reduction in the interest rates. As it is seen from the study that write off ratio is a significant determinant of profitability, it is suggested that MFIs should also control write off ratio. From the present study, it is seen that Microfinance institutions that employ higher debt in their capital structure are more profitable, and highly leveraged microfinance institutions are more profitable. Besides, a higher debt ratio can enhance the rate of return on equity capital during good economic times. Hence, it is suggested that MFIs should maintain reasonable proportion of debt equity so as to maintain as well as increase profitability.

The study’s findings lead to the conclusion stating that the operating expense ratio, write off ratio and debt equity ratio are the statistically significant predictor variables in determining return on equity in selected MFIs in India.

VII: Further Scope for the Study:

The study is limited to the period of five years only, which can be extended. As it comprises of only three predictor variables; some more attributes can also be added. Comparative study among Tier I, II and III Indian MFIs can also be carried out since the present study focuses only on selected Tier I MFIs only.

References:


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*Timing, perseverance, and ten years of trying will eventually make you look like an overnight success.*

- Biz Stone

*So often people are working hard at the wrong thing.*

Working on the right thing is probably more important than working hard.

- Caterina Fake
Attitude of Academicians Towards Stock Markets: Awareness & Investment Pattern

Ajay Kumar Patel*
Parul Bhatia**

Abstract

Education is a significant constituent of Indian economy in today's time. The goal of this industry however differs from other areas in quality context. Its aim is to develop educated human resources which can be employed in various fields to increase the per capita income and thereby living standards of Indian citizens. The whole scenario however revolves around academicians who perform hard duty of converting students into employable learners.

Indian government is focusing on financial inclusion and calling the general public to be the stakeholder in the Indian economy. As an educated group, academician can surely evoke the new generation about the importance of investment. Academician surely has to have awareness about the benefits of different investment options available in the Indian financial market.

Academicians may select various options to plug their surplus funds in order to generate returns. Stock market can be one of the options while framing investment portfolio. But, it may depend upon the awareness level of this fraternity about stock markets and their interest or belief in it. The objective of present paper may be bracketed as exploring awareness level of academicians towards stock market and their preference variations according to gender, age, qualification etc. while investing. The study has been carried on academicians in Delhi-NCR through a primary survey. There have been varied responses observed which further have been statistically verified to deduce association of factors like qualification, marital status, age, gender etc. with stock market awareness and investment pattern of academicians.

I. Introduction:

Education is a significant constituent of Indian economy in today's time. The goal of this industry however differs from other areas in quality context. Its aim is to develop educated human resources which can be employed in various fields to increase the per capita income and thereby living standards of Indian citizens. The whole scenario however revolves around academicians who perform hard duty of converting students into employable learners.

Indian government is focusing on financial inclusion and calling the general public to be the stakeholders in the Indian economy. As an educated group, academician can surely evoke the new generation about the importance of investment. Academician surely has to have awareness about the benefits of different investment options available in the Indian financial market.

Academicians may select various options to plug their surplus funds in order to generate returns. Stock market can be one of the options while framing investment portfolio. But, it may depend upon awareness level of this fraternity about stock markets and their interest or belief in it. The objective of present paper may be bracketed as exploring awareness level of academicians towards stock market and their preference variations according to gender, age, qualification etc. while investing. The rest of paper has been organized into four segments; first one explains literature review, second
one explains research methodology adopted, third one explains empirical results and fourth one concludes the paper.

II. Literature Review:

Academicians have never been targeted before as a subject to understand investment patterns and awareness. Hence, literature had not been found directly for this particular research work. But, the common work done as regards to investors’ psychology and behavior has been analyzed and presented in this section.

- **Werner (1998)** has examined financial decisions of investors on the basis of their perceptions and psychology. Excess and normal returns in two weeks and four weeks windows have been computed. It has been found that investors were over optimistic during this period for performance of shares held but not for Dow Jones Index. Interestingly performance of stocks held collectively by investors was found close to index. 45 respondents filled in a questionnaire based on risk and return beliefs. These responses were tested with the help of t-statistic and it had been concluded that stock market investments are based on personal choices and beliefs of individual investors.

- **Banerjee (1993)** has developed a model based on transmission of information from one individual to another and its effect on their investment decision. The probability of economic rumours has been chosen as a base in the study to analyze investors’ behavior. The model assumed identical investors and one person to initiate the investment process. It was concluded that investors with high cost information may not invest and investors with low cost information may get tempted to invest. In addition to this, it has been found that with the number of increasing investors the pay-off of returns may fall.

- **Zvi Bodie (1995)** critically examined the risk of investing in common stocks in long run. The put–call parity theorem has been used to examine the results which hold true for mean reverting process. It also negatively validates the belief that stocks are long term inflation hedge like long-term real bonds. The sample data of 45 individual investors in Fox valley (Wisconsin-USA) was collected by making repeated weekly forecast of DJIA and share price of one of their main equity shareholdings from October 1994 to March 1995. The findings were suggestive of over optimism of share performance but not performance of Dow Jones and the response regarding how to manage the equity portfolio. The major effect of small individual investors was that it affected the investor’s well being and their market activities.

- **Kannadasan (2006)** analyzed the behavioral pattern of the retail investors based on various dependent variables viz., gender, age, marital status, educational level, income level, awareness, preference and risk bearing capacity. The study found that only 25 per cent of the sample respondents were aware of all the investment avenues available in the capital market. 90 per cent were not aware of the measures taken by the Government to protect the interest of the investors. 79 per cent were interested to invest in shares and debentures as well. The retail investors’ age was not found to be a criterion to decide their investment behavior and investment option. Income level was found observed to play a predominant role. The major attributes of risk in investment were investigated to be dividend, redemption period and value appreciation.

- **L.C. Prasad (2008)** conducted a survey to find out the preferences of household investors and the relevant findings of the study were that the household investors mostly preferred type of investment was found to be shares. Systematic Investment plan (SIP) was found to be the most popular type of scheme among various types of mutual funds and too much price fluctuations were found to be the major worry of the investors in the stock market.

- **Lusardi et.al (2010)** studied financial literacy among youth with the help of newly added data to the National Longitudinal Survey of Youth fielded in 2007–2008. Three financial questions were asked to which responses were collected and
treated with t-test for differences in mean between different subgroups and a multivariate analysis was followed. Also a variable measuring exposure was added to regression. The findings were that the financial knowledge was low among young and financial literacy differentiated on the basis of family and peer groups, educational level, gender, race and ethnicity. A strong association between financial literacy and cognitive ability was also found.

- *Parashar (2010)* survey interpreted that the demographic variables such as gender, age, income, education, occupation as well as the various personality types affect the investment choice made by the individual investors.

- *Dawar and Wadhwa (2011)* surveyed 275 investors living in Punjab and identified the factors influencing the investor’s behavior by using correlation analysis. The factors that affected investor most were Neutral information, accounting information, self-image/ firm-image coincidence, wealth maximization criteria, social relevance and personal needs.

- *K. Mandeep, V.Tina (2012)* reviewed the literature from research papers related to individual investor’s behavior. The findings demonstrated several variables that govern an investor’s decision to invest. The knowledge about the expectations, demographic profile, attitude of an investor towards risk, personal circumstances etc play a vital role in investment decision making. The study suggested that the understanding of the individual investor behavior could be great help in order to explain that stock market anomalies and to help the policy maker as well as investment agencies to prepare themselves to respond to the varying moods of an investor.

