

International Journal on Global Business Management and Research

Volume 2 • Issue 1 • August 2013

The Relationship between Demographic Variables, Individualism and Collectivism Professional Accountants: The case of Australia and Egypt	Medhat Endrawes
Entrepreneurial Marketing Strategies in Business Enhancement of Private Higher Education Institutions (PHEI) In Malaysia	Ramesh Kaliyamoorthy, & Theeban,K.P.
A study on Consumer Sentiment towards Marketing activities	Kota Neel Mani Kanta, Krishna Mohan.G & Srivalli.P
A Study on Employee Involvement, Employee Empowerment and Job Satisfaction in Indian Corporate Sector	Raghunatha Reddy, P., Krishna Sudheer.A., & Krishna Karthik, E.
The Trend and Impact of Small and Medium Enterprises on Economic Growth in SriLanka	Sinnathurai Vijayakumar
Post-merger financial performance of select IT companies in India	Veto Datta & Vasantha,S.
Empirical study on Factors influencing the purchase behavior of Tablet PC	Aruna.G & Nirmala,S.
Increasing organizational commitment strategically using Hard and Soft HRM	Shilpi Saha
Applying Six-Sigma for Quality Management in Educational Institutions	Selvaraj,S.N. & Senthil Kumar,S.A.
Determinants of Retail Investors Behaviour and its Impact on Investment Decision	Kavitha.C
Supply Chain Management Components, Supply Chain Performance and Organizational Performance: A Critical Review and Development of Conceptual Model.	C. Ganesh Kumar & T. Nambirajan

EDITORIAL TEAM

Patron	Dr.Thangam Meganathan , Chairperson, Rajalakshmi Group of Institutions.
Governing Member	Mr.K.Jayaramakrishnan , Chief Executive Officer, Rajalakshmi Group of Institutions.
Editor in Chief	Prof.S.Sankar , Director (Human Resources), Rajalakshmi Engineering College.
Editor	Dr.K.R.Sowmya , Associate Professor, Management Studies, Rajalakshmi Engineering College.
Associate Editor	Ms.R.Sindhu , Assistant professor(Selection grade), Management Studies, Rajalakshmi Engineering College.

Advisory Board

- **Dr.Aiste Urboniene**, Associate Professor, Department of Philosophy & Culture Studies, Vilnius University, Kanuas, Lithuania.
- **Dr.Babs Surujlal**, Research Professor, Faculty of Management Sciences, Vaal University of Technology, South Africa.
- **Dr.K.Ramesh**, Professor, School of Accounting & Finance, Linton University, Legenda Education Group, Malaysia.
- **Dr.Kumaran Suberamanian**, Associate Professor, Department of Indian Studies, University of Malaya, Malaysia.
- **Dr.Shahnaz Nayebzadeh**, Department of Management, Yazd Branch, Islamic Azad University, Yazd, Iran.
- **Dr.N.Panchanatham**, Registrar, Annamalai University, Chidambaram, Tamilnadu, India. Email – panchanatham@gmail.com.
- **Mr.N.Dev Anandh**, Group Manager (Productions), Caterpillar India Pvt Ltd, Tiruvallur, Chennai, Tamilnadu, India. Email – devanandhn@yahoo.com.
- **Mr.V.Balakrishnan**, General Manager & Plant Head, Wheels India Limited, Sriperumpudur, Chennai, Tamilnadu, India. Email – balakrishnan_v@wheelsindia.com.

Editorial Board

- **Dr.D.Kuppuswamy**, Dean, Management Studies, Rajalakshmi Engineering College.
- **Dr.C.B.Ragothaman**, Professor, Management Studies, Rajalakshmi Engineering College.
- **Dr.G.Sankararaman**, Professor & Head, Management Studies, Rajalakshmi Engineering College.
- **Mr.T.C.Thomas**, Associate Professor, Management Studies, Rajalakshmi Engineering College.
- **Dr.C.Ramalingam**, Professor, Management Studies, Rajalakshmi Engineering College.
- **Mr.M.Tamilvanan**, Assistant Professor, Management Studies, Rajalakshmi Engineering College.

Annual Subscription details

Rates by Post	India	Overseas
<i>Individuals</i>	<i>Rs.500</i>	<i>US\$15</i>
<i>Institutions</i>	<i>Rs.1000</i>	<i>US\$25</i>

IJGBMR, is published twice a year (August and March) by Department of Management studies, Rajalakshmi Engineering College, Chennai.

Copyright - IJGBMR, Copyright © 2013, Department of Management Studies, Rajalakshmi Engineering College. All rights reserved. Reproducing any material published in IJGBMR requires prior permission of the editor.

Disclaimer – The publisher and the editors cannot be held responsible for errors or any consequences arising from the use of information contained in this journal. The views and opinions of expressed do not necessarily reflect those of the publishers and the editors.

Editorial Address: The Editor in Chief, Department of Management studies, Rajalakshmi engineering College, Chennai. Phone: + 91 3718 1111, Email: editor.ijgbmr@rajalakshmi.edu.in, Website: www.rajalakshmi.org/ijgbmr

International Journal on Global Business Management and Research

Volume 2, Issue 1, August 2013

A Bi-Annual Journal published by Rajalakshmi Institutions.

"What we find changes who we become."

- Peter Morville

IJGBMR

Published by

RI Publications, Thandalam, Chennai-602105.

Tamilnadu, India.

www.rajalakshmi.org

© **IJGBMR, RI Publications,**

August 2013

ISSN 2278 8425

Published by

RI Publications,

Rajalakshmi Nagar, Thandalam,
Chennai - 602 105.

Phone - 044 3718 1014, 3718 1111.

Fax - 044 3718 1113.

Web: www.rajalakshmi.org/ijgbmr

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means - electronic, photocopying or otherwise without the prior permission of the publisher.

Printed at

NPT OFFSET PRESS PVT. LTD

New No 111, Old No 77-78,
Avvai Shanmugam Salai,
Royapettah, Chennai 600 014.
TamilNadu, India.
Phone : +91 - 44 - 2813 3804
Mobile : +91 99404 98915
Website : www.nptoffset.com

International Journal on Global Business Management and Research

Volume 2, Issue 1, August 2013

CONTENTS	PAGE NO.
The Relationship between Demographic Variables, Individualism and Collectivism Professional Accountants: The case of Australia and Egypt <i>Medhat Endrawes</i>	5-15
Entrepreneurial Marketing Strategies in Business Enhancement of Private Higher Education Institutions (PHEI)In Malaysia <i>Ramesh Kaliyamoorthy, & Theeban,K.P.</i>	16-26
A study on Consumer Sentiment towards Marketing activities <i>Kota Neel Mani Kanta, Krishna Mohan.G & Srivalli.P</i>	27-33
A Study on Employee Involvement, Employee Empowerment and Job Satisfaction in Indian Corporate Sector <i>Raghunatha Reddy,P., Krishna Sudheer.A., & Krishna Karthik, E.</i>	34-38
The Trend and Impact of Small and Medium Enterprises on Economic Growth in SriLanka <i>Sinnathurai Vijayakumar</i>	39-47
Post-merger financial performance of select IT companies in India <i>Aruna.G & Nirmala,S.</i>	48-53
Empirical study on Factors influencing the purchase behavior of Tablet PC <i>Veto Datta & Vasantha,S.</i>	54-61
Increasing organizational commitment strategically using Hard and Soft HRM <i>Shilpi Saha</i>	62-69
Applying Six-Sigma for Quality Management in Educational Institutions <i>Selvaraj,S.N. & Senthil Kumar,S.A.</i>	70-74
Determinants of Retail Investors Behaviour and its Impact on Investment Decision <i>Kavitha.C</i>	75-85
Supply Chain Management Components, Supply Chain Performance andOrganizational Performance: A Critical Review and Development of Conceptual Model. <i>C. Ganesh Kumar & T. Nambirajan</i>	86-96

From the Editor's Desk

It's indeed a great pleasure to release the third issue of "International journal on global business management and research". There is an inevitable need for the educational institutions to focus on research as that alone will ensure that our country competes effectively with most advanced countries in many fields of engineering, technology and management. As an instrument towards this objective, our journal is trying to enable knowledge-creation and knowledge- sharing across the globe.

Our efforts towards excellence in research are evident through this issue with its broad range of disciplines discussing its contemporary issues. The lead articles in this issue is on "individualism & collectivism of professional accountants" by Medhat Endrews from Macquarie University, Australia and "entrepreneurial marketing activities" by Ramesh & his co-author from Legenda educational group, Malaysia.

A variety of other topics have been covered empirically on customer satisfaction, employee engagement, investors' behavior, job satisfaction, soft & hard HRM. A special paper on supply chain management is a major contribution from Operations front.

It is therefore evident that the journal is trying to entertain papers from all disciplines on management by visible contributions from all over the world. We hope the readers of this journal will find it interesting and informative. We are pleased that IJGBMR is listed in ProQuest's ABI-Inform database and Google. We are hoping to be listed with few more directories very shortly. IJGBMR is awaiting its Index Copernicus value very shortly.

We welcome inspiring and innovative contributions from academicians, corporate members, and research scholars to enhance knowledge sharing among the management professionals across countries.

- Dr.K.R.Sowmya

"The problem in this business isn't to keep people from stealing your ideas; it's making them steal your ideas!"

- Howard Aiken

The Relationship between Demographic Variables, Individualism and Collectivism of Professional Accountants: The case of Australia and Egypt

Medhat Endrawes*

*Department of Accounting and Corporate Governance, Faculty of Business and Economics, Macquarie University, Sydney, NSW, Australia. Email: medhat.endrawes@mq.edu.au

Abstract

The aim of this study is to identify and explore the relationship between demographic variables and individualism and collectivism across two nations - Australia and Egypt. Quantitative and qualitative approaches were used to measure the variables. To obtain quantitative data, a sample of 264 professional accountants working in the Egyptian and Australian banking industry participated in this study. A questionnaire based on Hofstede's (1980) Work-Related Cultural Value scale was used to measure individualism-collectivism. To obtain qualitative data, a structured interview was conducted with 10 Egyptian and 10 Australian accountants. Findings from both quantitative and qualitative data suggested that there was a significant difference between the two nations with respect to the individualism-collectivism cultural dimension. It also showed that individualism-collectivism was significantly associated with the size of the organization, and the education and experience of both groups. Findings of this study have implications for the practice, research and education of accountants in Egypt and Australia.

Keywords : Individualism, collectivism, Australia, Egypt, Accountants

I. Introduction

The relationship between demographic variables and cultural dimensions has been neglected in the literature especially in accounting. Previous cross-cultural studies have shown that the relationship between demographic variables and cultural dimensions has been of interest to many researchers. One of the main cultural dimensions that have been extensively used in the literature is individualism and collectivism developed by Hofstede (1980). Researchers have linked individualism-collectivism to ethical decision making (Husted & Allen, 2008). Kagitcibasi (1997) has argued that differences in individualism-collectivism can be the result of demographic variables. In addition, demands have been made for studies on the impact of demographic variables on decision making (Ford & Richardson, 1994). However, there is no clear theoretical framework connecting demographic variables with individualism-collectivism. To fill this gap in the literature, this study examines the relationship between demographic variables such as size of the organization, workers' current position, experience, age, gender and education on individualism-collectivism in two cultures (Egyptian and Australian).

Given the complexity of the association between demographic variables

and individualism-collectivism, the author has acknowledged the necessity to examine these relationships and has used Hofstede's cultural dimensions to distinguish between accountants in the two countries. It is expected that Egyptian accountants behave differently from their Australian counterparts due to different demographic variables. To my knowledge there are no studies that have tested the relationship between demographic variables and cultural dimensions. This study is important because we need to know whether accountants behave differently because of differences in their demographic features. Prior researchers have used demographic variables as moderating variables (e.g. Brown & Peterson, 1993; Russ & McNeilly, 1995). Brown and Peterson (1993) found demographic variables had a moderating effect on the relationship between an organization's commitment and turnover intentions. Similarly, Russ and McNeilly (1995) tested the moderating effects of demographic variables such as experience, gender and performance on job satisfaction, organization commitment and turnover intentions. They found that gender had an important impact on the relationship between an organization's commitment and turnover intentions. The aim of this study is to provide empirical and non-empirical evidence of the relationship between individualism-collectivism theory and

demographic variables using a large sample of accountants from the two countries. The following sections review the literature and discuss the methods used to obtain quantitative and qualitative data related to individualism-collectivism in Australia and Egypt. Differences and similarities between the two cultures will be discussed.

II. Review of the literature

2.1. Culture

Hofstede (1980) conceived culture as a construct which manifested itself in an organization as a result of the organization's location within a particular society. On the basis of his extensive analysis of 88,000 responses to a questionnaire survey of IBM employees in 66 countries, he argued that there are five discrete dimensions of culture: individualism, uncertainty avoidance, power distance, masculinity and long term. On the basis of his research, Hofstede demonstrated that countries differed significantly in their 'score' on these dimensions. In addition to the relevance of the framework, his work has been acknowledged to have been based on a rigorous research design, a systematic data collection and a coherent theory to explain national variations. Culture refers to combined forms of behaviour, "(i.e., language, actions, customs, beliefs, and values) of racial, ethnic, religious, or social groups" (McKoy, 2013, p. 376).

Culture and Values

Values lie at the heart of Hofstede's (1980) model of the component parts of culture. He has described values as consisting of non-specific feelings of good and evil, beauty and ugliness, normality and abnormality, and rationality and irrationality. He has asserted that values themselves cannot be observed directly, but can be inferred from their manifestations in alternatives of behaviour. Sackmann (1991) has used the analogy of an iceberg to differentiate between the visible aspects of culture: observed behavioural regularities (the tip of the iceberg), and the central cognitive components of culture; values and beliefs (the underlying bulk of the iceberg). Posner and Schmidt's (1992) research into values differentiates between personal and organizational values.

Hofstede (1989) makes a similar distinction by differentiating between the values components of culture at the occupational, organizational and national levels. These different value sub-sets illuminate areas of value congruence, in which individual values coincide with values held by others at either the organizational, professional or national level. Beyond Hofstede's conceptions, there has been considerable interest in defining and measuring organizational values. A number of studies have developed several important value dimensions, and have demonstrated their relationship to aspects of managerial behaviour. Most notable among these research efforts are those by Woodcock and Francis (1989), and Huo and Randall (1991).

Religions are seen to be rich sources of values, which are integrated them with beliefs, narratives, rituals, moral codes, and emotional experiences within community contexts (Saroglou, et al., 2004). Value philosophers declare that religions affect their adherents' values through socialization (e.g., Saroglou, et al., 2004).

Culture and Islamic religion

The relationship between culture and religion has been reported in the literature. Religion has played a significant part in the development of cultures through traditions and beliefs and culture may act as a setting through which religion is made meaningful (Sasaki & Kim, 2011). Religiousness can be interpreted as a "hierarchically structured psychological domain" (Tsang et al., 2003, p. 349). For example, Islamic religion reinforces the rules, authority and hierarchy of the family. Therefore, it reinforces the values of submission, obedience, dependency and encourages the acceptance of authority and subordination to superiors. On the other hand, Wolfe (2005) has found that Christianity encourages independence and personal choice.

Hudson (1977) and Razi (1990) have argued that cultural values and socialization patterns in Arabian society are inclined to produce followers rather than leaders. This suggests that the values of the traditional Islamic religion have a significant influence on the lives of the majority of workers, including accountants in Egypt and help to repress individualistic tendencies.

Culture differs in the importance placed on the individual or the group. Personal responsibility is strong in Australia, for example, children are taught to believe their destinies lie in their own hands (Leung, et al., 2011). Conversely, in group-focused societies, such as in Egypt, children are taught that their role is to serve the group. Australian organizations encourage individual autonomy and responsibilities while Egyptian organizations are oriented towards teamwork.

Islam, while supportive of capitalism, stresses the individual's duty to society. According to Islam profits earned from fair business dealings are justified but a firm's profits must not result from dishonesty (Hudson, 1977; Razi, 1990). The Islamic prohibition of payment or receipt of interest results from a belief that the practice represents exploitation of the less fortunate. Thus, demographic variables may have important roles in different cultures.

Many researchers have used demographic variables such as age, tenure (e.g. Luthans et al., 1987), education and hierarchy (e.g. Salancik, 1990) in their studies. However, these studies have concentrated on American samples, while Middle Eastern countries, particularly Egypt, has never been studied or compared to any Western countries. Prior research has shown that people in high positions and with much experience are likely to experience high levels of organization commitment. For example, Sommer et al. (1996) found that job tenure and age were significantly related to organization commitment, although this did not hold for the Korean culture. This result suggests the importance of cultural dimensions and their relationship to demographic variables.

III. Demographic Variables

The current study investigates the relationships between demographic variables and individualism-collectivism. The demographic variables considered in this study are organization size, and accountants' educational level, experience, occupational status, gender and age.

Organization size

The impact of organization size on adoption, implementation and use of

information technologies has received increasing attention in the literature. For example, Mabert et al. (2003) found that organization's size negatively affected approaches to technology. Clarke et al. (1996) have argued that smaller organizations are different from larger organizations in terms of support provided to staff and ethical decisions.

Educational level

Within-culture analyses have generally found a strong positive relationship between education and idiocentrism, for example, in Korea (Cha, 1984; Han & Choe, 1994), India (Mishra, 1994) and Poland (Reykowski, 1994).

Experience

Mixed results exist on the association between length of experience and decision making. A study by Thorne et al. (2003) found a negative relationship between experience and the ethical decisions of auditors. However, Glover et al. (2002) found a positive connection between years of management experience and ethical decisions. They claimed that more experience may be related to better knowledge of what is ethically acceptable and a larger experience of dealing with similar circumstances. This study will hence inspect the relationship between length of experience and individualism-collectivism in Egypt and Australia.

Occupational Status

Reykowski (1994) has shown that higher occupational status is positively associated with idiocentrism and negatively associated with allocentrism in Poland. It was predicted that, overall, those higher in the occupational status hierarchy would exhibit increased idiocentrism and decreased allocentrism. Higher occupational status allows one to "do one's own thing," whereas individuals lower in the hierarchy are more accountable to superiors and co-workers.

Prior cross-cultural research argues that affluence is the most important variable in determining individualism because it leads to independence (Triandis, 1988, Triandis et al., 1990). Conversely, a low income society tends to be associated with collectivism. For example, Han and Choe (1994) found that Koreans tend to be more collectivistic because of their low level of income. It is

reasonable to infer that socio-economic status will be more associated with organization size, level of education and workers' current position in the organization. Prior research has shown a strong positive relationship between individualism and education level (e.g., Cha, 1994; Mishra, 1994; Han & Choe, 1994). Occupational status was also associated positively with individualism and negatively associated with collectivism (Reykowski, 1994). It was argued that high occupational status permits an individual to "do one's own thing" whereas an individual with low occupational status is most likely accountable to superiors (Freeman, 1997).

Gender

A number of studies have tested the effect of gender on ethical decision making, with some results revealing that females have higher ethical decision-making ability than males (Clarke et al., 1996; Sweeney et al., 2010) and others displaying no variance between males and females (Radtke, 2000). Sex differences have been reported within-culture factor analyses of idiocentrism and allocentrism. For example, Dragonas (1983) reported that in Greece, idiocentrism was significantly stronger among urban than among rural females, whereas there was no such difference for males.

In Australia, there is equality between men and women, however, in Egypt there is a gap between the roles of men and women. For example, in Egypt men are considered the leaders, and women's role is to follow or be subordinate to men. Islam as the main religion in Egypt has a significant impact on what men and women can and cannot do. Men are responsible for providing the financial support for the family while women are responsible for looking after the children and providing support and respect for men (Prewitt-Freilino et al., 2012). The current study argues therefore that in Egypt gender may have an effect on experience, and level of education because men are more likely to stay in their jobs and obtain higher degrees than women. In Australia, men and women exercise similar roles and have similar positions and education level. However, there are no consistent findings to such a prediction. Based on the above arguments, the following hypotheses were developed:

Age

Prior research shows mixed results with respect to age. For example, Clarke et al. (1996) found that age and moral development were significantly negatively associated, while Ruegger and King (1992) found that age was positively associated with ethical attitudes. On the other hand, Barnett et al. (1994) found no relationship between age and ethical decisions.

Hypothesis 1: There is a significant difference between Egyptian and Australian accountants with respect to individualism.

Hypothesis 2: There is no relationship between individualism-collectivism and demographic variables with respect to Egyptian and Australian accountants.

IV. Research Methods

Quantitative methods

Sample selection

The study aim was to examine the relationships between individualism-collectivism and demographic variables. Therefore, two samples were used from large cities in Egypt and Australia, namely Cairo and Sydney, respectively. The two countries were chosen because of differences in culture, religion, average incomes, socio-economic status and levels of education (Endrawes & Matawie, 2002). In Cairo, the questionnaires were distributed by a delegate to the accountants association who was working in the banking industry. Questionnaires were distributed by the author to accountants working in banks in Sydney. Anonymity was assured.

Subjects

One hundred and thirty two accountants working in the banking industry from each nation, Egypt and Australia, were employed in this study. The Egyptian participants consisted of 11% under the age of 30, 53% between 30 and 40 years and 36% over 40 years old. The Australian participants consisted of 66% under the age of 30, 20% between 30 and 40 years and 14% over 40 years old. The Egyptian sample comprised 71% men and 29% women, while the Australian sample comprised 55% men and 45% women. Twenty-two percent of the Egyptian subjects had a school certificate compared with 38% of the Australian

subjects. Seventy percent of the Egyptian subjects had a bachelor's degree and 8% had a master's degree, while 57% of the Australian subjects had a bachelor's degree and 5% had a master's degree. The mean number of years of banking experience of the Egyptian subjects (13.5 years) was higher than that of the Australian subjects (6.8 years).

4.2 Procedure & Measurement

The subjects were asked to complete a questionnaire on cultural dimensions and demographic variables. The study used Hofstede's (1980) framework of cultural dimensions: individualism, uncertainty avoidance, power distance, masculinity and long term. Since individualism-collectivism has received much attention in the literature, the study has concentrated particularly on the individualism dimension. Seven demographic variables were considered

- Size of the organization (large, medium or small). The organization size is defined by the number of employees, as noted by Choe (1996).
- Current position (accountant, first line manager, middle manager, senior manager),
- Experience,
- Age,
- Gender,
- Level of education (high school certificate, university degree, postgraduate degree).

4.3 Statistical Analysis & Results

Participants comprised 264 accountants from Egypt and Australia, that is, 132 respondents from each country. Three different methods of analysis were used; Two-Sample t-test or bi-response variables, one-way ANOVA for multiple response questions (such as size and education variables) and Pearson Correlation coefficient and regression for continuous variables (such as experience).

The analysis showed that individualism is significantly different between Egypt and Australia. In particular, Australian accountants scored higher than Egyptian accountants ($t=5.39$, $p\text{-value}<.1\%$) and this confirmed the first hypothesis. All the demographic variables were investigated for both countries. The results showed that

all the demographic variables were not significant for Australia except the size of the organization ($F=2.85$ and $p\text{-value}<5\%$). There were three significant demographic variables for Egypt namely, size of the organization, experience and level of education ($F=3.19$ with $p\text{-value}<.009$, $r = 0.26$ with $p\text{-value}<0.003$ and $F=2.91$ with $p\text{-value}<.024$, respectively). The results for the size of an organization were consistent with the studies of Clarke et al. (1996) and Sweeney et al. (2010). Larger organizations provide more supportive environments than smaller organizations. and also have better financial situations and better technology (Mabert et al., 2003).

Qualitative Method

Interviews

Face-to-face interviews were conducted in order to obtain qualitative data which were more detailed in certain aspects. Pre-determined questions were used to guide the interview. These structured interviews were used to obtain detailed information on the different variables affecting individualism and collectivism in Egypt and Australia and to keep consistency of data across participants. All participants were asked 10 questions.

Participants

Ten Egyptian accountants working in the banking industry were interviewed. Arabic language was used for convenience and to ensure that the data collected presented the participants' views, attitudes and experiences accurately. Similarly, 10 Australian accountants working in the banking industry were interviewed in English. Field notes and journals were used to capture the experience and responses of participants for later use in data analysis.

Access to Participants

An invitation and researchers' contact details were included at the end of the questionnaire for participants who might like to participate in an interview. Those who were interested were contacted and among those who agreed to be interviewed, 10 participants were selected from each country. All participants voluntarily consented to participate in this study. Pseudonyms were

used to ensure that participants' privacy was respected and maintained throughout the research process.

Demographic Data:

The previous seven demographic variables were used

- Name: pseudonyms were used
- Age: ranged between 25 and 55 years
- Occupation: all participants were currently working as accountants in the banking industry
- Sector: private and public
- Size of organization: large, medium and small
- Years of experience: ranged from 2 years to 20 years
- Highest level of education: 5 participants with a bachelor's degree and 5 participants with a master's degree in accounting, representing both countries.

After collecting each participant's demographic data, they were asked to talk about their experience, feelings, and attitudes related to their work practice in the banking industry.

The following are some of the questions that were asked:

1. What is your preferred way of working in the banking industry, that is to say would you prefer to work as a recognized individual or as part of a team?
2. From your own personal experience working in teams and as an individual, what are the factors that may improve or hinder productivity and creativity at work in terms of individualism or collectivism?
3. From your experience, problems are better solved when teams or an individual is involved?
4. In what ways does the size of your organization impact on your ability to work as an individual or as a member of a team?
5. Do you think the success of your organization can be achieved by only employing those accountants with many years of experience who possess higher qualifications than that required by the job? Why do you think so?

6. From your experience, what is the impact of one's education on one's ability to work within either the individualism framework or the collectivism framework?
7. In your opinion, what is the impact of an accountant's years of experience within the banking industry on his or her ability to work as an individual or in a team?

V. Analysis and Findings

All interviews and field notes were read several times and each interview was analyzed separately. Data collected were categorized into two groups based on the main theme of either the accountant working in the individualism or collectivism framework.

The impact of education and experience on individualism and collectivism in Australia and Egypt was explored. Educational level and years of experience did not have a significant impact on individualism and collectivism in Australia. In contrast, a high level of education and more years of experience were related to individualism in Egypt. In regard to the impact of organizational size on individualism and collectivism, accountants in both countries preferred individualism when the organizational size was medium to small. However, when the size of the organization was large, accountants preferred to work in a collectivism framework. The following are extracts from the Australian accountants' interviews. All names used are pseudonyms.

John, who has a master's degree in accounting and has been working in the banking industry for the last 7 years, stated:

I have worked so hard in my life to achieve what I achieved so far ...I made financial, personal and social sacrifices at the beginning of my career to ensure a better future for myself and my family ... at the end I got what I deserve ...now I've got a secure job at the bank. You do not expect me after all what I went through to share my experience and my work with others who might take the credit for the work that I have done. You can think that I am selfish, but in fact, I believe that I am just being fair to myself. I worked and achieved something that others did not achieve, therefore, I deserve that my work be recognized as my own rather than as a group's work.

On the other hand, Peter, who also has a master's degree in accounting and has been working in the banking industry for the last 9 years, prefers working in collectivism, as expressed in the following:

You think that because I've got a master's degree and I've been around for many years that I know everything about banking! I would be lying to you if I want you to believe so. I've worked with less experienced staff and I've learned a lot from them, in fact, on many occasions I consult with the team on many issues and respect and admire each individual's skills and experience regardless of whether they are senior or junior staff ... In fact, I have worked with junior staff on multiple projects and we have achieved great success.

Sam is 49 years old, has a bachelor's degree and has worked as an accountant for the last 20 years. He believes that higher education does not guarantee that work will be achieved in an effective manner. He states:

Sometimes, those with a master's degree think that they are better than everyone around and that they could do a better job than us ... especially those young ones with a master's degree, they are over confident and when you talk to them or try to have a say or give advice regarding their work, you just sense this attitude that they think they are superior, can do a better job on their own without involving the team. In fact, on a number of occasions, you find them failing to make effective decisions ... I believe that no matter what education you have, as long as the person is able to work effectively and the outcome will benefit the organization, then education becomes a secondary issue.

Andrew, who has a bachelor's degree in accounting and who has been working in the banking industry for the last 15 years, expressed his view regarding education:

Why this and that, what's the point of having a master's degree when I can achieve what I want to do without it. I consider it a waste of time, money and effort. I've been working collaboratively with my team since I started work, and I didn't have any problems. When I was a junior staff member, I relied on more experienced staff to guide my work. I didn't have to rely on my own abilities to meet the challenges of the work on my own ... Now, I've got enough experience, which enables me

to work as an individual and be appreciated for the work that I can achieve on my own ... This is the time that I be recognized as playing an important role and contributing to the success of the organization.

The following quotes from Egyptian accountants working in the banking industry express their views, work experience, the use of individualism or collectivism and the influencing demographic factors, such as education, experience and level of education.

Mohammed who has a master's degree from Cairo University and has been working in the banking industry for 13 years stated:

It is my duty as a Muslim citizen to share what God gave me from education and experience with others. Morally and religiously, I am obliged to share this for the benefit of society and the organization that I am working for. I am proud of sharing my expertise and knowledge gained through my education and through the many years working as an accountant, especially with junior staff. I believe that God blesses our work when we work in teams.

Ahmed, who has a bachelor's degree in accounting and has been working in the banking industry for 12 months, believes that the larger the organization, the better chance for him to work in teams. He elaborates:

I was raised in a Muslim family, which taught me to put the group's gains above my personal gains. This is because my personal gains and satisfaction are based on and related to the gains and successes of the group. I am one but part of this group, which I belong to. The success of the group means the success of each individual that forms this group.

Fatima, has a bachelor's degree and 7 years experience, works in a large size organization. She believes that most of the time she prefers and actually works in collectivism. However, at times she is required to make executive decisions. She stated that even when this happens, she consults with the rest of the team to ensure that her decision is based on respect and trust to other colleagues' judgment.

VI. Discussion and Conclusions

Qualitative findings based on the participants' interviews were consistent with

findings collected from the questionnaire. Interview data obtained from the Egyptian accountants were compared to those obtained from the Australian accountants. Findings suggest that there is a significant difference between the two cultures in terms of individualism and collectivism approaches to work. Qualitative findings suggest that Egyptian accountants working in the banking industry prefer working in teams rather than as individuals. They expressed their belief in team-work and in achieving team goals. Due to the fact that the majority of Egyptians are Muslims, participants' views, opinions and practices were influenced by Islam, which encompasses laws governing a Muslims' way of life, including family, work, policies and the law. The majority of participants stated that they preferred to work in teams because it is an Islamic teaching to serve and be part of a group/team, and to trust and help each other, thus, placing the group/team gains and successes over the individual's.

Egyptian participants stated that the higher the person's education and the more experience the person has, the more likely he/she will work within a collectivism approach. This is due to religious and cultural factors, where the person with higher education and more experience is expected to share his/her knowledge and expertise with others and with less experienced and less educated colleagues. It is more a social and moral expectation of people working in Egyptian organizations to work collectively for the benefit of the organization rather than for individual gains. This is because individual success is measured by organizational success, therefore, each person considers him/herself a member of this organization rather than working on his/her own to achieve higher personal gains. It was found that the larger the organization in Egypt, the more likely that people would be working in teams. In smaller organizations, people would be working within the individualism framework because competition for scarce resources would be higher between employees.

On the other hand in Australia the educational level and years of experience were not related in any way to people's collectivism or individualism approach to work. This finding may be due to cultural and social factors in Australia, which place an important value on time and money.

Different opinions were expressed when participants were asked which approach they were using and why. Some related higher educational level to the use of the collectivism approach, while others believed that the higher the educational level they possessed the more they would work using the individualism approach. Those with lesser education were found to use either individualism or collectivism. Years of experience were found to impact on people's use of individualism and collectivism. Some participants expressed that the more experience they had, the more they preferred to work individually, while others with more experience preferred working in teams. Similarly, those with limited years of experience had no preference. This was attributed to personal preferences, previous successes and personal gains resulting from working either in teams or as individuals and personality traits and characteristics of the individual accountant.

Finally, the size of the organization was the only factor that had a significant impact on the way Australian accountants worked. It was found that Australian accountants' used individualism in small and medium size organizations. This is the only similar finding for the two groups. Similar to Egyptian accountants, Australian accountants used individualism in order to maintain and protect their jobs in highly competitive working conditions where the struggle to achieve success with scarce resources was a contributing factor, regardless of the educational level and years of experience. In both countries people are expected to showcase their individual achievements with limited resources of small to medium size organizations. As a result, accountants worked with an individualism approach to secure their positions. On the other hand, in large organizations, accountants in Egypt and Australia worked using collectivism. This is due to the nature of large size organizations, which require people to work in teams to achieve and meet the larger needs of these organizations.

Implications and Limitation of the study

This paper has improved our understanding of the relationship between demographic variables and individualism-collectivism in both Egypt and Australia.

The results indicate that there is a cultural difference between the two countries with respect to individualism. Individualism-collectivism is associated with the size of an organization, and the experience and level of education for Egyptian accountants. However, individualism-collectivism is associated with the size of the organization only for Australian accountants. Further studies are needed in order to know why size is relevant to individualism-collectivism in Australia. Due to the differences found between the two cultures and the role of culture on individualism-collectivism and probably on other cultural dimensions, undergraduate and postgraduate courses in accounting need to include cultural subjects in their curriculum. Since this study was limited to two cities, Sydney and Cairo, and was also limited to accountants working in the banking industry only, generalization of the results are limited to the above environments. Future research may consider different countries and different occupations.

In conclusion, the study attempted to investigate the relationship between individualism-collectivism and demographic variables. The results suggest that Egyptian accountants behave differently from their Australian counterparts. Further investigation of the current data set is necessary in order to establish whether a relationship between these constructs exists.

References

- Barnett, T., Bass, T & Brown, G. (1994), The ethical judgments of college students regarding business issues, *Journal of Education for Business*, 69, 333–338.
- Brown, S.P., & Peterson, R. A. (1993), Antecedents and consequences of salesperson job satisfaction: Meta-analysis and assessment of causal effects, *Journal of Marketing Research*, 30 (1), 63-77.
- Cha, J. (1994), Aspects of individualism and collectivism in Korea. In U. Kim, H.C. Triandis, C. Kagitcibasi, S. Choi & G. Yoon (Eds.), *Individualism and Collectivism* (276-292) Thousand Oaks, CA: Sage.

Choe J. (1996), the relationships among performance of accounting information systems, influence factors, and evolution level of information systems, *Journal of Management Information Systems*, 12(4), 215-30.

Clarke, P., Hill, N., & Stevens, K. (1996), Ethical reasoning abilities: accounting practitioners in Ireland, *Irish Business and Administrative Research* 17, 94–109.

Dragonas, T. (1983), *The Self-concept of pre-adolescent in the Hellenic context*. Unpublished Doctoral Dissertation, University of Aston, Birmingham, United Kingdom.

Endrawes, M. & Matawie, K. (2002), Accountants' professional commitment, rule observance and culture - an empirical approach, in Robertson, A. and Bearn, M. (Eds), *Exploring cultural perspective and globalization*, ICRN Press, Canada, 319-30.

Ford, R. C. & Richardson, D. (1994), Ethical decision making: A review of the empirical literature, *Journal of Business Ethics* 13(3), 205–221.

Freeman, M. A. (1997), Demographic correlates of individualism and collectivism: A study of social values in Sri Lanka, *Journal of Cross-Cultural Psychology*, 28(3), 321-341.

