



Vol. XXI No. 3  
Jan-Mar 2015

**Crisis Management in Hospitality Industry: A Case Study of KTDC Hotels and Resorts Limited**

**Ram Kesav A.V,  
Gracious James**

**A Study on Marketing of Agricultural and Non-Timber Forestry Products by the Scheduled Tribes**

**Mithesh Madhavan,  
Zajo Joseph**

**An Evaluation of the Service Quality of Air India and Foreign Airlines**

**Binoosa T,  
P. M Habeeburahiman**

**CSR: Initiatives and Practices in Indian Bottled Water Industry**

**Shanand K.P,  
Dileep A.S.**

**Analytical Investigation of Capital Structure and Performance of the Indian Automobile Industry**

**Majid Jami, S. Sajeev**

**Impact of Entrepreneurship Education: A Comparative Study among Students in Kerala**

**Vivek S.A**

**Female Workers in Unorganised Sector in the Construction Industry in Kerala - Issues and Challenges**

**Sajina. K. P,  
B. Vijayachandran Pillai**

**The Effect of Management Strategies on the Successful Implementation of Accounting Information Systems (AIS) with Reference to the RightTel Company**

**Hojjatallah Salari,  
G.Raju**

**Accounting Skills and Entrepreneurship**

**Azadeh Barati,  
Georgee K.I.**

**Collaboration between the University and the Industry Based on Knowledge Transfer for Improving the Entrepreneurial Behaviour of Students**

**Mohsen Arabi,  
Shyesteh Arabi,  
J. Rajan**

**Accounting Models and Methods of Measuring Intellectual Capital**

**Mohammad Toolabi,  
Mohsen Babaei,  
S. Jayadev**

**A Comparative Study on the Management of Non-Performing Assets of SBT, ICICI and a Service Co-Operative Bank**

**P.M. Alavikutty,  
Rahmath Arikkanchola**

Published by

Institute of Management Development and Research

TC 27/ 1317, Convent Road, Thiruvananthapuram 695001

Phone: 0471-2453039, 2477952 Mobile: 9496776039

email : imdrtvm@yahoo.com

## ABOUT MANAGEMENT RESEARCHER

Management Researcher is a quarterly publication of IMDR. The journal was launched in 1994 with the objective of communicating the results of research, consultancy and educational activities. Management Researcher is approved by the Board of Studies of several Universities in India and therefore continues to be a research publication widely in demand among researchers and academics.

<b>Managing Editor</b>	Dr. K. Sasikumar, Chairman, IMDR
<b>Chief Editor</b>	Dr. C.V. Jayamani, Vice-Chairman, IMDR
<b>Executive Editor</b>	Dr. V. Harikumar, Secretary, IMDR
<b>Asst. Editor</b>	Dr. Bindu. P. Nair
<b>Editorial Board</b>	Dr. K. P. Muraleedharan Dr. C. Ganesh Dr. K. G. Chandrasekharan Nair Dr. K. Sasidharan Dr. K. S. Chandrasekar Dr. G. Sashi Kumar Dr. B. Chandrachoodan Nair

### Editorial Advisory Board

Dr. Kavil Ramachandran	:	Professor, Indian School of Business, Hyderabad
Dr. M. Sivaraman	:	Former Director, CMD
Prof. Kalyanaraman	:	Former Professor of Statistics, University of Kerala
Dr. G. Gopakumar	:	Former Professor, Dean & Head, Department of Political Science, University of Kerala
Dr. S. Hareendranath	:	Former Professor, Department of Commerce, M.G. College, Thiruvananthapuram
Dr. M. B. Shukla	:	Dean & Director, School of Management Studies, Kasi Vidyapeeth, Varanasi, UP
Dr. T. N. Mathur	:	Professor & Dean, Dept. of Economic Admin. and Fin. Management, Rajasthan University, Jaipur
Dr. J. L. Gupta	:	Former Professor, Delhi University
Dr. I. M. Pandey	:	Former Professor, IIM, Lucknow
Dr. Sudaliamuthu	:	Vice-Chancellor, Alagappa University, Karavikkaudu
Dr. Jaya S. Matadeen	:	Professor & Dean, Faculty of Law & Management, University of Mauritius
Dr. Fasila Jameel Ahsan	:	Professor, University of Colombo
Dr. T. G. Arun	:	Professor & Head, Lancashire Business School, U.K
Dr. Salim M. Jundi	:	Professor, Abu Dhabi University of Science & Technology
Dr. Jayashanker Prasad	:	Director, IT Mission
Dr. Joffy George	:	Company Secretary, Transformers & Electricals Kerala Ltd., Kalamassery
Dr. Baiju Ramachandran	:	Company Secretary
Dr. T. Paranjothi	:	Professor, Vaikunta Mehta National Institute of Cooperative Management, Pune
Mr. Anver Sadath	:	M.D., Salaams Holdings Group Company