### III. Research Methodology:

The study has used a questionnaire to collect primary data from a set of academicians working in various educational institutes in Delhi-NCR. The questions had been prepared on a five point Likert scale. A pilot survey had been carried with a group of 30 members at a development program for faculties in Faridabad. Later on, questionnaire was revised and sent online to various academic institutes for data collection. 69 persons responded with their respective answers. However, 53 of them had responded with complete details. Therefore, the study was carried over with the data of 53 respondents belonging to education fraternity. These responses were converted into usable format for statistical application. The statistical interpretation has been done with the help of mean average analysis and chi-square at appropriate places with the help of SPSS. The hypotheses framed to test available data have been explained as follows:

- There is no significant impact of gender, age, marital status and qualification on stock market awareness of academicians.
- The knowledge about computation process of Sensex/Nifty is not affected by gender, age, marital status and qualification of academicians.
- Financial updates related with stock market among academicians are not influenced by their gender, age, marital status and qualification.
- There is no effect of gender, age, marital status and qualification on acquaintance regarding De-Mat account.

### IV: Empirical Results:

This section of the paper shall discuss analysis and interpretation of data and there on their statistical results. The data collected from 53 respondents had been primarily categorized as per the gender, age, marital status and qualification. Their distribution according to these parameters can be presented one by one.

#### Analysis and Interpretation of Data

This segment shall discuss the four important parameters that were incorporated in the questionnaire while data collection and their possible relevance on awareness level and investment pattern.

**Gender**

Gender of any respondent may tend to influence his/her knowledge about stock markets and their tendency to invest or save. The categorization according to gender for the present data has been done as below:
Gender No. of Respondents
Male 28
Female 25

Graph & Table 1: Showing gender wise distribution of respondents

The above graph and table reflect an equal distribution between males and females across the sample data. It may be called as an appropriate classification of data to test for its effect on awareness level about stock markets and investing decisions.

Age

The age of respondents has been considered as one of the major factors to find out attitude of academicians towards stock market and other related investment options. Respondents had been divided into four age groups; below 20 years, between 21-30 years, between 31-40 years and above 40 years. Their distribution can be further elaborated with the help of following table and pie-graph:

Marital Status

Marital status of an investor may have a bearing on his understanding about stock market and at the same time on his investment pattern. It may be because of the additional responsibilities and expenditure that he/she may have to perform post-marriage. The sample data as per marital status has been shown below:

Qualification

This has been another important factor which may pose an impact on awareness about stock market and investment decision of academicians. The data according to this parameter has been divided into three groups; Graduate, Post Graduate and M.Phil/Ph.D. The classification of respondents according to their qualification has been presented below:

Graph & Table 2: Showing age wise distribution of respondents

The above graph and table depict that sample data has been dominated by the respondents in the age group of 21-30 and 31-40 years. It may be due to seriousness and interest of this age group towards planning for investment.

Marital Status

Marital status of an investor may have a bearing on his understanding about stock market and at the same time on his investment pattern. It may be because of the additional responsibilities and expenditure that he/she may have to perform post-marriage. The sample data as per marital status has been shown below:

Graph & Table 3: Showing distribution of respondents according to their marital status

The above pie chart and table reflect larger number of married respondents in the data. This may be inferred from the age group concentration between 21-30 and 31-40 years where in more of respondents would have got married. However, their awareness level about stock markets required statistical verification.

Qualification

This has been another important factor which may pose an impact on awareness about stock market and investment decision of academicians. The data according to this parameter has been divided into three groups; Graduate, Post Graduate and M.Phil/Ph.D. The classification of respondents according to their qualification has been presented below:
Graph & Table 4: Showing qualification wise distribution of respondents

The above table and pie chart show equal concentration of data in the category of Post Graduates and M.Phil/Ph.Ds. It may be due to minimum eligibility requirements in the field of education as set up by University Grants Commission.

V. Investment Patterns: Income and Asset Distribution:

The data collected showed an income wise paradox in investment behavior of the academicians. The paradox nature can be due to the skewed distribution of income wise respondent’s investment in financial assets with respect to assets in possession. Nevertheless, the respondents increase in income do not signal a shift of the preference of investment in innovative from traditional investment options. Also to observe the people with income group of 1 to 5 lakhs and 5 to 10 lakhs, under assets possession of 1 to 10 lakhs are actively involved in investing their surplus money. The graph below depicts an analysis of income and asset possession association among academicians:

Graph 5: Showing income and asset distribution

The data collected showed an income wise paradox in investment behavior of the academicians. The paradox nature can be due to the skewed distribution of income wise respondent’s investment in financial assets with respect to assets in possession. Nevertheless, the respondents increase in income do not signal a shift of the preference of investment in innovative from traditional investment options. Also to observe the people with income group of 1 to 5 lac and 5 to 10 lacs under assets possession of 1 to 10 lacs are actively involved in investing their surplus money.

Across the asset possession category, saving account, FD/RD and insurance are preferred by the academicians. Real estate investment preference is increasing in higher brackets of assets in possession. Not to forget the more preference towards insurance, FD/RD is induced by the objective of tax saving. The innovative investment option like ULIPS, mutual fund and shares less preference can be of two most probable reasons; (a) less knowledge of capital market, and (b) risk averse attitude.

The study is no different from the RBI data (2011-12) which says the household sector invested 47.3 percent of its savings in deposits, 33.3 percent in insurance/
provident funds, 6.5 percent in small savings and only 0.4 percent in the securities market, mutual funds and other securities.

The matter of concern is, as a most literate group of society, we expect the practice of modernization in all aspect of life. But when it comes to financial transaction most of the literate public are also following the traditional way of saving and investment. Needless to say, more often in financial advice, they take advice from friends and family rather than the financial expert. We all know that academicians are expert in their area of research, but they should also update themselves and same should be passed to the students, so that we can experience the real financial inclusions.

VI. Statistical Results:
This segment shall discuss statistical application on the data carried in SPSS. The findings have been shown with a brief introspection of data along with chi-square results.

Stock Market Awareness

Hypothesis: There is no significant impact of gender, age, marital status and qualification on stock market awareness of academicians.

Data relating to distribution of selected academicians for the stock market awareness among men and women on basis of demographic characteristics Gender, Age, Marital status, Occupation are represented in graph below. Out of total 53 academicians, 14 showed their consent, 15 showed their discontent and 24 were neutral about the awareness towards stock market.

Gender

The data shows that male academicians were observed to be more aware about the stock market in comparison with female academicians. Thus, to test the significance relationship between the gender and stock market awareness chi-square test had been applied.

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>11.892*</td>
<td>4</td>
<td>.018</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>14.992</td>
<td>4</td>
<td>.005</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>4.368</td>
<td>1</td>
<td>.037</td>
</tr>
</tbody>
</table>

Table 5: Showing Chi-Square results for stock market awareness and gender

From the top row of the last table, Pearson Chi-Square statistic=11.892, and p < 0.05, i.e., 0.018, hence, there is significant relationship between Stock awareness and gender from the observed data.