Glover, S. H., Bumpus., M., Sharp, G & Munchus, G. (2002), Gender differences in ethical decision making, *Women in Management Review*, 17(5), 217–227.

Han, G & Choe, S. (1994), Effects of family, region, and school network ties on interpersonal intentions and the analysis of network activities in Korea. In U. Kim, H.C. Triandis, C. Kagitcibasi, S. Choi & G. Yoon (Eds.), *Individualism and Collectivism* (213-224). Thousand Oaks, CA: Sage.

Hofstede, G. (1980), *Culture's consequences*, Sage, London.

- Hofstede, G. (1989), Organizing for *cultural diversity*, *European Management Journal*, 7(4), 389-396.
- Hudson, M. (1977), *Arab politics*. New York: Yale University Press.
- Huo, Y.P & Randall, D.M. (1991), Exploring sub cultural differences in Hofstede's value survey: The case of the Chinese, *Asia Pacific Journal of Management*, 8(2), 159-173.
- Kagitcibasi, C. (1997), Individualism and collectivism. In J.W. Berry, M. H. Segall, & C. Kagitcibasi (Eds.), *Handbook of Cross-cultural Psychology: Vol. 3. Social behavior and application* (1-49). Boston: Allyn and Bacon.
- Leung, K., Brew, F., Zhang, Z & Zhang, Y. (2011), Harmony and conflict: A cross-cultural investigation in China and Australia, *Journal of Cross-Cultural Psychology*, 42(5), 795-816.
- Luthans, F., Balack, D & Taylor, L. (1987), Organizational commitment: Analysis of antecedents, *Human Relations*, 40 (4), 219-36.
- Mabert, V., Soni, A & Venkataramanan, M. (2003), The impact of organization size on enterprise resource planning (ERP) implementations in the US manufacturing sector, *Omega: The international Journal of Management science*, 31(3), 235-246.
- McKoy, C. L. (2013), Effects of selected demographic variables on music student teachers' self-reported cross-cultural competence, *Journal of research in music education*, 60(4), 375-394.
- Mishra, R. (1994), Individualism and collectivism orientations across generation. In U. Kim, H.C. Triandis, C. Kagitcibasi, S. Choi & G. Yoon (Eds.), *Individualism and Collectivism* (225-238). Thousand Oaks, CA: Sage.
- Posner, B. Z., Schmidt, W. H. Posner, B. Z., & Schmidt, W. H. (1992), Values and the American manager: An update updated. *California Management Review*, 34, 80-94
- Prewitt-Freilino, J., Caswell, A & Laakso, E. (2012), The gendering of language: A comparison of gender equality in countries with gendered, natural gender, and genderless languages, *Sex Roles*, 66(3/4), 268-281.
- Razi, H. (1990), Legitimacy, religion, and nationalism in the Middle East, *The American Political Science Review*, 84(1), 69-91.
- Radtke, R. R. (2000), The effects of gender and setting on accountants' ethically sensitive decisions, *Journal of Business Ethics*, 24, 299-312.
- Reykowski, J. (1994), Collectivism and individualism as dimensions of social change, In U. Kim, H.C. Triandis, C. Kagitcibasi, S. Choi & G. Yoon (Eds.), *Individualism and Collectivism*, (276-292). Thousand Oaks, CA: Sage.
- Rohan, M. J. (2000), A rose by any name? The values construct, *Personality and Social Psychology Review*, 4, 255-277.
- Ruegger, D & King, E. (1992), A study of the effect of age and gender upon student business ethics, *Journal of Business Ethics* 11, 179-186.
- Russ, F. A & McNeilly, K. M. (1995), Links among satisfaction, commitment, and turnover intentions: The moderating effect of experience, gender, and performance, *Journal of Business Research*, 34, 57-65.
- Sackmann, S. (1991), Uncovering culture in organizations, *Journal of Applied Behavioural Science*, 27(3), 295-317.
- Saroglou, V., Delpierre, V & Dernelle, R. (2004), Values and religiosity: A meta-analysis of studies using Schwartz's model, *Personality and Individual Differences*, 37, 721-734.
- Sasaki, J.Y & Kim, H.S. (2011), At the intersection of culture and religion: a cultural analysis of religion's implications for secondary control

- and social affiliation, *Journal of Personality and Social Psychology*, August, 101(2), 401-414.
- Sommer, S. M., Bae, S.H & Luthans, F. (1996), Organizational commitment across cultures: The impact of antecedents on Korean employees, *Human Relations*, 49 (7), 977-93.
- Sweeney, B., Arnold, D & Bernard, P. (2010), The impact of perceived ethical culture of the firm and demographic variables on auditors' ethical evaluation and intention to act decisions, *Journal of Business Ethics*, 93, 531–551.
- Thorne, L., Massey, D & Mangan, M. (2003), Institutional context and auditors' moral reasoning: A Canada–USA comparison, *Journal of Business Ethics* 43(4), 305–321.
- Triandis, H.C. (1988), Collectivism and Development. In D. Sinha & H.S.R. Kao (Eds), *Social values and development: Asian perspectives*, (286-303). New Delhi: Sage.
- Triandis, H.C., McCusker, C & Hui, C. H. (1990), Multimethod probes of individualism and collectivism, *Journal of Personality and Social Psychology*, 59, 1006-1020.
- Tsang, Jo-Ann., McCullough, M. E., Lopez, S. J & Snyder, C. R. (2003), *Measuring religious constructs: A hierarchical approach to construct organization and scale selection. In Positive psychological assessment: A handbook of models and measures.* (345-360). Washington, DC, US: American Psychological Association
- Wolfe, A. (2005), *The transformation of American religion*, Chicago, IL: University of Chicago Press.
- Woodcock, M & Francis, D. (1989), - Gower Publishing, England.

“The way to do research is to attack the facts at the point of greatest astonishment.”

— Celia Green

Entrepreneurial Marketing Strategies in Business Enhancement of Private Higher Education Institutions (PHEI) In Malaysia

Ramesh Kaliyamoorthy* & Theeban KP**

* School of Accounting & Finance, Linton University College, Legenda Education Group, Malaysia.

Email - rameshk@leg.edu.my

**Nirwana Education Group, Malaysia. theeban@widefield.edu.my

Abstract

Entrepreneurial marketing has recently gained the reputation in the field of entrepreneurship and marketing. The success of ventures pursuing non-traditional marketing approaches can be attributed to entrepreneurial marketing practices. Despite the multitude of marketing concepts and models, there are notable successes that deviate from these and are labeled “entrepreneurial.” The main purpose of this paper is to elaborate on the knowledge of Entrepreneurial Marketing while learning to harness the competitive advantage and an edge to fetch profits for Private Higher Education Institution in Malaysia which falls in the category of Small and Medium Enterprise (SME) while having to compete with market leaders. There are three different parameters concentrated in this research study as: Effective Entrepreneur Marketing Practices; Overall Marketing Performance and Organizational Performance Improvement.

Keywords: *Entrepreneurial Marketing, Effective Entrepreneur Marketing Practices, Overall Marketing Performance, Organizational Performance Improvement, Private Higher Education Institutions.*

I. Introduction

In the last two decades a new area of marketing, named as Entrepreneurial Marketing, has increasingly gained attention in research as well as a subject for new courses and new aspects of marketing. In society we find a growing need for entrepreneurship, particularly as economic growth has become an important requirement in many countries. The concept of Entrepreneurial Marketing (EM) is a harness between two distinct sciences which is entrepreneurship and marketing which was developed more than three decades ago. Many articles and researches are found to be done not only from the perspective of marketing and entrepreneurship but also from the other perspectives such as economy, sociology and many more. The evolution of Entrepreneurial Marketing is still not well developed and documented (Lomita, 2012). However there are numerous definitions, principles which are immature, insufficient tools and there is no proper or uniform theory. Throughout the authors study and research, it is found that entrepreneurs react differently in regards to traditional marketing but some of the theories of traditional marketing are found to be useful for Entrepreneurial Marketing (Lomita, 2012). Because there is no fixed concept or underlying theory it is imperative that the researcher stays focused on the

area of research so that the focus remains aligned. The theoretical development for this paper is borrowed from the concept of contingency theory the development of some conceptual models. It is also important to note that most of the concepts will only fit in partly as entrepreneurs do use their own personalized and self developed theories or concepts which is derived or developed from their experience or the pressure of ad-hoc situation. However, there is a strong need to develop tools, principles and theories to help businesses – especially start-ups and small ones – to survive and thrive in an increasingly hostile and unpredictable environment (Lomita, 2012).

II. Research Methodology

Gap of Knowledge

Contemporary theories of entrepreneurship generally focus on the recognition of opportunities and the decision to utilize and develop them. Although the entrepreneurship literature treats opportunities as exogenous, the prevailing theory of economic growth suggests they are endogenous. This study will mainly focus on entrepreneurial marketing strategies formulated by the entrepreneurs who initiated to step in to the Higher Education Institutions so that to develop the economic growth of

our nation. This study will also focus on microeconomic foundations of endogenous growth theory by developing a knowledge spillover theory of entrepreneurship. Knowledge created endogenously results in knowledge spillovers, which allow entrepreneurs to identify and exploit opportunities.

This research study aims to examine the impact of globalization on private higher education in Malaysia. The impact of globalization and the development of knowledge-based economy have caused much dramatic change to the character and functions of higher education in Malaysia. The major trend is the reforming and restructuring of private higher education in Malaysia to make it more competitive globally. Malaysia and many of the Asia Pacific countries are promoting higher education to the world. However, criticism from world educational councils has highlighted the impact of globalization on higher education in Asia Pacific countries to follow the ideologies and global practices without developing their own unique systems and disregarding their rich tradition and cultures. Hence an attempt has been made in this research study to identify strategies formulated by the Private Higher Education Institutions in the Small and Medium Entrepreneurs category to attain competitive advantage using Entrepreneurial Marketing.

Main aim of the research:

The background and discussion of the issue generate the aim of the dissertation. It is to elaborate on the knowledge of Entrepreneurial Marketing while learning to harness the competitive advantage and an edge to fetch profits for Private Higher Education Institution (PHEI) in Malaysia which falls in the category of Small and Medium Enterprise (SME) while having to compete with market leaders.

Objectives of the research:

- To examine the benefits of implementation of Entrepreneurial Marketing framework to increase market share and reduce financial risks from Entrepreneurs.
- To identify the best practice for

marketing management for PHEI in SME category.

- To widen the body of knowledge of Entrepreneurial Marketing practice for SMEs (Private Higher Education Institution).
- To propound recommendation for the implementation of effective marketing management via Entrepreneurial Marketing for acquires competitive advantage.

Research strategy

Survey considers one of the common research method used to gather data in most of the research discipline. Glasow (2005) highlighted three main features of a survey method, this method used to quantitative data collection; involve examining the relationship among variables (independent and dependent) and finally this method a selected portion of the population from which the findings can later be generalized back to the population. Adopting a survey approach would be the best way to conduct this research. Basically the survey method has capability to obtain data from large samples of the population. This method as well suited to gather demographic data that describe the composition of the sample. The types and number of variables can be studied in a survey method. The information gathered from survey approach easily can be generalized (Glasow, 2005). Generally, surveys can also be used to assess needs, evaluate demand and examine impact.

Research Design:

The study is descriptive in nature.

Sampling technique:

Sampling is concerned with the selection of a subset of individuals from within a population to estimate characteristics of the whole population. With reference to www.mohe.gov.my/web_statistik/ in Institusi Pengajian Tinggi Swasta (IPT) there are 440 colleges, in that we are planning to select 32 colleges. From the various sampling methods, multistage random sampling is suitable for this research. A multistage random sample is constructed by taking a series of simple random samples in stages.

This type of sampling is often more practical than simple random sampling for studies requiring “on location” analysis. The study is mainly focused on Malaysia. There are totally 14 states in Malaysia; our study is limited to central region of peninsular of Malaysia. Among the 14 states, four are randomly selected. They are Selangor State (State 1), Kuala Lumpur State (State 2), Negeri Sembilan State (State 3) and Perak State (State 4). From each state 8 colleges are randomly selected. From each and every institution 3 to 4 CEOs were randomly selected. Hence, the sampling technique used in the study is Multistage Random Sampling. The CEOs who were willing to participate were selected at convenience.

III. Analysis and Discussion

Demographic Characteristics of the Respondents: Area-wise analysis of Respondents:

It is found that 26.50 per cent of the respondents were selected from the Selangor State, 24 per cent of the respondents from Perak State and the remaining 49.50 per cent of the respondents equally from Kuala Lumpur State and Negeri Sembilan State.

Respondents’ role in the Institution:

Out of the total 117 respondents, 39 per cent of the selected respondents are entrepreneurs, 31 per cent are middle management and the remaining 30 per cent of the respondents are holding the position in senior management.

Years of experience in the role specified:

Out of 117 respondents, 42 per cent having 5 to 10 years of experience, 45 per cent having 10 to 20 years of experience and the remaining 13 per cent having above 20 years of experience in the role they hold in the Private Higher Education Institutes in Malaysia. It is observed that most of the selected respondents (87 per cent) from the selected higher education institutes in Malaysia are having less than 20 years of work experience in the role they specified.

Different Categories of Students in PHEIs:

It is found that majority of the respondents in the private higher education

institutes having the different mix of student categories, namely Full-time and Part-time Local Students, Full-time and Part-time International Students and Working Adults. Only 4 respondents belongs to the institute offering higher education for full-time local students and 3 respondents belongs to the institutes offering higher education for working adults only. The remaining 100 respondents marketing the education for all four categories of students combined. As we have already stated that in the research framework, there are three different parameters concentrated in this study as details given: (1) Effective Entrepreneur Marketing Practices; (2) Overall Marketing Performance and (3) Organizational Performance Improvement.

Table 1: Effective Entrepreneurial Marketing Practices Required to Enhancing the Business:

Sl. No.	Variables related to Effective Entrepreneurial Marketing Practices	Mean	SD
1	Networking	3.82	1.21
2	Improvised Marketing Techniques	3.64	1.11
3	Strategies and Position in Market Place	3.55	1.45
4	Creating Needs Rapidly	3.61	1.36
5	Creating Superior Value	3.91	1.02

Source: Primary Data

Table 1 depicts the mean response given by the sample respondents in the selected private higher education institutes towards the variables related to effective entrepreneurial marketing practices. It is observed from the table that all the mean responses given towards the variable related to the effective entrepreneurial marketing practices are above the average level. It shows that the respondents are having good marketing practices which required for the overall marketing performance and to influence on organizational performance. It is also observed that among the variables taken for this study, creating superior value (mean value 3.91) and networking (mean value 3.82) are the most agreed variables. Time preference for investment.

Table 2: Overall Marketing Performance Required Enhancing the Business:

Sl. No.	Variables related to Effective Entrepreneurial Marketing Practices	Mean	SD
1	Fulfilling Customer Needs	3.61	1.21
2	Credibility	3.54	1.04
3	Cost conscious and Effectiveness	3.64	1.07
4	Focus on Internal Resources	3.92	1.09
5	Benefits of Value Offering	3.44	1.01

Source: Primary Data

Table 2 displays the mean response given by the sample respondents in the selected private higher education institutes towards the variables related to Overall Marketing Performance. It is observed from the table that all the mean responses given towards the variable related to the overall marketing performance are above the average level. It shows that the respondents are having good marketing practices which required influencing on organizational performance. It is also observed that among the variables taken for this study, focus on internal resources (mean value 3.92) and Cost conscious and effectiveness (mean value 3.64) are the most agreed variables.

Table 4: Mean Responses given by the Respondents in the effective Entrepreneurial Marketing Practice has significant influence on overall Marketing Performance – Area-wise Analysis

Variables	KL State	NS State	PK State	SL State	Mean Score
1. Entrepreneur seeks for business opportunities via contact networks to increase their marketing performance	3.85	3.03	3.98	4.42	3.82
2. Entrepreneurs improvise techniques which is already available to increase their marketing performance	3.68	3.67	3.79	3.43	3.64
3. Entrepreneurial firms have a good understanding on current strategies and position in the marketplace	3.58	3.56	3.71	3.35	3.55
4. Entrepreneurial marketing firms are proactive and it is able to create needs of customers rapidly	3.62	3.64	3.77	3.41	3.61
5. Proactive use of information facilitates entrepreneurs to forecast the future trends and worthy strategies	3.49	3.49	3.61	3.25	3.46

Table 3: Organizational Performance Improvement Required to Enhancing the Business:

Sl. No.	Variables related to Effective Entrepreneurial Marketing Practices	Mean	SD
1	Increase Market Share	3.64	1.04
2	Direct and Personalized Marketing Approach	3.45	1.09
3	Creating High Value Products	3.62	1.02
4	Entrepreneurs' Direct Involvement	3.72	1.04

Source: Primary Data

Table 3 discloses the mean response given by the sample respondents in the selected private higher education institutes towards the variables related to Organizational Performance Improvement. It is observed from the table that all the mean responses given towards the variable related to the organizational performance improvement are above the average level. It shows that the respondents are having good organizational performance. It is also observed that among the variables taken for this study, entrepreneurs' direct involvement (mean value 3.72) and increase market share (mean value 3.64) are the most agreed variables.

6. Through viable innovation or use of technology, entrepreneurs are able to countermand resource constraints	3.53	3.55	3.68	3.32	3.52
7. Effectiveness of innovativeness on competition is relevant for increasing marketing performance	3.70	3.69	3.83	3.46	3.67
8. Innovativeness creates superior value for customer which improves the marketing performance	3.78	4.00	4.14	3.72	3.91

Source: Primary Data

The above table 4 displays the mean responses given by the respondents in the study towards the effective Entrepreneurial Marketing Practices which influence the overall marketing performance of Private Higher Education Institutes in Malaysia.

From the table it is observed that the highest mean score 4.42 given by the respondents belongs to the Institutes in Selangor State for the variable of “Entrepreneur seeks for business opportunities via contact networks to increase their marketing performance”.

Table 5: Mean Responses given by the Respondents in the Effective Entrepreneurial Marketing Practice has significant influence on Organizational Performance – Area-wise Analysis

Variables	KL State	NS State	PK State	SL State	Mean Score
1. Entrepreneurial marketing practice is able to increase market share	3.67	3.66	3.80	3.43	3.64
2. Direct marketing approach used by entrepreneurial marketing firms can increase market share	3.49	3.50	3.62	3.27	3.47
3. Personalized marketing approach of entrepreneurial marketing firms are able to increase their market share	3.48	3.46	3.61	3.29	3.46
4. Due to the personalized contact with the customers, organization is able to create products of high value	3.63	3.65	3.78	3.42	3.62
5. Direct involvement of the entrepreneurs in product development is able to create products of high value	3.75	3.76	3.86	3.51	3.72
6. Entrepreneurial firm creates products of high value so that they are able to compete with bigger companies	3.54	3.53	3.67	3.30	3.51
7. Due to the personalized approach by entrepreneurial firm the customers are more satisfied with the services provided	3.25	3.27	3.38	3.06	3.24
8. Customers are more satisfied when dealing with entrepreneurial firms rather than big organizations	3.23	3.23	3.35	3.03	3.21

Source: Primary Data

Next to that, the second and the third highest score 4.14 and 4.00 respectively given by the respondents belongs to the Institutes in the Perak State and Negeri Sembilan State for the same variable of “Innovativeness creates superior value for customer which improves the marketing performance”. It shows that the Networking

and Innovativeness is influencing at higher rate the overall marketing performance. The above table 5 displays the mean responses given by the respondents in the study towards the effective Entrepreneurial Marketing Practices which influence the organizational performance improvement in Private Higher Education Institutes in Malaysia.

Table 6: Mean Responses given by the Respondents in the overall marketing performance has significant influence on Organizational Performance Improvement – Area-wise Analysis

Variables	KL State	NS State	PK State	SL State	Mean Score
1. Entrepreneurial marketing practice is able to increase market share	3.64	3.65	3.75	3.40	3.61
2. Direct marketing approach used by entrepreneurial marketing firms can increase market share	3.57	3.55	3.70	3.34	3.54
3. Personalized marketing approach of entrepreneurial marketing firms are able to increase their market share	3.34	3.50	3.57	3.27	3.42
4. Due to the personalized contact with the customers, organization is able to create products of high value	3.67	3.69	3.80	3.40	3.64
5. Direct involvement of the entrepreneurs in product development is able to create products of high value	3.95	3.95	4.09	3.69	3.92
6. Entrepreneurial firm creates products of high value so that they are able to compete with bigger companies	3.06	3.06	3.16	2.85	3.03
7. Due to the personalized approach by entrepreneurial firm the customers are more satisfied with the services provided	3.45	3.47	3.59	3.25	3.44
8. Customers are more satisfied when dealing with entrepreneurial firms rather than big organizations	3.11	3.08	3.22	2.91	3.08

Source: Primary Data

From the table it is observed that the highest mean score 3.86 given by the respondents belongs to the Institutes in Perak State for the variable of “Direct involvement of the entrepreneurs in product development is able to create products of high value”. Next to that, the second and the third highest score 3.80 and 3.78 respectively given by the respondents belongs to the Institutes in the Perak State for variables related “Entrepreneurial Marketing Practice” and “Personalised Marketing Approach”. It clearly shows that the direct involvement of the entrepreneurs, entrepreneurial marketing practices and the personalised marketing approach influencing at higher rate on the organizational performance improvement.

The above table 6 displays the mean responses given by the respondents in the study towards the Overall Marketing Performance which influence the Organizational Performance Improvement in Private Higher Education Institutes in Malaysia. From the table it is observed that the highest mean score 4.09 given by the respondents belong to the Institutes in Perak State and Kuala Lumpur State (3.95) for the variable of “Internal resources must be given importance as it could be the basis of obtaining competitive advantage”. Next to that the third highest 3.80 given by the respondents belongs to the Institutes in the same Perak State for the variable of “Firms with entrepreneurial perspective usually choose strategies which

are cost effective”. It clearly shows that the internal resources, which leads to competitive advantage and the strategies related cost effectiveness influencing at higher rate on the organizational performance improvement.

Testing for significant Difference between Areas of the Institution with respect to Different Parameters:

To test the significant difference between the areas of the institution with respect to Effective Entrepreneurial Marketing Practices, Overall Marketing Practices and Organizational Performance Improvement.

Independent sample t-test was applied

Table 7: Mean difference between the area-wise respondents’ with respect to different Parameters

Parameters	Area of the Institution	N	Mean	SD	t-Value
Effective Entrepreneurial Marketing Practices	Kuala Lumpur State	29	3.52	1.01	0.8115* (p = 0.633)
	Negeri Sembilan State	29	3.71	1.52	
	Perak State	28	3.55	1.03	
	Selangor State	31	3.75	1.39	
Overall Marketing Practices	Kuala Lumpur State	29	3.45	1.03	2.270* (p = 0.024)
	Negeri Sembilan State	29	3.72	1.57	
	Perak State	28	2.88	0.921	
	Selangor State	31	2.58	0.652	
Organizational Performance Improvement	Kuala Lumpur State	29	3.36	1.03	1.519* (p = 0.207)
	Negeri Sembilan State	29	3.78	1.65	
	Perak State	28	2.81	0.952	
	Selangor State	31	2.71	0.621	

Source: Primary Data * Significant at 5% level

Effective Entrepreneurial Marketing Practices:

The obtained ‘t’ value is 0.8115 and it is not significant at 5% level. The value indicates that there is no significant mean difference between the area of the institution and the effective entrepreneurial marketing practices. The mean table 7 indicates that the respondents belongs to institutions situated in the Selangor State have scored high mean value of 3.75 and the lowest mean score was obtained by the respondents belongs to the institutions situated in the Kuala Lumpur state, which scored 3.52. This shows that the respondents belongs to institutions situated in the Selangor State are better in the effective entrepreneurial marketing practices than the respondents belongs to Kuala Lumpur State. Therefore, the formulated hypothesis H0 that “There is no significant difference between

to ascertain if there were any significant differences between the areas of the institution where the respondents are working to implement the practices given in the parameters. The following null hypothesis is framed to test the significant difference.

H0: There is no significant difference between the area of the institution and different parameters used.

The following table shows the significance mean difference between the area of the institution and different parameters used to enhance the business of private higher education.

the area of the institution and effective entrepreneurial marketing practices” is accepted.

Overall Marketing Practices:

The obtained ‘t’ value is 2.270 and it is significant at 5% level. The value indicates that there is significant mean difference between the area of the institution and the overall marketing practices. The mean table 7 indicates that the respondents belongs to institutions situated in the Negeri Sembilan State have scored high mean value of 3.72 and the lowest mean score was obtained by the respondents belongs to the institutions situated in the Selangor State, which scored 2.58. This shows that the respondents belongs to institutions situated in the Negeri Sembilan State are better in the overall marketing

practices than the respondents belongs to Selangor State. Therefore, the formulated hypothesis H0 that “There is no significant difference between the area of the institution and overall marketing practices” is rejected.

Organizational Performance Improvement:

The obtained ‘t’ value is 1.519 and it is also significant at 5% level. The value indicates that there is significant mean difference between the area of the institution and the organizational performance improvement. Therefore, the formulated hypothesis H0 that “There is no significant difference between the area of the institution and the organizational performance improvement” is rejected.

Testing for significant Difference between the Roles of Position hold with respect to Different Parameters:

Table 8: Mean difference between the roles of position they hold with respect to different Parameters

Parameters	Area of the Institution	N	Mean	SD	F-Value
Effective Entrepreneurial Marketing Practices	Entrepreneur	46	3.35	0.845	3.255* (p = 0.041)
	Senior Management	35	3.61	1.01	
	Middle Management	36	3.85	1.25	
Overall Marketing Practices	Entrepreneur	46	3.35	1.01	3.140* (p = 0.048)
	Senior Management	35	3.65	0.95	
	Middle Management	36	3.84	1.25	
Organizational Performance Improvement	Entrepreneur	46	3.25	0.82	3.069* (p = 0.049)
	Senior Management	35	3.54	1.02	
	Middle Management	36	3.75	1.33	

Source: Primary Data * Significant at 5% level

Effective Entrepreneurial Marketing Practices:

The obtained ‘F’ value is 3.255 and it is significant at 5% level. The value indicates that there is significant mean difference between the role of position and the effective entrepreneurial marketing practices. The mean table 8 indicates that the respondents holding the position of middle management have scored high mean value of 3.85 and the lowest mean score was obtained by the respondents holding the position as entrepreneurs, who have scored 3.35. This shows that the respondents holding the position of middle management are better in the effective entrepreneurial marketing practices than the respondents in entrepreneurial level. Therefore, the formulated hypothesis H0 that “There is no

To test the significant difference between the roles of position hold with respect to Effective Entrepreneurial Marketing Practices, Overall Marketing Practices and Organizational Performance Improvement. One way ANOVA was applied to ascertain if there were any significant differences between the roles of position which the respondents hold to implement the practices given in the parameters. The following null hypothesis is framed to test the significant difference.

H0: There is no significant difference between the role of position and different parameters used. The following table 8 shows the significance mean difference between the area of the institution and different parameters used to enhance the business of private higher education.

significant difference between the area of the institution and effective entrepreneurial marketing practices” is rejected.

Overall Marketing Practices:

The obtained ‘F’ value is 3.140 and it is significant at 5% level. The value indicates that there is significant mean difference between the role of position and the overall marketing practices. The mean table 8 also indicates that the respondents holding the position of middle management have scored high mean value of 3.84 and the lowest mean score was obtained by the entrepreneurs, who have scored 3.35. This shows that the respondents holding the position of middle management are better in the overall marketing practices than the respondents in the entrepreneurial level. Therefore, the

formulated hypothesis H0 that “There is no significant difference between the area of the institution and overall marketing practices” is rejected.

Table 9: Mean difference between the years of experience they hold and different Parameters

Parameters	Area of the Institution	N	Mean	SD	F-Value
Effective Entrepreneurial Marketing Practices	5 to 10 Years	49	3.32	0.76	3.147* (p = 0.045)
	10 to 20 Years	53	3.61	1.11	
	Above 20 Years	15	3.89	1.32	
Overall Marketing Practices	5 to 10 Years	49	3.35	0.89	3.570* (p = 0.030)
	10 to 20 Years	53	3.59	0.96	
	Above 20 Years	15	3.95	1.36	
Organizational Performance Improvement	5 to 10 Years	49	3.35	0.72	3.324* (p = 0.038)
	10 to 20 Years	53	3.61	1.12	
	Above 20 Years	15	3.95	1.33	

Source: Primary Data * Significant at 5% level

Organizational Performance Improvement:

The obtained ‘F’ value is 3.069 and it is also significant at 5% level. The value indicates that there is significant mean difference between the role of position and the organizational performance improvement. The mean table 8 also indicates that the respondents holding the position of middle management have scored high mean value of 3.75 and the lowest mean score was obtained by the entrepreneurs, who have scored 3.25. This shows that the respondents holding the position of middle management are better in the organizational performance improvement than the respondents in the entrepreneurial level. Therefore, the formulated hypothesis H0 that “There is no significant difference between the area of the institution and the organizational performance improvement” is rejected.

Testing for significant Difference between the years of experience in the position they hold with respect to Different Parameters:

To test the significant difference between the years of experience in the position they hold with respect to Effective Entrepreneurial Marketing Practices, Overall Marketing Practices and Organizational Performance Improvement. One way ANOVA was applied to ascertain if there were any significant differences between the years of experience, the respondents hold in the position to implement the practices given in the parameters. The following null hypothesis is framed to test the significant

difference.

H0: There is no significant difference between the years of experience and different parameters used. The following table 9 shows the significance mean difference between the years of experience and different parameters used to enhance the business of private higher education

Effective Entrepreneurial Marketing Practices:

The obtained ‘F’ value is 3.147 and it is significant at 5% level. The value indicates that there is significant mean difference between the years of experience and the effective entrepreneurial marketing practices. The mean table 9 indicates that the respondents holding the position for more than 20 years have scored high mean value of 3.89 and the lowest mean score was obtained by the respondents holding the position for less than 10 years, who have scored 3.32. This shows that the respondents having more experience are better in the effective entrepreneurial marketing practices than the respondents having less experience.

Therefore, the formulated hypothesis H0 that “There is no significant difference between the years of experience and effective entrepreneurial marketing practices” is rejected.

Overall Marketing Practices:

The obtained ‘F’ value is 3.570 and it is significant at 5% level. The value indicates

that there is significant mean difference between the years of experience and the overall marketing practices. The mean table 9 also indicates that the respondents holding the position for more than 20 years have scored high mean value of 3.95 and the lowest mean score was obtained by the respondents holding the position for less than 10 years, who have scored 3.35. This shows that the respondents having more experience are better in the overall marketing practices than the respondents having less experience. Therefore, the formulated hypothesis H0 that “There is no significant difference between the years of experience and overall marketing practices” is rejected.

Organizational Performance improvement:

The obtained ‘F’ value is 3.324 and it is also significant at 5% level. The value indicates that there is significant mean difference between the years of experience and the organizational performance improvement. The mean table 9 also indicates that the respondents holding the position for more than 20 years have scored high mean value of 3.95 and the lowest mean score was obtained by the respondents holding the position for less than 10 years, who have scored 3.35. This shows that the respondents having more experience are better in the overall marketing practices than the respondents having less experience. Therefore, the formulated hypothesis H0 that “There is no significant difference between the years of experience and the organizational performance improvement” is rejected.

Table 10: Correlation Analysis for Variables used in Effective Entrepreneurial Marketing Practice, Overall Marketing Performance and Organizational Performance Improvement.

Variables used	Overall Marketing Performance	Organizational Performance Improvement
Effective Entrepreneurial Marketing Practice	r = 0.745*	r = 0.542*
Overall Marketing Performance		r = 0.563*

*Significant at 1% level

From the above table, it is observed that there is a significant positive correlation is observed between variables used in effective Entrepreneurial Marketing Practice and variables used in Overall Marketing Performance (r = 0.745). Hence the null hypothesis H0 4(a) “There is no significant relationship between variables given in the Effective Entrepreneurial Marketing Practice and variables given in the Overall Marketing Performance” is rejected at 1% level. This shows that the effective Entrepreneurial Marketing Practices influence the overall marketing performance. There is a positive correlation is observed between variables used in effective Entrepreneurial Marketing Practice and variables used in Organizational Performance Improvement (r = 0.542). Hence the null hypothesis H0 4(b) “There is no significant relationship between variables given in the Effective Entrepreneurial Marketing Practice and variables given in the Organizational Performance Improvement” is rejected at 1% level. This shows that the effective Entrepreneurial Marketing Practices influence the Organizational Performance Improvement. A positive correlation is observed between variables used in Overall Marketing Performance and variables used in Organizational Performance Improvement (r

= 0.563). Hence the null hypothesis H0 4(c) “There is no significant relationship between variables given in the Overall Marketing Performance and variables given in the Organizational Performance Improvement” is rejected at 1% level. This shows that the Overall Marketing Performance influences the Organizational Performance Improvement.

IV. Summary & Findings

The total scenario of education has been fully decorated by higher education system. Higher education plays the most significant role in the society as well as in the life of the individual. It possess highly developed higher education system which offers facility of professional education, research and training in almost all aspects of human creative and intellectual endeavour’s Initiator of higher education institutes occupying a central position in the knowledge production process. Contemporary theories of entrepreneurship generally focus on the recognition of opportunities and the decision to utilize and develop them. This study mainly focused on entrepreneurial marketing strategies formulated by the entrepreneurs who initiated to step in to the Higher

Education Institutions so that to develop the economic growth of our nation and to sustain the growth rate for long time. This study mainly focused on three major areas, namely effective entrepreneurial marketing practices, overall marketing performance and the organizational performance improvement as strategies to gain the competitive advantage in the private higher education industry.

V. Conclusion

1. To challenge the existing strategic marketing assumptions through a focus on possible future developments in entrepreneurial marketing practices, the private higher education institutes in the category of Small and Medium Enterprises in Malaysia should focus on effective networking system, cost conscious reduction or competitiveness and effectiveness, direct and personalized marketing approach.
2. To examine the benefits of implementation of entrepreneurial marketing framework to increase market share and reduce financial risks from entrepreneurs, the private higher education institutes in the category of Small and Medium Enterprises in Malaysia should enroll different category of students both in full-time and part-time even the working people through part-time mode.
3. Private Higher Education Institutes in the category of Small and Medium Enterprises in Malaysia should focus more on Effective Entrepreneurial Marketing Practices to improve its Overall Marketing Performance and the Organizational Performance Improvement.
4. Malaysia under the Ministry of Higher Education aims to attract two hundred thousand international students by year 2020; it is evidenced in the MoHE, 2007 records. Having more international students in the campus is excellent yet at the same time creates additional responsibilities and expectation onto the Private Higher Education Institutes. Hence Entrepreneurial Marketing Strategies should be formulated to attract international students and to get more in number in the near future.

This research study has contributed hugely in understanding and to elaborate on the knowledge of Entrepreneurial Marketing to sustain the competitive advantage and to increase the market share in the near future. The findings from this research work have provided insight to the root of entrepreneurial marketing practices to improve further more the existing strategies. This will enhance the business of private higher education in the category of small and medium scale enterprises in Malaysia.