## INSTITUTE OF MANAGEMENT DEVELOPMENT AND RESEARCH

Convent Road, Thiruvananthapuram - 695001

Phone: 0471-2453039, 2477952 Mobile: 9496776039 E-mail: imdrtvm@yahoo.com

# CONTENTS

<p><b>1</b> Crisis Management in Hospitality Industry: A Case Study of KTDC Hotels and Resorts Limited <i>Ram Kesav A.V, Gracious James</i></p>	<p><b>48</b> Impact of Entrepreneurship Education: A Comparative Study among Students in Kerala <i>Vivek S.A</i></p>
<p><b>12</b> A Study on Marketing of Agricultural and Non-Timber Forestry Products by the Scheduled Tribes <i>Mithesh Madhavan, Zajo Joseph</i></p>	<p><b>56</b> Female Workers in Unorganised Sector in the Construction Industry in Kerala - Issues and Challenges <i>Sajina. K. P, B. Vijayachandran Pillai</i></p>
<p><b>20</b> An Evaluation of the Service Quality of Air India and Foreign Airlines <i>Binoosa T, P. M Habeeburahiman</i></p>	<p><b>65</b> The Effect of Management Strategies on the Successful Implementation of Accounting Information Systems (AIS) with Reference to the RighTel Company <i>Hojjatallah Salari, G.Raju</i></p>
<p><b>28</b> CSR: Initiatives and Practices in Indian Bottled Water Industry <i>Shanand K.P, Dileep A.S</i></p>	<p><b>73</b> Accounting Skills and Entrepreneurship <i>Azadeh Barati, Georgee K.I</i></p>
<p><b>40</b> Analytical Investigation of Capital Structure and Performance of the Indian Automobile Industry <i>Majid Jami, S. Sajeer</i></p>	<p><b>79</b> Collaboration between the University and the Industry Based on Knowledge Transfer for Improving the Entrepreneurial Behaviour of Students <i>Mohsen Arabi, Shyesteh Arabi, J. Rajan</i></p>
<p><b>1. Chief Editor's Voice</b> <b>2. Glossary</b> <b>3. Book Review</b> <b>4. Creative Thinkers of Management</b></p>	<p><b>92</b> Accounting Models and Methods of Measuring Intellectual Capital <i>Mohammad Toolabi, Mohsen Babae, S. Jayadev</i></p>
	<p><b>101</b> A Comparative Study on the Management of Non-Performing Assets of SBT, ICICI and a Service Co-Operative Bank <i>P.M. Alanikutty, Rabmath Arikkanchola</i></p>

**GUIDELINES FOR CONTRIBUTORS**

1. All manuscripts should be typed in double space on one side only in MS word using Times New Roman Font with font size 12 and sent in original with an extra copy and a soft copy in CD. One soft copy should be sent by e-mail to imdrtvm@yahoo.com
2. Maximum size of the articles may be restricted to 10 typed pages including tables, charts and references.
3. The authors should prepare a brief abstract of their paper not exceeding 100 words and attach to the paper, along with a list of key words used.
4. A declaration by the authors stating that the article is their original work and has neither been published nor has been submitted for publication elsewhere should accompany the article.
5. All tables, charts and graphs should be typed on separate sheets. They should be numbered continuously in Roman numerals as referred to in the text.
6. All quotations, references etc. should be properly acknowledged indicating the author's name, title, publisher, year of publication and page number and should be typed in double space on separate sheet.
7. The articles submitted for publication would be referred to a panel of experts by the publisher before accepting for publication. The decision of the expert panel would be final.
8. The Institute is aiming at publishing quality research articles through the journal and the articles not conforming to the required standards would be rejected.
9. The authors who need the rejected articles back should send a self-addressed stamped 28"x12" envelope affixing postal stamps worth Rs.25.
10. A proof of the article will be sent to the authors and they have to return the corrected proof within one week. The authors are not permitted to make any material alteration in the article or restructure it. However, they shall make all spelling and gramatical corrections.
11. The articles published in the journal are the property of the Institute and it shall not be published in full or in part without the written permission from the Institute.