Age

The data distribution represents 24 academicians in 21-30 years, 24 academicians in 31-40 years, 5 academicians for more than 40 years. The data shows those academicians from different age groups who had different awareness level about the stock market. Thus, to test the relationship between the age group and stock market awareness chi-square test had been applied.

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>14.869*</td>
<td>8</td>
<td>.062</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>14.476</td>
<td>8</td>
<td>.070</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>4.036</td>
<td>1</td>
<td>.045</td>
</tr>
</tbody>
</table>

Table 6: Showing Chi-Square results for stock market awareness and age

From the top row of the last table, Pearson Chi-Square statistic=14.869, and p > 0.05, i.e. 0.062; hence, there is no evidence that stock awareness varies with age of the respondents. It may be said that stock market awareness does not depend on age of academicians.

Marital status

The data distribution represents 39 academicians were married and 14 academicians were unmarried. The data shows the difficult sign to know exactly whether the marital status of academician has anything to do with awareness level about the stock market. Thus, to test the relationship between the marital status and stock market awareness chi-square test has been applied.

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>3.391*</td>
<td>4</td>
<td>.495</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>3.258</td>
<td>4</td>
<td>.516</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.823</td>
<td>1</td>
<td>.364</td>
</tr>
</tbody>
</table>
Table 7: Showing Chi-Square results for stock market awareness and marital status

From the top row of the last table, Pearson Chi-Square statistic=3.391, and p > 0.05.,i.e. 0.495; hence, there is no significant relationship between Stock awareness and marital status of the respondents.

Qualification

The data distribution represents 4 academicians as graduates, 24 academicians as postgraduates and 25 academicians as M.Phil/PhDs. The data shows the higher qualified academician has more awareness level of stock market. Thus, to test the significance relationship between the education qualification and stock market awareness we have applied chi-square test.

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>16.248</td>
<td>8</td>
<td><strong>.039</strong></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>20.710</td>
<td>8</td>
<td>.008</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.9655</td>
<td>1</td>
<td>.002</td>
</tr>
</tbody>
</table>

Table 8: Showing Chi-Square results for stock market awareness and qualification

From the top row of the last table, Pearson Chi-Square statistic= 16.248, and p < 0.05.,i.e. 0.039; hence, there is significant relationship between Stock awareness and Qualification of the respondents.

VII. Computation process:

Hypothesis: The knowledge about computation process of Sensex/Nifty is not affected by gender, age, marital status and qualification of academicians.

The computation process in particular for the present paper refers to the knowledge regarding calculation of popular indices of Indian stock market; sensex and nifty. The empirical results have been presented below.

Gender

The chi square results for gender towards knowledge of computation process has been shown in Table 9. The results suggest that gender may not play a significant role in determining computation process awareness within academicians.

Table 9: Showing Chi-Square results for computation process and gender

From the top row of the last table, Pearson Chi-Square statistic= 7.314, and p > 0.05.,i.e. 0.120; hence, there is no significant relationship between Computation process and Gender.

Age

Table 10 depicts age wise difference in determination of computation process knowledge among academicians. The results have been found similar to gender.

Table 10: Showing Chi-Square results for computation process and age

From the top row of the last table, Pearson Chi-Square statistic= 10.621, and p > 0.05.,i.e. 0.224; hence, there is no significant evidence that Computation process knowledge differs as according to the Age of respondent.

Marital status

Marital status of an academician provides same results as the other two parameters in determining computation process knowledge.
Table 11: Showing Chi-Square results for computation process and marital status

From the top row of the last table, Pearson Chi-Square statistic= 2.594, and p > 0.05, i.e. 0.628; hence, there is no evidence that the knowledge of Computation process differs as the marital status of the respondent.

Qualification

Surprisingly, qualification also doesn’t seem to affect knowledge regarding computation of sensex/nifty among academicians.

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>14.989</td>
<td>8</td>
<td>.059</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>17.251</td>
<td>8</td>
<td>.028</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>10.561</td>
<td>1</td>
<td>.001</td>
</tr>
</tbody>
</table>

Table 12: Showing Chi-Square results for computation process and qualification

From the top row of the last table, Pearson Chi-Square statistic= 14.989, and p > 0.05, i.e. 0.059; hence, there is no significant evidence that the knowledge of Computation process differs as per academic qualification of the respondent.

Financial Updates

Hypothesis: Financial updates related with stock market among academicians are not influenced by their gender, age, marital status and qualification.

This variable may be said to be related with habit of reading latest news or information associated with stock market by the academicians taken as sample. This is treated as a dependent variable which has been tested with the help of chi-square in SPSS for whether it is affected by independent variables taken in study (gender, age, marital status and qualification). Their individual explanation can be presented below:

Gender

Gender as discussed in the previous paragraph as an independent variable may impact knowledge about latest updates of stock market. There may be a difference between reading habits of males and females which further can affect “financial updates” among them. This has been statistically elaborated with the help of following table:

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td><strong>10.259</strong></td>
<td>4</td>
<td><strong>.036</strong></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>10.642</td>
<td>4</td>
<td>.031</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>4.723</td>
<td>1</td>
<td>.030</td>
</tr>
</tbody>
</table>

Table 13: Showing chi-square results for gender impact on financial updates.

The above table shows chi-square value (10.259) has been found significant at 5% level of significance with a p-value of 0.036 which is lesser than 0.05. Hence, it may be said that gender affects financial updates about stock market among academicians. It may be deducted that males and females have separate reading habits and thus they may possess different level of information about events occurring in stock market.

Age

Age is taken as yet another independent variable which may influence financial updates among academicians. As discussed earlier also in the paper data has been divided into four groups on the basis of age (Below 20, 21-30, 31-40 and more than 40). The interest areas of these groups may vary which further may affect their interest in stock markets. The relationship has been tested with the help of chi-square in SPSS. Its results have been produced below:

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td><strong>9.800</strong></td>
<td>8</td>
<td><strong>.279</strong></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>11.555</td>
<td>8</td>
<td>.172</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>8.209</td>
<td>1</td>
<td>.004</td>
</tr>
</tbody>
</table>

Table 14: Showing chi-square results for impact of age on financial updates.

The table above shows chi-square value (9.800) which has not been found significant at 5% level of significance with a p-value of 0.279 which is greater than 0.05. It may be said that age is not a determinant in case of
academicians understanding about latest stock market updates. It may be inferred from the results that in case of academicians’ group age may play an indifferent role due to professional nature where this group requires active reading at all stages.

**Marital Status**

Marital status may play an important role in determining a person’s knowledge and understanding about stock market. There may be difference in time devoted by a married and unmarried academician in reading latest news from stock market. This probability has been tested with the help of chi-square in SPSS providing the following results:

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>1.069</td>
<td>4</td>
<td>.899</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>1.060</td>
<td>4</td>
<td>.901</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.747</td>
<td>1</td>
<td>.387</td>
</tr>
</tbody>
</table>

*Table 15: Showing chi-square results for marital status impact on financial updates*

The table above shows chi-square value (1.069) which has not been found significant at 5% level of significance with a p-value of 0.899 which is more than 0.05. It may be figured out that marital status cannot be said to be a determinant for financial updates among academicians with any statistical evidence. It may be again due to nature of profession which calls for continuous reading.