References

- Abdul Rahman Embong. 2013. In Tham Siew Yean (ed.) 2013. Internationalizing Higher Education in Malaysia: Understanding, Practices and Challenges. Singapore: ISEAS
- Badaruddin Mohamed. 2010. Managing International Students in Malaysia: Issues & Strategies. Paper presented at Internationalization and Marketing of Higher Education Malaysia Seminar. 17 June 2010. Hosted by Ministry of Higher Education and Universiti Putra Malaysia.
- Banumathy, D. & Vigneswaran, N. 2010. In Sarjit, K., Morshidi Sirat & Azman Norzaini. 2010. (ed.). Globalization and Internationalization of Higher Education in Malaysia. Pulau Pinang: Penerbit USM.
- Chong Pui Yee & Amli Hazlin Ahmad Mokhtar. 2013. International Students' Learning Experiences at Private Higher Education Institutions in Malaysia. 092 Proceeding of the Global Summit on Education (GSE 2013)
- Fillis, I. (2010). "The art of the entrepreneurial marketer", Journal of Research in Marketing and Entrepreneurship
- Fillis, I. And Rentschler, R. (2010). 'The Role of Creativity in Entrepreneurship', Journal of Enterprising Culture, Vol.18, No.1, pp.49-81.
- Lomita. 2012. Global Entrepreneurial Marketing, Centre for Professional Development, Stanford University. www.mohe.gov.my/web_statistik.

“The outcome of any serious research can only be to make two questions grow where only one grew before.”

- Thorstein Veblen

A study on Consumer Sentiment towards marketing activities

Kota Neel Mani Kanta*, G. Krishna Mohan, P Srivalli*****

*Assistant Professor, KSRM College of Management Studies, Andhra Pradesh, India.

Email: kotamani2003@yahoo.co.in.

**Principal, KSRM College of Management Studies, Andhra Pradesh, India. Email: gkmohan4@yahoo.co.in

***Assistant Professor, KSRM College of Management Studies, Andhra Pradesh, India.

Email: puttasrivalli@yahoo.co.in

Abstract

An increasing number of corporations are realizing the benefits in understanding Consumer sentiment towards marketing practice, which is critical in the success of the company. Policies and strategies of marketing need to be acceptable by the consumer. This study is intended to understand the Sentiment of the consumer towards marketing practices. The study considered the four P's of marketing designed by McCarthy for measuring the sentiment. The study measured four variables of Product, place, promotion and place/retail scale. The study is done among the general consumers by administering the structured questionnaire. The study has concluded that the consumers have positive feeling towards the marketing practices. The study has given valuable insights in designing four dimensions of marketing.

Key words: Consumer Sentiment, Marketing mix, Marketing practices.

I. Introduction

To better understand the behavior of the Indian consumer sentiment index toward marketing mix in a crisis context is one of the most important issues currently arising. The concept of consumer sentiment refers to the general feelings that consumers have for marketing and the market place. Bearing this in mind and considering that marketing has an intrinsic purpose which is to serve customers, including the consumer, how these customers view and value the performance of all the activities related to the marketing-mix is a pertinent question. Hence, marketers and researchers must apply much more effort in understanding the consumers' sentiments. It should be noted that, on the one hand, the consumer sentiment measures are intended to help managers assess the likelihood of consumer spending rising or falling and, on the other hand, they are more attitudinal in nature and support marketing managers to better understand the fields of satisfaction or dissatisfaction with the policies of the marketing-mix.

These are not new issues and, over the years, they have been, in one way or another, the subject of much research and theory development in marketing fields. For the policymaker, tracking consumer sentiment can provide early warnings on market conduct and performance. For the marketing manager, consumer sentiment may be helpful both to assess the general mood of the market as well as to function as background against

which to benchmark satisfaction information from one's own customers (Varadarajan & Thirunarayana, 1990; Lawson, Todd & Bosh off, 2001).

In India the consumer movement has been different before and after the liberalization and globalization of economy. The consumer before liberalization was accepting the product as delivered by the company, without expectations and demand in product features. This was because of lack of competition, monopoly like markets. The country has protected the Indian companies from global competition for long years. The supply was less than demand of the market, hence the consumers was not having alternative of products to purchase. This picture has changed after the liberalization, with huge competition from the foreign players and brands- there is a choice for the customers in product selection. So, gaining the positive sentiment of the consumer has become the challenge for companies. In this regard, this study is an attempt to find out the consumer sentiment in India toward marketing practice by measuring consumer attitudes toward the four elements of the marketing-mix (i.e., Product, Price, Promotion, Place/Retail), postulated by McCarthy (1960). The measurement instrument used in this research was adopted from Gaski and Etzel's study (1986). One hundred questionnaires were applied in shopping centres, in the five regions (according to the territorial division) of Andhra Pradesh in India.

II. Review of literature / Conceptual Frame work

In recent years there has been an emergence of the need for rigorous measures of consumer sentiment towards marketing for cross-national or cross-cultural comparison, as a result of the rapid growth in the multi nationalization of business in the Asia Pacific Region. Parameswaran and Yaprak indicated that consumer research measures which were very sensitive to the nationality of respondents might not be suitable for cross-national comparison. The causes of sensitivity are attributed to environmental factors such as political, legal, socio-cultural and economic factors and the stage of marketing development. Hence, a good measure for consumer sentiment should be subject to assessment of reliability and validity, using samples of respondents from other nations or cultures.

A survey of consumer attitudes towards marketing practices, consumerism and government regulations in India, an industrializing country, revealed a high level of consumer discontent and support for the consumerism movement. A comparison of the results of the survey of consumers in India with the results of a prior study of consumers in six industrialized countries revealed certain similarities as well as differences, thus providing additional empirical insights into the validity of the consumerism life cycle concept.

Numerous studies have been conducted in the United States and other countries to determine consumer attitudes towards marketing, consumerism and government regulations using the scales referred to in the preceding section. Most of the studies indicate consumers having negative opinions towards marketing. There are only a few studies those report slightly favorable sentiments towards marketing (Jain and Goel, 2011). Though in some studies consumers have indicated that business appears to be honest in their endeavors to resolve problems, there is too much formalities involved in getting the problems settled (Barksdale and Darden, 1972; Barksdale et al., 1982; French et al., 1982; Barker, 1987; Vardarajan and Thirunarayana, 1990; Darley and Johnson, 1993; Uray and Menguc, 1996). In

several national and cross-national studies, respondents reported that manufacturers have not extensively acknowledged marketing concept in their operations (Barksdale and Perreault, 1980; French et al., 1982; Barker, 1987; Vardarajan and Thirunarayana, 1990; Uray and Menguc, 1996).

Consumers felt that it is the competition because of which prices are fair, and they appeared doubtful about the purpose of business. They reported that business does not bother about the consumer's welfare (Barksdale and Darden, 1972; French et al., 1982; Barksdale et al., 1982; Barker, 1987; Vardarajan and Thirunarayana, 1990; Uray and Menguc, 1996; Lysonski and Durvasula, 2003). Lysonski and Durvasula (2003) reported in their study that consumers in New Zealand had more favorable attitudes towards consumerism and marketing issues that they had before fifteen years. Chinese consumers are also having more favorable attitudes towards marketing than US and Australian consumers as reported by Chan and Cui (2004).

III. Research Methodology

The study is intended to examine the feelings and opinion of the consumer towards the marketing practices among the Indians. The study examines the sentiments among the various dimensions like product, price, promotion and place based on demographic profile of the respondents. The study has hypothesized the relationship between the four dimension and the demographic variables. The study is conducted among the general consumers of various regions of Andhra Pradesh in India. The study employed quantitative approach and survey method. In quantitative approach the study have large samples, hypothesis testing, high reliability and low validity. In the survey method the researchers takes a sample of respondents representing the population. The study has adopted the items of Gaski and Etzel's study (1986) measuring the four P's of marketing – Product, Price, Promotion and Place. The items in the questionnaire are rated between 1 to 5 i.e. strongly disagree to strongly agree. The data is collected and set for the analysis using statistical techniques like weighted mean and ANOVA.

Table 1: Items considered for the study

Sl. No	Scale	Items
1	Product Scale	I am satisfied with most of the products I buy
2		Most products I buy wear out too quickly
3		Too many of the products I buy are defective in some way
4		The companies that make products I buy don't care enough about how well they perform
5		The quality of products I buy has consistently improved over the years
6	Advertising Scale	Most advertising is very annoying
7		Most advertising makes false claims
8		If most advertising were eliminated, consumers would be better off
9		I enjoy most ads
10		Most advertising is intended to deceive rather than inform
11	Price Scale	Most products I buy are overpriced
12		Businesses could charge lower prices and still be profitable
13		Most prices are reasonable given the high cost of doing business
14		Most prices are fair
15		In general, I am satisfied with the prices I pay
16	Retailer Scale	Most retail stores serve their customers well
17		Because of the way retailers treat me, most of my shopping is unpleasant
18		I find most retail salespeople to be very helpful
19		When I need assistance in a store, I am usually not able to get it
20		Most retailers provide adequate service

IV. Analysis

The total respondent participated in the study are 154, among the respondents 68 % are male and 32 % are female. The respondent among different age groups participated in the study, 77% are of between 20-30 years, 8% are 30-40 years, 12% of 40-50 years, and 3% are of 50 and above years of age group. The educational qualification of the respondents are 15% undergraduates, 8% graduates, 75% post graduates, 2% others. 73% of respondents belong to income level of 1-5 Lakhs, 8% of 5-10 Lakhs, 7% of 10-15 Lakhs, and 12% of 15 lakhs and above. The Occupation of respondents are 11% of them are employed, 7% are self employed, 3% retired, 79% are students. It is observed from the study that both men and women respondents were neutral on sentiment towards

marketing (CSMA = 3.1465). (Weighted mean = 3.0940 on PS, 3.1440 on AS, 3.1880 on PRS, 3.1600 on RS). Among different age groups except the age group 50 and above gave neutral response on sentiment towards marketing (CSMA = 3.1465). (weighted mean = 3.0940 on PS, 3.1440 on AS, 3.1880 on PRS, 3.1600 on RS). From the study it revealed that the respondents from product, advertising, retailer, price scales among various intellectuals are neutral (Weighted mean (CSMA)) = 3.1465). (Weighted mean = 3.0940 on PS, 3.1440 on AS, 3.1880 on PRS, 3.1600 on RS). Income levels of respondents also gave neutral opinion towards consumer sentiment towards marketing (Weighted mean (CSMA) = 3.1465). (Weighted mean = 3.0940 on PS, 3.1440 on AS, 3.1880 on PRS, 3.1600 on RS).

Table 2: Influence of Demographic variables on different scales.

Demographic Variable		Product scale	Advertising scale	Price scale	Retail scale	Overall Consumer Sentiment Towards Marketing
Age	20-30	3.0675	3.1351	3.1896	3.1584	3.1377
	30-40	2.9250	3.0750	3.0250	3.2000	3.0562
	40-50	3.1667	3.1667	3.1667	2.9667	3.1167
	50 and above	3.9333	3.4667	3.6667	3.8667	3.7333
Gender	Male	3.0882	3.1324	3.1794	3.1471	3.1368
	Female	3.1062	3.1687	3.2063	3.1875	3.1672
Education	Under Graduate	2.9467	3.2800	3.2933	3.0800	3.1500
	Graduate	2.9250	2.7250	2.7750	2.9000	2.8313
	Post Graduate	3.1573	3.1627	3.2240	3.1867	3.1827
	Others	2.5000	3.1000	2.7000	3.8000	3.0250
Income group	1-5 Lakhs	3.0767	3.1644	3.1781	3.1288	3.1370
	5-10 Lakhs	2.9500	3.0250	3.1250	2.8500	2.9875
	10-15 Lakhs	3.3143	3.1429	3.3714	3.5429	3.3429
	15 Lakhs & above	3.1667	3.1000	3.1833	3.3333	3.1958
Occupation Levels	Employed	2.9091	2.8727	2.8727	3.1636	2.9955
	Self employed	3.0571	3.1429	3.1429	3.2857	3.1357
	Retired	2.8667	2.9333	2.9333	2.3333	2.8333
	Student	3.1316	3.2456	3.2456	3.1797	3.1804

CSMA= Consumer Sentiment towards Marketing activities, PS= Product Scale, AS= Advertisement Scale, PRS= Price Scale, RS= Retailer Scale.

Interpretation:

H1 is hypothesized as there is a difference in opinion on consumer sentiment towards marketing between the gender groups. From the study it is observed that there is no difference in opinion on consumer sentiment towards marketing between the gender groups. The study has analyzed that there is no significant influence of gender on consumer sentiment towards marketing (F = 0.094, p = 0.760). Gender is insignificant on product scale (F = 0.019, P = .891), advertising scale (F = 0.063, P = 0.803), price scale (F = 0.042, P = 0.838), Retailing scale (F = 0.065, P = 0.799). Hence H1 is rejected.

H2 is hypothesized that among different age groups the opinion on consumer sentiment towards marketing differs. It is opined from the analysis that among different age groups the opinion on consumer sentiment towards marketing is homogeneous. Influence of different age groups on consumer sentiment towards marketing is insignificant (F = 1.784, p = 0.155). On product scale (F = 2.311, P = 0.081), advertising scale (F = 260, P = 0.854), price scale (F = 0.809, P = 0.492), Retailing scale (F = 1.216, P = 0.308). Hence H2 is rejected.

Table 3: Hypothesis Testing:

S.NO	Demographic characteristic	Variable	F	Sig.
1	Gender	Product Scale	0.019	0.891
		Advertising Scale	0.063	0.803
		Price Scale	0.042	0.838
		Retail Scale	0.065	0.799
		Overall Consumer Sentiment Towards Marketing	0.094	0.760
2	Age Group	Product Scale	2.311	0.081
		Advertising Scale	0.260	0.854
		Price Scale	0.809	0.492
		Retail Scale	1.216	0.308
		Overall Consumer Sentiment Towards Marketing	1.784	0.155
3	Education	Product Scale	1.429	0.239
		Advertising Scale	1.264	0.291
		Price Scale	1.946	0.127
		Retail Scale	0.929	0.430
		Overall Consumer Sentiment Towards Marketing	1.463	0.230
4	Income	Product Scale	0.526	0.665
		Advertising Scale	0.119	0.949
		Price Scale	0.241	0.867
		Retail Scale	1.389	0.251
		Overall Consumer Sentiment Towards Marketing	0.789	0.503
5	Occupation	Product Scale	0.582	0.628
		Advertising Scale	0.159	0.923
		Price Scale	1.424	0.240
		Retail Scale	1.366	0.258
		Overall Consumer Sentiment Towards Marketing	0.995	0.399

H3 is stated as opinion on consumer sentiment towards marketing among different level of intellectuals is different. It is interpreted from the data that opinion on consumer sentiment towards marketing among different level of intellectuals is identical. Intellectual levels of respondents has insignificant influence on consumer sentiment towards marketing (F = 1.463, P = 0.230).). On product scale (F = 1.429, P = 0.239), advertising scale (F = 1.264, P = 0.291), price scale (F = 1.946, P = 0.127), Retailing scale (F = 0.929, P = 0.430). Hence H3 is rejected.

H4 is hypothesized as different income groups have different opinion on consumer sentiment towards marketing. It is analyzed from the study that income groups have indifferent opinion on consumer sentiment towards marketing. The Insignificance of variance is present between different income

levels of respondents on consumer sentiment towards marketing (F = 0.789, P = 0.503). On product scale (F= 0.526, P = .665), advertising scale (F =0.119, P = 0.949), price scale (F = 0.241, P = 0.867), Retailing scale (F = 1.389, P = 0.251). Hence H4 is rejected.

H5 is stated as different occupation groups have difference in opinion on consumer sentiment towards marketing. From the analysis it is opined that different occupation groups have homogeneous opinion on consumer sentiment towards marketing. There is insignificant influence of occupation on consumer sentiment towards marketing (F = 0.995, p = 0.399). Gender is also insignificant on product scale (F = 0.582, P = 0.628), advertising scale (F = 0.159, P = 0.923), price scale (F = 1.424, P = 0.240), Retailing scale (F = 1.366, P = 0.258). Hence H5 is rejected.

Discussion and Managerial implication

The study has opined that the consumers are neutral on the marketing practices of the company. The marketers need to sensitize that the results are far from the positive sentiment on marketing activities. The results stated that all the scales of marketing dimension are neutral among the various cross sectional profile of the demographics. The hypothesis testing reveals that the demographic groups have the homogenous opinion towards the marketing activities. The marketers need to formulate the strategies to enhance the positive sentiment in consumers.

The result of the study reveals that there is still room for the companies in strategizing the marketing activities to receive the positive sentiment. The companies need to design the marketing activities to increase the trust in consumer towards the company activities. The companies should put efforts in making consumer to feel that the firms are giving respect to their rights. In the past the Indian consumers were more attracted towards the foreign goods; foreign goods were dominated by the local brands. However, as time passed both foreign and developed local brands have become popular, but today the consumer is not behind the foreign goods because of the developments in the local brand to the global arena. The companies need to put more efforts in development of quality products and designs which can compete globally rather locally. The pricing strategies should not feel the consumer that they are being misled, because the consumer skepticism is a threat to the companies.

The designing of advertisement and promotional campaigns should be beneficial to the consumer in the form giving awareness and incentivizing. The advertisement should not damage the culture of the country; the consumer should feel the advertisement designs are confined to the ethical issues. The consumer should get the required support from the retailer in delivery and after sales service. The companies should feel responsible in sensitizing the retailers for better support to the consumer.

Limitation and Future Research

The study has measured the sentiment index of consumer in various dimensions of marketing. The future research needs

to consider the behavioral variables like beliefs, attitude of the consumer. The future studies need to concentrate on testing the causal relationship between the behavioral variables and the marketing mix scales, these can give important insights to the marketers. The study has considered measuring the general sentiment of the consumer, but not in particular to a specific company. The future studies need to take up studies in measuring the feelings and sentiment to a company centric. The future studies can also make the comparative studies between the companies to design the competitive strategies.

V. Conclusion

The consumer sentiment towards marketing activities is significant for the marketer; the marketers need to take up these kinds of studies periodically to understand the levels of sentiment and feeling of the consumer. Furthermore studies of this kind can give valuable insights for effective decision making and designing the marketing activities. The study reveals the magnitude at which the marketer need to put efforts in gaining the consumer sentiment. By understanding the feelings the marketers can better serve the consumer.

References

- Alpert, Frank (1993), Consumer Market Beliefs and Their Managerial Implications: An Empirical Examination, *Journal of Consumer Marketing*, 10 (2), 56-70.
- Anderson, Eugene W., Claes Fornell and Donald R Lehmann (1994), Customer Satisfaction, Market share, and Profitability: Findings from Sweden, *Journal of Marketing*, 58(3), 53-67.
- Anderson, Ronald D., Jack L. Engledow and Helmut Becker (1979), Evaluating the Relationships among Attitude toward Business, Product Satisfaction, Experience, and Search Effort, *Journal of Marketing Research*, 16(3), 394-400.
- Andrews, J. Craig (1989), The Dimensionality of Beliefs toward Advertising in General, *Journal of Advertising*, 18(1), 26-35.

- Barksdale, Hiram C., William D. Perreault, Jr., Johan Arndt, J.A. Barnhill, Warren A. French, Michael Halliday, and Jehiel Zif (1982), A Cross-National Survey of Consumer Attitudes towards Marketing Practices, Consumerism and Government Regulations, *Columbia Journal of World Business*, 17(Summer), 71-85.
- Calfee, John E. and Debra Jones Ringold (1994), The 70% Majority: Enduring Consumer Beliefs about Advertising, *Journal of Public Policy & Marketing*, 13 (2), 228-238.
- Chan, Eleanor; Oliver H. M. Yau and Robert Chan (1990), Consumer Sentiment in Australia: A Replication and Cross-National Comparison, *European Journal of Marketing*, 24(10), 44-58.
- Gaski, John F. (2008), The Index of Consumer Sentiment toward Marketing: Validation, Updated Results, and Demographic Analysis, *Journal of Consumer Policy*, 31 (2), 195-216.
- Gaski, John F., and Michael J. Etzel (1986), The Index of Consumer Sentiment toward Marketing, *Journal of Marketing*, 50 (3), 71-81.
- Hill, John S. and Unal O. Boya (1987), Consumer Goods Promotions in Developing Countries: An Empirical Study, *International Journal of Advertising*, 6(3), 249-264.
- Ho, Suk-Ching and Yat-Ming Sin (1988), Consumer Protection in China: The Current State of the Art, *European Journal of Marketing*, 22(1), 41-46.
- Huff, Lenard C. and Dana L. Alden (1998), An Investigation of Consumer Response to Sales Promotions in Developing Markets: A Three-country Analysis, *Journal of Advertising Research*, 38(3), 47-57.
- Nwachukwu, Saviour L. S., Scott J. Vitell, Jr., Faye W. Gilbert, and James H. Barnes (1997), Ethics and Social Responsibility in Marketing: An Examination of the Ethical Evaluation of Advertising Strategies, *Journal of Business Research*, 39(2), 107-118.
- Varadarajan, P. Rajan and P. N. Thirunarayana (1990), Consumers' Attitudes Towards Marketing Practices, Consumerism and Government Regulations: Cross-National Perspectives, *European Journal of Marketing*, 24(6), 6-23.
- Wee, Chow Hou and Mable Chan (1989), Consumer Sentiment towards Marketing in Hong Kong, *European Journal of Marketing*, 23(4), 25-39.
- Zhao, Xinshu and Fuyuan Shen (1995), Audience Reaction to Commercial Advertising in China in the 1980s, *International Journal of Advertising*, 14(4), 374-390.

“By seeking and blundering we learn.”

- Goethe, Johann Wolfgang Von

A Study on Employee Involvement, Employee Empowerment and Job Satisfaction in Indian Corporate Sector

Dr. P. Raghunatha Reddy * Dr. A. Krishna Sudheer ** Dr. E. Krishna Karthik

*Professor, Department of Management studies, SV University, Tirupathi, Andhra Pradesh, India.
Email - sairaghubhanu@gmail.com

** Associate Professor, Department of Management studies, Sri Sairam Engineering College,
Chennai, Tamilnadu, India. Email - akrishnasudheerkn@gmail.com

***Associate Professor, Department of Management studies, Rayalaseema Institute of management Studies,
Tirupathi, Andhra Pradesh, India. Email - prof.kkarthik@gmail.com

Abstract:

Many researchers have emphasized the fact that it is job satisfaction which drives people to put in their best possible efforts to achieve the organizational goals and objectives. It is also clearly established by many researchers that a satisfied worker or employee would be a real productive one. In this age of tough global competition, it becomes imperative for organizations to achieve higher levels of productivity to remain in the race and to outsmart the competitors. This study is taken up against this back drop. It is intended to cover six companies across six industries in India. A structured questionnaire was administered from the review of literature and distributed to 800 junior and middle level employees working in these companies by using quota and convenience sampling methods. An analysis was performed on 477 usable responses to determine the relationships between employee involvement, empowerment, and job satisfaction; and also on the influence of demographic variables on job satisfaction. Employee involvement and empowerment was found to be significantly related to employee satisfaction. The study also found demographic and general characteristics like gender, age, marital status, commuting time and duty timings have significant relationship with employee involvement, empowerment and job satisfaction in India.

Key Words: Employee involvement, Empowerment, Job Satisfaction

I. Introduction:

A Corporate Sector is a section of society consisting of Companies/ Industries/ Business Houses. They are the industrial development side of our society. They contribute to National Income Generation, Infrastructural Growth and Development of the Economy. India launched a series of economic reforms in 1991 in response to a severe balance of payments crisis, many of which directly or indirectly led to a substantial liberalization of the corporate sector. The reforms aimed at easing restrictions on firms' activities and enhancing overall competition by putting an end to the 'license raj,' liberalizing the foreign trade regime, and opening the financial sector. The freeing of capital markets and entry of foreign investors brought new financing and ownership opportunities and significantly raised the volume of new equity issues.

II. Literature Review:

Andotra & Harleen (2012) took a different perspective in their research article by examining the role of implicit attitudes

regarding one's organization, coworkers, and supervisor as indicators of well-being. A survey was conducted on 89 employees of a FMCG company in India through a structured questionnaire. The results of a field study demonstrate that implicit (past experiences and interactions in the workplace, uninfluenced by thoughts that require reflective, conscious deliberation) and explicit job attitudes (social desirability, evaluation apprehension and dissonance reduction) reflect relatively independent intra-individual processes. Additionally, this study demonstrates that Employee involvement and organization commitment are best predicted by a combination of implicit and explicit job attitudes, and that a dissociation between implicit and explicit attitudes impacts organizational commitment.

Judith (2012) conducted a study based on the Zimbabwe employee empowerment model that was initiated within the country in the 1980s. The model was meant to address employee empowerment disparities within the country's different industries. The study was carried out in four different companies

in the food processing sector of Zimbabwe. The construct of employee empowerment was contextualized to include three areas which are decision-making, information sharing and power sharing. The argument advanced was that involving employees in decision making, information-sharing and power sharing would result into the employees' organizational commitment. The results indicated a positive relationship between decision-making and organizational commitment; and information sharing and organizational commitment. The relationship between power sharing and organizational commitment found negative.

Omolayo & Ajila (2012) investigated leadership style and organizational climate as determinants of employee involvement and job satisfaction of workers in tertiary institutions in Ekiti State, Nigeria. A total of 300 employees drawn from three educational institutions in Ekiti State participated in the study. Results showed that leadership styles and organizational climate have significant influence on job satisfaction. Also, significant influence of leadership styles and organizational climate was found on employee involvement. In the same vein, significant relationship was found between job satisfaction and organizational climate; between job satisfaction and employee involvement; and between organizational climate and employee involvement. However, there was no significant relationship between job satisfaction and leadership styles; and between employee involvement and leadership styles. No significant difference existed between employee involvement and leadership styles, and none existed between job satisfaction and leadership styles.

The present study is both exploratory and descriptive type. The study reviewed extensively the literature available in the areas of employee involvement, employee empowerment and job satisfaction. From the literature, we identified various factors such as knowledge, reward, power, and information as the antecedents of employee involvement, and factors such as meaning, competence, impact and choice as the influencing factors for employee empowerment.

The present study also made an attempt to examine the relationship between demographic variables such as gender, age on employee involvement and employee

empowerment. Further, this study extended the role of employee involvement and empowerment on job satisfaction. Thus making a comprehensive model to know and test the role of demographics, employee involvement, employee empowerment and job satisfaction. Thus, the present study has the following objectives:

- *To examine the influence of demographic characteristics on employee involvement, and empowerment.*
- *To identify the relationship between employee involvement, empowerment and job satisfaction*

Sampling Design

The study is being conducted in India Six good industries are being considered for the study and from each industry one organization was picked as respondent organizations, and middle levels of employee (i.e. E3 or M3) were chosen to get the exact result in the study. The secondary data will be collected from the company records and manuals while the primary data will be collected by administering a structured questionnaire to a group of respondents from the selected organizations. Quota and Convenience sampling methods are being used to pick the respondents. The study aims to cover a group of 800 respondents from the selected organizations and received 520 responses of which usable responses are 477.

Section –A:

Demographic Characteristics was designed to collect the demographic and social characteristics of the respondents (gender, age, work experience and marital status).

Section –B:

Individual Characteristics includes Organization, Job tenure, Designation, Commuting time, and their Office timings.

Section – C:

Employee Involvement: Knowledge: 3 items, Reward: 5 items, Power: 4 items, Information: 6 items

Employee Empowerment: Meaning: 3 items, Competence: 3 Items, Impact: 3 items, Choice: 3 item

Job Satisfaction: Overall satisfaction includes 3 items.

IV. RESEARCH FINDINGS

Based on the research question framed for the present study, the following findings were presented in detail across various companies selected:

Summary table of frequency distribution of participants' demographics			
Demographic characteristics		Frequency	Percent
Gender	Male	387	81.1
	Female	90	18.9
	Total	477	100.0
Age (in years)	< 25	57	11.9
	25 - 30	134	28.1
	30 - 35	139	29.1
	35 - 40	108	22.6
	> 40	39	8.2
	Total	477	100.0
Marital Status	Single	159	33.3
	Recently Married	63	13.2
	Married & having children	255	53.5
	Total	477	100.0
Spouse Occupation	Business	21	4.4
	Home Maker	150	31.4
	Unmarried	159	33.3
	Working	147	30.8
	Total	477	100.0

Gender

The present study found a statistically significant relationship between gender and employee involvement, employee empowerment and job satisfaction which is consistent with the previous studies. Analyzing company wise, Wipro and Ford found significant relationship between gender and employee involvement, employee empowerment and job satisfaction. Orchid, Nokia, and Bell found no female respondents who participated in the survey, which makes a limitation to the present study. Saint Gobain showed insignificant relationship between gender and employee involvement, and job satisfaction, but indicated a statistical significant relationship between gender and employee empowerment. Finally, it can be inferred that employee involvement and employee empowerment are different based on the organization type.

Age

Age is another demographic variable that found significant relationship with employee involvement, employee empowerment and job satisfaction in the present study. Company wise, Wipro found positively significant and Ford found negatively significant relationship between age and employee involvement, employee empowerment and job satisfaction. The rest of the companies exhibited mixed results. It is worth to note that job satisfaction is positively related with age of employees in software companies and is negative in chemicals and automobiles. No significant relationship found between age and job satisfaction in telecommunication, stationery and glass industries.

Job Tenure

Job tenure found significant relationship with employee involvement, employee empowerment and job satisfaction

in the present study. Company wise, Wipro exhibited a positive significant relationship between job tenure and employee involvement, employee empowerment and job satisfaction, whereas Nokia has shown a negative significant relationship. Ford showed insignificant relationship. Orchid chemical showed a negative correlation between job tenure and job satisfaction, whereas Bell stationery exhibited a positive correlation. Saint Gobain has shown a positive significance with employee involvement and insignificant with employee empowerment and job satisfaction.

Employee Involvement

The present study attempted to measure employee involvement based on the Lawler (1996) study. The scales used in the present study such as knowledge, reward, power and information were used and validated by various researchers. The present study also tested the reliability of the scales used and found significant. Across different companies selected for the present study, all the companies found significant relationship between the scales of knowledge, reward, power, and information, and employee involvement. Thus, the present study validated the scales of employee involvement developed by Lawler (1996).

Employee Empowerment

The present study adopted four scales such as meaning, competence, choice and impact from Spreitzer (1995) study to measure employee empowerment. All the companies selected have shown correlation between the scales used and employee empowerment. Thus, the present study has shown high reliability and also validated the scales of employee empowerment developed by Spreitzer (1995)

Job Satisfaction

The objective of present study is to examine the relationship between employee involvement, employee empowerment and job satisfaction to fill the gap in the literature review by proposing an integrated framework. Though the model is significant with respect to all the companies selected except Bell stationeries, the relationship patterns are mixed. The regression analysis found different model fitness with respect to the companies. Wipro found high R square of 80.6, Nokia ($R^2=61.1$) and Ford ($R^2 = 41.4$)

found moderate fitness. Orchid ($R^2=21.9$), and Saint Gobain ($R^2=7.8$) were at the bottom. This result made a note for researcher and manufacturers that employee involvement, employee empowerment and job satisfaction are subject to the type of company / industry and organization size. Other variables like salary, benefits offered, type of work, social status should also be considered to explain this pattern of job satisfaction.

Research gap & contribution

Earlier works have focused on relationships between employee involvement and job satisfaction or employee empowerment and job satisfaction. But, research studies integrating involvement, empowerment and satisfaction are in dearth. Moreover, research focusing on employee involvement, empowerment and job satisfaction are scarce in Indian context. The present study has made an attempt to integrate employee involvement, employee empowerment and job satisfaction in Indian corporate sector. Finally, very few studies have focused on demographic factor influence on employee involvement, empowerment and job satisfaction and especially in India. The present study has focused on demographic factors such as gender, age, job tenure and its influence on employee involvement, employee empowerment and job satisfaction.

Implications of the study

From an organizational management perspective, it would be more beneficial and cost effective to better understand employees within the organization from employee involvement and empowerment point of view to find a way to change dissatisfaction to satisfaction, thus positively affecting an individual's intrinsic motivation. This researcher recommends that additional research be conducted with larger sample populations and by varied organizational types, with different hierarchies. The limitations and assumptions need to be tested and identified. If this research's findings are validated by the additional research recommendations, then an opportunity exists for an organization to potentially change work environment perceptions and thereby increasing overall job satisfaction among their human talent. This would be truly creating a win-win solution for the individual employees and the organization.

Recommendations

In order to survive and to be efficient in today's environment, which is characterized by continuous fluctuation, changing technologies, intense competition and the lack of resources, today's leaders from all sectors are trying to focus on employee involvement, empowerment and job satisfaction to enhance the creative potential of their workforce to overcome such challenges. The most important recommendation of this research is that the job satisfaction is totally comes from the employees mind that can be used to further investigate and improve perceptions of job satisfaction, employee involvement and employee empowerment. The analysis presented herein has narrowly described the employee involvement, employee empowerment and job satisfaction in Indian corporate sector as a new management tool to improve individual intrinsic motivation, thus satisfaction, involvement, and empowerment. For academic researchers, it is necessary to promote employee involvement and employee empowerment concepts as a tool of improving job satisfaction and to differentiate from the similar words like employee commitment, employee participation, employee engagement etc.

Future research directions

There are several directions for future research that can be suggested from the present study. One important direction would be to consider the analysis of firm size, firm type, and firm's performance and their influence on job satisfaction in decision making. These might be relevant and imperative in making policy decisions for the firm to promote employee involvement and employee empowerment. From the findings of the present study, it can be inferred that employee involvement and employee empowerment are different based on the type of organization. So, future research can be conducted by comparing specifically between services and manufacturing companies. Though the present study found significant relationship of gender, age, and job tenure with employee involvement, empowerment and job satisfaction, the present study failed to conduct a survey with proportionate gender, age and job tenure samples. So, a study considering proportionate sample of

male and female, different age groups and various experience levels are needed to study the demographic influence in a complete manner. Finally, the study will be extended to other geographical areas and other industries to provide a further analysis of results derived from responses received from respondents at different hierarchical levels. Future research should also explore the extent of variables such as leadership, culture, competence, motivation, self efficacy, etc., on employee involvement, employee empowerment and job satisfaction.

V. Conclusion

Today, many firms are waking up to the realization that employees must be viewed as long-term investments as important as the capital necessary to finance and sustain the business. In this context, a study focusing on employee involvement and employee empowerment and its relationship with job satisfaction would definitely make a sense to the corporate sector. This study emphasizes the fact that employees must be treated in a manner that keeps them interested in satisfying the customer and staying with the company for long time.

References :

- Andotra Neetu, and Harleen (2012), "Job Attitude to Job Involvement – A Review of Indian Employees", IOSR Journal of Business and Management, Vol. 2, Issue 4, pp. 01-09.
- Judith, M.Z. (2012), "Employee empowerment and organizational commitment: A study of the food manufacturing sector in Zimbabwe", African Journal of Business Management Vol. 6, No. 38, pp. 10332-10339. Accessed from <http://www.academicjournals.org/ajbm/PDF/pdf2012/26Sept/Judith.pdf> (02/02/2012)
- Omolayo, B.O., and Ajila, C.K. (2012), "Leadership Styles and Organizational Climate as Determinants of Job Involvement and Job Satisfaction of Workers in Tertiary Institutions", Business and Management Research, Vol. 1, No. 3, pp.28-36.

"In the beginner's mind there are many possibilities, in the expert's there are few."