**Management Researcher is a Quarterly Publication.**

**The views expressed by the contributors are their own and the  
Institute does not accept any responsibility.**

**All rights reserved.**

**No part of the journal shall be reproduced or copied in any form  
by any means without the written permission of the Institute**

**SUBSCRIPTION RATES**

	Single Copy	Annual	For 5 years	Abroad (Annual)
Individuals	Rs.200/-	Rs.600/-	Rs.2500/-	\$75
Institutions	Rs.250/-	Rs.1000/-	Rs.4000/-	\$150

**Bank Draft should be drawn in favour of  
The Cheif Editor, Management Researcher,  
Payable at Thiruvananthapuram**



Chief Editor's Voice

## CELEBRATING THE EARTH DAY 2015

God has given us this beautiful Mother - 'EARTH'. In turn she gives us all our basic needs such as Food, Water, Herbs, etc. But, we human beings, in the name of progress, are interfering with this bountiful nature. Apropos, it is feared that a day will come when Nature will have its revenge and we will all face extinction. It is high time we start respecting our 'Mother Earth'. Stop destroying it. Save it for posterity so that the generations to come will also enjoy its pristine bountifulness and prosperity.

Earth Day is being observed on the 22<sup>nd</sup> of April. This was started in the United States of America in 1970 by Senator Gaylord Nelson to create awareness on the Earth's environment and to encourage efforts on its conservation. In 1990, Earth Day was taken up internationally. This year, more than 500 million people in 175 countries observed Earth Day.

Earth Day is observed as a "Tribute to Mother Earth"; conceive 'Earth' as our mother and carry forth ourselves in absolute humility; and also, love our 'Mother Earth'. The Earth Day observance arose from an interest in gathering national support for the various environmental issues. In 1970, a San Franciscan activist, John McConnell, and a Wisconsin Senator, Gaylord Nelson, separately asked Americans to join in a grassroots demonstration. McConnell chose the spring equinox (March 21, 1970) and Nelson chose April 22<sup>nd</sup>. Millions of people participated in both the events, and today Earth Day continues to be widely celebrated with observance of various activities on both these days. The most common practice of the celebration is to plant new tree saplings on Earth Day.

On Earth Day all we need to do is make people aware that our Mother Earth is in immense and grave danger, unless we come together and make substantial changes in the way we treat her. Would you treat your natal mother shoddily? It is a colossal recognition accorded for the mother the day Earth Day is celebrated. Let us celebrate the Earth Day by planting at least a tree sapling in front of our houses. Let us continue to celebrate Earth Day every year in a meaningful way. Let all citizens of the world join in the cleanup of their back and front yards, passages and broadways. We need to get rid of the accumulated clutter where we live. A combined effort will make this work easier thus maintaining a healthy atmosphere and a beautiful neighbourhood. The Sunday prior to the Earth Day is an auspicious time for such ventures.

For the Earth Day this year, let us procure and use home-grown seeds to create a natural organic garden of herbs, flowers, vegetables and fruits. Earth Day is when people would be conscious of their own footprints and recycle or donate many of the things that are cluttered upon their yards and in their houses. Collecting and disposal of the garbage strewn about inside vacant plots in your neighbourhood would also be a good task for the general public to carry out on this auspicious day.