**Qualification**

Education may bring revolutionary changes in an individual’s personality. Therefore, enhancement of qualification may add quality to one’s lifestyle. It may have an impact on knowledge possessed by academicians related to stock market. This phenomenon has been statistically tested with the help of chi-square in SPSS providing the following results:

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>17.515</td>
<td>8</td>
<td>.025</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>19.379</td>
<td>8</td>
<td>.013</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>4.048</td>
<td>1</td>
<td>.044</td>
</tr>
</tbody>
</table>

*Table 16: Showing chi-square results for effect of qualification on financial updates*

The table above shows chi-square value (17.515) which has been found significant at 5% level of significance with a p-value of 0.025 which is lesser than 0.05. It may be conjectured that qualification has a significant effect on latest news and information gathered by academicians. Thus, financial updates may be readily available with academicians which are highly qualified as compared to others.

**De-Mat Account**

Hypothesis: There is no effect of gender, age, marital status and qualification on acquaintance regarding De-Mat account.

De-Mat account is a pre-requisite for trading in shares of any company in the Indian stock market. However, those investors who are still trading without it may be doing it with brokers or other agents. The awareness and knowledge about stock market among academicians may depend upon many factors. This segment shall present statistical results for influence of gender, age, marital status and qualification on familiarity with De-Mat account.

**Gender**

The gender differentiation may affect the knowledge about De-Mat account among academicians. There may be varied levels of familiarity about online trading and its related processes among academicians depending upon their gender. This has been statistically tested with chi square in SPSS whose results are presented below:

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>8.250</td>
<td>2</td>
<td>.016</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>10.593</td>
<td>2</td>
<td>.016</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>2.765</td>
<td>1</td>
<td>.096</td>
</tr>
</tbody>
</table>
Table 17: Showing Chi-Square results for De-Mat and gender

The table above shows chi-square value (8.250) which has been found significant at 5% level of significance with p-value (0.016) which is more than 0.05. Thus, it may be said that gender significantly affects awareness about De-Mat account among academicians.

Age

Age may play its own part regarding acquaintance about De-Mat account among academicians. There may be a possibility that youngsters who are more internet-savvy possess better understanding about online trading. This has been statistically tested by applying chi-square in SPSS. Its results have been shown below:

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>10.137</td>
<td>4</td>
<td>0.038</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>10.889</td>
<td>4</td>
<td>0.028</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>7.594</td>
<td>1</td>
<td>0.006</td>
</tr>
</tbody>
</table>

Table 18: Showing Chi-Square results for De-Mat and age

The table above shows chi-square value (10.137) which has been found significant at 5% level of significance with a p-value (0.038) which is less than 0.05. It may be said with statistical evidence that age plays a dominant role in determining knowledge about De-Mat account among academicians. The possibility has been found more in the age group of 31-40. It may be because this age group is surrounded by more serious approach towards investment and future planning.

Marital Status

The awareness on the subject of De-Mat account may depend upon marital status of an individual. However, it may not make any difference if the person has been actively engaged into trading before marriage. This has been statistically tested with chi-square in SPSS and its results have been revealed below:

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>17.165</td>
<td>4</td>
<td>0.002</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>22.507</td>
<td>4</td>
<td>0.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>5.574</td>
<td>1</td>
<td>0.018</td>
</tr>
</tbody>
</table>

Table 19: Showing Chi-Square results for De-Mat and marital status

The table above shows chi-square value (4.032) which has been found insignificant at 5% level of significance with a p-value (0.133). Therefore, it may be said that marital status does not play any role in finding out understanding related to De-Mat account among academicians. It may be surprising that maximum respondents who were observed to have knowledge regarding online trading were married.

Qualification

Educational qualification may have a bearing on information regarding De-Mat account in academicians group. There may be a probability that higher the level of qualification more may be the knowledge about online trading and related things. This may be statistically shown with the help of following table:

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>4.032</td>
<td>2</td>
<td>0.133</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>3.871</td>
<td>2</td>
<td>0.144</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>3.870</td>
<td>1</td>
<td>0.049</td>
</tr>
</tbody>
</table>

Table 20: Showing Chi-Square results for De-Mat and qualification

The table above shows chi-square value (17.165) which has been found significant at 5% level of significance with a p-value (0.002) which is less than 0.05. That’s why it may be said that qualification can be an important parameter in determining understanding of an academician about De-Mat account. Maximum respondents who had acquaintance with De-Mat account were M.Phil/Ph.Ds.
VIII. Conclusion:

There are multiple options available for investors in today’s moderated financial markets. However, investing in stock markets requires courage and knowledge about its operations. Academicians may be called as a group of investors who may not be risk lovers due to their sophisticated profession. Their thought process lies in playing a safe game. So, stock market may be as another option for investment to them. The present study has tried to peep into this phenomenon from various angles. Stock market awareness and investment pattern among academicians have been found to be more affected with gender and qualification as compared with age and marital status. However, knowledge regarding De-Mat account has been found to be influenced by gender, age and qualification. It may be concluded that due to nature of profession few factors play a prominent role in determining awareness regarding stock market investment among academicians.

References


INTERVIEWS

Amb. H H S Viswanathan, Distinguished Fellow, Observer Research Foundation, New Delhi

Amb. H H S Viswanathan was a member of the Indian Foreign Service for 34 years. He has a long and diverse experience in International relations and Diplomacy. His foreign assignments include Belgium, Zaire, Czechoslovakia, Germany, China, Italy, Cote d’ Ivoire, USA and Nigeria. He was the Head of Mission (Ambassador/ High Commissioner) in Cote d’Ivoire and Nigeria with concurrent accreditation to Niger, Guinea (Conakry), Sierra Leone, Cameroon, Benin, Chad, Equatorial Guinea and Sao Tome and Principe. At the Headquarters in MEA, he has been Deputy Secretary (East Europe) and Joint Secretary (Administration). In USA, he was Consul General of India in San Francisco with a consular jurisdiction over 14 States in the mid- West and West coast of the US. He has also co-edited the book “In search of Stability, Security and Growth: BRICS and a new World Order” published by Observer Research Foundation (ORF). Currently, Amb. H H S Viswanathan is a Distinguished Fellow in the Observer Research Foundation. He heads the Africa Studies Programme and is also associated with the China Studies Programme. In addition, he coordinates all activities connected with BRICS and IBSA. He has headed the Indian delegation for the past four Academic Fora before the BRICS Summits. He is also India’s representative at the BRICS Thinktank Council (BTTC) which coordinates all Track 2 activities of the Group.

The following is an exclusive interview of Amb. H H S Viswanathan given to GITAM School of International Business

1. Do you think that BRICS has the potential to shape the new global architecture?

Amb. Viswanathan: One of the principal aims of BRICS is to address some of the lacunae in the current Global Order and Architecture. It is true that the BRICS countries have benefited from many aspects of the current Global order. Hence, they are not aiming at something revolutionary. But, the fact remains that with globalization and a changed world with new emergent powers, the time has come to change some of the structures. That is what BRICS would like to do.

2. Do you think BRICS counties have enough developmental goals in common to sustain a shared vision?

Amb. Viswanathan: All the BRICS countries emerged due to globalization. In the process, they have developed common characteristics. There are new problems like unequal growth, income disparities, urbanization, sustainability of development etc. The five countries are learning from the experiences and best practices of the others.