- Shunryu Suzuki

The Trend and Impact of Small and Medium Enterprises on Economic Growth in Sri Lanka

Sinnathurai Vijayakumar*

*Senior lecturer, Department of Economics, University of Jaffna, Sri Lanka. Email - vijai114@gmail.com

Abstract

Even though SMEs play important role in both developed and newly industrialized countries, there is insignificant impact of SMEs on the Sri Lankan economy. The prime intension of this study is to find out the association between economic growth and SMEs in Sri Lanka. Furthermore, this study analyzes the trend of small and medium enterprises in employment generation and value added. The secondary data have been employed. Headcount index and SMEs' employment data have been interpolated in the study because of non-availability of some data. The simple multiple regression model was employed to analyze the data. Hetero-skedasticity and serial correlation problems were detected by using Eviews option. The finding clearly shows that there is positive relationship between economic growth and SMEs but, impact of SMEs on economic growth is not significant in Sri Lanka. Even though the co-efficient of SMEs is 0.02 indicating that there is positive relationship between economic growth and SMEs, the impact of SMEs on economic growth is statistically insignificant. Another finding is that there is vast number of industrial establishments of SMEs in total establishments which do not significantly contribute to the employment generation and value added in Sri Lanka. Therefore, active private public participation (PPP) is needed to accelerate the growth and improvement of SMEs and thereby, its contribution to the economy can be enhanced. Thus, author suggests that public private participation in regard to SMEs is an effective remedial measure to promote SMEs and enhance their contribution to the national economic development.

Keywords: *Small and medium enterprises, economic growth, employment, value added, public private participation.*

I Introduction

Sri Lanka is conducive to start up micro and small enterprises for socio-economic development because it has labour abundance in nature. Small and medium enterprises can play crucial role in every one's life because most of the day to day economic activities are related to SMEs. The small industries in rural areas are source of employment and production of food in addition to agriculture. Since independent, successive governments in Sri Lanka have been giving great attention to develop the small and medium industries which is backbone for the economic growth and thereby reducing poverty. Sri Lanka's human development index is by far the highest in South Asia and exceeds that of the rich countries. This level of human development has been achieved through the provision of universal access to health, education and continued investment in the social sectors. Economic development however has lagged consistently behind social development (Vijayakumar, 2010). In

terms of production, Sri Lanka is primarily an agricultural country.

The main crop is rice. Tea, rubber, coconut, and spices are important commercial agricultural crops. The contribution of the agriculture sector to GDP was 12 % although 24.6% R and D expenditure is spent on agriculture research and development. However, over the past few years the manufacturing industry has grown significantly. Textiles, wearing apparel and leather products are the major industrial products (Central bank of Sri Lanka, 2008). For example, textile, wearing apparel and leather products constituting 44 percent (in 1998) have accounted for the largest value of industrial production. The service sector, which included transport, tourism, Communication, trade, financial services, public administration, defense and other services, contributed 50.7 percent of the growth in GDP in 2010. As mentioned above, in recent years the manufacturing sector appears to have played a prominent role in the economy relative to the other economic

activities; especially in terms of expanding production, export, and employment since the introduction of the liberalized economic policies in Sri Lanka in 1977. Accordingly, Sri Lankan policy makers have emphasized the private sector participation in boosting the economy of Sri Lanka and are giving more importance to that of it in their decision making. Thus, Successive governments in Sri Lanka have taken various steps from time to time to promote small and medium enterprises which are backbone of economic growth and reduction of poverty.

SMEs are more appropriate to the countries where population is high. Sri Lankan economy was liberalized to encourage the private sector participation for achieving economic development and reducing poverty in 1977. The most of the policy makers believe that small and medium industries will play crucial role in boosting the economic growth and alleviating poverty in Sri Lanka because of its capacity of employment generation, contributing growth, and alleviating poverty, bringing about improvement of income distribution, increasing share of export earnings and embarking on innovation. There is ample empirical evidence that countries with a high share of small industrial enterprises have succeeded in making the income distribution (both regionally and functionally) more equitable. This in turn is a key contribution to ensuring long-term social stability by reducing re-distributional pressure and by reducing economic disparities between urban and rural areas. In this study author strives to find out association between SMEs and economic growth and contribution of SMES in boosting economic growth and its trend in Sri Lanka.

II. Objective of Study and Methodology

Developing countries strive to transform their economy from primary agricultural products to industrial products. It is the fact that industrial products are elastic which generate more income and profit rather than agricultural products which have inelastic demand. This is not different in the case of

Sri Lanka. This study tries to focus on the fact that how small and medium enterprises perform on Sri Lankan economy, particularly on economic growth. Furthermore, this study analyzes the trend of small and medium enterprises in employment generation and value added. In addition to this objective, the study tries to explicate the remedial measures taken by government to promote small and medium enterprises in Sri Lanka. Secondary data have been used for the analysis. The data has been gathered from reports such as Central bank of Sri Lanka, Department of Census and statistics in which data from 2000 to 2010 were taken for the analysis. Furthermore headcount index and SMEs employment data have been interpolated because of non-availability of some data. The simple multiple regression model is employed to analyze the data. Heteroskedasticity serial correlation problems were detected by using Eviews option. The entire analysis has been carried out with the use of statistical package of Eviews.

3. Overview of Small and Medium Enterprises

Enterprise development is almost universally promoted in developing countries, and is often justified on the grounds that the emergence of enterprises is an important mechanism to generate economic growth. As a developing country, many enterprises are small and medium scales in Sri Lanka. SMEs have been identified as an important strategic sector for promoting growth and social development of Sri Lanka. Over the years SMEs have gained wide recognition as a major source for employment, income generation, poverty alleviation and regional development. In the present competitive and challenging global environment, a viable and dynamic SME sector is essential for economic development of developing countries. For the survival of the SMEs sector in developing countries, support from other sections of society is needed. Most success stories of developed countries come with the private-public synergy. Therefore the private-public cooperation is very important

to achieve the success of SMEs. It is the fact that in developing countries, most important and crucial issue is to generate tremendous employment opportunities for the vast labor forces because unemployment problems vitally affect the people that lead to severe poverty ridden condition. Amaratunge (2003) mentioned that employment generation has been first choice than improving technology because poverty reduction can be achieved only by generating new employment opportunities. Thus, small enterprises are a key source to generate more employment not only for skill labour but also non-skill labour. What is the important fact is that labour productivity and labor quality could be greater in medium and large scale industries in practice. Accordingly, for rural population, small and medium enterprises should provide the significant size of employment opportunities of which unskilled labor force could be benefited and thereby increasing living standard of that people. In other words the generation of employment through small industries among the rural poor will be fostering of spirit of people's entitlement and capabilities. Even though Sri Lankan government has been spending huge money for poverty alleviation, rural and estate people are still living very low level living standard and poverty stricken nature. Therefore, promotions of cottage, small and medium enterprises have been emphasized by policy makers, government, non-governmental organizations and international aid agencies as strategy to achieve high economic growth and poverty reduction. The faith on small industries in economic development other than large scale once that has commenced to emphasize a fresh labor intensive from 1980s. In the context of reducing capital cost in employment generation small and medium industries is more cost less source compared with the large enterprises. Though small and medium enterprises can play crucial role in boosting economic growth, export income and reducing poverty in developed countries in general and developing countries in particular, developing countries where around 80 percentage of population live in rural areas should give their attention for

the promotion of the small and medium enterprises in general and small enterprises in particular because small enterprises can be launched with very few knowledge of modern management, finance controlling and minimum skills.

III. Literature Review

The small and medium industries have generated eight out of ten employments in America (Birch, 1979). Armington and Odle (1982) indicated that Birch had not controlled for the fact that many new small business, owned by large firms, play an important role in generating job. Davis, Haltiwanger and schuh identified several more flaws in the statistical logic underlying Birch's analysis. Moreover, in newly emerging economies of south East Asia such as South Korea, Taiwan, Malaysia, and Singapore have fruitful experience about SMEs which played crucial contribution to boost the economic growth and thereby reducing poverty. Biggs and Shah (1998) put forwarded the view from panel data of five countries in sub-Saharan Africa that large firms in the early 1990s emerge as a dominant source of net job creation in manufacturing in all the countries where there had been net job addition. Many small firms are created as a last resort rather than as first choice and have therefore limited growth potential (Liedholm and Mead, 1987). In fact, there are contradictory arguments in regard to role SMEs. In the one hand, SMEs play significant role in boosting economic growth, reducing poverty and rising living standard of their employees i.e America, Germany, South Korea, Taiwan. On the other hand, SMEs do not play the significant role in boosting economic growth, reducing poverty and increasing living standard of workers in many developing countries such as Sri Lanka, Pakistan, Kenya. Therefore one can observe the fact that the growing body of studies with regard to SMEs indicate that SMEs do not boost employment generations even quality jobs. According to the empirical evidence of micro economic studies, large firms are generating more better and stable employment opportunities, higher

wages and non wage benefits compared to small firms in developed and developing countries (Brown,Medoff, Hamilton,1990). Moreover, a wide array of evidence rejects the view that small firms are the engine of job formation (Dunne, Roberts, Samuelson, 1989). Many small firms are more capital intensive than large firm in the same industry (Little, Mazumdar, Page, 1987., Snodgrass, Biggs, 1996) .This suggests that SMEs are not necessarily more suitable to the labour abundance and capital shortage characteristics of developing countries. In terms of job quality, microeconomic evidence does not support the pro-SME view that small firms create better quality job than large firms. Empirical evidence shows that large firms offer more stable employment, higher wage and more non- wage benefits than small firms in developed and developed countries, even after controlling for differences in education, experience (Brown,Medoff, Hamilton,1990). Therefore, in consonance with existing literature, it is can be concluded that Small and medium enterprises are in success in boosting economic growth and reducing poverty and providing quality and better job in developed and newly industrialized countries while SMEs are not in more success in that of most of the developing countries.

5. Experience Of Small and Medium Enterprises in Sri Lanka.

As said above, SMEs significantly contribute to the economic growth and poverty reduction in developed countries in general and developing countries in particular. This is not different in case of Sri Lanka but its potential contribution on Sri Lankan economy is questionable because of various flaws that occurred in the country. As being India and other developing countries, SMEs account for high percentage of establishments in the total number of establishments in Sri Lanka. But contribution of SMEs to the employment generation and value added in India is very high in comparison with that of Sri Lankan economy. In other words, even though Sri Lanka has vast number of industrial establishments of SMEs in total establishment, its contribution to employment generation and value added is very low which hinder the economic growth and poverty reduction. Therefore, large scale enterprises located in urban areas, especially in western province, play significant contribution to the employment generation and value added in Sri Lanka. Thus, it is the fact that full potential capacity of SMEs has not been used to the development of the country. The table 1 clearly shows the contribution of SMEs to the economy in terms of employment, value added in years of 1983, 1996, 2006 and 2008.

Table 1: Relative size of SMEs in SriLanka

Size of class	1983			1996			2006			2008		
	No of Estab (%)	No of Emp (%)	Valu add (%)	No of Estab (%)	No of Emp (%)	Value add (%)	No of Estab (%)	No of Emp (%)	Valu add (%)	No of Estab (%)	No of Emp (%)	Value add (%)
Small	86.6	29.2	11.3	70.7	8.6	4.1	65.9	12.2	5.7	63.0	10.2	4.7
Medium	11.4	19.4	19.8	20.1	14.0	8.4	25.9	27.5	26.1	30.0	19.4	15.6
Large	2.0	51.41	68.9	9.2	77.4	87.4	8.4	60.2	68.2	7.0	70.4	79.7
Total	100	100	100	100	100	100	100	100	100	100	100	100

Source: Department of Census and Statistics

It is the fact that SMEs play crucial role to the economic growth in developed countries in general and developing countries in particular. But, in Sri Lanka, there is difference experience in regard to contribution of SMEs to the economic growth of the country. In other words, contribution of SMEs on Sri Lankan economy is not significant which does not lead to high economic growth

and reduction of poverty. According to the table 1, small enterprises account for 86.6% of total establishments in 1983. But, even though there is significant number of small enterprises in Sri Lanka, its contribution to the employment and value added is 29.2% and 11.3% respectively. There are 11.4% of medium industries which account for 19.4

%of total employment and 19.8% of value added. According to this statistics, in1983, 98% of small and medium enterprises only account for 48.6% of total employment and 31.1% of value added .It is the important fact that only 2% of large enterprises account for 51.4% total employment and 68.9% of value added in 1983. On the one hand, successive years, contribution of SMEs has decreased in Sri Lanka .On the other hand, contribution of large enterprises has continuously increased. In 2006, percentage of establishment of small enterprises is 65.9% and its contribution to the employment is 12.2% and 5.7% for value added. There are 25.9% medium enterprises which have accounted for 27.5% of the total employment and 26.1% of total value added. Though percentage of large enterprises is 8.4% in 2006, its contribution for employment and value added is 60.2% and 68.2% respectively. It is the general observation that there are 91.5% of small and medium enterprises which account for 39.7% of employment and 31.8% of value added in 2006. However, 93% of small and medium enterprises account for 29.6% total employment and 20.3% of value added in 2008. But, only 7% of large enterprises in 2008 account for 70.4% of total employment and 79.4% of value added. In consonance with this statistical analysis, even though small and medium enterprises have accounted for vast percentage of establishment in Sri Lanka, its contribution to the economy is very low. In comparison with small business, contributions of medium enterprises are somewhat significant and insignificant compared with large enterprises in Sri Lanka. What is the important fact is that India is a neighbor country of Sri Lanka in which SMEs play crucial role in the economy, particularly; small sectors' growth is significant in India. Therefore, it can be concluded that although there are

significant number of SMEs in Sri Lanka, their contribution to the national economy in terms of employment, output, value added has been very low. However, in developed countries and newly developed countries, SMEs have contributed significantly to the economic growth and poverty reduction.

IV. Model, Empirical Results and Discussion

As already mentioned above, this study focuses on the impact of SMEs on economic growth and status of SMEs in generating employment and value added. Even though there are number of determinants of economic growth, author tries to find out the relationship between SMEs and economic growth, other things remaining same. On the other hand, the relationship between economic growth, SMEs and poverty has been scrutinized while other things remain constant. In this study, it is expected that there is a positive and significant impact of SMEs on economic growth. Furthermore, based on second equation, it is expected that there is negative and significant relationship between economic growth and poverty. The two basic models are, thus illustrated below.

In equation (1).Eco.growth refers to economic growth rate. SME refers to employment share of SMEs and ϵ is stochastic error term. Further, the important assumption is that other factors determining the economic growth remain constant while analyzing the relationship between economic growth and SMEs.

$$\text{Eco.growth} = \beta_1 + \beta_2 \text{SMEs} + \epsilon_t \dots\dots\dots (i)$$

Based on this equation, output was obtained which is illustrated in table2

Table 2: Ordinary Least Square Regression results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SME	0.021681	0.156617	0.074582	0.5422
C	4.973857	5.178648	0.960455	0.3619
R-squared	0.030618	Mean dependent var		5.354545
Adjusted R-squared	0.00937	S.D. dependent var		2.752222
S.E. of regression	2.900201	Akaike info criterion		5.132652
Sum squared resid	75.70034	Schwarz criterion		-5.202747
Log likelihood	-26.21722	F-statistic		0.005562
Durbin-Watson stat	1.746616	Prob(F-statistic)		0.041179

Source: Author's own

Time series data for 2000 -2010 time period were used for the estimation using Eviews software. The summarized results of regression are shown in table 2. The value of R² of 0.03 means that about 3 percent of variation in economic growth is explained by SMEs. In accordance with this regression result, as predicted, SMEs has positive relationship with economic growth but not significant. Thus, as SMEs increase, economic growth also increases and vice versa. According to the table 2, co-efficient value of SMEs is 0.02 indicating 1% increase in SMEs' employment leads to increase in economic growth by 0.02% .But; its p-value is greater than 0.05 indicating that there is insignificant of SMEs on economic growth. Further, the model is goodness of fit because p-value of t -statistics (0.041) is less than 5% in the model. Even though R² is very low, p-value of t-statistics (0.041) is less than 5% in the model which indicates the goodness of this model. Durbin-Watson value confirms the fact that there is no autocorrelation. From this statistical analysis, one can understand that there is no significant impact of SMEs on economic growth in Sri Lanka. As a matter of fact, many studies about economic growth and SMEs of developed countries and newly industrialized countries show the positive and significance of SMEs. Unfortunately, the same studies in many developing countries indicate that SMEs don't have significant impact on economic growth. This study also proves the above said conclusion that SMEs don't have significant impact on economic growth of Sri Lanka. What is the important observable fact is that we assumed that other factors determining the economic growth remain constant when analyzing the relationship between SMEs and economic growth.

In equation 2, there are two independent variables such as SMEs and poverty head count index. Due to the strong relationship between growth and poverty in many literatures, author has added another variable, say poverty in this model, other thing remaining same.

$$\text{Eco.growth}=\gamma_1+\gamma_2\text{SMEs}+\gamma_3\text{POV}+ \epsilon \dots(2)$$

Same time series data for 2000 -2010 time period were used for the estimation using Eviews software. Poverty and SMES are explanatory variables. The value of R² of 0.2 means that about 20% of variation in economic growth is jointly explained by SMEs and poverty. In this regression analysis, what is the observable fact is that when adding poverty with variable SMEs, R² value has increased by 17% implying poverty

is important determinant of economic growth in Sri Lanka. Many empirical studies express the view that poverty both negatively and significantly affects the economic growth. Therefore, significant improvement of living standard of people will lead to considerable reduction of poverty. SMEs in developed and newly industrialized countries prove the fact that SMEs have had significant improvement of poverty and living standard of workers who are working in SMEs. Thus, the growths of SMEs are effective remedial measures to solve the problem of poverty and stagnant economic growth. In accordance with regression result of table 3, as predicted, economic growth has positive relationship with SMEs and negative relationship with poverty. According to the table 3, co-efficient value of SMEs is 0.08 indicating 1% increase in SMEs' employment leads to increase in economic growth by 0.08%. But, its p-value (0.590) is greater than 0.05 indicating that there is insignificance of SMEs on economic growth of Sri Lanka. Furthermore, co-efficient value of poverty is -0.24. Thus, 1% decrease in poverty leads to 0.24% increase in economic growth and vice versa. Its p-value is 0.002 that indicates the significance of variable-poverty in determining economic growth. Further, the model is goodness of fit because p-value of t-statistics (0.03) is less than 5% in the model. Even though R² is very low, p-value of t statistics (0.03) is less than 5% in the model which indicates the significance of this model. In comparison with SMEs, poverty has more significant impact on economic growth, as said many existing literature of developing countries in regard to studies of SMEs and poverty .Further Sri Lanka is also lower middle income country and as a result, most of the rural and estate people are living very poor condition. Durbin-Watson value confirms the fact that there is no autocorrelation. From this table 3, one can understand that there is not significant impact of SMEs on economic growth in Sri Lanka.

But, poverty significantly affects the economic growth. As a matter of fact, many studies about the relationship among the economic growth, poverty and SMEs of developed countries and newly industrialized countries show the significance of SMEs and their promotion. The same studies in many developing countries indicate that SMEs don't have significant impact on economic growth. The output of this study also proves the above said conclusion that SMEs don't have significant impact on economic growth of Sri Lanka while poverty has significant effects on economic growth.

Table 3: Ordinary Least Square Regression results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SME	0.082312	0.162830	0.547187	0.5992
POV	-0.240883	0.187585	-1.284126	0.0020
C	6.950873	5.233061	1.32826	0.2257
R-squared	0.02014	Mean dependent var		5.354545
Adjusted R-squared	0.11042	S.D. dependent var		2.752222
S.E. of regression	2.800971	Akaike info criterion		5.124810
Sum squared resid	62.76352	Schwarz criterion		-5.23327
Log likelihood	-25.18646	F-statistic		0.827471
Durbin-Watson stat	1.696976	Prob(F-statistic)		0.031369

Source: Author's own

7. Promotional activities for the development of SMES

Above analysis clearly indicates the fact that promotion and encouragement of SMEs are important to accelerate the economic growth and thereby reducing poverty. Further, government and other public and private organizations should play massive role in promoting SMEs and thereby boosting economic growth and alleviating poverty. Even though poverty negatively affects the economic growth, it is the remedy for this issue is private public co-operation which will induce the growth of SMEs and thereby reducing poverty ridden condition. If it has happened properly, economic growth will be automatically accelerated which leads to reduction of poverty. Therefore, one can understand that there is causal relationship among the variables. It needs to be further analyzed.

Minna (2007) emphasized a Policy and Operational Guidelines for PPP for growth of SMEs. The guidelines points out what PPP is and its special features, ways of PPP and its benefits etc. The concept of PPP has evolved for centuries in the USA and Europe but has become more prominent in recent decades in local economic development. PPP is the idea of bringing in private finance to finance public sector infrastructure originated with the early occurrences of PPP. It is further referred to as a contractual arrangement between a public sector agency and a for-profit private sector concern, whereby resources and risks are shared for the purpose of delivery of a public service or development of public infrastructure. PPP arrangements are growing in use and acceptance as an alternative and effective method to organize additional financial resources and benefits from private sector efficiencies. There is no private sector participation in building up infrastructural

facilities in Sri Lanka. Generally, small and medium and large enterprises in Sri Lanka think that government has full responsibility in the poverty alleviation, infrastructural development and social development. It is entirely wrong notion which hinder the overall development of country. There has been no macro-level policy for the development of the sector although there have been some incentives provided by different programs until late 1950s. However, recently there have been a large number of institutions directly involved in the promotion of the small business sector in Sri Lanka. Their assistance vary from formulating policies, strategies, and programs such as providing credit, training, technology, marketing sub-contracting, and management. In addition to the government organizations, there are a large number of NGOs involved in the promotion of the small business sector by providing various types of assistances. Many of them were set up after the 1977 reforms. Government of Sri Lanka has taken various measures to promote the SMEs.

Ministry of youth affairs and sports which is main policy making body relating youth development conducts some small enterprise development programs, especially focused on the youth of the country in which the Small Entrepreneurship Development Division and National Youth Co-operatives (NYSCO) are playing role in the development of small business. Ministry of traditional industries and small enterprise development which has several sub-councils and boards is also providing various promotion and assistance for the small business in Sri Lanka. In addition, some government departments and boards such as Department of Rural Development and Cottage Industries, Industrial Development Board (IDB), Department of Textile, Sri Lanka Handicrafts Board (SLHB), National Design Center

(NDC), Ceylon Institute of Scientific and Industrial Research (CISIR) are providing facilities such as financial technical and marketing, management assistances to develop the SMEs. So as to increase the export income of SMEs and national contribution of SMEs, export development board and above said departments have offered various facilities for SMEs. For the loan facilities to be facilitated there is two important government banks such as people bank and bank of Ceylon in Sri Lanka. The establishment of People's Bank and the nationalization of Bank of Ceylon in 1961 were land marks in providing institutional credit to SMEs. Bank of Ceylon branches and its sub offices at Agrarian Services Centers provided credit facilities under special programs to SMEs. National development bank and samurdhi bank are also providing loan facilities for development of SMEs. In addition to this, some domestic private banks have also introduced special facilities to these industries with the expansion of their branch network. In accordance with a national strategy of development of SMEs, Enterprise Promotion Bank (SME Bank) was recently established by the government. The government of Sri Lanka has realized the importance of SMEs for its economy and as a result, it has taken the initiative in setting up a new licensed specialized bank called the SME Bank in year 2005. The purpose of establishing the SME Bank is to promote the micro, Small and Medium enterprises via the provision of financial and technical assistance on a vigorous and sustainable basis. What is the observable fact is that enterprises in initial stage or poor small businesses are still undergoing financial difficulties having launched several special banks and credit facilities. Notwithstanding the number of institutions have been established to promote the SMEs, it is the fact that there is no significant co-ordination of activities among the existing organizations in Sri Lanka. Particularly, even though there are many government departments and boards, they have not had common effective policy or effective coordination for the development of SMEs in comparison with developed countries. This is significant flaws that have been decreasing the effectiveness of the various activities and programme related to SMEs. Thus, effectiveness of SMEs on economy is not considerable. Further, a strong relationship exists between the quality of business environment and long-term national economic performance, including pace of poverty.

V. Conclusion and Recommendation

Notwithstanding several literatures related to SMEs have articulated the fact that SMEs can play important role in boosting economic growth, employment generation, accumulation of capital and poverty reduction, this experience is not consistent with Sri Lanka. In other words, direct contribution of small and medium enterprises in changing poverty status and boosting economic growth is questionable in Sri Lanka. For instance, 93% of small and medium enterprises account for 29.6% total employment and 20.3% of value added in 2008. But, only 7% of large enterprises in 2008 account for 70.4% of total employment and 79.4% of value added. In consonance with this statistical analysis, even though small and medium enterprises have accounted for vast percentage of establishment in Sri Lanka, its contribution to the economy is very low. Further, despite there is positive relationship between economic growth and SMEs, impact of SMEs on economic growth is not significant in Sri Lanka. The co-efficient of SMEs is 0.02 indicating that there is positive relationship between economic growth and SMEs but impact of SMEs on economic growth is insignificant. Same conclusion in regard to relationship between economic growth and SMEs is derived in table 3. It is the fact that as expected, negative and considerable impact of poverty on economic growth has been in Sri Lanka.

The output of this study clearly proves the conclusion that SMEs don't play significant impact on economic growth of Sri Lanka while poverty has significant effects on economic growth. In consonance with general believes, SMEs can simultaneously play double role in boosting economic growth and alleviating poverty. Thus, as remedial measures, government and other non-governmental organizations should assists for existing small and medium enterprises as well as its new establishment in effective manner. Even though there are number of government organizations for promoting SMEs in Sri Lanka, co-ordination among them is questionable and ineffective. Furthermore, public private participation (PPP) is sine qua nine to the effective promotion of SMEs which leads to economic growth and poverty reduction. Visionary government can launch effective PPP which is remedy for the successful promotion of SMEs and thereby boosting economic growth. Therefore, active private public participation is needed to accelerate the growth of SMEs and improvement of SMEs and thereby, its

contribution to the economy can be enhanced like developed countries.

References

- Amington,c and Odle,M (1982), 'Small Business: How many job?', *Brooking review*, 20,67-79.
- Amaratunge,S,(2003) , 'Role of small industries in economic development of Sri Lanka', Proceeding of first international symposium on business management of Developing countries, Faculty of Management studies and Commerce,Sri Jayewardenapura University. Colombo.
- Beck,T.,Rosss, L and Norman, L(2000), 'Finance and Source of Growth', *Journal of Financial Economics*,.58, 261-300.
- Birch,D.L,(1979), 'The Job Generation Process: Final report to economic development Administration', Cambridge, MA:MIT Programme on neighborhood and regional Changes.
- Biggs,T and Shah,M(1998), 'The determinants of enterprise growth in sub Saharan Africa:evidence from the regional programme on enterprise development', RPED, discussion paper, World bank.
- Brown.C.,Medoff,J and Hamilton,J. (1990), *Employers: Large and Small*, Cambridge,MA: Harvard University press.
- Department of census and statistics (2000-2010), Annual industrial survey report, Colombo.
- Dunne,T.,Roberts,M.J and Samuelson (1989), Growth and Failure of U.S.A manufacturing plants, *Quarterly Journal of Economics*,104,671-698.
- Lakshman, W. D., Vidanagama, S. S., Senanayake, S.,M.P., Kaluarachchi, S and Wettasinghe,A(1991), Changes in the Industrial Structure and the role of small and medium industries in developing countries: The case of Sri Lanka, Tokyo, Institute of developing economies.
- Liedholm,C and Mead,D(1987), Small scale industries in developing counties: empirical evidence and policy implication.Michigan state University international development paper,number 2.
- Little,I.M.D.,Mazumdar and Page,J.M(1987), Small manufacturing enterprises: a comparative analysis of Indian and other economics, Oxford :Oxford University press.
- Kumar,K., Raghuram,G,R and Zingales,L(2001), 'What determines firm size', University of Chicago, CRSP working papers,no.496.
- Minna, T(2007) ,Policy & Operational Guidelines for in Public Private Partnership Executive Governer, Nigeria State.
- Ponnamperuma,E.N.S(2000), 'SMEs in competitive Markets', Country Paper, Asian productivity organization ,Tokyo,296-313.
- Snodgrass,D and Biggs, T(1996), 'Industrialization and the Small firms'. San Francisco: International centre for Economic Growth.
- Sleuwaegen,L and Micheline, G(2002), 'Growth of firms in developing countries', *journal of development economies*, 68,117-135.
- Vijayakumar, S(2010), 'Poverty Status and Impact of Poverty Alleviation Policies in Sri Lanka: Special Reference to Samurdhi, Education and Health', Proceedings of Annual International Research Conference of Annamalai University, 24-31,India.
- World Bank (2002), Review of small business activities, Washington, DC:World Bank

“The more important reason is that the research itself provides an important long-run perspective on the issues that we face on a day-to-day basis.”

- Ben Bernanke

Post-merger financial performance of select acquiring IT companies in India

Aruna.G*, S.Nirmala**

*Research Scholar, Department of Business Management, PSGR Krishnammal College for Women, Coimbatore, Tamilnadu, India. Email –arunamgt@gmail.com

**Associate professor and Head, Department of Business Management, PSGR Krishnammal College for Women, Coimbatore, Tamilnadu, India.

Abstract

Globalization and mergers in India has helped in improving the economic state. The automobile sector, steel, cement, pharmaceutical, petrochemical, and many more sectors have only experienced successful mergers with overseas companies in India. These global associations have brought an array of success which has created a brand value in the market. The sector which rules the merger scenario in India is a result of the globalization process. Mergers has gained substantial importance in today's corporate world. The policy of liberalization, decontrol and globalization of the economy has exposed the corporate sector to domestic and global competition. Mergers and acquisitions in IT companies help them to gain improvement of managerial efficiency, achievement of economies of scale or scope, increased market power and increased revenue growth. This paper presents a comparative study of the pre and post merger financial performance appraisal of acquiring Indian Information technology companies. The researcher has selected randomly three cases of mergers occurred in the Indian IT sector. Ratios analyses have been used to examine the pre and post merger financial performance appraisal of acquiring IT companies in India. In order to test the statistical significance, researcher has applied independent sample t-test. The result indicates that the post M&A's have not created difference in the financial performance of the acquiring IT companies.

Keywords: *Mergers and Acquisitions, Financial Performance, Profitability, Accounting Ratios, Information Technology (IT) companies*

I. Introduction

Mergers and acquisitions play a major role in shaping business activities worldwide. This process is extensively used for restructuring the business organizations. In India, the concept of Mergers and acquisitions was by the government organizations. Among the different Indian sectors that have resorted to mergers and acquisitions in recent times, telecom sector, finance, FMCG, Construction materials, automobile industry and steel industry are worth mentioning.

Information technology (IT) is amongst the fastest growing sectors in the country. The Information Technology (IT) Sector has been one of the hotshots of Indian economy. Remarkable transformation and growth of the economy has created opportunities both in exporting software and services and in the domestic market. The Indian IT & ITES Sector has grown considerably over the last decade.

Outbound deals are not only taking place in emerging sectors, such as information technology (IT) and information technology enterprise solutions (ITES), but also in

sectors such as steel and energy. Companies are also acquiring large firms that are bigger than themselves.

II. Literature Review

Astha Dewan (2007) focused on the post merger financial performance of the acquirer companies in India and performance of firms going through mergers in Indian industry. The merger cases for the year 2003 have been taken for the analysis. The financial data has been collected for six years from 2000-06. Pre-merger and post-merger financial ratios have been examined using paired sample t test. The results of the analysis reveal that there is significant difference between the financial performance of the companies before and after the merger. Further, it has been found that the type of industry does seem to make a difference to the post-merger operating performance of acquiring firms.

Metal Menapara et al evaluated the impact of mergers and acquisitions on financial Performance of Indian Corporate Sectors and examined the impact of merger and acquisitions on Return on Investment,

Profitability and Liquidity position of selected companies. The authors concluded that emerging from the point of view financial evaluation is that the merging Companies were taken over by companies with reputed and good management. And therefore, it was possible for the merged firms to turnaround successfully in due course.

Jagdish R. Raiyani (2010) in her study investigated the extent to which mergers lead to efficiency. The financial performance of the Banks has been examined by analyzing data relevant to the select indicators for five years before the merger and five years after the merger. It is found that the private sector merged Banks are dominating over the public sector merged Banks in terms of profitability and liquidity but in case of capital adequacy and NPAs, the results are contrary. Further, it was observed that the private sector merged Banks performed well as compared to the public sector merged Banks

Rehana Kouser and Irum Saba (2011) explored the effects of merger on profitability of the Banks by using six different financial ratios. They have selected 10 commercial Banks that faced M&A during the period from 1999 to 2010. The lists of banks were selected from the Karachi Stock Exchange (KSE). Quantitative data analysis techniques are used for inference. Analysis was done by using paired t-test. The results recommend that operating financial performance of all commercial Banks M&A included in the sample from Bank industry had declined later. The results shows that there is a decline in all 6 ratios: profitability ratios, return on net worth ratios, invested capital, and debt to equity ratios.

Neena Sinha et al (2010) in their study described the impact of mergers and acquisitions on the financial efficiency of the selected financial institutions in India. The analysis consists of two stages. Firstly, by using the ratio analysis approach, they calculated the change in the position of the companies during the period 2000-2008. Secondly, they examine changes in the efficiency of the companies during the pre and post merger periods by using nonparametric Wilcoxon signed rank test. The result revealed a significant change in the earnings of the shareholders, there is no significant change in liquidity position of the firms. The result of the study indicate that M&A cases in India show a significant correlation between

financial performance and the M&A deal, in the long run, and the acquiring firms were able to generate value

Objectives of the study

The present study has aimed to analyze the post merger financial performance appraisal of Acquiring IT companies in terms of profitability in the Indian Information technology industry and compare the pre and post Merger financial performance of IT companies.

Hypothesis

To substantiate the objectives mentioned above, the hypothesis has been formulated and tested.

H0 (Null Hypothesis) = There is no significance difference between the Pre merger and Post merger Profitability

H1 (Alternative Hypothesis) = There is significance difference between the Pre merger and Post merger Profitability.

III. Methodology

For the purpose of analyzing the profitability of acquiring IT companies after Merger and Acquisitions various financial and accounting ratios are undertaken. Data of operating performance ratios for up to four years prior and seven years after the Merger and Acquisitions were collected from the financial statement of company's extracted from the website of money control. With the help of Paired sample t-test the pre merger spanning for four years and post merger seven years financial ratios have been compared.

Financial Profitability Ratios

- OPERATING PROFIT MARGIN (Gross Profit /Sales)*100
- NET PROFIT MARGIN (Net Profit/ Sales)*100
- RETURN ON NET WORTH (Pat/Net worth)*100
- RETURN ON CAPITAL EMPLOYED (Net Profit/Total Assets)*100

Researcher has selected three cases for the study that are shown in table-1. In order to analyze the financial performance of Acquiring IT companies after the merger the Financial and Accounting ratios like

Operating Profit Margin (*OPM*), Net Profit Margin (*NPM*), Return on Net Worth (*RONW*) and Return on Capital Employed (*ROCE*) have been calculated. And paired sample t tests have been applied to test the significance.

IV. Analysis and Interpretation

Researcher has selected three cases for the study that are shown in table-1.