Your home is a place where you can grow vegetables and fruits, not only by some people, but for everyone. We should have beautiful and vibrant gardens to grow gorgeous flowers, large and scrumptious looking vegetables and fruits, almost with ease. By using home-generated compost, we can maintain kitchen gardens as small biodiversity spots in our own homes. This in turn will keep our homes a

healthy place to live in. Try and keep the kitchen gardens as a biodiversity spot and this will keep us all ambassadors of natural living. Home grown vegetables and fruits are healthy and tasty and they will envelope us with eternal happiness. Using of compost manure can make the soil richer in composition that is best for your vegetables and flowers. This healthy and sturdy soil in turn produces gorgeous flowers and mouth-watering vegetables which we all wish we could have in our own gardens.

Modern man is unconsciously polluting his home and surroundings without ever knowing it. He has become the principal polluter of this blue planet. Some of the chemicals that are been used for cleaning, drastically affect the air inside our homes in a negative way. They do not realise that when they are cleaning with toxic materials they are actually putting the health of their family members at a huge risk and prone to many respiratory and alimentary diseases. Many people believe that in order to be clean, the house has to smell like a bleach (or other cleaning product) factory. This is not true at all. We can choose environmentally friendly cleaning products to keep our homes clean and our family safe without the "knock-you-down-at-the-door" smell of some of the commercial chemical cleaning products available in the market.

It is still not too late that we go for eco-friendly products. We need to propagate the use of cleaners that are organic or "green". These products which conform to the Environmental Protection Agency (EPA) guidelines for product ingredients are safe for the environment. These products will not poison the earth, and are safer for our personal use. We just forget that about 50 to 100 years ago people cleaned themselves and their environment healthily and hygienically by using natural methods and materials. The purpose of returning to environment friendly products is that they do not use chemicals that can breakdown and affect the soil and water and ultimately the animals and the human beings.

Check the labels when you go to the departmental stores and shops. Look for products that are specifically designated as "green" cleaning products. Most major manufacturers have come out with their own line of cleaning agents geared towards being gentler to our bodies and the Earth.

In addition to buying eco-friendly products, you can also create your own homemade cleaning products. This is exactly what people used to do before the products we have today were manufactured. The best part is that many of the ingredients required are already available in our homes.

The message of Earth Day needs to be appreciated and practised as a part of our lives, not just on April 22nd, but every day. Young people are the future of this planet. Let us show them the right path - "Peace, Perfect Health and Prosperity".

It must be a day of planting saplings, collecting trash, recycling discarded items wherever possible, without using any energy source of power from our homes. Set aside this day for celebrating our planet earth, the only cool and comfortable place for us to live. Man has the responsibility as human beings to improve the condition of the present day Earth and to leave an environmentally ideal condition for posterity, for future generations of human beings, animals and mammals to enjoy and thrive.

On this Earth Day, let us join together and make a difference.

*The thirsty earth soaks up the rain,*

*And drinks, and gapes for drink again.*

*The plants suck in the earth and are*

*With constant drinking fresh and fair.*

- Abraham Cowley,  
English poet (1618-67)

## CRISIS MANAGEMENT IN HOSPITALITY INDUSTRY: A CASE STUDY OF KTDC HOTELS AND RESORTS LIMITED

\*Ram Kesav A.V, \*\*Gracious James

### Abstract

Crisis is not a good term in any sense and not favourable to any industry; but no industry can avoid the term crisis in totality. It appears in different dimensions in different industries. Hospitality industry is also not a crisis-free industry. By the advent of globalisation, the world has become a global village and travel and tourism has reached new heights. The Tourism Industry outpaces growth expectations every year. It not only contributes to the nation's GDP but also provides a large number of job opportunities directly and indirectly. A crisis in the industry may affect the livelihood of many people and the contributions to the Government. Crisis Management Strategies have become important because of this. Crises are unavoidable in nature and in most cases it is all about how it is managed. The KTDC Hotels and Resorts Limited is the major player in the hospitality sector in Kerala with 69 properties including 10 premium luxury hotels. This study is about the various crises faced by the KTDC Hotels and Resorts Limited, the various crisis management strategies, and the effectiveness of the strategies adopted by KTDC.