3. Do you feel BRICS are becoming more involved in global policy setting?

Amb. Viswanathan: BRICS started as an economic grouping. However, over the last seven years it has evolved into a geo-political group. Today, BRICS does not shy away from expressing its views on the important political issues that affect the world.

4. Could you share your views on the common traits shared by the BRICS countries and other emerging markets?

Amb. Viswanathan: BRICS has a lot in common with other emerging markets. They are all trying to accelerate the process of development. Job creation and sustainable development are of high priority to all. They all want an open rule based trading system.

5. Could you offer some perspective on the term “BRIC deceleration”?

Amb. Viswanathan: The term “Deceleration” has been used to describe the slowing down of some of the BRICS economies. It is true that the growth rates have come down in some, particularly China.
But, BRICS still are among the high growth economies.

6. Can you share your ideas on the political climate & foreign policy of the BRICS countries?

Amb. Viswanathan: Even though there is no formal mechanism of coordinating the Foreign Policies, BRICS countries agree on some broad concepts like non-interference in the internal affairs, multilateralism and the centrality of the United Nations on global issues.

7. What will be the focus of the New BRICS Development Bank?

Amb. Viswanathan: The New Development Bank has been created to bring additionality in the funding of infrastructure projects in the BRICS and other developing countries. The priorities will be infrastructure, small and medium industries and poverty alleviation. In order to be successful, the bank will have to follow a bottom-up approach and not the top-down approach followed by the World Bank.

8. Can you share your views on the currency that the New BRICS Development Bank would be using?

Amb. Viswanathan: There is no fixed currency, as of now. Many of the loans will be denominated in US Dollars. However, use of local currencies will be encouraged wherever possible. As you know, a significant part of intra-BRICS trade is already in BRICS currencies.

9. Will this new BRICS Development Bank raise a challenge to the World Bank?

Amb. Viswanathan: The idea of the New Development Bank (NDB) is not to supplant the World Bank but to supplement it. It is well known that there is a serious shortage of funds available for development activities from the existing multi-lateral development banks. That is why the role of NDB becomes important. The approach will be one of collaboration and not confrontation.

Mr. Prahalathan Iyer, Chief General Manager, EXIM Bank of India, Mumbai

Mr. Prahalathan Iyer, joined the Bank in 1998. Prior to this, he was with ASSOCHAM, India Trade Promotion Organisation, and National Council for Applied Economic Research. He has worked in the areas of Export Services, Eximius Centre, Knowledge Centre and Research and Analysis. He was a member of the ‘Technical Committee on Services / Facilities to Exporters’, set up by the Reserve Bank of India; ‘Task Force on Trading of Goods in Local Currencies’, set up by the Department of Commerce, Government of India; and ‘India-Russia Joint Working Group on Settlement of Bilateral Trade in National Currencies’, set up by the Reserve Bank of India. Mr. Iyer holds Masters Degrees in Economics, and Financial Management. Mr. Iyer has interests in Carnatic classical music, writing and reading.

The following is an exclusive interview of Mr. Prahalathan Iyer given to GITAM School of International Business

1. May I request your views on India’s Export performance: Trends and drivers during the last few years?

Mr. Iyer: India has witnessed lackluster growth in exports between 2011-12 and 2014-15 on the back of weakness in global demand and domestic factors like infrastructural bottlenecks and policy constraints. Export growth turned negative in 2009-10 on account of the 2008 global financial crisis, and once again in 2012-13 as a result of the Euro zone crisis and the resultant global slowdown.

After witnessing some improvement in 2013-14, exports further declined in 2014-15, driven by a sharp fall in petroleum exports, attributable to the fall in international crude oil prices. India’s imports also fell for the second consecutive year in 2014-15. Owing to a sharp decline in POL imports, the fall in imports this year was the steepest fall in the past 16 years. These trends are unsurprising,
given that the international trade situation in itself is fragile. The Baltic Dry Index which is a composite of rates charged on a variety of important trade routes and a good proxy of the robustness of world trade is at its lowest levels.

The trend in exports from India varies across segments. Exports of some segments like gems and jewellery, and electronic goods have been declining from 2012-13 onwards. The decline in gems and jewellery exports has continued even after easing of major curbs on gold imports. Apart from these, petroleum products which had witnessed positive growth in exports over the past four years also turned negative in 2014-15.

On the other hand, exports of marine products and leather goods have witnessed robust growth in recent times. Exports of readymade garments over the past two years have also been registering double digit growths, on account of growing labor cost advantage of India relative to competitors from other economies like China, Bangladesh, Vietnam and Cambodia, and shortage of labor and tightening of domestic labor laws in economies like Bangladesh and China.

Driven by increased government support to exporters to tap into new markets in Latin America and Africa, there has been substantial market diversification for Indian exports. Share of Latin American countries in India’s total exports has increased to 3.71 percent in 2014-15, as compared to 2.15 percent a decade ago. This has been the case in spite of lack of adequate air and maritime connections with Latin American countries. Similarly, the share of African countries in India’s exports has grown from 6.67 percent in 2004-05 to 10.61 percent in 2014-15. These markets are not just providing new avenues for India’s value added exports, but are also important source for the country’s fuel and raw material requirements in an increasingly volatile international environment.

2. **Do you think that the recent Euro crisis has made an impact on Indian Export market?**

   **Mr. Iyer:** Europe is the second largest export destination for India, and nearly 23 percent of India’s total exports in 2007-08 were directed towards Europe. As a result, Euro area’s instability negatively reflected in India’s export performance. Austerity measures in European countries and falling consumer expenditure didn’t bode well for Indian exporters. As a matter of fact, the crisis affected India’s exports more during the recent slowdown than in 2009-10.

   In an UNCTAD paper following the onset of the global slowdown, it was noted that India’s exports to the world are much more responsive to income changes as compared to price changes (income elasticity of demand for exports greater than the price elasticity of demand for exports), although both the factors are found to be significant. As per the Report, a one percent decline in GDP growth of the world is likely to result in a 1.88 percent decline in India’s growth of exports to the world. This correlation is also found to be the same with respect to India’s exports to the G7 countries. Income elasticity was especially higher in the sectors of petroleum products, gems and jewellery, ores and minerals, and engineering and electronic products. Several of these sectors with high income elasticity have suffered in the recent slowdown.

   However, there has been substantial diversification in India’s exports and the share of Europe in India’s exports was reduced to 18 percent by the 2014-15.

3. **What are the export opportunities available for Indian exporters in the emerging markets?**

   **Mr. Iyer:** India has significant export opportunities in the fast emerging and economically vibrant regions of Africa and Latin America. Agriculture, pharmaceuticals, textiles, automobiles, metals and minerals, energy and infrastructure are some of the key areas where there is scope for expanding our exports to Africa.

   In the Latin American and Caribbean region, there is substantial scope for enhancing exports in the areas of textiles, engineering products, computer software, chemicals and pharmaceuticals, as identified in the ‘Focus LAC’ program of the
Government of India. Other than this, India is also looking forward to increase its share of hi-tech and high value added defense exports to LAC countries.

4. Could you share your views on the drawbacks in the Indian EXIM scenario in comparison with China and other Asian markets?