Table 1: Three companies from IT and ITES sector has been chosen for analysis

Acquirer company	Year of merger
Aptech software ltd	2008
HCL Technologies ltd	2004
Wipro BPO solutions ltd	2005

Table 2: Financial Ratios (in Percentage)Pre Merger Ratios of Aptech Software Ltd

Years	OPM	NPM	RONW	ROCE
2004	-7.81	-58.08	-64.41	-16.39
2005	-9.59	-28.51	-38.42	-14.97
2006	6.45	-7.97	-8	-3.93
2007	15.28	2.45	1.9	2.5

Table 3: Financial Ratios (in Percentage) Post Merger Ratios of Aptech Software Ltd

Years	OPM	NPM	RONW	ROCE
2009	1.99	4.15	2.90	-5.15
2010	18.58	67.71	38.06	6.18
2011	18.51	8.06	2.97	4.62
2012	16.90	17.98	6.87	7.01

Tables: 2 & 3 show the Pre-merger and the Post-merger financial performance of acquiring IT companies (Aptech Software Ltd) in terms of above ratios.

The Premerger and post merger financial performance appraisal of the acquiring IT companies (Aptech Software Ltd) on the basis of ratio analysis is done. The operating profit margin has decreased in the premerger stages then it has improved slowly. The net profit margin has declined in the pre merger stage and has gone up rapidly in the post merger period. The return on net worth has also declined in the pre merger stage and has gone up rapidly in the post merger period. The ROCE has declined in the premerger period and has increased to 1.9 in the year 2007 and again declined in the first

post merger year and increased in the post merger period continuously.

Table 4: Financial Ratios (in Percentage) Pre merger ratios of HCL technologies ltd

Years	OPM	NPM	RONW	ROCE
2000	38.2	41.8	16.09	14.1
2001	41.1	54.15	24.99	20.07
2002	46.08	46.97	18.86	19.87
2003	32.59	34.3	13.36	11.39

Table 5: Financial Ratios (in Percentage) Post Merger Ratios of HCL Technologies Ltd

Years	OPM	NPM	RONW	ROCE
2005	24.63	22.36	11.51	10.63
2006	26.69	21	32.17	22.35
2007	24.86	29.11	32.17	22.35
2008	26.58	16.68	24.29	33.08

Tables: 4 & 5 show the Pre-merger and the Post-merger financial performance of acquiring IT companies (HCL Technologies Ltd) in terms of above ratios. The Premerger and post merger financial performance appraisal of the acquiring IT companies (HCL Technologies Ltd) on the basis of ratio analysis is done. The operating profit margin has increased in the premerger stages then it has declined slowly. The net profit margin has improved in the pre merger stage and has declined in the post merger period. The return on net worth has also decline in the pre merger stage and has gone up rapidly in the post merger period. The ROCE has declined in the premerger period and increased in the post merger period continuously.

Table 6: Financial Ratios (in Percentage) Pre merger ratios of Wipro BPO sol.ltd

Years	OPM	NPM	RONW	ROCE
2001	25.96	21.46	35.52	38.66
2002	28.2	24.5	34.2	36.48
2003	24.82	20.19	26.12	24.42
2004	22.24	17.51	29.9	26.08

Table 7: Financial ratios (in percentage) Post merger ratios of Wipro BPO sol.ltd

Years	OPM	NPM	RONW	ROCE
2006	24.28	19.53	35.58	31.43
2007	23.78	20.34	33.3	30.5
2008	21.24	17.19	26.51	23.23
2009	22.12	13.53	23.76	26.77

Tables: 6 & 7 show the Pre-merger and the Post-merger financial performance of acquiring IT companies (**Wipro BPO solutions ltd**) in terms of above ratios.

The **Premerger and post merger** financial performance appraisal of the acquiring IT companies (Wipro BPO solutions ltd) on the basis of ratio analysis is done. The operating profit margin has

increased in the premerger stages then it has decline slowly. The net profit margin has increased and declined in the pre merger stage and has declined in the post merger period. The return on net worth has also increased and declined in the pre merger stage and has declined in the post merger period. The ROCE has declined in the post merger period when compared to premerger years.

Table 8: Mean and SD of the pre merger and post merger ratios of acquiring it companies- Aptech software ltd

Ratios	Mean		S.D		t-value	Sig
	PRE	POST	PRE	POST		
OPM	1.08	14.00	11.879	8.041	-2.323	0.103
NPM	-23.03	24.48	26.674	29.405	-2.425	0.094
RNW	-27.23	12.70	30.144	17.008	-2.148	0.121
RCE	-8.20	3.17	9.049	5.631	-3.207	0.049

The analysis indicates that the mean of operating profit margin (1.08.vs14.00) and t-value of -2.323 which leads to the conclusion that there is improvement in the Operating Profit Margin Aptech Software Ltd after the Merger And it is significant statistically, the results also indicate that the mean of Net Profit Margin (23.03vs24.48) and t-value of which shows the performance in terms of net profit margin of Aptech Software Ltd has improved And it is significant statistically, it is found that there is increase in the mean of Return on Net Worth Aptech Software Ltd of (-27.23vs. 12.70) And t-value of

-2.148. It seems to have increased so it is considered that it is affected by merger therefore it is significant statistically. The mean value of Return on Capital Employed (-8.20vs. 3.17) and t-value of -3.207 which leads to the conclusion that the performance of IT companies in terms of return on capital employed has increased so it is not significant statistically. It is found that all ratios in terms of profitability have improved after the merger for Aptech Software Ltd .And the financial performance has improved considerably for Aptech Software Ltd.

Table 9: Mean and S.D of the Pre Merger and Post Merger Ratios of Acquiring IT Companies- HCL Technologies Ltd

Ratios	Mean		S.D		t-value	Sig
	PRE	POST	PRE	POST		
OPM	39.49	25.69	5.636	1.096	4.436	0.021
NPM	44.30	22.29	8.375	5.153	5.899	0.010
RNW	18.33	25.03	4.978	9.752	9.752	0.190
RCE	16.36	22.10	4.316	9.170	-1.046	0.372

Table 9 shows t-test analysis of case **II (HCL Technologies Ltd)**. The analysis indicates that the mean of operating profit margin (39.49 vs. 25.69) and t-value of 4.436 which leads to the conclusion that there is no improvement in the Operating Profit Margin after the Merger , so it is not significant statistically. The results also indicate that the mean of Net Profit Margin (44.30 vs. 22.29) and t-value of 5.899 which shows the

performance in terms of net profit margin of HCL Technologies Ltd has not improved so it is not significant statistically. It is found that there is increase in the mean of Return on Net Worth (18.33 vs. 25.03) and t-value 9.752. It seems to have increased so it is considered that it is not affected by merger therefore it is not significant statistically. The mean value of ROCE (16.36 vs. -1.046) and t-value-1.046 which leads to the conclusion

that the performance of IT companies in terms of ROCE has increased so it is significant statistically.

Table 10 shows t-test analysis of *case III (Wipro BPO Solutions Ltd)*. The analysis indicates that the mean of operating profit margin (25.30 vs. 22.86) and t-value of 2.538 which leads to the conclusion that there is no improvement in the Operating Profit Margin after the Merger and it is not significant statistically, the results also indicate that the mean of Net Profit Margin (20.92 vs. 17.65) and t-value of 6.363 which

shows the performance in terms of net profit margin of Wipro BPO Solutions Ltd is not significant statistically, it is found that there is decline in the mean of Return on Net Worth (31.44 vs. 29.79) and t-value of 1.082 so it is not affected by merger therefore it is not significant statistically. The mean value of Return on Capital Employed (31.41 vs. 27.98) and t-value of 1.812 which leads to the conclusion that the performance of IT companies in terms of return on capital employed has declined so it is not significant statistically.

Table 10: MEAN AND S.D of the pre merger and post merger ratios of acquiring it companies- Wipro BPO solutions ltd

	Mean		S.D		t-value	Sig
	PRE	POST	PRE	POST		
OPM	25.30	22.86	2.479	1.418	2.538	0.085
NPM	20.92	17.65	2.902	3.053	6.363	0.008
RNW	31.44	29.79	4.279	5.567	1.082	0.358
RCE	31.41	27.98	7.200	3.754	1.812	0.168

Results and discussions

The analysis suggests that the performance of Aptech Software Ltd after Merger has been improved in terms of Operating Profit Margin, Net Profit Margin, Return on Net worth & Return on Capital Employed which led to the conclusion that there is significance difference in all the ratios Patch Software Ltd after the merger. The performance of HCL technologies ltd has not improved in terms of profitability i.e. Operating Profit Margin, Return on Net worth & Net Profit Margin Return on Capital Employed. Only shows Return on Capital Employed has improved after the merger which concludes that there is no difference in the mean value of the Pre Merger and Post Merger performance of HCL technologies ltd and concluded that it is not significant statistically. Wipro BPO Solutions Ltd after Merger has not improved in terms of Operating Profit Margin, Net Profit Margin, Return on Net Worth & Return on Capital Employed which led to the conclusion that there is no significant difference in all the ratios of Wipro BPO Solutions Ltd after the merger. Here in these 3 cases, 2 cases did not improve after merger. Hence Null Hypothesis is accepted and Alternative Hypothesis is

rejected. The results say that though Merger was not helpful for expansion and growth in these acquiring IT companies (2/3).

V. Conclusion

In this research two out of three IT companies have not created positive difference after the merger in terms of profitability. For comparing the accounting ratios like, Operating Profit Margin, Net Profit Margin, Return on Net worth etc of the Pre and Post merger the t-test is applied. After the merger we see that the various financial parameters of the IT companies performance have not improved in two cases out of three, the profits are not visible but it may be possible that improved performance of merged IT companies will show in later years. There are various motives, which attract the IT Companies for merger but it is not necessary to achieve all objectives after merger. The size of the IT companies may increase but no guarantee to increase net profitability after merger. Future research in this area could be the study of impact of merger on share holder's wealth and take more IT companies to a larger sample concerning a longer time period for the study which would have given better result.

References

- Benkard C Lanier, Bodoh-Creed Aaron & Lazarev John "Simulating the Dynamic Effects of Horizontal Mergers: U.S. Airlines" Eleventh Cepr Conference On Applied industrial Organization 27-29 May 2010
- Bhaskar A Uday, Ratnam C.S Venkata & Bhal Kanika T (2009), "Role of Communication and HR Integration: A Study of a IT companies Merger", Retrieved From http://Www.IleraOnline.Org/15thworldcongress/Files/Papers/Track_1/Poster/Cs1w_13Bhaskar.Pdf
- Dewan Astha (2007) - Effect of Mergers and Acquisitions on Operating Performance: A Study of Acquiring Firms in India-(Mergers, n.d)
- Goyal Dr. K.A. & Joshi Vijay (2011), "Mergers in IT companies Industry of India: Some Emerging Issues", Asian Journal of Business and Management Sciences, Issn: 2047-2528, Vol. 1 No. 2, [157-165], Retrieved From Www.Ajbms.Org/Articlepdf/Ajbms,1231.Pdf
- Joshua Okpanachi "Comparative analysis of the impact of mergers and acquisitions on financial efficiency of IT companies in Nigeria" Journal of Accounting and Taxation Vol. 3(1), pp. 1-7, May 2011 Available online at <http://www.academicjournals.org/JAT> ISSN 2141-6664 ©2011 Academic Journals.
- Menpara.Mital.Mergers, O. F. (n.d.). A Study on Financial Performance of Selected Companies during Pre-Post Merger and Acquisition- Abhinav- Volume No.1, Issue No.11 Issn 2277-1166-pg no 192-198
- Raiyani, J. R. (n.d.). Effect of mergers on efficiency and productivity of Indian IT companies : A CAMELS analysis, 772–794.
- Raju Guntar Anjana and Gauncar Dipa Ratnakar (2011) "Is M&As Wealth creation vehicle for business houses in India? Case of Tata group of Companies" The Indian Journal of Commerce, Vol.64, No.3, July-September 2011.
- Sinha, N. (1967). Measuring Post Merger and Acquisition Performance : An Investigation of Select Financial Sector Organizations in India, (November 2010), 190–200.

"Research is about engaging in a conversation with a brand."

- Matthew Rhodes

An Empirical study on Factors influencing the purchase behavior of Tablet PC

Veto Datta* & Vasantha.S**

* Research scholar, Vels University, Pallavaram, Chennai, Tamil Nadu, India. Email - taragem3@gmail.com

** Professor, Management Studies, Vels University, Pallavaram, Chennai, Tamil Nadu, India.

Abstract

In consumer electronics segment the Tablet PC has emerged as one of the dynamic segment. Consumer are seeing new product and enhanced features in product at mind boggling rate and the lifestyle of individuals have become increasingly multidimensional and multi faced with so many added choices in the market place and customer have more purchasing decisions to make and these decisions are far more complex than ever before. The ever changing consumer behavior provides new challenges, options and opportunity for the industry. The consumer demanding pattern has been constantly changing with the period of time. The paper mainly focuses on identifying the factor which influences the consumer behavior while they make their purchase decision. The researcher tries to make competitive analysis on various brands of Tablet PC .The Survey is based on formal questionnaire and the response was obtained. Descriptive and Exploratory research design was followed in this research. The aim is to finding out the relationship among variables. The data was collected from 75 respondents. Convenience sampling method is used to get the desired result and the data is analyzed through percentage analysis and by chi-square test. The multiple dimension of Tablet PC adoption was investigated in paper.

Key words: Brand, Consumer purchases Behavior, Features, Tablets PC.

I. Introduction

Consumers today are part of the world that is moving at a lightning speed .They are seeing new product and enhanced features in product at mind boggling rate and the lifestyle of individuals have become increasingly multidimensional and multi faced with so many added choices in the market place and new need to fill ,customer have more purchasing decisions to make and these decisions are far more complex than ever before .This paper gives us detail about the preferences and other behavior of consumer toward a Tablet PC. Consumer behavior can be quite unexpected and so research is needed to answer the questions posted by marketer and regulators. Tablet PC has the potential to grow exponentially if the key players in the Indian market can play to the right market forces. For the marketer of consumer electronic products, knowing how people really use tablet and how their behavior changes over time will be helpful in determining factors such as features, functionality and even device content for building the product ecosystem. When we start looking at the needs and desires of these tablet owners, we found different segments of customers use the products in a different ways over time and in different contexts. The researcher aim is find how devices behavior, its usage, selection criteria and preferences of

certain task is different in different segments. While they make a purchase, what will be in their preference list, which age group prefers them most and some other factors before making the final decision?

Tablet Industry History and its Global market scenario

A tablet is one piece mobile computer .Devices typically offer a touch screen with finger gestures acting as the primary means of control, though often supplemented by the use of one or more physical context sensitive buttons or the inputs from one or more accelerometers an on screen hide able virtual keyboard is generally offered as the principle means of data input. Available in variety of sizes, tablets customarily offer a screen diagonal greater than 7`` inches .Though generally self-contained a tablet computer may be connected to a physical keyboard or other input device and a number of hybrids that offer a detachable keyboard have been marketed since the mid of 1990 s.

Conceptualized in the mid-20th century developed in the last two decades of that century the devices only became practical and affordable in the early years of the present century. The tablet computer and associated special operating software is an example of pen computing technology and thus the developments of tablets have deep

historical roots. Tablet computers appeared in a number of works of science fiction in the second half of the 20th century with the depiction of Arthur Clarke's news pad in Stanley Kubrick's 1968 film 2001: A Space Odyssey. The sci-fi TV series Star Trek, the Next Generation featured tablet computers which were designed as "pads" In 1994 the European Union initiated the OMI-News PAD` inspired by Clarke and Kubrick's work Acorn Computers developed and delivered an ARM based touch screen tablet computer for this programmer.

In 2002 Microsoft attempted to define with the Microsoft Tablet PC the tablet personal computer product concept though device failed due to price and usability problems. In 2005 Nokia released the first of their Internet Tablet range the Nokia 770. In 2010 April Apple Inc. released the iPad a tablet computer with an emphasis in media consumption .The shift in purpose together with increased usability ,battery life ,simplicity ,lower weight and overall quality with respect to previous tablets and shaped the commercial market for the tablet in the following year .As a result tablet computing devices have two distinctly different types of operating system ,of different origin. According to IDC (International Data Corporation) report on global shipment and market share for fourth quarter of 2012 ,Tablet shipments reached a new height with an astronomical 52.5 percent tablet shipments worldwide .The research reported that with 52.5 million shipments ,global tablet market grew 75.3 percent year over year .The Tablet market astonishing 75.3 percent growth is testimonial to fact that more and more consumers are steering away from desktop PCs to cheaper and more portable tablets.

Launching of Tablet PC in India and its Future

Tablets were introduced in the Indian market in October, 2010 with the launch of Samsung Galaxy Tab (7-inch) and Olive pad VT100, both are android based devices. Although Apple launched iPad 1 in India on January 2011, but it could not get significant sales as iPad 2 was announced globally around the same time. Reliance 3G Tabs is the first launched by Telecom carrier (Reliance), with 3Gservices.

The Indian Government aimed to link 25000 colleges and 400 Universities in

an e-learning programmer so it's launched the Tablet called Aakash. Aakash is first a series of Android based tablet computers produced by British company Data wind .It is manufactured by the Indian based Quad, at a new production center in Hyderabad with a planned trial of 100,000 units .The Tablet was officially launched as Aakash in New Delhi on 5 October 2011.The Indian Ministry of Human Resource Development announced an upgraded second generation model Aakash 2 in April 2012.

The year 2012 was an interesting year for the tablet market. There were plenty of new Indian players that entered this market such as micromax, carbon and Lava ,According to the data Indian Tablet market recorded sales to the tunes 1.1 million unit till 2012.Furthermore the Indian Tablet market is expected to double to around six million units in 2013 led by increased enterprise adoption and availability of windows 8-based devices .As per cyber Media report in India Samsung is leading the market with a share of 23.9 percent followed by Micromax at second position and Data wind at third position .The device has been massive proliferation in the country and will grow in the next five years, especially with the entry level budget tablets and mid-range devices. With the introduction of several national and international brands of tablet in India, the market is witnessing a revolution of sorts with these devices changing the way services are delivered in various other sectors such as education, healthcare and governance. Without government purchase, the tablet market for consumer alone is expected to grow from 0.35 million in 2011-12 to 1.89 million in 2015-16.

II. Literature Review:

This has risen from the different studies that the new feature like cameras, battery, memory, color, display, size, influence the consumer decision to acquire new model (Bell, 2002). In addition it seems that size and brand play to some extent an important role in decision making. Exposures to variety of products and enhancement of economic status have changed the attitude of consumer towards brands. Indian society being hierarchical in nature is therefore, status conscious .There purchasing decisions varies .Indians give high value to brands, a

brand is due to quality because the quality of the unbranded products varies widely (Johansson, 1997).

Maxwell (2001) conducted a study on testing the homogeneity versus heterogeneity of global consumption in a cross-culture price/brand effect model, in his study he found Indian customer are tougher for the marketer to sell their product as they are more price and less brand conscious in comparison on American. New consumers are more demanding, now consumer is also looking into the compatibility of the new products to their self –image and life style. The technological innovations such as cellular phones and digital televisions have attracted the attention of marketing researchers as regards to their adoption process (Saaksjarvi, 2003).

The traditional computers are seen as necessity while the nature of Tablet is seen as content consumption (Lia0 2011) the general consumer perception of Tablet Pc is of a personal luxury item used for relaxation and entertainment.

Need for the Study:

With a high rise of mobile population, Wi-Fi and different internet network 3G, 4G Tablets PC have emerged as a viable option to fulfill the communication, entertainment and connectivity requirement of consumers. This study need to understand the behavior and preferences of Tablet Pc .The study tries to assess influences on the consumer several factors like advertisement, wide variety of usage , new added features.

Objective of the study

- To analyze the factors those contribute to the buying decision of the customers of Tablet PC.

IV. Data Analysis and Interpretation

Table 1: Motivation factor for buying Tablet pc

	Frequency	Percent	Valid Percent	Cumulative Percent
Required for Work	27	36.0	36.0	36.0
Features	36	36.0	48.0	84.0
Status Symbol	6	8.0	8.0	92.0
Multitasking	6	8.0	8.0	100.0
Total	75	100.0	100.0	

Interpretation: 48% of consumer said that the reason for purchase of a Tablet pc is its features followed by its utility for work (36%).

- To examine the customer attitude towards the features and factors motivate to select the brands.
- To make a competitive analysis on selected brands of Table PC.
- To determine whether there is a significant difference between preferences for features of Tablet PC on the basis of gender.

Hypothesis:

Ho: There is no association between gender and consumer method of buying A Tablet PC.

Ho: There is no association between consumer method of buying and future purchase options for buying a Tablet PC.

Ho: There is no difference between preferences for features of Tablet PC on the basis of gender.

III. Research Methodology

Research Design: Descriptive research design is used to know consumer buying behavior and preferences towards Tablet PC and Exploratory research is used to generate ideas.

Sampling Technique: The convenience sampling method is used.

Method of Data Collection: The primary data is collected through survey and interview would be conducted through structure questionnaire. The secondary data collected from books, journal, newspaper, and websites.

Statistical Tool: The research was analyzed through chi-square and percentage analysis.

Table 2: Most preferred Brand : Most preferred Brand

	Frequency	Percent	Valid Percent	Cumulative Percent
Samsung	31	41.3	41.3	41.3
Akash	8	10.7	10.7	52.0
Karbons	17	22.7	22.7	74.7
Micromax	19	25.3	25.3	100.0
Total	75	100.0	100.0	

Interpretation: Samsung is leading the market (41.3%) followed by Micromax (25.3%) and karbons (22.7%)

Table 3.1: Features preferred while purchase of a Tablet pc (Touch Screen)

	Frequency	Percent	Valid Percent	Cumulative Percent
Least Preferred	4	5.3	5.3	5.3
Somewhat Preferred	16	21.3	21.3	26.7
Neutral	12	16.0	16.0	42.7
Preferred	28	37.3	37.3	80.0
Most Preferred	15	20.0	20.0	100.0
Total	75	100.0	100.0	

Interpretation: 37.3% of consumer said that touch screen is preferred as a feature while 21.3% of consumer prefers it somewhat.

Table 3.2: Wi-Fi

	Frequency	Percent	Valid Percent	Cumulative Percent
Somewhat Preferred	17	22.7	22.7	22.7
Neutral	16	21.3	21.3	44.0
Preferred	23	30.7	30.7	74.7
Most Preferred	19	25.3	25.3	100.0
Total	75	100.0	100.0	

Interpretation : 30.7% of consumer preferred wifi and 25.3% of consumer said it is most preferred for them.

Table 3.3: Apps

	Frequency	Percent	Valid Percent	Cumulative Percent
Least Preferred	19	25.3	25.3	25.3
Somewhat Preferred	1	1.3	1.3	26.7
Neutral	14	18.7	18.7	45.3
Preferred	5	6.7	6.7	52.0
Most Preferred	36	48.0	48.0	100.0
Total	75	100.0	100.0	

Interpretation: 48% of consumers said that Apps is the most preferred features for them.

Table 3.4: GPS

	Frequency	Percent	Valid Percent	Cumulative Percent
Somewhat Preferred	22	29.3	29.3	86.7
Neutral	6	8.0	8.0	94.7
Preferred	4	5.3	5.3	100.0
Total	75	100.0	100.0	

Interpretation: As per the survey it is considered that GPS is somewhat preferred by consumer (29.3%).

Table 4: Where did you look for the information before purchasing a Tablet pc.

	Frequency	Percent	Valid Percent	Cumulative Percent
In store promo Display	11	14.7	14.7	14.7
Internet retailer/websites	27	36.0	36.0	50.7
Television	17	22.7	22.7	73.3
Word of mouth	20	26.7	26.7	100.0
Total	75	100.0	100.0	

Interpretation: Mostly consumer collects the information from internet websites(36%).

Table 5.1: Future purchase in references with brand of Tablet PC Method of buying

	Frequency	Percent	Valid Percent	Cumulative Percent
Search options with in a particular Brand	24	32.0	32.0	32.0
Go for different Brand	51	68.0	68.0	100.0
Total	75	100.0	100.0	

Interpretation: For future purchase 68% of consumers said they will for different brands and 32% search with in a particular brand.

Table 5.2: Brand preference in future purchase

	Frequency	Percent	Valid Percent	Cumulative Percent
Samsung	29	38.7	38.7	38.7
Aakash	10	13.3	13.3	52.0
Karbons	16	21.3	21.3	73.3
Micromax	20	26.7	26.7	100.0
Total	75	100.0	100.0	

Interpretation: For purchase of Tablet in future consumer are more interested in Brands like Samsung and Micromax.

Table 6: Most effective Advertising Media

	Frequency	Percent	Valid Percent	Cumulative Percent
Television	16	21.3	21.3	21.3
Newspaper	7	9.3	9.3	30.7
Magazine	7	9.3	9.3	40
Internet Websites	45	60.0	60.0	100.0
Total	75	100.0	100.0	

Interpretation: The most effective medium for advertisement as per consumers view is internet websites (60%) followed by T.V (21%).

Hypothesis Testing

Hypothesis 1:

Ho: There is no association between gender and consumer method of buying Tablet PC.

H1: There is association between gender and consumer method of buying Tablet PC

Table 7: Gender –Method of buying Cross Tabulation

Method Of Buying			Total
Gender	Search Options with in a particular Brand	Go for different Brand	
Male	19	41	60
Female	5	10	15
Total	24	51	75

Chi Square Tests

	Value	Df	Asymp. sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig (1- sided)
PearsonChi-Square	0.015	1	0.901		
Continuity Correction (a)	0.000	1	1.000		
Likelihood Ratio	0.015	1	0.902		
Fishers Exact Test				1.000	.564
Linear-by Linear association	0.015	1	0.902		
Nof Valid Cases	75				

a Computed only for a 2x2 table

b 1 cells(25.0%) have expected count less than 5. The maximum expected count is 4.80

Interpretation: Here sig.P-Value is more than 0.05 so null hypothesis is accepted. So there is no association between gender and consumer method of buying Tablet PC.

Hypothesis 2

Ho: There is no association between consumer method of buying and future purchase options for buying Tablet PC.

H1: There is association between consumer method of buying and future purchase options for buying a Tablet PC.

Table 9: Gender and preferences of features cross tabulation

Group Statics

	Gender	N	Mean	Std.Deviation	Std. Error Mean
Touch Screen	Male	60	3.5333	1.21386	0.15671
	Female	15	3.1333	1.06010	0.27372
Wifi	Male	60	3.6167	1.10610	0.14280
	Female	15	3.4667	1.12546	0.29059
App	Male	60	3.5000	1.62084	0.20925
	Female	15	3.5333	1.92230	0.49634
GPS	Male	60	1.5833	0.76561	0.09884
	Female	15	1.7333	1.16292	0.30026

Independent Samples Test

		Levenes Test for Equality of Variances		t-test for Equality of Means						
		F	Sig	t	Df	Sig (2-tailed)	Mean difference	Std Error difference	95% confidence interval of the difference	
		Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
Touch Screen	Equal Variances assumed	0.239	0.626	1.168	73	0.246	0.40000	0.34234	-0.28229	1.08229
	Equal variance not assumed			1.268	24.068	0.217	0.40000	0.31540	-0.25086	1.05086
Wifi	Equal Variances assumed	0.000	0.994	0.468	73	0.641	0.15000	0.32378	-0.52280	0.82280
	Equal variance not assumed			0.463	21.283	0.648	0.15000	0.32378	-0.52280	0.82280
Apps	Equal Variances assumed	2.526	0.116	-0.069	73	0.945	-0.03333	0.48580	-1.00152	0.93486
	Equal variance not assumed			-0.062	19.274	0.951	-0.03333	0.53864	-1.15964	1.09297
Gps	Equal Variances assumed	6.838	0.011	-0.607	73	0.546	-0.15000	0.24717	0.64261	0.34261
	Equal variance not assumed			-0.475	17.151	0.641	-0.15000	0.31611	-0.81650	0.51650

Interpretation:

We have checked preference for all features and one by one sig. P-Value of all variable is more than .05 so null hypothesis is accepted so there is no difference between preferences for features of Tablet pc on the basis of gender.

Recommendations:

The factors influencing the customers to purchase the Tablet pc are its features. The study reveals that internet play important role in searching the information, so companies should focus on more and more online promotional activities with some more attractive scheme. In many part of India people are still unaware of the Tablet PC and its usage so company should focus on its promotional activities and other method of advertisement to educate them about

the benefit of having a Tablet PC. Brands play important role in decision making so companies should create strong positioning of its Brand in consumer's mind. According to the marketing competition the features of Tablet PC, its other attributes and connectivity attracts the people so adding new features and services will help the companies to gain its position in the market.

V. Conclusion:

The research reveals that among all the models the Samsung is leading the market followed by Micromax .The main reason for buying the Tablet PC is its features. In present days internet is considered to be best places for searching the information .The Companies are also using internet effectively as its advertisement medium .Most consumer want to opt for different brand of Tablet PC

instead for buying same brand every time so consumer may go with different brand if it carries more features and facility. The study reveals that there is no difference between preferences of features of Tablet PC on the basis of gender and the buying method is also not associated with the gender.

References

Bell, J.(2002).Fight over the Mobile value chain .Pyramid Research, March6,2002.

Liao,c.2011.Desktop,Laptop and Tablet computer-UK-August 2011.Mintel Oxygen.

Marshal Cohen, Why customer do what they do ``connection with moving target”(2006)

Maria Saaksjarvi (2003)``Consumer Adoption of Technological Innovations `European Journal of Innovation Management`Vol.6 Iss:2,pp.92-110

Robert East, Malcom Wright and Marc Vanhuede .consumer Behavior``Application of Marketing”(Saga publication).

Wells,W.D.and Prensky, D.(1996).Consumer Behaviour. Canada: John Wiley William, N,(2001).Your research project, a step by step guide for the first time researcher. London: Saga Publications.en.wikipedia.org/wiki/Tablet-compute#cite-note_Editors_Dictionary.Com-2.

International Business Times” Apple continue to lead Global market despite Samsung rise”(webpage) (2013)<<http://www.ibtimes.co.in?articles/430879/20130203/apple-lead-global-tablet-market-share-samsung.htm>> accessed 25february2013.

Times of India``We want to target the billions Indian who are cut off “(webpage)(2011)<<http://timesofindia.indiatimes.com/home/stoi/special-report/we-want-to-target-the-billion-Indians-who-are-cut-off/articleshow/10284832.cms?>

Ndtv Gadgets’ ‘Indian tablet market is expected to doublein2013”(webpage) (2013)<<http://gadgets.ndtv.com/tablets/news/indian-tablet-market-expected-to-double-in-2013-samsung-leads-the-pack-313391>> accessed25 >february2013.

gadgets``Tablet market in India seen at7.3 million units by 2015-16(webpage((2013)<http://gadgets.ndtv.com/tablets/news/tablets-market-in-india-seen-at-73-million-units-by-2015-16-282853> accessed 26 february 2013

Wells, W.D. and Prensky, D. (1996). Consumer Behaviour. Canada: John Wiley William, N(2001).Your project,a stepby stepguide for the first time researcher.London: Saga Publications

“In much of society, research means to investigate something you do not know or understand. ”

- Neil Armstrong

Increasing organizational commitment strategically using Hard and Soft HRM

Shilpi Saha*

* Hindustan College of Science and Technology, MBA Department, Mathura, India. Email – sh.shlp12@gmail.com

Abstract

Human Resource Management is a critical perspective which needs to support its central objective that employees should work strategically as well as be motivated. The two models of HRM : hard and soft models have to be combined to fit human nature and control systems of management. The hard model is based on manpower planning and strategic fit complementing theory X whereas the soft model is focused on employee commitment complementing theory Y. Storey (2001) model was similar to Fombrun et al.'s hard HRM concept which was influenced by well-known literature on styles of management such as Mayo (1933), Chandler (1962) and Galbraith and Nathanson (1978). The divergent nature implies that the two models cannot be combined together. Four case studies have been studied to analyze if any particular industry relied solely on any one form but neither of the industries did so. Combined approach was adopted to improve performance, motivate employees, gain commitment and reduce benched employees. The study is done to highlight that combined model aims at synchronizing business plans and HRM techniques which is strategically tough.

Keywords : *Soft HRM, hard HRM, strategic fit, organizational commitment, benched workforce*

I. Introduction

HRM is defined as the management of organization's most valuable assets that is the employees who work individually and collectively towards achievement of the objectives of the organization.

The characteristics of HRM are as follows

- a) Focuses on business values
- b) Diverse in its own sense
- c) Based on the ideology that "people are its assets"
- d) Strategic with emphasis on integration
- e) Individualistic rather than pluralistic, unitarist rather than collective in its approach to employee relations
- f) commitment-oriented
- g) Strategic with an emphasis on integration
- h) A management-driven activity

The two distinct forms of HRM are: hard and soft HRM. The soft model gives importance to individuals and it emphasizes on trust, commitment and behaviour of individuals at the centre of any strategic decision towards the people. In contrast, the hard model deals with strategic fit of an organization, that is, recruiting, staffing and retrenchment of manpower.

Hard HRM is that part of employment relations which deals more with quantitative output in terms of progress of the employee, his contribution to the organization's growth, completion time of a task. Soft HRM, on the other hand is more concerned with flexibility in the work involved, negotiation, developing good work environment, job satisfaction and low employee turnover. Soft HRM is an important tool in building an ideal workplace.

Any manager who employs Hard HRM approach which is also known as Michigan Theory or Theory X will assume that employees are lazy and they avoid taking responsibility for work. They inherently dislike work and the only motive of their work is not meeting organizational goals but the pay that they get. As a result of this, the manager decides that the work needs to be closely supervised and some hierarchical levels of control should be developed. In case of any mistake or discrepancy, the manager blames the employee concerned without taking into account the system or job environment or lack of training methods.

On the other hand, manager employing Soft HRM approach or Harvard theory or theory Y will be more assured about their employees and subordinates. Employees work because they are self-motivated and they take responsibility for their work. They devise new methods for solving problems and new ways of carrying work with efficiency

and effectiveness. As a result of this, the management always has a positive outlook for the efficiency level of workers. The employees work with a high level of commitment. The good work done by them ensures self-motivation. Hence, this is a continuous cycle of working and getting motivated. The managers have a good impression of the employees which helps them to have a good feedback. Thus certain organizational factors like appraisal and profile of the employee becomes strong. Concern of employees and employers towards a common goal, that is, organizational goal, helps in strengthening the work environment. A manager employing the Soft HRM approach (aka Harvard/Theory Y) will be more lenient. They will trust the employees a lot more and gather opinion and take it on board. They also believe that workers/employees seek responsibility and come to work with the intention to impress and progress. They also believe that they have the organizations interests at heart and so they share common goals.

Soft version of HRM originated from human-relations school. It emphasizes communication, motivation and leadership. Storey (1989) said that it involves “treating employees as valued assets, a source of competitive advantage through their commitment, adaptability and high quality of skills, performance and so on.” Guest (1999a) views employees as means rather than objects. Kant advised “treat people as ends unto themselves rather than means to an end.” Soft HRM stresses that commitment of people’s hearts and minds should be gained through involvement, communications through trust and high-commitment

organization. The key role of organizational culture also seeks attention. Legged (1998) defined hard HRM as a process to emphasize “the close integration of human resource policies with business strategy which regards employees as a resource to be managed in the same rational way as any other resource being exploited for maximum return.”