**Key words:-** Crisis Management Strategies, Cancellation Charges, Tariff Reduction, Tourist Inflow.

The Tourism Industry is considered as one amongst the fastest growing industries in the world with a 9% contribution to the global GDP. This amounts to USD 6.6 trillion. It not only contributes to the global GDP but also plays an important role in reducing

unemployment, generating job opportunities directly and indirectly.

Tourism industry globally provides 260 million job opportunities, in which 4 million jobs were created in the year 2012. Kerala is also a growing platform for the tourism industry; the increasing annual flow of tourists, both domestic and

\*Ram Kesav A.V, Research Scholar, Department of Commerce and Research Centre, Government Arts College, Thiruvananthapuram - 695014.

\*\*Dr. Gracious James, Assistant Professor, Department of Commerce and Research Centre, Government Arts College, Thiruvananthapuram - 695014.

foreign, shows a positive trend in Kerala Tourism. The role of the Government in promoting tourism activities is very huge. The Tourism Industry is not only known for its contributions to the GDP, but also for reducing the unemployment problems around the world. It generates numerous job opportunities directly and indirectly, which is the reason for increasing the rate of investments to the tourism industry.

### **KTDC Hotels and Resorts Limited**

Kerala was not a familiar name among tourists till the 1960s. The royal family in Kerala started the Kerala Tours Limited (KTL) to promote tourism in Kerala and they started popularising Kovalam beach amongst the western countries. This in turn resulted in a heavy inflow of tourists towards Kovalam. The Government of Kerala then considered tourism as a key industry and thus started the Kerala Tourism Development Corporation (KTDC) as a Government Department in 1966 and later KTDC became a separate commercial entity in the year 1970. The objective of KTDC was to promote Kerala as a leading tourist spot by identifying tourist destinations within Kerala and provide auxiliary support in developing key tourist destinations and a higher quality of hospitality service for the tourists. Acting as a one-source destination for various information regarding tourist destinations, ensure higher returns and providing employment, are also the objectives of KTDC. The Ministry of Corporate Affairs, Government of India had

accorded sanction under Section 21 of the Companies Act, 1956 to change the name of the company from Kerala Tourism Development Corporation Limited to KTDC HOTELS AND RESORTS LIMITED with effect from 07.10.2010. KTDC now owns 69 properties, including 10 premium luxury hotels. KTDC is also the leading player in the accommodation sector in Kerala.

### **Objectives of the Study**

The study is conducted based on the following objectives:

1. To identify the various crises in the hospitality industry in Kerala;
2. To analyse the financial implications of the crisis in KTDC Hotels and Resorts Limited; and
3. To explore the crisis management strategies in KTDC Hotels and Resorts Limited.

### **Review of Literature**

Several studies have been done about Crisis Management Strategies in the tourism industry all over the world. Reviews of such studies are relevant to

the current study. A few of them are presented below:

Maria Gatsou, Laura Gray, Outi

Niinien (2005) studied about the Greek passenger shipping company which faced two major crises. The aim of their study was to understand more about the strategies employed during such crises. For that purpose they conducted a qualitative in-depth interview of 12 key persons. They found that the effectiveness

**The effectiveness of dealing with a crisis event lies within effective pre-planning.**



of dealing with a crisis event lies within effective pre-planning. The study reveals that the Greek passenger shipping company has given great consideration to potential crisis and how to deal with them. The steps taken by the shipping industry can also be adopted by other industries. The steps are: (1) brainstorm most likely crisis types and develop action plans for each; (2) decide the criteria for minor versus major crisis; (3) identify crisis management team members (do you need more than one team? who are the potential stakeholders you will need to deal with?); (4) maintain a good relationship with the relevant media. However unexpected events can happen that would create a bad impression about the industry. On that behalf, the government took measures to repair the damages. This raised the confidence in the industry, and thus caused speedy resilience.

Brent Ritchie, Damiela Miller, Humphery Dorrell and Graham Miller (2004) studied about the importance of Crisis Communication Management and Crisis Communication in the background of the 2001 Foot and Mouth Disease (FMD) outbreak in the United Kingdom. The study revealed that the British Tourist Authority (BTA) had failed to manage the situation. They took steps to control the situation but it was considered a failure until the FMD has been defeated. The main reason for their failure was due to the lack of crisis management and communication strategy prior to the outbreak of FMD. Slow response time

and poor access to information also added to the failure of the BTA. The authors also stated that the cost of setting a crisis management strategy would be far less than the cost of not having a crisis plan which would ultimately result in severe damage to the destination.