India’s exports comprise high quality products, but there is substantial scope for improvement in manufacturing quality and complexity. According to a paper by International Monetary Fund, Indian exports of fixed vegetable oils and fats, footwear, meat and meat preparations, non metallic mineral, and petroleum and petroleum products are of better quality than most of the peer emerging markets. However, the same can’t be said for most of the other goods. India needs to improve its quality in the product categories of chemicals, clothing, iron and steel, electrical machinery, apparatus and appliances, medicinal and pharmaceuticals, etc.

Moreover, while the Indian services exports are highly sophisticated, even more than the average level in high income countries, sophistication in goods exports remains much lower than the average sophistication level of competing Asian economics. Several reasons could be cited, the main one being scale of operations and technological orientation.

5. What are the various services offered by EXIM Bank for Indian exporters?

Mr. Iyer: The Bank operates a range of financing programmes aimed at enhancing the export competitiveness of Indian companies. A variety of financing services are offered to Export-Oriented Units, and for overseas investment by Indian companies. The financing programmes cater to the term loan requirements of Indian exporters for financing their new projects, expansion, modernization, purchase of equipment, R&D, overseas investments and also the working capital requirements.

The Bank also provides a range of export credit services like finance for export of projects and consultancy services, capital equipment finance, export project cash-flow deficit finance and guarantees. The Bank is equipped to offer a comprehensive financing package to Indian project exporters including funded support and project related guarantee facilities.

Buyer’s Credit is a unique programme of Exim Bank under which, the Bank facilitates Indian exports by way of extending credit facility to overseas buyers for financing their imports from India. Under the Buyer’s Credit programme, Exim Bank makes payment of eligible value to Indian exporters, without recourse to them. Buyer’s Credit is a safe, non-recourse financing option available to Indian exporters, especially to small and medium enterprises, which motivates them to enter overseas markets. Recently, Exim Bank, along with Export Credit Guarantee Corporation (ECGC), has launched a new Buyer’s Credit programme under the National Export Insurance Account (NEIA) of the Government of India.

Exim Bank extends Lines of Credit to overseas financial institutions, regional development banks, sovereign governments and other entities overseas, to enable buyers in those countries to import developmental and infrastructure projects, equipments, goods and services from India, on deferred credit terms. Indian exporters can obtain payment of eligible value from Exim Bank, without recourse to them, against negotiation of shipping documents.

Moreover, the Bank, through its grassroots initiatives, envisages supporting globalisation of enterprises based out of rural India. The Bank has consciously sought to establish, nurture and foster various institutional linkages and has entered into formal cooperation arrangements with select broad-based agencies in order to directly reach out to the artisans, by helping in capacity-building, technological up-gradation, quality improvement, market access and training.

The Bank plays a promotional role and seeks to create and enhance export capabilities and international competitiveness of Indian companies.
through its Marketing Advisory Services. The Bank provides assistance to Indian firms in their globalisation efforts by locating overseas distributor(s)/buyer(s)/partner(s) for their products and services. The Bank leverages its international standing, in-depth knowledge and understanding of the international markets and well-established institutional linkages, coupled with its physical presence, to support Indian companies in their marketing initiatives on a success fee basis.

Apart from these, Exim Bank’s Research & Analysis Group offers a range of research insights on aspects of international economics, trade and investment through qualitative and quantitative research techniques.

6. **How successful is the overseas investment finance programme offered by EXIM Bank?**

**Mr. Iyer:** Exim Bank laid the foundation of its innovative financing programme – Overseas Investment Finance (OIF) – during its formative years itself. Over the years, the programme has evolved into a key instrument for creation of trade through overseas investments with the underlying objective being to assist Indian firms to organize production optimally to serve regional or global markets. The larger objective is to provide a framework for the firms to approach global networks by enabling them to access technology or market as strategic responses to tap the emerging opportunities worldwide for trade in goods or services, thereby improving the image of Indian industry abroad.

The OIF programme, in its present form, seeks to cover the entire cycle of Indian investment overseas, including the financing requirements of Indian Joint Ventures (JV) and Wholly Owned Subsidiaries (WOS) with a suite of financing instruments, besides the pre-and-post-investment advisory services.

Analysis shows that Exim Bank supported overseas investment from a region-sector perspective – i.e. the top sectors of Exim Bank supported overseas direct investment bear a strong correlation to the major products exported by India to that region.

The Bank has so far provided finance to 533 ventures set up by 530 companies in 90 countries. Aggregate assistance for overseas investment amounts to Rs. 43,210 Crore. During 2014-15, 35 firms were supported for part-financing their overseas investments in 11 countries, with aggregate assistance amounting to Rs. 5,544 Crore. The overall experience of firms supported by Exim Bank for overseas investment from India has been fairly positive in terms of achievement of desired strategic objectives.

7. **What financing support would EXIM Bank give to Export Oriented Units (EOUs) and Micro, Small and Medium Enterprises (MSMEs) through EXIM Bank of India.**

**Mr. Iyer:** Exim Bank provides term loans to export oriented Indian companies to finance various capital expenditures including certain soft expenditures in order to improve their export capability and to enhance their international competitiveness. Loans are extended for the following purposes: expansion, modernization, upgradation or diversification projects including acquisition of equipment, technology etc.; export marketing; export product development; and setting up of Software Technology Parks.

Apart from the Corporate Banking facilities, there are additional services that Exim Bank offers to support Micro, Small and Medium Enterprises (MSMEs). The Asian Development Bank has extended a credit line to Exim Bank for providing foreign currency term loans to the MSME borrowers in certain specific lagging states of India, viz. Assam, Madhya Pradesh, Orissa, Uttar Pradesh, Chhattisgarh, Jharkhand, Rajasthan and Uttarakhand. These foreign currency term loans can also finance domestic capital expenditure of the borrowers in Indian Rupees, besides meeting their foreign currency capital expenditure requirements. The assistance to these MSMEs will help in increasing competitiveness in the relatively backward states and help in integrating them into the mainstream economy.
Exim Bank, besides providing financial assistance to individual MSMEs, also provides financial assistance to Special Purpose Vehicles of a cluster of MSMEs. Term loans are provided to such clusters of MSME units for the following activities:

- Development of new geographically contiguous cluster/industrial park, involving creation & maintenance of common infrastructure and common facilities, including inter alia construction of buildings and civil works, acquisition of assets/technology, for the benefit of industrial units within the cluster/industrial park.
- Development of an industrial estate, by industrial users, industry associations and/or Government bodies.
- Up-gradation of an existing industrial cluster or industrial estate.
- Development of specific infrastructure, including common effluent treatment plant, captive power plant, transportation linkages, hazardous waste disposal.
- Development of Common Facilities Centers like testing centers, cold storages, for industrial clusters, industrial estates, or a group of industries with common interests.

With a view to facilitate credit flow to the MSME sector at competitive rates, Exim Bank has also set up a Technology and Innovation Enhancement and Infrastructure Development (TIEID) fund of USD 500 mn exclusively for MSMEs, to augment their export competitiveness and internationalisation efforts, by partnering with banks / FIs. TIEID seeks to meet long term foreign currency loan requirements of Indian exporting entities in the MSME sector for meeting capital expenditure, through refinancing of Banks / FIs against their eligible SME financing portfolio.

In view of the large untapped potential for increasing exports by the creative industries and in order to provide a strategic focus to this sector and enhance Exim Bank’s presence in the creative economy space, and as a corollary, in the MSME segment, Exim Bank has also introduced a Programme specifically for financing the Creative Economy.