II. Literature review

Recession and redundancies are linked to each other. Redundancy is an outcome of painful recession. For competency management, companies are accustomed to change – new technologies, competitors, ideas, demographic target markets, the business development cycle and the economic recession – are the factors of external business environment. Recession, if it’s very severe, then it gives rise to a global crisis. To help retain profits and to stop eroding of funds during recession, organizations opt for downsizing or redundancy. This is difficult for both the parties - employers and employees. Strategic HRM makes redundancies as painless as possible by making organizations take decisions sensitively, decisively and quickly.

There are many models to study soft HRM. Employee commitment is stressed by the Harvard Model (Beer, Specter, Lawrence, Quinn Mills and Walton, 1984). Human resources flow into the system to increase the productivity. If rewards are paid to the employees, their motivation increases. However, this model has been criticized as soft HRM policies might lead to cost maximization and profit minimization.

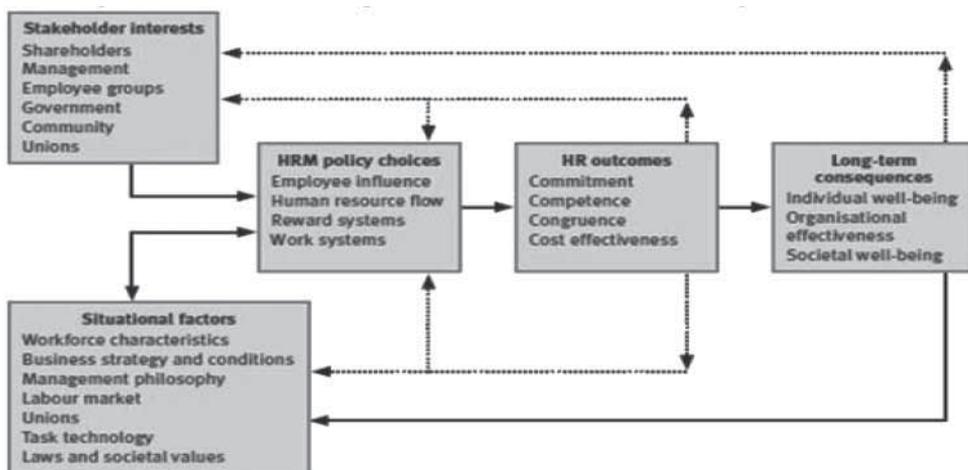


Figure 1 : Harvard Model (Soft HRM)
Source : Beer et al (1984; Map of the HRM Territory)

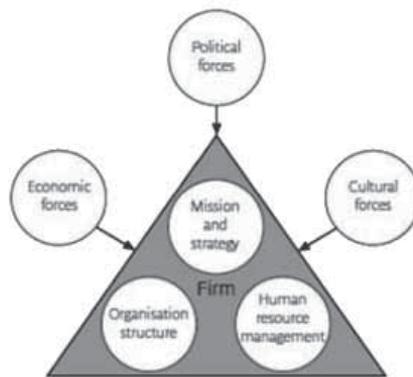


Figure 2 : Michigan Model (Hard HRM)
Source : Fibrin et al. (1984)

Storey (2001) regarded the hard HRM model the same as that proposed by Fombrun et al (1984) which is known as Michigan Model. Hard HRM is mainly used by manager to increase the performance of employees. It is mainly needed over Soft HRM as competition from external environment hinders the long-term profit of an organization. At this time, hard HRM techniques help to achieve the goals.

Strategic Skills

Future must be focused. Strategic thinking has certain goals to be fulfilled and it is guided by a vision of the company. It involves predictions about the future based on past performance. Data is collected from financial reports of the company and data analysis is done on the industry.

Organizational Skills

To become business partners with senior and line management, practitioners must acquire new skills to equip themselves for their new roles. These can be gained through management development programs offered by institutes of higher learning or professional associations (Smart and Pontifex, 1994). It is also important for practitioners to acquire skills in the management of change (Anon. 1997; Guest, 1992; Ulrich and Yeung, 1989; Ulrich et al., 1995). As HRM is in the business of influencing the behaviour of employees, cognitive and behavioural skills are also required in order to meet the challenges of these new roles. As HRM becomes more customer focused (Schneider, 1994; Schuier and Jackson, 1987), practitioners have to embark on marketing exercises to improve their reputation and profile within their organizations (Pitz-enz, 1986). Therefore, there is a need for practitioners to acquire

marketing and public relations related skills.

Functional capability included in this category is technical skills such as selection techniques, HR information systems, compensation and remuneration packages. These skills can be acquired through benchmarking (Glanz and Dailey 1992) or through external course providers. Changes to IR (Morehead et al., 1997) have a major impact on the way HRM is being performed in Australia from the short to medium term (Dowling and Fisher, 1997). As a consequence, IR-related skills such as negotiation, conflict resolution, and performance management are critical in assisting practitioners to raise line management awareness of the HRM function. Other skills would include financial (Armstrong, 1995) and technological skills (Ulrich et al., 1995). The findings by Huselid, Jackson and Schuler (1997) suggest that HRM technical expertise is important also.

International business skills, such as foreign languages and cross-cultural understanding (Bigelow 1994; Carter, Nicholson, and Barlow, 1995) must be developed if practitioners are to assist their organizations compete successfully in the international arena. An understanding of HRM issues regarding the employment of global managers (e.g. expatriate management, taxation, performance appraisal, and repatriation) requires practitioners to think and behave differently (Adler and Bartholomew, 1992). As the degree of multiculturalism increases in the Australian workplaces, cross-cultural understanding can also be beneficial for domestic conditions.

Personal Skills

Personal skills are relevant for both domestic management and international

management Managerial skills, such as stress management, time management, career development, Interpersonal skills (see Bigelow, 1994), leadership skills (Sarros, Tanewsld, and Santora, 1995; Ulrich, 1991), and HR core competencies, including personal integrity, ambition and drive, and team skills (Blancero, Boroski and Dyer, 1996) are included in this category. As practitioners undertake consultancy roles, they will have to focus on acquiring effective facilitation and consultancy skills as a means of influence within their organizations (Anon. 1997; Tanner, 1997).

The above discussion highlights the three different categories of skills which would improve the effectiveness of the HRM functions. Successful repositioning of the function will require the performance of three key roles, each requiring a different mix of HR skills (briefly summarized in Table 2). The development of the above 'soft and hard' skills can be acquired through tertiary institutions, private colleges and institutes of further education.

III. Methodology & Discussion

To study the effects and necessity of hard and soft HRM, four case lets were analyzed.

Case let 1 – Crisis of IL&P

Irish Life & Permanent had a financial crisis in Ireland due to which it implemented career breaks, redundancy programme and freeze pays. IL&P had made a safer place compared to other banks as it did not lend loans to property builders. It had continued with its two old businesses – mortgage and pension.

In 2008, there was a massive drop in profits. It decided that there should be a balance between revenue and expenditure. It implemented incentivized career breaks. It offered €20000 for two years and €35000 for three years. 140 employees out of 2500 employees took the offer.

In 2009, the HR team created a pay freeze policy with the organization. The trade unions wanted a free flow of information about the financial position of IL&P.

After an agreement was reached, the company agreed to give a 2.5% hike to the employees for 2009 and 2010 but decided

not to give increments and profit share bonuses. After the agreement of 2009, there were constructive relations between the management and the union.

Analysis of Case let 1

To cope with the difficulties of recession, IL&P adopted several policies like pay freezes, curbs on overtime, redundancies, incentivized career breaks and other more rigorous work schedules. Retrenchment was also one of the policies which provided a good deal to the employees. Not only hard HRM policies but soft HRM policies were also implemented to maintain loyalty and commitment of employees. The policies of HRD were as fair as possible to ensure the satisfaction of employees as well as management.

The HR managers try hard to balance hard and soft HRM so that short-term financial pressures do not demotivate and affect the performance of the employees.

Case let 2 – Accenture and Harley-Davidson Case

Harley-Davidson, a motor company of high repute had completed 100 years. It had a 98% customer retention rate. It had to get right few basic issues with processes and technologies to free up its HR executives so that they could take care of other vital processes and functions.

Harley-Davidson sought help from Accenture for business improvement. Accenture used its Human Capital Development Framework. This Framework extracted information from many personnel including senior executives like directors. The testing brought into relevance the importance of human capital strategy, supportive work environments, job enrichment of employees and hike in profits.

Analysis of Case let 2

The Accenture Human Capital Infrastructure included Human Resources Information Systems (HRIS). Transaction processes like leave management and payroll improved. A complete HRIS audit and strategy was initiated for the benefit of the employees as it provided information to them. As a result processes were standardized

and integrated. Employee engagement was focused and human capital strategy was very weak. Quantitative and qualitative workforce metrics were used. Feedback of employees was also taken to assess the effectiveness of human capital program.

HR function was improved by taking practical actions. A 3-year master plan of work was developed and also a HR metrics role was selected to monitor the most important role of the department. Workforce planning was also done. Harley-Davidson has a 98% retention rate now.

Case let 3 – Google

In 2009, Google closed their Phoenix, Arizona Office. External contractors were scaled back significantly. About 100 positions were further scaled back and offices in Austin, Texas and many other areas were eliminated. Their recruiting division was downsized to 100 employees. The employees were offered for a career break or leave permanently; instead they were relocated to other offices.

Analysis of Case let 3

In the event of downsizing, Google did not follow retrenchment; instead it moved strategically and relocated its employees to other offices. It provided employees with perks ranging from free food to gym and employee stock options. Google prefers creativity to work experience. It follows a 70/20/10 model to motivate employees. It means employees spent 20% of their time on a project of their choice. Google has a very good work culture. It was only in 2009 that a downsizing activity was observed else it normally does not lay off its employees.

Case let 4 – Bench Employees

In the present Indian scenario, roughly 100,000 revenue-earning employees are estimated to have turned into unbilled 'benched' talent in the past year alone, according to sources from the IT industry and placement firms. 'Utilization rates' in some leading IT firms have dipped below 70% and an estimated 3.25 lakh of the 1.3-million strong IT workforce are now idle.

Tata Consultancy Services (TCS) has constantly maintained its "employer of choice" with the best retention rate in

IT industry. It has the lowest attrition rate of 12%. The company has a workforce of but unlike in the last slowdown, IT firms are now walking the extra mile to keep the 'benched workforce' engaged, even as they seek to balance P&L pressures and talent management compulsions.

Last quarter, Infosys rolled out Pathfinder Next, an initiative where staff on bench can work on internal projects and assignments, and have access to technology, business domains and other service lines. "Through the programme, employees get job enrichment, vertical and lateral career exposure and access to opportunities," a company spokesperson said.

Infosys had also launched Smart Staffing, a portal specifically created for those on the bench, in February. It enables employees not working on any project to reach out directly to delivery managers and designated unit talent managers and apply for any of the requirements that are vacant. Infy's utilization dipped from 69% to 68% in the past year, but it expects the figure to improve to 69-71% in the coming quarters.

Analysis of case let 4

A sharp focus on benched employees was done to reduce attrition rate. Those on Wipro's bench are using idle time to learn newer soft skills, plug into more management knowledge or learn new languages such as French and German, a company executive said. Anyone can apply for these courses under Wipro's Open Enrolment programme. TCS has a utilization rate of 82%. The bench employees are utilized to test prototypes of new technologies. These are developed while training the bench for future projects.

Rather than relegate unbilled resources to a nondescript corner, iGATE is getting them to work on pilots of key internal projects that can transform company strategy. With a utilization rate of 77%, the California-based IT company-which employs over 10,000 in India-wants to use its bench strength to prevent layoffs. Those on the bench work on proof of concepts and internal automation tools. Managers are supposed to hold regular meetings and include all in project-specific meetings, reviews and other forms of communication. IGATE also trains unbilled resources on a new solution called Integrated

Technology and Operations (iTOPS), which is expected to make them project-ready.

The first time utilization rates dipped was during the 2008 slowdown after Lehman's collapse. Industry growth rates soon slipped to single digits, layoffs were not uncommon and morale was low. Many on the bench quit as the first opportunity came along.

But later, in 2010, when demand for IT rebounded, companies couldn't replenish talent fast enough and cheap enough. The top tech firms were forced to go for lateral hiring, which sent their costs in a dizzy.

But now, having learnt the lesson from the last slowdown, IT firms are walking the extra mile to keep idle resources on the bench engaged and loyal. "Compared to 2008-09, things look much better this time," said Ankita Somani, IT analyst for Angel Broking.

This time around, companies are also taking extra care of campus hires. "First-timers need special attention; (older) employees without projects get involved in other things," said Parthasarathy NS, chief operating officer at MindTree. The company's utilization rate is around 69%, though the ideal range, according to its COO, should be 70-72%. More such initiatives are being rolled out across the industry. Consulting and IT services provider UST Global, for instance, has assigned top-level managers to set up one-on-one meetings with employees not working on any project. In the past one year, UST's bench size has gone up from 6-7% to 10%.

The top class has been told to keep communication flowing to those on the bench and to answer questions about the company, business environment, client requirements, etc.

Soft HRM techniques of employee retention

Reward Management has a significant role in motivating the existing employees of an organization. In the recent period of recession, when the profit graph is falling down and cash flow is one of the challenges for the companies, the biggest challenge for an employer is to retain star performers without shredding cash from the pocket.

Many start-up companies are inventing new ways to face this challenge. They hire employees who have had work-experience with reputed firms in the IT sector. The financial resource of these start-up firms is limited. So they try to have efficient human resource with limited money. Now stock option plans are the only effective tool for retention of skilled manpower in their firms. This is how talent management is being done in the start-up segment of IT industry. Stock option plan is a contract between the employer and the employee which gives the employee a right to purchase company's shares at some time in the future at a discounted price. Employees are eligible to exercise their right to buy shares, after the options are vested.

Ideally, the market value of the shares would increase during the vesting period, so that employees are able to purchase shares at a significant discount. Upon exercise of options, the employees can either hold the shares or sell them in the market or back to the company/promoters if the shares are not listed.

The effectiveness of stock options in increasing loyalty of employees and commitment to the company cannot be ignored. However, we still avoid using them in our businesses. Their high administrative cost and the fear of dilution of your equity is what perhaps overshadow the benefits they offer. It is always cost effective to administer a plan rather than paying cash. It is important to identify if the administrative cost of the plan outweighs the benefit of retention of employees. The growth of the company can be shared with the employees without diluting the firm's equity under the plan of stock options.

Techniques of Remuneration under stock option plan

While, the commonly used techniques of remunerating employees have to be funded by significant cash outflows, the first reason why stock options find favour over all of these techniques is the fact that grant of stock options does not require cash outflow for the employer.

Secondly, stock options are a form of long-term remuneration, as the vesting schedule ensures that the employees work for a specific length of time before they encash the options. Besides this, the vesting schedule can be re-engineered keeping the company's

objectives in mind. Most companies have schemes wherein options vest annually over a few years, say about three to four years. Another innovative mechanism may be an annual grant of stock options with overlapping vesting periods. With every new grant of options, the employee's stake magnifies, thus ensuring his longevity in the company.

Next, the vesting conditions inbuilt in the stock option schemes can help the company align employee's performance with its own objectives. Vesting conditions could include a target turnover, market performance of the share, or any other condition that the company finds reasonable as well as attractive. Thus, stock options satisfy the twin objectives of employee retention along with improved company performance.

Self motivation – a passion towards work

Even before soft HRM techniques help in motivating the employees, self motivation is highly needed to be able to have an affective commitment towards the work and the workplace. Every day, thousands of men and women groan when the alarm goes off in the morning. It is time to wake up to another day they must endure as they drag themselves to work. Most of these people are eminently qualified for the jobs that they do. They have all the education needed to enable them to do the job well and over the years, their work experience shows how they have steadily built their skills. So what makes so many people groan at the thought of another day at work?

Dropping engagement scores in the workplace year after year show increments and promotions do not always lead to happy employees. We may not necessarily enjoy doing something we can do well.

Without a sense of passion, the job remains a transaction we have to complete every day to be able to pay the bills. When we enjoy what we do, it helps us feel energized as we do the task. It also helps us stay updated about the profession and keep innovating. This state has been described by psychologists as "flow".

We have all experienced that when we have worked on something that absorbed us completely, we lost track of time. Imagine if you could experience such a state at work every day or at least for a few hours a day.

Imagine yourself working at something where your whole being is involved; every skill is being used to the hilt. These are pursuits where we enjoy meeting progressively challenging goals. It transforms a casual, aimless stroll into a chase. The journey is the reward.

Self-awareness is the first step that can lead us to make better choices in our career. It is never too late to know what gets you into the flow. Even if it is too late to pursue that as a career, it is possible to pursue it as a hobby. Spending even a little time on the hobby can leave us rejuvenated. Do make time to practice your long-forgotten passion.

IV. Findings & Discussion

Neither of the two approaches, hard and soft HRM can be used alone in the real world. Each one reflects an ideal situation which does not exist in reality. Every individual of an organization behaves in a different way, so the whole workforce cannot be regarded as responsible or motivated towards work. Every reporting employee should be treated according to the output or efficiency produced by him. A good manager should combine aspects of both hard and soft HRM because an organization cannot simply work on any one of the types alone. Sadly, either of the two alone can be actually useful in the real world. Each view reflects an ideal situation which does not really exist in reality. Each individual who makes up the workforce behaves in a different way; therefore the workforce as a whole cannot be assumed as responsible or machine-like. A good manager needs to make use of his own style, taking the best points from both Soft and Hard HRM and combining them into something that suits the needs of the organization.

V. Conclusion

Hard HRM is used only for getting work done by employees who are treated only as resource. Soft HRM is used to gain employee commitment through rewards, work system, HR flows and employee influence. In the case study of IL&P, the workers were an employee should be well equipped with knowledge of all areas of his field of work. IT industry presently has a large workforce in the world; implying benched employees are often created. Major part of benched

employees is now being engaged into working and developing software systems in support of their present technical teams. Thus, the benched employees are now being removed. Since hard and soft models cannot work individually, a combined approach of both models can work effectively.

Scope for further research

A major challenge that is involved is combination of both the models needs that a link should exist between business plans and soft HRM which is a bitter reality. More research needs to be done to study the aspects of combined models.

References

- Legge, K., (1989) "Human Resource Management – a critical analysis" in J. Storey (ed.) *New Perspectives on Human Resource Management*, London: Routledge, 19-40.
- Schuler, R. and Jackson, S., (1987) "Linking competitive strategies with HRM practices," *Academy of Management Executive*, 1:207-219.
- Truss, C.; Gratton, L.; Hope-Hailey, V.; McGovern, P.; and Stiles, P., (1997) "Soft and hard models of HRM: a reappraisal," *Journal of Management Studies*, 34/1:53-73.
- McGregor, D., (1960) *The Human side of Enterprise*. New York: McGraw-Hill.
- Guest, D.E. (1987) 'Human resource management and industrial relations', *Journal of Management Studies* 24(5), pp. 503–521.
- Fombrun, C.J., Tichy, N.M. and Devanna, M.A. (1984) *Strategic Human Resource Management*. John Wiley & Sons.
- Beer, M., Spector, B., Lawrence, P.R., Quinn Mills, D. and Walton, R.E. (1984) *Managing Human Assets*. New York,

NY: The Free Press.

- Evans, A. (2003) *The History of the CIPD*. London: CIPD.
- Guest, D.E. (1997) 'Human resource management and performance: a review and research agenda', *International Journal of Human Resource Management* 8(3), June, pp. 263–276.
- Blyton, P. and Turnbull, P., (eds) (1994) *Reassessing Human Resource Management*. London: Sage.
- Zingheim, PK and Schuster, JR (2004) *Sales reward solutions, Compensation and Benefits Review*, September/October, pp 21–26
- Dessler, G. (2003) *Human Resource Management*, 9th edition, Prentice Hall
- Hendry, C. and Pettigrew, A. (1990) 'Human resource management: an agenda for the 1990s', *International Journal of Human Resource Management*, Vol. 1' No. 1, pp. 17-43.
- Hiley, M. (1999) 'The Strategic Role of Human Resources in Corporate Strategies', in F. Analoui' *Effective Human Resource Development: A challenge for developing countries*, Ashgate, Aldershot, UK.
- www.irishtimes.com/newspaper/finance
- www.accenture.com : Harley-Davidson Motor Company: Strategic HR Function.
- www.google.about.com : Downsizing Google in a Downsizing Economy.
- <http://articles.economictimes.indiatimes.com> : Infosys, TCS, Wipro, iGate, UST Global devise new ways to keep benched staff occupied

“Research is creating new knowledge.”

- Neil Armstrong

Applying Six-Sigma for Quality Management in Educational Institutions

S.N.Selvaraj* & S.A.Senthil Kumar**

* Assistant Professor, Wisdom School of Management, Udumalpet-Pollachi NH, Pollachi (TK), Tamilnadu, India. Email - sn.selvaraj@yahoo.com.

** Reader/ Dept. of Management, Pondicherry University, Karaikal Campus, Karaikal, Tamilnadu, India. Email - drsas.kcm@pondiuni.edu.in

Abstract

Similar to Industrial practice of six-sigma, Educational Institutions can also get into this approach for effectual management and for continual improvement. Implementing six-sigma is both a technique and a statistical approach based on the objective of the educational institutions to improve performance. It is a quantitative and qualitative method that involves representing most valuable measurement for every process within the educational institutions to reduce deficiencies in the quality process. While rectifying the defects in products and performance and non-compliance in services can be controlled to almost zero. This could be accompanied by an organizational customs that focuses on creating value for the students' as well maintaining the institution's image and improving the processes across the quality chain. The objective of this paper is to emphasis the uses of six-sigma techniques that an institution can get more success in minimum time.

However, if the technique is not used wisely, there is a considerable danger that the program may go adverse. As the competition gets tougher there is more pressure on Educational Institutions to improve quality in terms of providing education. Six-sigma can help the Institutions learn and outshine at the challenges they encounter when it is operated properly. Six-sigma strategies offer a road map for changing the data into knowledge that leads to new opportunities for major improvements in institutional performance and level of satisfaction. Six-sigma is to be viewed as strategic business initiatives which do not mean of replacing the existing quality measures in an organization. It can be identified as a key to quality process in the whole restoration process. The methodology used to implement six-sigma is DMAIC process which is considered significant that eliminates unproductive steps. Six-sigma often focuses on new measurements and applies technology for constant improvement. Understanding the methodology, tools and techniques and linking six-sigma to the students and staff, keeping reviews and tracks will be the impulsion for management involvement and academic commitment. Finally, managerial implications are submitted as six-sigma principles and practices which are more likely to succeed by refining the educational institutions' intellectual continuously.

Keywords: *Six-Sigma, educational institutions, techniques, effective management, continual improvement.*

I. Introduction

In the current epoch it is obvious that if the industry speaks about implementing the six-sigma technique in management institutes, it is meant about the refined version of Total Quality Management (TQM) or it is meant that this is the advanced form of TQM in which various continuous improvement systems must be put in place with a small amount of statistical analyses added in for good measure. In other words, one can view six-sigma as strategic business initiative which do not mean of replacing existing and ongoing quality initiatives in an organization but focus on those processes identified as critical-to-quality in the

whole transformation process. Similar to Industrial practice of six-sigma, Educational Institutions can also get into this approach for effectual management and for continual improvement. Implementing six-sigma is both technique and statistical approach based on the objective of the educational institutions to get rid of misuse and improve performance.

II. Literature Review

“Anabri and Kwak” provided a brief overview of the six-sigma management method and its usages. They examined the main factors driving the success of six-sigma projects.

“Andersen et al” published the findings of the study on six-sigma. The aim of the study was to address unanswered questions about the similarities and differences of the application of the three quality concepts. The study pointed out that six-sigma and lean manufacturing work like road maps for organizations.

“Kumar et al” focused on six-sigma projects targeted at improving the overall customer satisfaction called Big Q projects. Their aim was to develop a precise model to select one or more six-sigma projects that result in the maximum benefit to the organization.

“Hammer and Goding” gave an insight on organizational issues relating to the implementing Total Quality Management. The survey analysis was then used to identify differences in perceptions between service employees and customers for the differences provided process.

“Rhonda and Kathryn” developed a model to help service organizations assess their readiness for a six-sigma program and to provide suggestions for methods of introducing the six-sigma process.

Advantages of Implementing Six-sigma

- It would lead to increase quality, performance, productivity.
- Avail competitive advantage through costs reduction.
- Impact of environment gets changed and wastages can be minimized.
- Motivation to employees and provide pride in their achievements.
- Satisfaction of students and staff community and retention is increased.
- Continuous improvements are sustained over time.
- Proven performance goal becomes visible in the institution.

Quality control basic concepts

The following are the three fundamental concepts that every organization should be familiar with when it comes to quality inspections: Inspection levels, The AQL and **When to inspect?**

1. Inspection levels: In an Institution delivery often represents variety of performances and product. Checking 100% of the quantity would be long and expensive. In this situation, a solution is to select samples at random and inspect them, instead of examining the whole. But how many samples to be selected? Checking only a few samples might prevent the inspector from noticing quality issues; on the other hand, the objective is to keep the inspection short by reducing the number of samples to examine. The relevant standards propose a standard severity, called “normal level”, which is designed to balance these two imperatives in the most efficient manner. Military Standard 105 was created by the US Department of Defense to control their procurements more efficiently. In 1994 they decided to rely on non-governmental organizations to maintain this type of standard. The ANSI, ISO, and other institutes all created their own standard, but in essence they are similar. The major third-party QC firms use the same standards and the same statistical tables.

2. The AQL (Acceptance Quality Limit) Another basic concept would be attractive to many Institutions, but is often not clearly understood: the AQL (Acceptance Quality Limit). Almost there is no such thing as zero defects in any organization. While implementing quality control you have to know what proportion of defects is be tolerated on the market. For example, in the aviation business any defective part might cause a disaster, so your tolerance will be very, very low. But you will have to accept a higher percentage of defects if you source consumer products that are assembled by hand in China or in India. The AQL is the proportion of defects allowed by the organization or stakeholder. It depends upon the nature of production of the industry.

The three categories of defects

Some defects are much worse than others. Three categories are typically distinguished:

- Critical defects might destruct a department or cause a whole

organization to be blocked by the systems.

- Major defects are not accepted by most organizations that decide not to develop such product.
- Minor defects also represent a withdrawal from specifications, but some organizations would still continue so.

For most consumer products, critical defects are not allowed, and the AQL for major defects and minor defects are 2.5% and 4.0% respectively.

3. When to inspect? :

The first two parts focused on the different inspection levels and on the AQL. Through those two levels you came to know how to set the number of samples to check and how defects are to be accepted. With these settings and your detailed performance specifications, a QC inspector can check your performance and reach a conclusion whether to accept or not.

Bring the Six-sigma into Action

First step: Identify process that students perceive as value creating. The need to work out is what a ‘perfect’ process would be? For example, teaching methodology, delivery of identity cards, allotment of the sections, module choice etc.

Second step: Measure how the process is performing in reality. The common measurement used is ‘defects per unit’, which can be applied to virtually any process in any area of the institute. For example, keeping the student’s and their parents records, etc.

Third step: An analysis that identifies

the gap between current performance and the desired goal using statistical techniques. Reasons for this gap must be assessed, perhaps using root cause analysis and some creativity may be involved in this phase. Improvement must then be instigated by finding new and better ways to do things. For example, identity card is not provided to the student because student did not come for the collection. One way of avoiding this kind of failure might be to investigate alternative routes.

Integrate Six-sigma into the Organization Infrastructure and Capabilities

If six-sigma is an institute-wide initiative, then it will need to be linked into existing institute structures. Consider linking it to pay and rewards, department budgets, job descriptions and documentation. Modify policies and procedures to reflect the improvements made.

Monitor and Evaluate Success:

Ensure that jobs are monitored and that failures are investigated while successes are publicized. Six-sigma is an ongoing, long term initiative, so constant assessment is vital to make sure that it is heading in the right direction. Ascertain not only what cost savings have been made but also assess an impact on intangible components whether employee job satisfaction and student satisfaction have improved or not and up to what extent.

DMAIC Process in Management Institutes:

DMAIC is a closed – loop processes that eliminate unproductive steps, often focus on new measurements and apply technology for continuous improvement.

Table1: Steps and Processes of Six-sigma

Six-sigma steps	Key Processes
Define	<ul style="list-style-type: none"> • Define the requirements and expectation of students • Define the boundaries • Define the process by mapping the flow • Define performance standards • Validate measurement systems
Measure	<ul style="list-style-type: none"> • Measure the process to satisfy the student’s needs • Develop a data collection plan • Collect and compare data to determine the issues • Establish process capability • Evaluate current performance

Analyze	<ul style="list-style-type: none"> • Understand about the defects/variations • Analyze the causes of defects and source of variations • Determine the variation in the process • Prioritize opportunities for future improvement • Establish cause-and-effect relationship
Improve	<ul style="list-style-type: none"> • Brainstorm and generate ideas • Select the best alternate • Improve the process to eliminate variations • Develop creative alternatives and implement plan • Validate the solutions
Control	<ul style="list-style-type: none"> • Control process variations to meet the requirements • Maintain improvements by revalidating measurements • Monitor and control the improved strategy process • Finally, implement the improvements in systems and the whole structures of the institute.

Key Factors for Implementing a Successful Six-sigma Program in Institute

There are significant factors that are in existence in the institute for successful implementation.

- Management commitment and involvement.
- Understanding of six-sigma methodology tools and techniques.
- Linking six-sigma to business strategy.
- Linking six-sigma to the students and staff.
- Keeping reviews and tracks of the process
- Organizational infrastructure and amenities to students and staff
- Management skills
- Cultural changes
- Training and Development.

Understand Six-sigma

Sigma is the Greek letter used in mathematics to denote standard deviation or the amount a process varies from the mean. As the level of sigma rises, the level of variation decreases. Six-sigma is quality matrix that counts the number of defects per million opportunities (DPMO) at six levels, higher is the “Sigma Level”, better is the quality with lower DPMO. A three Sigma organization achieves 66807 defects per million, whereas a true Six-sigma organization achieves just

3.4 defects per million. The same signifies that it is possible to continually stretch the capability of process by systematically eliminating and changing the process restrictions and environment. This has to be driven by a high degree of creativity and innovation in the organization. It is important to realize that perfect six-sigma may not be achieved, but that even a rise from one sigma level to the next will produce significant benefits. Six-sigma practice is interwoven with TQM principles, such as customer – focus; data based management decisions, improved design and supportive culture.

III. Conclusion

In the forth coming years, six-sigma methodologies would be exploding in all types of Institutions and organizations for successful implementation and as a part of growing Institutional interest. It is fast pace becoming a major driving force for many self-driven Institutions. Factors influencing successful six-sigma implementation include management involvement and Institutional commitment, cultural change and continuous training. Further, understanding the key factors, obstacles and short comings of six-sigma provide opportunities for better implementation of six-sigma techniques. Cultural changes need appropriate time and commitment before they are perfectly implemented into the Institutions. Effective six-sigma principles and practices are more likely to succeed by refining the organizational cultural continuously.

Managerial Implications

The study submits the managerial implications which are considered important for educational institutions applying six-sigma for quality management. The objectives of the educational institutions could be in a successful way in terms of quality management if they are strictly applying the techniques of six-sigma irrespective of minding about the financial decision and this can get more success in minimum time. An institution could use this input as a guide when first implementing a Six Sigma practice or when attempting to pinpoint the reasons why the already implemented practice is not working up to par. At the level of continuous practices, the authorities of the institutions may complement the traditional workforce management practice with the six-sigma practices in their institutions. The institution should not underestimate the role that continuous feedback can play throughout the strategic managerial decision-making process. The use of continuous feedback throughout the six-sigma process can aid students and staff in making timely and appropriate decisions for the improvement of institution. This would augment the ability and intellectual skill of everyone in the institution continuously.

References

- Sing Sumer, (2011), "Implementing Six-sigma Techniques in Management Institutes", *Advances in Management*, 4(2), pp.25-27.
- Kumar U. Dinesh, Saranga Haritha, Ramirez-Marquez E. Jose and Nowicki David, (2007) "Six-sigma Project Selection Using Data Envelopment Analysis", *The TQM Journal*, 19(5), pp.419-441.
- Andersen R., Eriksson H. and Tortensson H., (2006), "Similarities and Differences between TQM, Six-sigma and Lean", *the TQM Magazine*, 18(3), pp.282-296.
- Rhonda L Hensley et al,(2005), "Assessing Readiness for Six-sigma in a Service Setting", *Managing Service Quality*, 15(1), pp.82-101.
- Rajagopalan R. et al, (2004), "Developing Novel Catalysts with Six-sigma", *Research Technology Management*, 46(1), pp.13-16.
- Antony J and Banulas R., (2002), "Key Ingredients for the Effective Implementation of Six-sigma Program", *Measuring Business Excellence*, 6(4), pp.20-27.
- De Feo J and Bar-El Z., (2002), "Creating Strategic Change More Efficiently with a New Design for Six-sigma Process", *Journal of Change Management*, 3(1), pp.60-80.
- Marder D.M., (2002), "Design for Six-sigma", *Quality Progress*, pp.82-86.
- Hammer M and Goding J., (2001), "Putting Six-sigma in Perspective", *Quality*, 40(10), pp.58-62.
- Hoeri R.W., (1998), "Six-sigma and Future of Quality Profession", *Quality Progress*, 31(6), pp.35-42.

All I'm armed with is research."

- Mike Wallace

Determinants of Retail Investors Behaviour and its Impact on Investment

Decision Kavitha.C*

*Assistant Professor, Bhaktavatsalam Memorial College for Women, Korattur, Chennai, Tamilnadu, India. Email - kavithachinnaiyan89@gmail.com

Abstract:

According to economic theorists, investors think and behave “rationally” when buying and selling stocks. Generally investors are presumed to use all available information to form “rational expectations” in investment decision making. In reality, individual investors do not think and behave rationally. To the contrary, driven by greed and fear, investors speculate stocks between unrealistic highs and lows. They are misled by extremes of emotion, subjective thinking and the herd mentality. Indian stock market is considered to be highly volatile, sensitive and reactive to unanticipated shocks and news. At the same time, Indian stock market is resilient and it recovers soon after shocks. The role and importance of individual investors and their trading behaviour is not properly discounted. It is believed that trading behaviour of individual investors rarely influences the stock prices. The paper intends to analyse the determinants of the individual investor behaviour of Indian stock market and factors affecting their investment decisions. An empirical study is conducted to analyse the investment behaviour and decision making style of individual investors. Analytical Hierarchy Process (AHP) is used to find the relative importance of different behavioural traits of the investors.

Keywords: *Investor behaviour, Overconfidence, Involvement, Risk preference.*

I. Introduction

Indian stock market is considered to be highly volatile, sensitive and reactive to unanticipated shocks and news and it takes no time to impact the market activities. However at the same time, Indian stock market is resilient and recovers soon after shocks. The role and importance of individual investors and their trading behaviour in Indian stock market is also very crucial. Unlike institutional investors, individual investors are believed to be less informed, have psychological biases and also thought of as the proverbial noise traders in the stock market. It is believed that trading behaviour of individual investors rarely influences the stock prices. With this perception about the individual investors, majority of trading strategies and stock market policies are designed and focused to their institutional counterparts, thereby ignoring the individual investor's interests to some extent. The purpose of this paper study is to analyse the determinants of individual investor behaviour in Indian stock market.