UNWTO (2009) on the grounds of the H1N1 pandemic conducted a workshop for discussing the various aspects of the outbreak, which affected and created panic in many countries around the world and challenged the travels and tourism industry. The main emphasis of the workshop was on the areas of preparedness, communication and health administration. Conclusions of the workshop mentioned that available information should be communicated both horizontally and vertically between the health administration and the travels and tourism sector. This will increase the co-ordination between the sectors and help in facing the crisis. The workshop also suggested that marketing efforts should also be taken to send messages of normality without downplaying the actual situation. This will clearly show that there is no room for panic about the situation.

Adam Blake and M. Thea Sinclair (2002) analysed the crisis that affected the United States after the September 11 terrorist attack. They studied the responses of policymakers using a Computable General Equilibrium model. In the study they found that the airline industry and the hotels and other accommodation

**The cost of setting a crisis management strategy would be far less than the cost of not having a crisis plan which would ultimately result in severe damage to the destination.**

sectors are the most badly affected. The statistics showed a poorer performance when compared to the previous year's figures. The total number of persons who lost their jobs exceeded half a million. The authors stated that to manage the GDP, the policymakers should formulate responses to manage tourism crises and should maintain the income and the employment in a most effective manner.

Mike Peters, Birgit Pikkemaat (2005) revealed that destinations greatly improve their disaster management tools and procedures after having faced a crisis. They studied about the environmental hazards like avalanche disasters in the Alpine winter resorts. The authors investigated the security and emergency measures taken in the destination and discussed about the failures and successes in disaster management.

Xinran Lehto, Alecia C, Douglas and Jungkun Park (2010) pointed out that natural disasters will influence and affect the emotional state of pleasure and the intentions of a traveller to visit a destination, and developed a model for studying the problem - The PAD (Pleasure-Arousal-Dominance) emotional model.

Eric Heyman and Philipp Ehmer (2009) studied the various aspects of climate change and the tourism industry. They clearly mentioned the substitution effects among the tourists, damage and crisis caused due to the damage caused in the destinations and infrastructure, government measures, etc.

Christof Pforr and Peter J Hosie (2010) identified crisis management strategies as just a reactive process to crisis before the Asian Tsunami and the 9/11 terrorist attack. They pointed out that the process of crisis management should start with developing a potential human resource for managing crisis and stated that it is the key component of any crisis management strategy in the tourism industry.

Abdulrahman Althnyan (2012) investigated the stakeholder's engagement in crisis management on the grounds of terrorism. He stated that the participation of stakeholders in all stages of the crises will not be effective. Police and other security forces' domination at the various stages of the crisis and the recovery stage rely mainly upon the stakeholders.

Malcom Cooper (2005) studied about the impact on the Japanese tourism industry on the grounds of SARS (Severe Acute Respiratory Syndrome) of 2003. The study was focused on the tourist flows to and from Japan during the period of the crisis and its management.

## METHODOLOGY

The study is basically descriptive and analytical in nature. Both primary and secondary data were used for the study. The primary data were collected from the marketing managers of KTDC Hotels and Resorts Limited through an elaborate discussion. The secondary data were collected from the annual financial reports of KTDC Hotels and Resorts Limited,

**The process of crisis management should start with developing a potential human resource for managing crisis.**

official website of KTDC Hotels and Resorts Limited, journals, publications and from various online sources.

**Crisis in the Hospitality Industry**

A crisis means a time of intense difficulty or danger, but a crisis in the tourism industry is something different from that of the crisis in other industries. The crises in the tourism industry can be an event, in whatever form that occurs, that creates a shock to the industry resulting in the emergence of adverse situations. The event of any dimension that disturbs the orderly functioning of the industry is dangerous. The main feature of the crisis is that there will only be limited time to respond to the situation.