8. Could you share some information about the GRID programme of the EXIM Bank?

Mr. Iyer: The Bank supports globalisation of enterprises based out of rural areas of the country through its Grassroots Initiatives and Development (GRID) programme. Through this initiative, the Bank extends financial support to promote grassroots initiatives/technologies, particularly those having export potential.

The objective of the programme is to help artisans/producer groups/clusters/small enterprises across the country realize remunerative return on their produce essentially through facilitating exports from these units. The group handles credit proposals from such organizations working at the rural /grassroots level and offers tailor-made financial products to cater to their needs.

The group is mandated to work towards developing a robust, vibrant and holistic approach in its intervention by providing assistance at various stages of product development / business cycle including capacity building, export capability creation, expansion/diversification and finally exports.

9. Please share your views on the New BRICS Development Bank. Do you think that India would stand to gain by this arrangement especially in terms of exports?

Mr. Iyer: Currently, development finance is dominated by World Bank and IMF. The New Development Bank (NDB) promoted by the BRICS nations is likely to emerge as a better source for development finance resources for member states. The rationale for establishment of NDB has been to meet the significantly large infrastructure requirements and the need for more sustainable development. There is extensive empirical evidence that infrastructure development can increase economic growth and reduce levels of inequality.
NDB is expected to overcome current obstacles to higher growth, raise productivity and competitiveness, provide support during financial crisis, meet the infrastructure development gap in member countries, and promote trade and investment.

More than India becoming a beneficiary out of the loans received from the NDB, the lending by NDB to other developing countries for improving their infrastructure would have a positive impact in forging stronger trade and economic ties among nations.

10. What is your advice for the budding exporters in our country?

Mr. Iyer: The technologies used for production, as also in assembly of some of the products, are not always updated in tune with the global technological trends. In certain sectors like machinery, there exists large technology gap between domestic and foreign manufacturers. In order to enhance productivity, product quality and operating efficiency, it is essential that budding manufacturers constantly upgrade their technological competencies.

Post manufacturing of goods, labeling, packaging, packing and marking of the export consignments is an important stage for export business. Labeling requirements differ from country to country and the same should be ascertained well in advance by the exporters from the buyers. Exporters must also get acquainted with the latest packaging standards and techniques in order to avoid facing rejection of their goods.

Emphasis on quality control is also crucial for export businesses, especially in case of small-scale exporters. Products being stuck at destination on account of quality problems raised by overseas buyers can cause liquidity crisis. Qualified accounting personnel must also be hired by firms for good MIS reporting standards and periodical review of operations.

Exporters can benefit from product promotion in export markets, through avenues like trade fairs and exhibitions, by making the potential customers aware of the product, inducing product trials, and facilitating effective communication with the foreign buyers.

Exporters may also find it helpful to engage with export marketing agencies which provide support at different stages, like choosing or selection of products, identification of overseas markets and customers, selling techniques and channelization of incentives, assistances and facilities granted against exports. Exim Bank provides such services to Indian exporting firms and organization through its Marketing Advisory Service program by proactively assisting the firms in locating overseas buyer(s)/ partner(s)/ distributor(s) for their products.

Product and market diversification is also pivotal for exporters. Geographical diversification facilitates distribution of business risks among different export markets. Moreover, as demand from advanced economies stagnates under the shadow of global recession, exporters can withstand the slowdown by seizing opportunities in the dynamic economies of Africa and Latin America.

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If you can dream it, you can do it.

- Walt Disney

Innovation distinguishes between a leader and a follower.

- Steve Jobs
International Trade & Business Updates

Value Added Trade Costs in Goods and Services, UN ESCAP Working Paper Series, June 5th, 2015 by The Economic and Social Commission for Asia and the Pacific, Thailand

This study introduces a new dataset of bilateral value added trade costs for the goods and services sectors, based on a measure derived from the micro-founded gravity model and using data from the OECD-WTO TiVA database. This is the first study to calculate the value added trade costs for a set of developed and developing economies, both for the goods and services sectors. Overall, the study observes that, in the goods sector and in absolute terms, international trade costs calculated using value added data are lower than those calculated using gross trade and output data.

Source: www.unescap.org> resources


The World Trade Report 2014 looks at how the four recent major economic trends have changed and how the developing countries can use trade to facilitate their development. These trends are the economic rise of developing economies, the growing integration of global production through supply chains, the higher prices for agricultural goods and the natural resources, and the increasing interdependence of the world economy. The Report also looks into the role played by WTO in this regard.

Source: www.wto.org> Documents, data and resources


The World Investment Report 2014, main findings on international investment trends show that the foreign direct investment (FDI) inflows increased by 9 per cent in 2013 to $1.45 trillion. Developing countries increased their global share of FDI inflows to a record level of 54 per cent, and developing Asia now attracts more inward FDI than either the EU or the United States. As investors, developing and transition countries have been steadily increasing their investments abroad and last year they accounted for a record 39 per cent of global FDI outflows - up from just 12 per cent in the early 2000s. Because United Nations member States and other stakeholders are currently negotiating a post-2015 development framework - the Sustainable Development Goals (SDGs) – and this year’s report focuses on how private finance can be mobilized for investment in sustainable development sectors, such as climate change adaptation, infrastructure development, food security, health, and education.

Source: www.unctad.org> Publications


The Statistical Yearbook 2014 is an electronic file released by the UNESCAP, it consists of short analytical texts on 32 selected diverse topics, such as population, education, health, poverty and inequalities, gender, economy, environment and connectivity in the region and related key messages as well as relevant data tables, and the country profiles of main development indicators for each of the 58 regional member countries/areas of ESCAP.

Source: www.unescap.org> Resources

IMF Staff Discussion Notes, Causes and Consequences of Income Inequality: A Global Perspective Era by Dabla-Norris, Kalpana Kochhar, Nujin Suphaphiphat, Frantisek Ricka, Evridiki Tsounta, June 2015 from the International Monetary Fund, Washington, D.C.

This paper analyzes the extent of income inequality from a global perspective, its drivers, and what to do about it. The drivers of inequality vary widely amongst countries, with some common drivers being the skill premium associated with technical change and globalization, weakening protection for labor, and lack of financial inclusion in developing countries. The study finds that increasing the income share of the poor and the middle class actually increases growth while a rising income share of the top 20 percent results in lower growth—that is, when the rich get
richer, benefits do not trickle down. This suggests that policies need to be country specific but should focus on raising the income share of the poor, and ensuring that there is no hollowing out of the middle class. To tackle inequality, financial inclusion is imperative in emerging and developing countries while in advanced economies, policies should focus on raising human capital and skills and making tax systems more progressive.

Source: [www.imf.org](http://www.imf.org) > Staff discussion notes

**Human Capital Report 2015 by the World Economic Forum, Geneva.**

Talent, not capital, will be the key factor linking innovation, competitiveness and growth in the 21st century, and we must each understand better the global talent value chain. Better data and metrics are critical to this understanding. The Human Capital Index quantifies how countries are developing and deploying their human capital and tracks progress over time. This Report provides comprehensive information on the talent base in each country, including information on education levels of the employed, unemployed and the inactive members of the population as well as the specific qualifications of the latest entrants to the workforce.