Objective of the Study

The objective of the study is to identify the determinants of investment behaviour and their relative importance in shaping the behaviour of individual investors.

Limitation of the Study

There are various investment avenues in the capital market but the study was limited to investments in equity shares. The reluctance of people to reveal data on income and investment made the task of gathering data difficult.

Theoretical Background

Behavioural finance is an emerging science, and a relatively new and developing field of academic study that exploits the irrational nature of investors. Most of investment decisions are influenced to some extent by our prejudices and perceptions that do not meet the criteria of rationality. Behavioural finance concentrates on irrational behaviour that can affect investment decisions and market prices. It attempts to better understand and explain how emotions and cognitive errors influence investors and the decision-making process. Many researchers believe that the study of psychology and other social sciences shed considerable light on the efficiency of financial markets as well as help to explain stock market volatility and other anomalies. The contribution of behavioural finance is not to diminish the fundamental work that has been done by proponents of efficient market hypothesis. Rather, it is to examine the importance of relaxing

unrealistic behavioural assumptions and make it more realistic. It does this by adding more individual aspects of the decision-making process in financial markets. Without these contributions of behavioural finance, certain aspects of financial markets cannot be understood. Despite the importance of individual's investment decisions, we know little about the factors that influence them. Finance research has often ignored the individual investor's decision making process while taking financial investment decisions. There is a need to develop behavioural paradigm to probe the determinants of investor behaviour and their impact on individual investor's financial decision making process. Behavioural finance models ranges from individual investor conduct to market-level outcomes. For the purposes of this research, we adopted an approach favoured by traditional Economist. The current study examines behaviours or biases of individual investors that distinguish them from the rational investors envisioned in classical economic theory, Behavioural Finance Micro (BFMI).

II. Literature Review

The proposition that has dominated finance is Efficient Market Hypothesis (EMH). There are three basic theoretical arguments that form the basis of the EMH. The first and most significant is that investors are rational. Secondly it is based on the idea that everyone takes careful account of all available information before making investment decisions. It is related to internal consistency. The third principle is that the decision maker always pursues self-interest.

Behavioural finance is a study of the markets that draws on psychology, throwing more light on why people buy or sell the stocks and even why they do not buy stocks at all. This research on investor behaviour helps to explain the various 'market anomalies' that challenge standard theory. Behavioural finance encompasses research that drops the traditional assumptions of expected utility maximization with rational investors in efficient market. The two building blocks of behavioural finance are *cognitive psychology* and the limits to *arbitrage* (Ritter, 2003). Cognitive refers to how people think and the limit to arbitrage when market is inefficient.

Much of the basic theories of behavioural finance concern with a series of new concept under the general heading of '*bounded rationality*,' a term associated with Herbert Simon (1947, 1983). It relates to cognitive limitations on decision-making. As a result, human behaviour is made on the basis of simplified procedures or *heuristics* (Tversky and Kahneman, 1974). This is consistent with the study done by Slovic (1972) on investment risk-taking behaviour. He found that, man has limitations as a processor of information and show some judgmental biases which lead people to overweight information. People also tend to be over react to information (De Bondt and Thaler, 1985, 1987). Shiller (1999) surveys some of the key ideas in behavioural finance, including Prospect theory, Regret theory, Anchoring, and Market over-and under-reaction. *Prospect theory* introduced by Khaneman and Tversky (1979, 1981, 1986) suggests that people respond differently to equivalent situations depending on whether it is presented in the context of a loss or a gain. "*Regret theory*" (Larrick, Boles, 1995) is another theory that deals with people's emotional reaction to having made an error of judgment. *Anchoring* (Yates, 1990), is a phenomenon in which, in the absence of better information, investors assume current prices are right. *Market over-or under-reaction* (DeBondt and Thaler, 1985), is the consequence of investors putting too much weight on recent news at the expense of other data. People show overconfidence. They tend to become more optimistic when the market goes up and more pessimistic when the market goes down. Hence, prices fall too much on bad environment.

It has long been recognized that a source of judgment and decision biases, such as time, memory, and attention are limited, human information processing capacity is finite. Therefore, there is a need for imperfect decision-making procedures, or heuristics (Simon, 1955, Tversky and Kahneman, 1974) Hirshleifer (2001) argues that many or most familiar psychological biases can be viewed as outgrowths of heuristic simplification, self-deception, and emotion-based judgments. Study done by Kent, Hirshleifer and Subrahmanyam (2001) had found the evidence for systematic cognitive errors made by investors and these biases affect prices.

According to Kent, et al. (2001), The most common behaviour that most investors do when making investment decision are (1) Investors often do not participate in all asset and security categories, (2) Individual investors exhibit loss-averse behaviour, (3) Investors use past performance as an indicator of future performance in stock purchase decisions, (4) Investors trade too aggressively, (5) Investors behave on status quo, (6) Investors do not always form efficient portfolios, (7) Investors behave parallel to each other, and (8) Investors are influenced by historical high or low trading stocks.

III. Research Methodology

Data for the study is primarily collected through survey in the form of questionnaires from Retail stock market investors in Kottayam and Ernakulam District. Questions related to investors profile and determinants of investor behaviour were included using a Five point scale. Data collected were analysed through SPSS and Spread Sheet. *Analytic Hierarchy Process (AHP)* is used to find the relative importance of different behavioural traits of the investors in contributing overall investment behaviour. AHP is one of Multi Criteria decision making method that was originally developed by Prof. Thomas L. Saaty. In short, it is a method to derive ratio scales from paired comparisons.

The study identified four broad dimensions of investor behaviour that could have an impact on their investment decisions (*Overconfidence, Investor Optimism, Investor Involvement and Risk Preferences*) that were further divided into different factors and respondents were asked to rate each factor. On the basis of the overall responses of the investors and the ratings that they assign to the factors of the each dimension AHP determine the relative weights for each dimension of the investment behaviour and priorities them in terms of their level of contribution in the formation of behaviour of the investor.

IV. Analysis and Interpretation

Profile of Respondents

The analysis was based on the data collected from respondents using questionnaire. The various demographic and economic factors regarding the respondents were as follows:

The gender ratio of respondents: Of the total respondents, 75.64 % were males and

24.36 % were females.

The age group distribution of respondents:

Age of respondents varied between 20 to 70 years. It was aimed to include investors from all categories so that the pattern will get an equitable distribution. Majority of respondents were under 30-40 year age group (34.62%) followed by 40-50 year age group (28.21%). Investors less than 30 years of age group were 25.64% and above 50 years of age group were 11.53%.

The occupational distribution of respondents:

The occupational distribution of respondents included Salaried individuals (56.41%), Government employed (23.08%), Private organizations (33.33%), Self employed individuals (24.36%), Business (17.95%) and Agricultural background (6.41%).

The education level distribution of respondents:

The majority of investors is having a Bachelors degree (52.56%) followed by Masters Degree (46.15%). It's clear that most of the respondents in this study have good educational backgrounds.

The investment experience of respondents:

From the analysis of investment experience of investors, it was found that majority of respondents have an experience of 5-10 years (41.02%), followed by investors, having an experience of less than 5 years (39.74%).

Stock monitoring behaviour of respondents:

Of the total respondents, 87.18% daily monitor their investments in stocks and they look for short term profits from favourable price movements. 10.26% of the investors monitor their investment weekly and the rest 2.56% of the investors monitor monthly. Investors with different level of investments are observed to have significantly different monitoring behaviour. The investors with high amount of investments and those with short horizon tend to monitor their investments more frequently when compared to those with low amount of investments and long term investors.

Investment objectives of respondents:

By analyzing the responses it could be inferred that 46.15% of the investors objectives is to take benefit from the daily price fluctuations, 11.54% of the investors make their investment to earn steady income in the form of dividends, 26.93% of the investors aim for growth objectives, while rest of the investors have multiple investment objectives.

4.1. Analysis of Determinants of Investor Behaviour

(1) Frequency Analysis of Overconfidence:

Table1: Frequency Results for Overconfidence

Question	S.D(1)	D(2)	N(3)	A(4)	S.A(5)	Total
I am confident of my ability to do better than others in picking stocks (<i>Stock Picking Ability</i>)	2	12	15	17	32	78
	(2.56%)	(15.38%)	(19.24%)	(21.80%)	(41.03%)	(100%)
I am fully responsible for the results of my investment decisions. (<i>Self-Control</i>)	4	13	14	18	29	78
	(5.13%)	(16.67%)	(17.95%)	(23.08%)	(37.17%)	(100%)
I have complete knowledge of stock market (<i>Market Knowledge</i>)	3	11	17	17	30	78
	(3.85%)	(14.10%)	(21.79%)	(21.79%)	(38.46%)	(100%)

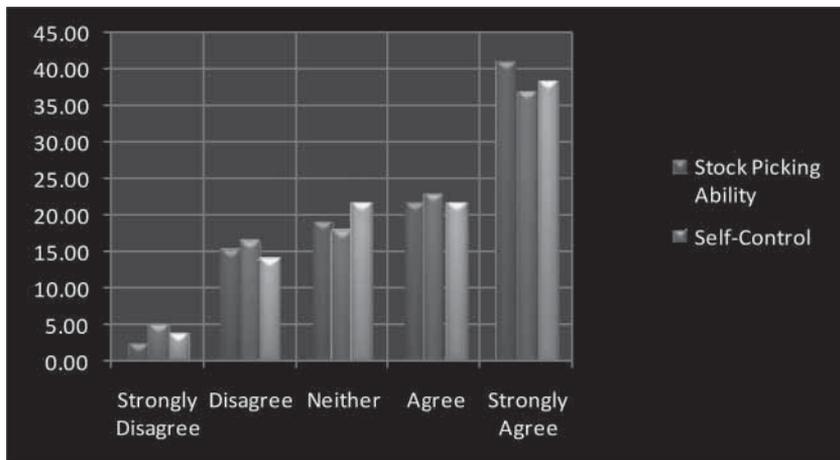


Figure1: Frequency Diagram of Overconfidence

The frequency results of these three statements tell reveals that investors have high level of Overconfidence as there is greater level of confidence on their Stock

Picking Abilities, high level of Self Control and greater confidence of having Market Knowledge as majority of investors gave rating of 4 and above in case of each parameter.

AHP Analysis of Overconfidence

Table 2: Pairwise Comparison Matrix for Overconfidence

Feature	Stock Picking Ability	Self Control	Market Knowledge
Stock Picking Ability	1.00	4.00	2.00
Self Control	0.25	1.00	0.50
Market Knowledge	0.50	2.00	1.00

Table 3: Normalized Matrix for Overconfidence

Feature	Stock Picking Ability	Self Control	Market Knowledge	Average
Stock Picking Ability	0.57	0.57	0.57	0.57
Self Control	0.14	0.14	0.14	0.14
Market Knowledge	0.29	0.29	0.29	0.29
Total	1.00	1.00	1.00	1.00

Table 4: Rank Matrix for Overconfidence

Feature	%	Rank
Stock Picking Ability	57%	1
Market Knowledge	29%	2
Self Control	14%	3

The Analytical Hierarchical Process determined the relative weights of each factor of the dimension of Overconfidence. In the overall dimension of Overconfidence the most prominent factor was the Stock Picking Ability that result in successful investment, (approx 57%) followed by Market knowledge with approximate weights of 29% and Self Control ability with 14% .

(2)Frequency Analysis of Investor Optimism:

Table 5: Frequency Results for Optimism

Question	S.D(1)	D(2)	N(3)	A(4)	S.A(5)	Total
I plan to increase my investment in the stock market in next 12 months (Increased Investments)	22	16	8	13	19	78
	(28.20%)	(20.50%)	(10.27%)	(16.67%)	(24.36%)	(100%)
The prices of stocks will increase in next 12 months (Price Increase Expectation)	16	15	11	15	21	78
	(20.51%)	(19.24%)	(14.10%)	(19.24%)	(26.32%)	(100%)
If the BSE index drops by < 3% tomorrow, I would suggest that it will recover most of its losses in a few days (Index Recovery)	16	10	12	20	20	78
	(20.51%)	(12.82%)	(15.39%)	(25.64%)	(25.64%)	(100%)

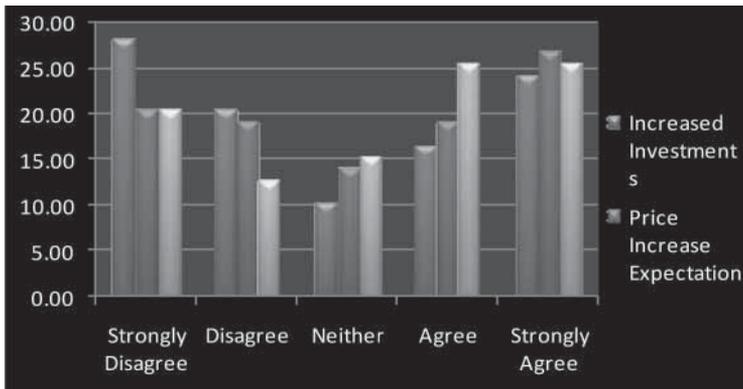


Figure 2: Frequency Diagram of Optimism

By analyzing the responses the overall Optimism among the investors is low but 51.38 % of investors do believe that even if the market falls, it will recover within a few days.

AHP Analysis of Optimism

Table 6: Pair wise Comparison Matrix for Optimism

Feature	Increased Investments	Price Increase Expectation	Index Recovery
Increased Investments	1.00	0.33	0.50
Price Increase Expectation	3.00	1.00	2.00
Index Recovery	2.00	0.50	1.00

Table 7: Normalized Matrix for Optimism

Feature	Increased Investments	Price Increase Expectation	Index Recovery	Average
Increased Investments	0.17	0.18	0.14	0.16
Price Increase Expectation	0.50	0.55	0.57	0.54
Index Recovery	0.33	0.27	0.29	0.30
Total	1.00	1.00	1.00	1.00

Table 8: Rank Matrix for Optimism

Feature	%	Rank
Price Increase Expectation	54%	1
Index Recovery	30%	2
Increased Investments	16%	3

Interpretation: The second determinant *Investor Optimism* was measured in terms of investor’s outlook of the stock market. AHP analysis assigned the highest rank to the factor *Price Increase Expectation* (54%), followed by Recovery of *the Index* 30%. Only 16% of respondents are interested in *Increasing Investments*. On the whole the optimism among the investors is very low.

Table 9: Frequency Results for Involvement

(3) Frequency Analysis of Involvement:

Question	S.D(1)	D(2)	N(3)	A(4)	S.A(5)	Total
I am actively involved in trade activity (Trade Activity)	2	1	19	21	35	78
	(2.56%)	(1.28%)	(24.36%)	(26.92%)	(44.88%)	(100%)
I make investment for making money quickly (Quick Money)	7	4	13	29	25	78
	(8.97%)	(5.13%)	(16.67%)	(37.18%)	(32.05%)	(100%)

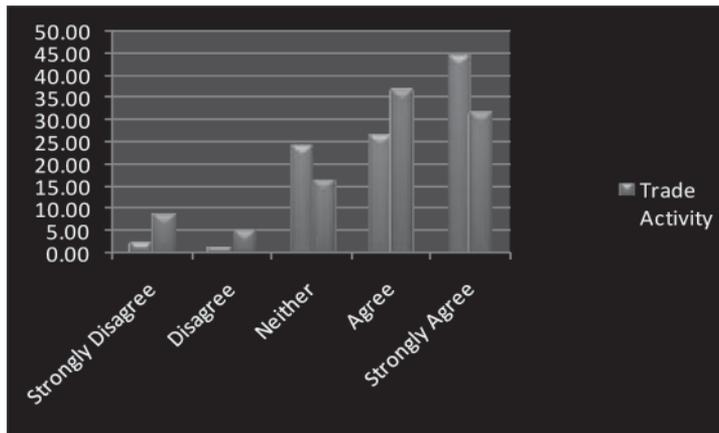


Figure 3: Frequency Diagram of Involvement

Analyzing responses it could be inferred that 69.23% of the respondents are involved in trade activity to make *Quick Money*.

AHP Analysis of Involvement

Table 10: Pairwise Comparison Matrix for Involvement

Feature	Trade Activity	Quick Money
Trade Activity	1.00	2.00
Quick Money	0.50	1.00

Table 11: Normalized Matrix for Involvement

Feature	Trade Activity	Quick Money	Average
Trade Activity	0.75	0.75	0.75
Quick Money	0.25	0.25	0.25
Total	1.00	1.00	1.00

Table 12: Rank Matrix for Involvement

Feature	%	Rank
Trade Activity	75%	1
Quick Money	25%	2

To measure the overall Involvement of

Investors in stock trading two factors namely level of Trade Activity and motive towards making Quick Money were analyzed. On the basis of the responses of the investors AHP determined Trade Activity has the highest weights approximately 75% while the attitude of making Quick Money weights 25% approx.

(4) Frequency Analysis of Risk Preferences/Attitudes

Table 13: Frequency Results for Risk Preferences/Attitudes

Question	S.D(1)	D(2)	N(3)	A(4)	S.A(5)	Total
I make riskier investments for maximum gain (<i>Enjoyment from Risky Trading</i>)	30	17	8	12	11	78
	(38.46%)	(21.80%)	(10.26%)	(15.38%)	(14.10%)	(100%)
I usually invest in companies I am familiar with (<i>Familiarity Bias</i>)	13	9	5	21	30	78
	(16.67%)	(11.54%)	(6.41%)	(26.92%)	(38.46%)	(100%)
I am a risk taker (<i>Risk taking</i>)	11	13	14	21	19	78
	(14.10%)	(16.67%)	(17.95%)	(26.92%)	(24.36%)	(100%)
I invest mostly in companies with stable expected returns (<i>Stable Returns</i>)	3	7	13	26	29	78
	(3.85%)	(8.98%)	(16.67%)	(33.33%)	(37.18%)	(100%)

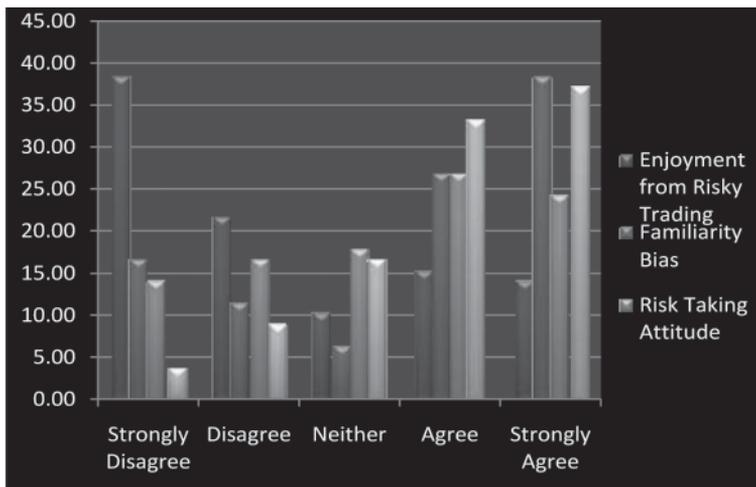


Figure 4: Frequency Diagram of Risk Preferences/Attitudes

Interpretation: By considering the various factors collectively it could be inferred that majority of investors are risk

averse and they do not prefer making riskier investments. Rather they prefer investing in familiar companies that give stable returns.

AHP Analysis of Risk Preferences/Attitudes

Table 14: Pair wise Comparison Matrix for Risk Preferences/Attitudes

Feature	Enjoyment from Risky Trading	Familiarity Bias	Risk Taking	Stable Returns
Enjoyment from Risky Trading	1.00	0.25	0.33	0.33
Familiarity Bias	4.00	1.00	3.00	2.00
Risk Taking	3.00	0.33	1.00	0.50
Stable Returns	3.00	0.50	2.00	1.00

Table 15: Normalized Matrix for Risk Preferences/Attitudes

Feature	Enjoyment from Risky Trading	Familiarity Bias	Risk Taking	Stable Returns	Average
Enjoyment from Risky Trading	0.09	0.12	0.05	0.09	0.09
Familiarity Bias	0.36	0.48	0.47	0.52	0.46
Risk Taking	0.27	0.16	0.16	0.13	0.18
Stable Returns	0.27	0.24	0.32	0.26	0.27
Total	1.00	1.00	1.00	1.00	1.00

Table 16: Rank Matrix for Risk Preferences/Attitudes

Feature	%	Rank
Familiarity Bias	46%	1
Stable Returns	27%	2
Risk Taking	18%	3
Enjoyment from Risky Trading	9%	4

AHP analysis reveals that investors have greater fear of un-known and uncertainty

and to avoid it, they make investments in the stocks of the companies which they are familiar with. The factor of familiarity bias gets the highest rank among all four factors with weights of 46% approx. The tendency of investing in stocks with stable returns weights about 27%. These two factors basically reveal the tendency of risk aversion of the investor. While the other two factors Risk taking and enjoying Risky trading measures the risk loving attitude of the investors. The cumulative score of risk preference reveals that investors are risk averse.

(5) AHP Analysis of Determinants of Investor Behaviour

Table 17: Pairwise Comparison Matrix of Behavioural Determinants

Feature	Overconfidence	Investor Optimism	Involvement	Risk Preferences/ Attitudes
Overconfidence	1.00	5.00	3.00	2.00
Investor Optimism	0.20	1.00	0.33	0.20
Involvement	0.33	3.00	1.00	0.33
Risk Preferences/ Attitudes	0.50	5.00	3.00	1.00

Table 18: Normalized Matrix of Behavioural Determinants

Feature	Overconfidence	Investor Optimism	Involvement	Risk Preferences/ Attitudes	Average
Overconfidence	0.49	0.36	0.41	0.57	0.46
Investor Optimism	0.10	0.07	0.05	0.06	0.07
Involvement	0.16	0.21	0.14	0.09	0.15
Risk Preferences/ Attitudes	0.25	0.36	0.41	0.28	0.32
Total	1.00	1.00	1.00	1.00	1.00

Table 19: Rank Matrix of Behavioural Determinants

Feature	%	Rank
Overconfidence	46%	1
Risk Preferences/Attitudes	32%	2
Involvement	15%	3
Investor Optimism	7%	4

AHP determined that Overconfidence carries more than 46% weight, so it is the most prominent behavioural dimension that has greater impact in the formation of overall behaviour followed by Risk Preferences/ Attitudes with a weight of 32% and other two dimensions Involvement and Investor Optimism with weights 15% and 7% respectively.

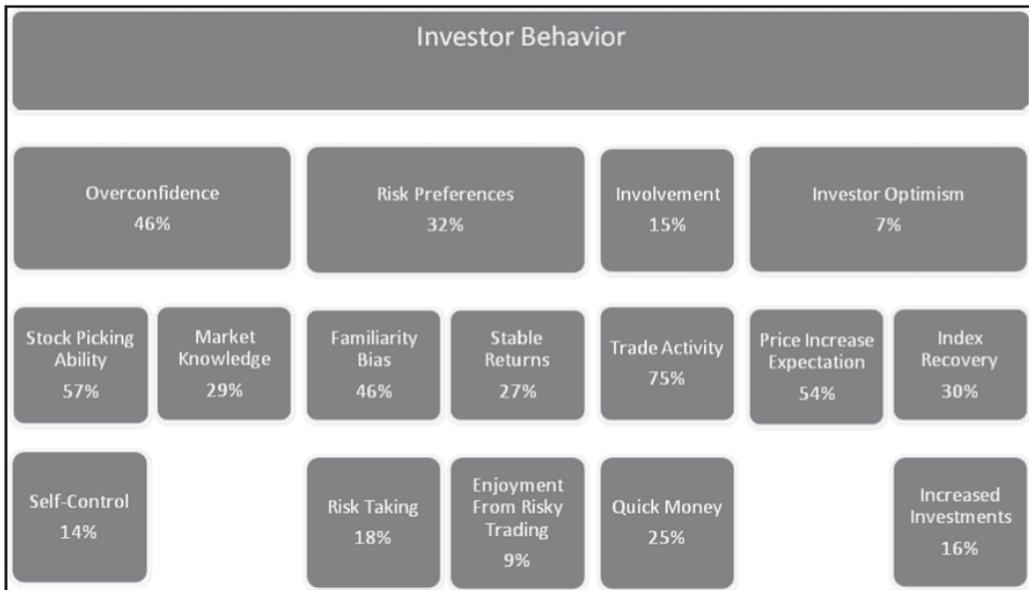


Fig 5. AHP Results of Investor Behaviour

Findings

This paper analyses investment behaviour of individual investor in terms of four broad behavioural dimensions viz; Overconfidence, Investor involvement, Optimism and Risk attitude that are measured in terms of different factors. The findings suggest that the dimension of overconfidence plays an important role in the determination of overall behaviour, followed by the role of risk preferences, involvement and optimism.

In this study *overconfidence* bias is measured in terms of four factors: self control, market knowledge, stock selection ability and specific skills. It's clearly found that majority of investors believe that they have better stock picking ability than other investors. They also believe that they have complete knowledge of market particularly those investors who have many years of investment experience. They are found to be confident of their specific skills that lead them to earn profits over their investments.

When studied the level of *optimism* among investors in terms of their outlook of future of the stock market, we found that investors are not much optimistic about the future of market. It's found that some investors want to keep their investments in the stock markets only because the stock prices have declined and they do not want to sell their stocks at a loss. Very few showed willingness to increase their investments in the stock market in next 12 months because they do not believe that stock market will not scale up immediately.

The dimension of *investor involvement* is measured in terms of their trade activity and tendency to make quick money. It was found that investors having short term profit seeking objectives are found to have greater level of involvement as compared to those with long term investment objectives as they have greater tendency to make quick money in short time periods.

When measured *risk preferences* of individual investors we found that investor's exhibit risk averse behaviour and they prefer investing in familiar companies with stable returns. But there are some investors who showed a strong preference for taking risk. It's found that investors with long term investment objectives and those with ages above 50 are more risk averse when compared to others.

Majority of investors seem to prefer to gamble with a possibility for a gain. Analysis shows that individuals have inconsistent attitudes towards risk in making investment decisions. They exhibit risk aversion in a profit making situation while risk seeking behaviour is exhibited in a loss making situation that explains the phenomenon of mental accounting. Moreover the presence of disposition effect and representativeness are also confirmed by this study.

V. Conclusion

Market participants have relied for a long time on the notion of efficient markets and rational investment behaviour when making financial decisions. However, the idea of fully rational investors always maximizing their utility and demonstrating perfect self-control is not realistic and the market inefficiency in the form of anomalies and irrational investor behaviour have been

observed more frequently during the past decades. The results obtained from the study suggest that the behaviour of individual investors is irrational to a greater extent. Study revealed that individual investors have high level of involvement and overconfidence while they are not much optimistic about the future outlook of market and moreover they have an aversion to risk.

References

- Belsky, G. & Gilovich, T. (2000). Why Smart People Make Big Money Mistakes.
- DeBondt F.M. W. and Thaler H.R. (1985), Does the stock market overreact?, *The Journal of Finance*, Vol. XI no. 3, 793-807.
- De Bondth Werner F.M., (1991), what do economists know about the stock market? *Journal of Portfolio Management* 18, 84-91
- De Bondth Werner F.M., (1991), Behavioural Economics; a portrait of individual investors. *European Economic Review* 42, 831-844.
- Jurczyk, B. (2002). Behavioural Finance.
- Kenney, Derrick, (2003). Investor psychology plays key role in market plays, fort worth, *Business Press*, December, 5-11.
- Kent D., Hirshleifer., and Siew Hong Teoh. (2001). Investor psychology in capital markets: evidence and policy implications, *Journal of Monetary Economics*, 49(1), 139-209.
- Kent, D., Hirshleifer, D. and Subrahmanyam, A., (2001). Overconfidence, Arbitrage, and Equilibrium asset pricing. *Journal of Finance* 56., 921-965
- Kahneman, D. (Ed.) (1982). Judgement under Uncertainty: Heuristics and Biases.
- Kahneman, D. & Tversky, A. (2000). Choices, Values and Frames.
- Larrick, R., and Boles, t (1995) Avoiding Regret in Decisions with Feedback: A

- Negotiation *example; Organizational Behaviour and Human Decision Processes*, 63, 87-97
- Naughton, Tony, (2002). The winner is.... behavioural finance?, *Journal of financial Services Marketing*, vol. 7, 2 110-112.
- Pelzmann, L. (2000). *Wirtschafts Psychologie. Behavioural Economics and Behavioural Finance. Arbeitswelt.*
- Peterson M. J., (1999), “ Buying on the Rumor and sell on the news” (BRSN). *Journal of Finance*, 50, 131-155
- Prechter R. Jr. (1999). Unconscious Herding behaviour as the Psychological Basis of financial Market trends and patterns. *Journal of Psychology and Financial Market*
- Ritter Jay, (2003), Behavioural finance, *Pacific-Basin Finance Journal* 11 p 429-437.
- Shleifer, A. (2000). Inefficient Markets.
- Smith, V. (2000). Bargaining and Market Behaviour: Essays in Experimental Economics.
- Thaler, R. (1994). The Winner’s Curse: Paradoxes and Anomalies of Economic Life.
- Thaler, R. (1993). Advances in Behavioural Finance
- Tversky a. and Kahneman D., (1974). Judgment under uncertainty; Heuristics and biases. *Journal of Science* 185, 1124-1131.
- Siller, R. J., (1999). Human behaviour and the efficiency of the financial system. In Taylor, J. and woodford, M., (Eds.). *Handbook of Macroeconomics.* Amsterdam: Elsevier...
- Tversky, A., and Kahneman, D (1986) Rational Choice and the Framing of Decisions. *Journal of Business*, 59, 251-294
- Thaler, R. (1985) Using Mental Accounting in a Theory of Purchasing Behaviour; *Marketing Science*, 4, 12-13
- Yates, J (1990) *Judgement and Decision Making.* Prentice Hall. P 118 – 127
- www.behaviouralfinance.net/
www.journalofbehavioralfinance.org/journals/journals_main.html
www.cfainstitute.org/learning/topics/Pages/behavioralfinance.aspx
www.academicearth.org/lectures/behavioralfinance
<http://blogs.reuters.com/reuters-money/tag/behavioral-finance/>
www.scribd.com
www.mbaknol.com

“Research is formalized curiosity. It is poking and prying with a purpose.”

- Zora Neale

Supply Chain Management Components, Supply Chain Performance and Organizational Performance: A Critical Review and Development of Conceptual Model.

C. Ganesh Kumar* & T. Nambirajan**

*Research Scholar, Department of Management Studies, School of Management, Pondicherry University, Puducherry- 605014, India. Email : gcganeshkumar@gmail.com

**Professor and Head, Department of Management Studies,, School of Management, Pondicherry University, Puducherry- 605014, India. Email: rtnambirajan@gmail.com

Abstract

The aim of this research article is to review the extant literature on supply chain management components, supply chain performance and organizational performance and raises a set of research issues leading to select research questions for model building and empirical testing in the future research. This literature review is assessed and classified on the basis of the problem context and the state of research by examining the research design, hypothesis testing, research methods, data analysis techniques, data sources and country of authors. It provides a comprehensive review and assessment of 65 research articles published in the operations management related journals. The methodological review will provide increased understanding of the current state of research in the discipline. Past research studies have focused on different supply chain management components, impact of supply chain management components on organizational performance, and relationship between supply chain performance and organizational performance. However, there is no study on impact of supply chain management components on supply chain performance and in turn its impact on organizational performance. This has been identified as the research gap.

Keywords: *Supply chain management components, supply chain performance and organizational performance, Literature review, Conceptual model*

I. Introduction

The concept of survival by isolation no longer works between suppliers and the other entities of the supply chain (Stock & Boyer, 2009). Hence organizations nowadays tend to move away from the isolation paradigm and look at developing partnerships and effective information sharing between the various trade partners who thereby makes their process become interconnected and overcomes the traditional limitations set by the firm (Cousins, Lawson, & Squire, 2006). Various viewpoints and definitions have been provided about supply chain management. For example, "SCM is defined as set approaches utilized to efficiently integrate suppliers, manufacturers, warehouses and stores, so that merchandise is produced and distributed at the right quantities, to the right locations, and at the right time, in order to minimize system wide costs while satisfying service level requirements" (Simchi-Levi, Simchi-Levi, & Kaminsky, 1999).

This research paper attempts to critically review the literature on SCM components, supply chain performance and organizational performance. 65 researches

on operations management and supply chain management have been thoroughly analyzed and an effort has been made to gain key insights on impact of SCM dimensions on organizational performance. The issues addressed here are explored under the two categories of supply chain management and organizational performance. Based on the review of literature, key dimensions or constructs and hypotheses have been formulated in the following sections.

II. Review of Literature

The motive behind the literature review is to collect and generate structure reference related to the research problem from research articles, books and other reliable and valid sources of information which have published in recent past. Various articles have been published in the recent past in reputed journals which have relationship with the proposed research work. For example, (S. Li, Rao, Rangunathan, & Rangunathan, 2005), (Chow et al., 2008), (Mallik, 1997), (Larry C. Giunipero, 2008), (Ballou, 2007) and (Keah Choon Tan, 2002) have provided a strong base for this present research work.

2.1 Supply Chain Practices

Supply chain practices provides a framework of methods and practices that help an organization in effectively integrating various stake-holders of Supply Chain Management namely, suppliers, manufacturers, distributors and customers, thereby resulting in the long run progress of the organization and their overall performance (Stock and Boyer, 2009).

The best Supply Chain Practices help an organization in depicting a distinct picture based on various market indicators such as demand forecasting, product availability, inventory management and distribution (Chopra & Meindl, 2007). Hence it is not surprising that best supply chain practices driven organizations achieve superior supply chain performance. However, it has been well established that internal and external cross functional collaboration of suppliers and customers direct to superior organizational performance (Thakkar, Deshmukh, & S.G, 2008).

Supply chain practice is defined as a “Set of activities aimed at improving the performance of the whole supply chain” ((Keah Choon Tan, 2002), (Chow et al., 2008) and (Koh, Demirbag, Bayraktar, Tatoglu, & Zaim, 2007)). (Kannan & Tan, 2005) identified important dimensions of supply chain management which address the different dimensions namely quality management, supply chain practices and some specific elements like just in time capabilities.(Suhong Li, Ragu-Nathan, Ragu-Nathan, & Subba Rao, 2006) have validated three dimensions of supply chain practices namely supply chain planning, JIT production and delivery practices.

(Devi, 2007) studied the Supply Chain Processes of processing industries, and concluded that the existing strategy of the enterprises in this industry should be modified to suitably cope up with SC partners, in order to provide better service and gain competitive advantage. The firms should involve all entities of their supply chain and implement proper measurement system to attain superior performance in supply chain.(Cook, Heiser, & Sengupta, 2011) have propagated various factors of supply chain practices such as material and supply management, operations efficiency, customer service and information sharing. They have also pointed out that various components must work in tandem with each other to effectively achieve superior supply chain position. (Sahay & Mohan, 2003)

pointed out that there are crucial supply chain practices encompassing the strategy, integration, inventory management and information technology. Due to the lack of consensus about common supply chain practices and various priorities on supply chain practices in various literature, this research work intends to focus and identify the commonalities among these practices used currently and providing a frame work for improving the supply chain performance and ultimately better organizational performance. The commonalities of supply chain practices found in the work of (Koh et al., 2007) have been used in the proposed research work.

2.2 Supply Chain Concerns

An important element of effective SCM includes downstream integration and upstream collaboration of firm’s partners and customers in effective and efficient manner. However, integration and collaboration of the entire value chain mechanism will be a complicated process. Firms may have to confront complex issues because of excessive dependence on suppliers and this may affect their focus on core capabilities (McMullan, 1996). Conversely, companies which have developed and implemented supplier evaluation system in order to effectively and efficiently manage suppliers, have failed miserably(Sachan & Datta, 2005).

(Stank, Dittmann, & Autry, 2011) have developed set of issues will adversely affect performance of supply chain and firms should focus their attention on these issues to align organizational goal with SCM goal. Similarly, some other supply chain concerns have been explored and presented in the research work of (Chow et al., 2008).Supply chain concerns has been defined as “The issues that prevent an organization from achieving the full potential of their supply chain management” ((Keah Choon Tan, 2002) and (Chow et al., 2008).

(Keah Choon Tan, 2002) has identified a list of supply chain issues through expert’s opinion that exert an impact on supply chain performance and organizational performance. The variables used by this researcher have been utilized in this research to measure the supply chain concerns of the manufacturing enterprises.

2.3 Supply Chain Competence

Supply chain competence is a necessary pre-requisite for firms to react to market and financial uncertainties and to manage and sustain their supply chain performance and

organizational performance (Gubi, Arlbjørn, & Johansen, 2003). SCM is literally stable only when it is completely endorsed by stakeholders of the organization. Supply chain competences are the ability of the organization to be in total power and control of supply chain operations and performance in spite of issues of external and internal environmental factors. As noted by (Yang & Su, 2009) and (Sauber, McSurely, & Tummala, 2008), core competency of organizations is a reflection of the collective learning of the organization over a period of time and their ability to coordinate the diverse skills through an efficient full proof technical system.

(Halldorsson, 2002) put forth the argument that an organization in today's business environment is driven by four major factors of forecasting, planning of inventory, supply chain efficiency and information accuracy. Effective management of these factors will help the firm to distribute the product or service to their customer at the right time, place and price in effective and efficient manner. (Rober E. Spekman, 2002) and (Cigolini, Cozzi, & Perona, 2004) suggested that supply chain competence should also comprise of planning of supply chain, in order management, service fulfillment and procurement of raw material in effective manner. Supply chain competence has been defined as "A portfolio of organizational, managerial, technical and strategic capabilities and skills developed by enterprises over time" (Tracey, Lim, & Vonderembse, 2005); (W. P. Wong & Wong, 2011) and (Chow et al., 2008).

2.4 Supply Chain Performance

Supply chain performance has been evaluated by different researchers in different manner to assist firms in measuring their supply chain. The supply chain council (SCC) framed the Supply-Chain Operations References (SCOR) model. The model provided a unified process oriented approach of communicating among the different supply chain partners in various decision areas like planning, sourcing, making, and delivering (Gunasekaran, Patel, & McGaughey, 2004).

Most firms lack a clear vision to develop efficient performance metrics for supply chain performance (Shepherd & Günter, 2006). Furthermore, (E. U. O. a. K. Y. Wong, 2009) pointed out a number of problems in the metrics used to measure the supply chain performance, and hence they propagated the argument that measurement of supply chain performance is very fragmented

within and across the organizations.

(Sukati, Hamid, Baharun, & Yusoff, 2012) argued that validating the supply chain performance should include three different types of performance measurement of Resources measurement (how well the resource is sourced), Output measurement (how well it delivers value to the consumer), and Flexibility (how flexible is the system to external uncertainties). Each of these types is equally important in measuring the supply chain performance of manufacturing firms.

In spite of a vast wealth of information available on the different ways to measure the supply chain performance of manufacturing undertakings, researchers still point out the need for continued studies in this area because of lack of clarity and comprehensive measurement of supply chain for all situations (Qrunfleh & Tarafdar, 2012) and (Bhagwat & Sharma, 2007). Supply chain Performance has been defined as "The overall efficiency and effectiveness of SCM" (Gunasekaran et al., 2004); (Bhatnagar & Sohal, 2005); (Vijayasarathy, 2010); and (Trkman, McCormack, de Oliveira, & Ladeira, 2010).

(Iii & McCormack, 2004) have indicated that manufacturing firms can be distinctively classified based on their supply chain performance measures that help the manufacturing undertakings to be distinct from the more contemporary non-cost metrics. They propagated that strong integration between the supply chain performance measurement systems and manufacturing system is absolutely indispensable.

According to (Bhatnagar & Sohal, 2005) research shows that no single list of metrics that would be utilized for evaluate and measuring the supply chain performance in generic situation in manufacturing system. So, they have utilized the most commonly used supply chain performance variable in their research study based on the available literature review in light of supply chain performance measures. The proposed research has also utilized the same variables to measure the supply chain performance of manufacturing enterprises.

Based on an extensive literature review, it can be observed that a gap exist on studying the linkage among supply chain management components, supply chain performance and organizational performance. It can also be noted that a very limited effort has been made to empirically analyze and validate existence of relationship among supply chain performance and organizational performance.

2.5 Organizational Performance

No standardized definition has been arrived about organizational performance by researchers (Ou, Liu, Hung, & Yen, 2010). Some authors have measured the organizational performance of manufacturing enterprises using accounting data like Return on Investment (Hsu, Tan, Kannan, & Keong Leong, 2009), while some authors have used marketing performance indicators like product quality and new product development (Lin, Chow, Madu, Kuei, & Pei Yu, 2005). Consequently, (Suhong Li et al., 2006) used in their empirical research work, financial performances of firms in addition to non-financial indicators for measuring organizational performance. In a study conducted by (Kristal, Huang, & Roth, 2010), the authors presented an argument of economist for not using financial data to assess organizational performance. They argue that organizational performance shall determine through financial data, which actually reflects the value of securities of the firm, which will have a bearing on the firm's value. However, measurement of performance of firms using accounting data does not consider the cash flows likely to be generated by the enterprise and future of the firm. Organizational Performance has been defined as "How well a firm achieves its market oriented goals as well its financial goals" (Hsu et al., 2009); (Deshpande, 2012); (Kannan & Tan, 2005); (K. C. Tan, Handfield, & Krause, 1998). With regards to financial goals, (Yang & Su, 2009) have propagated eighteen accounting variables to measure the performance of manufacturing enterprises. Some of such variables are ROI, market share, inventory turnover, ROA, etc. Many further studies have utilized these variables to measure the organizational performance of manufacturing enterprises.

(Keah Choon Tan, 2002) examined, in his research work, the effect of supply chain practices on organizational performance using perceptual data. (K. C. Tan et al., 1998) have studied the impact of quality of supply chain management on performance of manufacturing firms. They have collected data about performance of the manufacturing enterprises from executives of each of the enterprise in comparison with the performance of their competitors and their research variables have been used for measuring the organizational performance of manufacturing industries in the proposed research work.

Conceptual model and research hypotheses

Based on the literature review of past research work a conceptual model has been framed and ten hypotheses have been formulated, which are portrayed in Figure 2.1. The objectives of this proposed research study is to empirically assess the association among important components of SCM namely supply chain concerns, supply chain practices, supply chain competence and how these critical components influence supply chain performance which in turn impact the organizational performance. In the proposed conceptual model, unobserved or latent variable about the manufacturing enterprises have been measured through the response of the executives regarding the different statements included under each of the variables. Supply chain concerns, supply chain practices and supply chain competence have been taken as independent variables while supply chain performance and organizational performance have been considered as dependent or endogenous variables in respect of the supply chain management components studied in this research. The hypotheses formulated based on the review of literature have been listed in the forthcoming discussions.

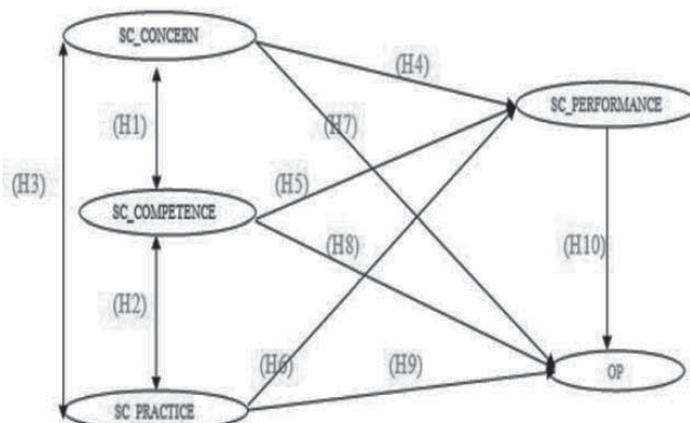


Figure 2.1 Conceptual Model Proposed in the Research Work

(Vanichchinchai & Igel, 2011) have conducted research with the object to explore the effect of total quality management practices on supply chain practices and supply chain performance on Thai automotive industry by framing a conceptual model and testing using SEM. Their findings reveal that total quality management practices have direct impact on supply chain practices while supply chain performance and supply chain practices have an indirect impact on supply chain performance.

(Deshpande, 2012) has conducted literature review on supply chain management dimensions, supply chain performance and organizational performance with the object of reviewing and developing a conceptual framework that shows linkage of supply chain management dimension on supply chain performance and linkage of supply chain performance and organizational performance.

(Huo, 2012) has conducted research with objective to investigate the impact of supply chain integration on organizational capability and performance through structural equation modeling (SEM) based on data collected from 617 Chinese companies. The research findings revealed that supply chain integration have direct and indirect effect on organizational capability while supply chain integration act as partial and full mediating effect on organizational performance.

(Chow et al., 2008) found that organizational performance and supply chain practices and competencies are having association in US and Taiwan manufacturing enterprises

The first set of hypotheses tries to study the association among the three important components of supply chain management namely, supply chain practices, supply chain concerns and supply chain competence. (Keah-Choon Tan, 199); (Gripsrud, Jahre, & Persson, 2006);(Luhrsen, 1993);(Chen & Paulraj, 2004);(Luhrsen, 1993);(Storey, Emberson, Godsell, & Harrison, 2006); (Burgess, Singh, & Koroglu, 2006); (Simon Croom, 2000);(Mentzer, 2004);(Sushil Gupta, 2006);(Lee, Lee, & Schniederjans, 2011); (Schoenherr, 2009); (Jr, Chen, Upreti, Fawcett, & Adams, 2009)and (Chow et al., 2008)have argued that SCM is not merely about routine practices. Rather, it has some intricate components that must work with one another to constitute a complete SCM.

(Keah Choon Tan, 2002) has indicated in his research work that there is a direct relationship among supply chain

competence and organizational performance, while (Wisner, 2003)proved that there is relationship between quality commitment and understanding of the supply chain dynamics and hence on business performance.

(Chow et al., 2008) found that supply chain competence have very positive effect on organizational performance on US and Taiwan manufacturing enterprises.

(Koh et al., 2007) observed in his study that high levels of supply chain practices have high impact on operational performance, while Bhatnagar and Sohal(2008) identified the impact of location decision framework and its resultant effect on the supply chain uncertainties and manufacturing practices.

(W. P. Wong & Wong, 2011) has identified the resultant positive influence of knowledge management capabilities on supply chain practices, while (Sundram, Ibrahim, & Govindaraju, 2011) have found existence of direct relationship among supply chain practices and supply chain performance.

(Lee et al., 2011)has found that organizational performance have association with SC innovation factor constructs, while (Ellinger et al., 2012) have found out that higher supply chain competence exerts impact on customer satisfaction, organizational performance and shareholder value.(Yang & Su, 2009)has found that ERP factors like operational, tactical and strategic benefits exert impact on organizational performance.

Research Methodology

The research design of the proposed research work is descriptive in nature. The research work has been conducted mainly based on primary and secondary data. Secondary data has been collected from the websites of Ministry of Industry and Commerce and Ministry of Statistics, Government of Puducherry and from various other websites. Primary data relating to supply chain concerns, competence, practices, performance, organizational performance and business demographic variables in manufacturing industries have been collected from executives of manufacturing firms. The data collection instrument used for this research is a well structured questionnaire. The questionnaire is divided into six parts, consisting of questions on demographic variables of the manufacturing firms, Supply Chain Concerns, Supply Chain competency, Supply Chain Practices, Supply Chain Performance, and Organizational Performance. The sample population for this

study consists of the manufacturing firms located in the Union Territory of Puducherry including Pondicherry, Karaikal, Mahe and Yanam. Sampling technique adopted in this research work is simple random sampling method, and the sample size for the study was 255 manufacturing firms.

The variables needed for the questionnaire was generated through the literature review, and pre-pilot study was conducted to test the content validity of the questionnaire by administering it to subject experts and necessary suggestions were incorporated. The Pilot study was conducted on 30 manufacturing firms in the Union Territory of Puducherry and the initial reliability of the questionnaire was tested using Cronbach's- Alpha value, which revealed a good reliability result. The main study was conducted using final questionnaire and the reliability of the questionnaire was tested using Split-Half reliability test that shows the consistency result and the test revealed that the consistency of the

questionnaire was improving. The statistical tool used in this research work is Structural Equation Modeling (SEM) using Smart PLS 2.1.

VI. Results and Discussion

In order to analyze the measurement and structural model, our study uses a Partial Least Square (PLS) approach, specifically the Smart PLS, Which is not based on covariance but rather variance.

The individual path coefficients of the PLS structural model can be interpreted as standardized β coefficients of ordinary least squares regressions. The result of the structural model analysis is shown in Figure 4.1 and Table 4.1 depicts the causal linkage among supply chain management and organizational performance. Each of the three types of manufacturing firms was portrayed by using structural equation modeling in the following part.

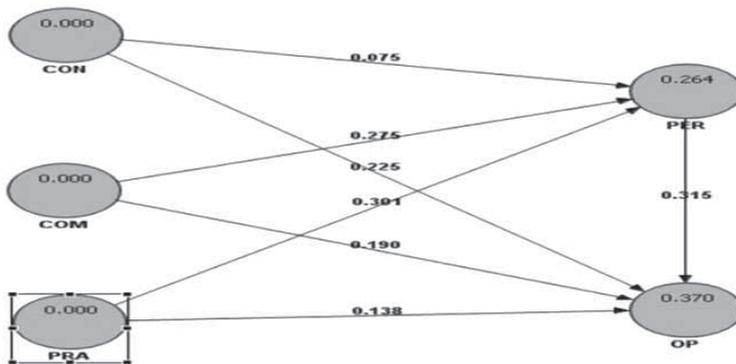


Figure 4.1 Structural analysis results

Table 4.1: Path analysis results

Path	Beta coefficient(β)	Standard Error	T-Statistics	Result
COM -> OP	0.19	0.11	1.63	Not Supported
COM -> PER	0.27	0.10	2.59*	Supported
CON -> OP	0.22	0.09	2.42**	Supported
CON -> PER	0.07	0.10	0.73	Not Supported
PER -> OP	0.31	0.13	2.45**	Supported
PRA -> OP	0.14	0.09	1.41	Not Supported
PRA -> PER	0.30	0.11	2.87*	Supported

* $p < 0.01$, ** $p < 0.05$

Figure 4.1 portrays seven causal relationships namely, the relationship between supply chain concerns and supply chain performance, supply chain competence and supply chain performance, supply chain

practices and supply chain performance, supply chain concerns and organizational performance, supply chain competence and organizational performance, supply chain practices and organizational performance

and between supply chain performance and organizational performance.

Table 4.1 provides details about the beta value, error value and t-value corresponding to the seven causal relationships. First set of causal relationship, There is significant and positive relationship between supply chain competence and supply chain performance ($\beta=0.27$; $p>0.01$) and also found that supply chain practices and supply chain performance has exist positive relationship ($\beta=0.30$; $p>0.01$) and there is no significant relationship between supply chain concerns and supply chain performance. Taking the second set of causal relationship, there is no significant relationship exist between supply chain concerns, competence, and practices with the organizational performance but there is significant and positive relationship found between supply chain competence performance and Organizational performance ($\beta=0.31$; $p>0.05$). Based on the test results of the conceptual model, Supply chain concerns, competence and practices explain about 26% of the variation in supply chain performance and 37% of the variation in organizational performance. In this study, we tested our proposed model tested with sample data collected from manufacturing industries. The hypothesized relations H5, H6, H7 and H10 are supported.

V. Conclusion and Future Directions

This research paper proposed a systematic and structured review of literature and provides insights into the conceptualization and research methodological bases of the relationship between critical components of supply chain, supply chain performance and organizational of manufacturing industries and suggest how it should be described from a philosophy of knowledge perspective, and chart an agenda for the future research. The research paper also highlights the literature serving as the source of hypotheses for the further study. The research paper also highlights the source from which the variables used in this study relating to measuring the supply chain concerns; supply chain competence, supply chain practices, supply chain performance and organizational performance of manufacturing enterprises have been obtained. Based on the existing literature, a conceptual model has been proposed and research gap has been identified. Past research studies have focused on different supply chain management components, impact of supply chain management components on organizational

performance, and relationship between supply chain performance and organizational performance. However, there is no study on impact of supply chain management components on supply chain performance and in turn its impact on organizational performance.

By empirically testing, we have a better understanding of the supply chain process, supply chain practices, and management components of manufacturing Industries. Supply chain success may involve a constant cycle of conceptual and continuous learning among best practices, competence development, and implementation road blocks. With an identified list of confirmed issues that might impact on the fate of a supply chain system, managers of global supply chains are more able to deal with supply chain challenges in different environments. Supply chain performance has positive influence on organizational performance. Managers need to focus attention on developing such supply chain competencies that improve the supply chain performance. In summary of the study outlined as supply chain concerns, competence and practices explain about 26% of the variation in supply chain performance and 37% of the variation in organizational performance of manufacturing industries.

Managerial Implications

Managers can utilize tools provided by this research to manage their critical supply chain management (SCM) functions of manufacturing firms. Manager's knowledge about SCM components and interlinking relationships of various dimensions of supply chain competence, supply chain practices, and supply chain performance, and their impact on the organizational performance can be enhanced using tools suggested by this research. A theory that integrates various dimensions of SCM and various aspects of supply chain that influence the organizational performance has been aptly developed.

References

- Ballou, Ronald H. (2007). The evolution and future of logistics and supply chain management. *European Business Review*, 19(4), 332-348.
- Bayraktar, Erkan, Demirbag, Mehmet, Koh, S. C. Lenny, Tatoglu, Ekrem, & Zaim, Halil. (2009). A causal analysis of the impact of information systems and supply chain management practices on operational performance: Evidence

- from manufacturing SMEs in Turkey. *International Journal of Production Economics*, 122(1), 133-149.
- Bhagwat, Rajat, & Sharma, Milind Kumar. (2007). Performance measurement of supply chain management: A balanced scorecard approach. *Computers & Industrial Engineering*, 53(1), 43-62.
- Bhatnagar, Rohit, & Sohal, Amrik S. (2005). Supply chain competitiveness: measuring the impact of location factors, uncertainty and manufacturing practices. *Technovation*, 25(5), 443-456.
- Broadus, James R. Stock and C.Jared. (2006). Doctoral Research in Supply Chain Management and/or Logistics Related Areas: 1999-2004. *Journal of Business Logistics*, 27(1).
- Burgess, Kevin, Singh, Prakash J., & Koroglu, Rana. (2006). Supply chain management: a structured literature review and implications for future research. *International Journal of Operations & Production Management*, 26(7), 703-729.
- Chen, Injazz J., & Paulraj, Antony. (2004). Towards a theory of supply chain management: the constructs and measurements. *Journal of Operations Management*, 22(2), 119-150.
- Chopra, Sunil, & Meindl, Peter. (2007). *Supply chain management. Strategy, planning & operation*: Springer.
- Chow, Wing S., Madu, Christian N., Kuei, Chu-Hua, Lu, Min H., Lin, Chinho, & Tseng, Hojung. (2008). Supply chain management in the US and Taiwan: An empirical study. *Omega*, 36(5), 665-679.
- Cigolini, R., Cozzi, M., & Perona, M. (2004). A new framework for supply chain management: Conceptual model and empirical test. *International Journal of Operations & Production Management*, 24(1), 7-41.
- Cook, Lori S., Heiser, Daniel R., & Sengupta, Kaushik. (2011). The moderating effect of supply chain role on the relationship between supply chain practices and performance: An empirical analysis. *International Journal of Physical Distribution & Logistics Management*, 41(2), 104-134.
- Cousins, Paul D., Lawson, Benn, & Squire, Brian. (2006). Supply chain management: theory and practice – the emergence of an academic discipline? *International Journal of Operations & Production Management*, 26(7), 697-702.
- Deshpande, Anant Ravindra. (2012). Supply Chain Management Dimensions, Supply Chain Performance and Organizational Performance: An Integrated Framework. *International Journal of Business and Management*, 7(8).
- Devi, Rajashekhar and. (2007). Supply chain management practices in indian process industry. *International journal of business research*, VII(6).
- Ellinger, Alexander, Shin, Hyunju, Northington, William Magnus, Adams, Frank G., Hofman, Debra, & O'Marah, Kevin. (2012). The influence of supply chain management competency on customer satisfaction and shareholder value. *Supply Chain Management: An International Journal*, 17(3), 249-262.
- Gripsrud, Geir, Jahre, Marianne, & Persson, Gøran. (2006). Supply chain management – back to the future? *International Journal of Physical Distribution & Logistics Management*, 36(8), 643-659.
- Gubi, Ebbe, Arlbjørn, Jan Stentoft, & Johansen, John. (2003). Doctoral dissertations in logistics and supply chain management: A review of Scandinavian contributions from 1990 to 2001. *International Journal of Physical Distribution & Logistics Management*, 33(10), 854-885.
- Gunasekaran, A., Patel, C., & McGaughey, Ronald E. (2004). A framework for supply chain performance measurement. *International Journal of Production Economics*, 87(3), 333-347.
- Halldorsson, Paul D. Larson and Arni. (2002). What is SCM? And, Where is It? *The Journal of Supply Chain Management*.
- Hsu, C. C., Tan, K. C., Kannan, V. R., & Keong Leong, G. (2009). Supply chain management practices as a mediator

- of the relationship between operations capability and firm performance. *International Journal of Production Research*, 47(3), 835-855.
- Huo, Baofeng. (2012). The impact of supply chain integration on company performance: an organizational capability perspective. *Supply Chain Management: An International Journal*, 17(6), 596-610.
- Iii, Archie Lockamy, & McCormack, Kevin. (2004). Linking SCOR planning practices to supply chain performance: An exploratory study. *International Journal of Operations & Production Management*, 24(12), 1192-1218.
- Jabbour, Ana Beatriz Lopes de Sousa, Filho, Alceu Gomes Alves, Viana, Adriana Backx Noronha, & Jabbour, Charbel José Chiappetta. (2011). Measuring supply chain management practices. *Measuring Business Excellence*, 15(2), 18-31.
- Jr, R. Glenn Richey, Chen, Haozhe, Upreti, Rahul, Fawcett, Stanley E., & Adams, Frank G. (2009). The moderating role of barriers on the relationship between drivers to supply chain integration and firm performance. *International Journal of Physical Distribution & Logistics Management*, 39(10), 826-840.
- Kannan, Vijay R, & Tan, Keah Choon. (2005). Just in time, total quality management, and supply chain management: understanding their linkages and impact on business performance. *Omega*, 33(2), 153-162.
- Keah-Choon Tan, Vijay R.Kannan, Robert B.Handfield and Soumen Ghosh. (199). *Supply Chain Management: an empirical study of its impact on performance*. *International Journal of Operations and Production Management*, 19(10).
- Koh, S. C. Lenny, Demirbag, Mehmet, Bayraktar, Erkan, Tatoglu, Ekrem, & Zaim, Selim. (2007). The impact of supply chain management practices on performance of SMEs. *Industrial Management & Data Systems*, 107(1), 103-124.
- Koh, SC Lenny, Saad, S, & Arunachalam, S. (2006). Competing in the 21st century supply chain through supply chain management and enterprise resource planning integration. *International Journal of Physical Distribution & Logistics Management*, 36(6), 455-465.
- Krause, Daniel R. (1997). Supplier Development: Current Practices and Outcomes. *International Journal of Purchasing and Materials Management*, 33(2), 12.
- Kristal, Mehmet Murat, Huang, Xiaowen, & Roth, Aleda V. (2010). The effect of an ambidextrous supply chain strategy on combinative competitive capabilities and business performance. *Journal of Operations Management*, 28(5), 415-429.
- Larry C. Giunipero, Robert E.Hooker, Sacha Joseph-Matthews, Tom E. Yoon and Susan Brudvig. (2008). A decade of scm literature: past, present and future implications. *Journal of Supply Chain Management*, 44(4).
- Lee, Sang M., Lee, DonHee, & Schniederjans, Marc J. (2011). Supply chain innovation and organizational performance in the healthcare industry. *International Journal of Operations & Production Management*, 31(11), 1193-1214.
- Li, S., Rao, S., Rangunathan, T., & Rangunathan, B. (2005). Development and validation of a measurement instrument for studying supply chain management practices. *Journal of Operations Management*, 23(6), 618-641.
- Li, Suhong, Ragu-Nathan, Bhanu, Ragu-Nathan, T. S., & Subba Rao, S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, 34(2), 107-124.
- Lin, Chinho, Chow, Wing S., Madu, Christian N., Kuei, Chu-Hua, & Pei Yu, Pei. (2005). A structural equation model of supply chain quality management and organizational performance. *International Journal of Production Economics*, 96(3), 355-365.
- Luhrsen, James R. Stock and David A. (1993). *Doctoral research in logistics-related areas 1987 - 1991*. *Journal of*

- business logistics, 14(2).
- Mallik, Morris A. Cohen and Suman. (1997). Global supply chains: research and applications. *Production and operations management*, 6(3).
- McMullan, Amanda. (1996). Supply chain management practices in Asia Pacific today. *International Journal of Physical Distribution & Logistics Management*, 26(10), 79-95.
- Mentzer, Soonhong Min and John T. (2004). Developing and measuring supply chain management concepts. *Journal of business logistics*, 25(1).
- Ou, Chin S., Liu, Fang C., Hung, Yu C., & Yen, David C. (2010). A structural model of supply chain management on firm performance. *International Journal of Operations & Production Management*, 30(5), 526-545.
- Parkan, Celik, & Dubey, Rameshwar. (1993). Recent developments in the practice of supply chain management and logistics In India. *Portuguese Journal of Management Studies*, 14(1), 71-88.
- Qrunfleh, Sufian, & Tarafdar, Monideepa. (2012). Supply chain information systems strategy: Impacts on supply chain performance and firm performance. *International Journal of Production Economics*.
- Rober E. Spekman, Joseph Spear and John Kamauff. (2002). Supply Chain competency: learning as a key component. *Supply Chain Management: An International Journal*, 7(1).
- Sachan, Amit, & Datta, Subhash. (2005). Review of supply chain management and logistics research. *International Journal of Physical Distribution & Logistics Management*, 35(9), 664-705.
- Sahay, B. S., Gupta, Jatinder N. D., & Mohan, Ramneesh. (2006). Managing supply chains for competitiveness: the Indian scenario. *Supply Chain Management: An International Journal*, 11(1), 15-24.
- Sahay, B. S., & Mohan, Ramneesh. (2003). Supply chain management practices in Indian industry. *International Journal of Physical Distribution & Logistics Management*, 33(7), 582-606.
- Sauber, Matthew H., McSurely, Hugh B., & Tummala, V. M. Rao. (2008). Developing supply chain management program: a competency model. *Quality Assurance in Education*, 16(4), 375-391.
- Schoenherr, Tobias. (2009a). Logistics and supply chain management applications within a global context: an overview. *Journal of Business Logistics*, 30(2), 1-25.
- Schoenherr, Tobias. (2009b). Logistics and supply chain management applications within a global context: an overview. *Journal of business logistics*, 30(2).
- Shepherd, Craig, & Günter, Hannes. (2006). Measuring supply chain performance: current research and future directions. *International Journal of Productivity and Performance Management*, 55(3/4), 242-258.
- Simchi-Levi, David, Simchi-Levi, Edith, & Kaminsky, Philip. (1999). *Designing and managing the supply chain: Concepts, strategies, and cases*: McGraw-Hill United-States.
- Simon Croom, Pietro Romano, Mihalis Giannakis. (2000). Supply chain management: an analytical framework for critical literature review. *European Journal of Purchasing & Supply Management* 6.
- Stank, Theodore P., Dittmann, J. Paul, & Autry, Chad W. (2011). The new supply chain agenda: a synopsis and directions for future research. *International Journal of Physical Distribution & Logistics Management*, 41(10), 940-955.
- Stock, James R., & Boyer, Stefanie L. (2009). Developing a consensus definition of supply chain management: a qualitative study. *International Journal of Physical Distribution & Logistics Management*, 39(8), 690-711.
- Storey, John, Emberson, Caroline, Godsell, Janet, & Harrison, Alan. (2006). Supply chain management: theory, practice and future challenges. *International Journal of Operations & Production Management*, 26(7), 754-774.

- Sukati, Dr.Inda, Hamid, Prof. Dr. Abu Bakar Abdul, Baharun, Assoc. Prof. Dr. Rohaizat, & Tat, Dr. Huam Hon. (2002). A study of supply chain management practices: an empirical investigation on consumer goods industry in malaysia. *International Journal of Business and Social Science*, 2(17).
- Sukati, Inda, Hamid, Abu Bakar, Baharun, Rohaizat, & Yusoff, Rosman Md. (2012). The Study of Supply Chain Management Strategy and Practices on Supply Chain Performance. *Procedia - Social and Behavioral Sciences*, 40, 225-233.
- Sundram, Veera Pandiyan Kaliani, Ibrahim, Abdul Razak, & Govindaraju, V. G. R. Chandran. (2011). Supply chain management practices in the electronics industry in Malaysia: Consequences for supply chain performance. *Benchmarking: An International Journal*, 18(6), 834-855.
- Sushil Gupta, Rohit Verma and Liana Victorino. (2006). Empirical Research Published in Production and Operations Management (1992–2005): Trends and Future Research Directions. *Production and operations management*, 15(3).
- Tan, K. C., Handfield, R. B., & Krause, D. R. (1998). Enhancing the firm's performance through quality and supply base management: An empirical study. *International Journal of Production Research*, 36(10), 2813-2837.
- Tan, Keah Choon. (2002). Supply Chain Management: Practices, Concerns, and Performance Issues. *The Journal of Supply Chain Management*.
- Thakkar, Jitesh, Deshmukh, Arun Kanda, & S.G. (2008). Supply chain management in SMEs: development of constructs and propositions. *Asia Pacific Journal of Marketing and Logistics*, 20(1), 97-131.
- Tracey, Michael, Lim, Jeen-Su, & Vonderembse, Mark A. (2005). The impact of supply-chain management capabilities on business performance. *Supply Chain Management: An International Journal*, 10(3), 179-191.
- Trkman, Peter, McCormack, Kevin, de Oliveira, Marcos Paulo Valadares, & Ladeira, Marcelo Bronzo. (2010). The impact of business analytics on supply chain performance. *Decision Support Systems*, 49(3), 318-327.
- Vanichchinchai, Assadej, & Igel, Barbara. (2011). The impact of total quality management on supply chain management and firm's supply performance. *International Journal of Production Research*, 49(11), 3405-3424.
- Vijayarathay, Leo R. (2010). An investigation of moderators of the link between technology use in the supply chain and supply chain performance. *Information & Management*, 47(7-8), 364-371.
- Wisner, Joel D. (2003). A structural equation model of supply chain management strategies and firm performance. *Journal of Business Logistics*, 24(1), 1-26.
- Wong, Wai Peng, & Wong, Kuan Yew. (2011). Supply chain management, knowledge management capability, and their linkages towards firm performance. *Business Process Management Journal*, 17(6), 940-964.
- Yang, Chyan, & Su, Yi-fen. (2009). The relationship between benefits of ERP systems implementation and its impacts on firm performance of SCM. *Journal of Enterprise Information Management*, 22(6), 722-752.

“Research serves to make building stones out of stumbling blocks.”

- Little, Arthur D.

Guidelines for contributors

Please submit your original scholarly articles in the following format

The journal publishes work in the categories described below.

Empirical papers, case studies illustrating business and management research methods in practice, short writings, Book reviews and can discuss completed research findings or work in progress.

Topics may include, but are not limited to, Human Resource Management, Strategic Management, Trade, International Businesses, Marketing Strategies, Sales Management, Advertising, Finance, Corporate Finance, Financial Economics, Econometrics,

Economic Theory, Business Development, Sales Promotions, Investment, Portfolio Management, Product Development, Accounting, Financial Reporting, Corporate Governance, Social Policy, Public Administration, Business Laws, Statistical Inferences, Empirical Business Research, Total Quality Management, Consumer Behavior, Organizational Behavior and Theory, Insurance, Risk Management, Project Management, Supply Chain Management, Operations Management, Cost Accounting, Managerial Accounting, Management Information System, Crisis Management, Societal Research and international Business Studies.

Manuscript Submission

Manuscripts must be sent as an email attachment to editor.ijgbmr@rajalakshmi.edu.in. The acknowledgement of manuscript submission will be sent to author(s) within 48 hours.

All manuscripts submitted for publication will follow these guidelines.

- All the manuscripts must be in MS Word (Doc/Docx) format.
- The first page should contain title of the study, name(s) of the author(s), affiliation, telephone number and email address. Mailing address of the primary and secondary author should be mentioned.
- Do not write authors name elsewhere in the manuscript as the paper will be sent for blind review.
- The title of the paper should be precise, concise and in bold.
- The second page should contain title and abstract of maximum 250 words followed by five (5) keywords. The abstract should concisely convey the significance of the study.
- Rest of the paper should contain introduction to the topic, review of literature, methodology, results and discussion, conclusion, recommendations, acknowledgement (if any) and references.
- The article/research paper should be written in English in simple, concise, and correct language.
- The manuscript must be double spaced in Times New Roman with no hyperlinks. Article should not exceed 3000 words. Format consistency is expected in writing the research articles from the author(s).
- The tables should be in MS word and preferably placed where interpretation of table is carried out. The table should not be enclosed on separate sheet.
- The Figure(s) should be clear enough to read and interpret.
- All mathematical equations should be typed as text. For this purpose equations editor is preferred. Equation in the form of image is not acceptable.
- References at the end should appear alphabetically. Please follow latest edition of APA referencing style for every type of reference.

Review Process

All manuscripts are subject to double blind review by members of the editorial board or experienced reviewers around the world. The editorial board tries to publish accepted manuscripts in the forthcoming issue. The Editor reserves the right to reject papers that, in the view of the editorial board, are either of insufficient quality, or are not relevant enough to the subject area. The editor is happy to discuss contributions before submission.

Copyright Policy

Author (s) should affirm that the material has not published previously. It has not been submitted to another journal, and it is not under consideration by any other journal. IJGBMR will be the holder of copyright of published articles.

If you have any query please contact us at info.ijgbmr@rajalakshmi.edu.in

The Department of Management Studies, Rajalakshmi Engineering College was started in the year 2002. The department offers MBA in Marketing, Human resources, Finance and Systems management. These programmes are designed to equip the students with adequate knowledge and inputs on the concepts of management as per the demands of the industry. The department possesses excellent infrastructure, and eminent faculty members contributing to the overall enabling atmosphere for learning. IJGBMR is a Bi-annual international journal published by Department of management studies and is devoted to promoting research in business and management studies.



RI
PUBLICATIONS PVT LTD



RAJALAKSHMI
ENGINEERING COLLEGE

Thandalam, Chennai 602 105, Tamil Nadu, INDIA
www.rajalakshmi.org