Source: [www.weforum.org](http://www.weforum.org) > Reports

**How Independent Directors Bridge the Information Gap by Christopher Armstrong, Wayne Guay John E.Core, June 2015 from knowledge@wharton, Philadelphia.**

In the realm of corporate governance, recent research has confirmed a finding that should instinctively make sense: When a company’s board has a higher proportion of independent directors, the company itself behaves in a more transparent way. What’s less obvious is whether the greater transparency is a result of having more outside directors, or whether companies that put greater stock in transparency are more likely to acquire more outside directors.

The Wharton professors in the above paper discuss their findings and explain what it takes for companies to improve governance and information flow, and why there are no “one size fits all” solutions.

Source: knowledge.wharton > Topics > Management

**Dueling with Dragons 2.0: The Next Phase of Global Corporate Competition by Nikolaus Lang, Brian Collie, Andreas Gocke, Bob Zhai, Peter Ullrich, and Christian Moldenhauer, June 2015 from The Boston Consulting Group, Mumbai.**

The past few years have seen tremendous upheaval in a number of global industries. In 2000, giant Western companies such as Ericsson, Nokia, and Nortel Networks ruled the world’s telecommunications-equipment industry. Now, Chinese companies such as Huawei Technologies and ZTE have risen to the top. In the process, they have forced established multinational corporations (MNCs) into joint ventures or even out of the market. In the photovoltaic industry of 2005, U.S., European, and Japanese companies accounted for 90 percent of global production. The Boston Consulting Group continuously monitors the state of global competition in various industries. In the above paper they have observed the four steps taken by the companies to become the global leaders.

Source: [www.bcgperspectives.com](http://www.bcgperspectives.com) > Expertise & Impact

**Analysis: China’s Stock Markets in Freefall, July 8, 2015 by the Geopolitical Monitor, Canada & USA.**

The Shanghai Composite Index has been shedding value since mid-June, when it reached its 2015 high of 5,166 points. Since then the index has dropped to just 3,582 as of July 8 – a drop of over 30%. Hong Kong’s Hang Seng Index fell victim to bullish sentiment later, but it too has now entered a freefall, losing around 9% since last Thursday. Geopolitical Monitor finds that these drops are occurring just as Beijing makes moves to shore up market confidence. The Chinese government took the unprecedented step of calling in representatives from 21 of China’s largest brokerages over the weekend and getting them to pledge 15% of their net assets, or around $26 billion, to buy stocks thus pumping liquidity into the market (this is but a drop in the bucket given the $3 trillion in value lost since June). They also pledged to hold off on selling their own holdings until the Shanghai Composite stabilizes at around 4,500.

Source: [www.geopoliticalmonitor.com](http://www.geopoliticalmonitor.com) > Latest Stories
In India, “Jugaad” is a word we have heard from childhood. It is a word given to any improvised economical innovative solution to a problem, and thereby endeavoring to convert hardships and afflictions into opportunities. We have heard, our father advising the auto technician to do some “jugaad” and fix up his old scooter when the spare part was unavailable in the market or when it was extremely costly.

In the villages of Punjab, the common farmers fix diesel engines to a cart and use them for transporting humans, livestock, and their produce to their destinations! They call them “jugaads”. If we travel all over India, we will see many such ingenious innovations in use. As the saying goes ‘necessity is the mother of invention’, the ordinary men folk invented tools to suit their needs and of course their pockets too! It took authors like Navi Radjou, Jaideep Prabhu, and Simone Ahuja to pen down all these simple and frugal innovations in the form of a book to show the world the economical and innovative approach needed in this twenty-first century. Some of the innovators mentioned in this book have no engineering degree or even basic schooling. As is the case of Mansukh Prajapati whom Simone describes in the beginning of the book, did not even complete his schooling. However, he has designed a fridge, which he calls ‘Mitti cool’ out of simple clay, costing a meager two thousand rupees that keeps vegetables and fruits fresh without electricity. This helps people from rural places, where there is no constant supply of electricity or no supply at all, to get the luxury of cold water. They are also able to store their fruits and vegetables for about three days.

Innovation must be the keyword for companies all over the world. We have seen many innovative products introduced into the western markets after years of effort and expenditure. “Jugaad” shows the world that the not so developed countries like India, Brazil, China, Kenya and many more, have created new economically viable and simple products. The authors have outlined six principles on which they worked:

1. Seek opportunity in adversity
2. Do more with less
3. Think and act flexibly
4. Keep it simple
5. Include the margin
6. Follow your heart

In today’s high tech world, people may feel that “jugaad” is only for those who are simple and under privileged. The authors have however proceeded further and shown that Fortune 500 companies too have geared up and introduced these principles to establish their hold in the market in this troubled financial world. The book has write ups on twenty big business ventures spread around the world - Google, Facebook, 3M Apple, Best Buy, GE, IBM, Nokia, Procter and Gamble, PepsiCo and Philips to name a few. The authors have analyzed and assessed how these big companies are applying the principles of “jugaad” innovation in their businesses. And, of course the evolution of our own ‘Nano’ has its place in the book.

In conclusion, we would like to cite the example of India’s Mars Orbiter - Mangalyan that has been assembled and released into space on a comparatively low scale budget. The authors may have included this innovation also in their book, had the event taken place before 2014 by which time the book was already published!
Call for Papers

GITAM Review of International Business, a bi-annual publication of the GITAM School of International Business, Visakhapatnam, India, is a journal devoted to contemporary issues in International Business which encompasses to include such areas as International Business Strategy, Finance, Marketing, and Policy matters relating to the WTO and other trade related issues. Papers well researched in the area of International Human Resource Management and Global Supply Chain Management are also welcome. Original theoretical and empirical contributions including select reviews discussing the state of the art in functional areas of International Business will be published. Papers from academicians, Industry analysts as well as policymakers are welcome in order to provide alternative perspectives for a wide range of users.

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• to report on alternative perspectives in International Business that generate interplay between theory and practice.

Please send your papers to

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<td>Cross Cultural Management</td>
<td>Ms. S. Lalitha Girija Kumari</td>
<td>National Seminar Conference</td>
<td>Register</td>
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<td>3.</td>
<td>Logistics &amp; Supply Chain Management-Issues, Challenges and the way ahead</td>
<td>Dr. Ch. Venkataiah</td>
<td>National Conference</td>
<td>Register</td>
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<td>4.</td>
<td>“BRICS Shaping the New Global Architecture”</td>
<td>Dr. R. Radha</td>
<td>International Conference</td>
<td>Register</td>
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<td>5.</td>
<td>Advances in Operations Research</td>
<td>Prof. R. Venkateswarlu</td>
<td>National Seminar</td>
<td>Register</td>
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The School has positioned some of the internationally eminent and experienced faculty. It has the best core and visiting faculty, who have rich experience in the reputed B-schools and industry in the country.

The School infrastructure includes computer center equipped with dedicated campus-wide fiber optical layered network with 8 Mbps leased line internet access, AC class rooms and syndicate rooms with multimedia equipment. It has excellent support facilities such as Knowledge Resource Centre, Advanced Digital Library, and student support facilities like separate hostels for boys and girls, Gymnasium, Tennis Court, Food Courts, Bank, Post Office, Medical Centre, Book Shop. With ‘top-of-the line’ infrastructure, the Institute draws excellent students from different parts of the country. It has a track record of 100 percent campus placements.

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