Yu, L. et.al, (2002) classified the various crises that had affected the tourism industry (as shown in Table 1). According to them, those crises that had affected the tourism industry can broadly be classified into two main types; those factors that arise externally and those that are internal. The examples they provided may not perfectly fit into the scenario of Kerala, but they are more or less the same. Everything and anything that becomes a crisis can be attributed to this model. The model classified the external factors into natural disaster, technology failure, confrontation, malevolence, epidemics, and war or politics and the internal factors into the Skewed values - deception and misconduct.

**Table-1**  
**Classification of Crises**

Major Factors	Specific Environment	Types of Crises	Examples of Crises
External Factors	Physical Environment	Natural Disaster	Mudslide damages a hillside resort; hurricane destroys beachfront properties.
		Technological Failure	Oil spill contaminates a resort beach and prevents tourists from visiting the resort
	Human or Social Environment	Confrontation	Union strike disrupts normal operations; special interest group boycotts restraint food.
		Malevolence	Terrorist attack; food is poisoned through product tampering; hackers introduce a virus into computer reservation systems; street crime.
		Epidemics	Mad cow disease and foot and mouth disease raise concerns of food safety and health problems; SARS epidemic spreads through human contact.
		War or Politics	Second Gulf War prevents many international tourists to the middle east region; recent political upheaval diminishes tourism to Haiti, Venezuela and many African countries
Internal Factors	Management Failure	Skewed Values	Cruise ships dump waste oil into the ocean, ranking short-term costs over concern for the environment.
		Deception	Restaurants knowingly serve spoiled or contaminated food items.
		Misconduct	Corporate executives embezzle funds or receive kickbacks

*Source: Adapted from Otto Lerbinger, 1997; Stafford, Yu, Armo, 2002. Crisis Management and Recovery: How Washington D.C. Hotels Responded to Terrorism. Cornell Hotel and Restaurant Administration Quarterly, 43, no. 5, pp 27-40*

Any crisis to the tourism industry will have a bearing on the hospitality industry. Crises are unavoidable; the best way is to be prepared for facing it. Management of crises starts with predicting the cause, the impact and the range of the possible crises and their subsequent evolution. Predicting is a widely accepted method of planning for the crises. Predictions may not be accurate all the time, but predictions from past experiences and the same kind of situations from another part of the world with suitably modified variables can reduce the impact of the crises and help in better and faster resilience.

Disaster and crisis are very much related; every disaster is a crisis. One of the most discussed frameworks in the tourism disaster management was suggested by Faulkner (2001). He developed a six-phase process for disaster management:

**Crises are unavoidable; the best way is to be prepared for facing it.**

1. Pre-event phase: disaster contingency plans, scenarios or probability assessments play a major role in the disaster management strategy.
2. Pro-dromal phase: the disaster is imminent and warning systems and command centres are established. In this second phase, contingency plan actions are initiated.
3. Emergency phase: the disaster effects are felt and actions are necessary to protect the people and property in the tourist destinations.
4. Intermediate phase: short-term and intermediate needs of the people have to be addressed by the emergency and rescue teams. A clear

media communication strategy is crucial in this phase.

5. Long-term (recovery) phase: the damaged infrastructure has to be rebuilt and environmentally damaged areas have to be reconstructed.
6. Resolution phase: this phase corresponds to Smith's (1990) feedback loop where existing assessment methods or contingency plans are improved.

Faulkner's model is very extensive and covers each and every action for a disaster response. The model deals with the 'pre-crisis', 'during-crisis' and also 'post-crisis' stages.

**Various Crises faced by KTDC Hotels and Resorts Limited**

KTDC Hotels and Resorts Limited had faced a number of crises during the past few years. A majority amongst them had seriously affected the turnover of the company. They are the global economic slowdown, 2004 tsunami, terrorists' attacks; health scares due to H1N1 virus, Dengue fever and the Thekkady boat tragedy. All these factors had affected the occupancy ratio of the hotels and resorts of KTDC Hotels and Resorts Limited. The Thekkady boat tragedy happened in a destination that gained media attention. This resulted in a steep fall in the income from boating to the company. There was a downfall of more than rupees one crore in the income from boating alone, when compared to the previous years. The tourist perception about the safety

concerns also became a crisis for KTDC Hotels and Resorts Limited.

### **Crisis Management Strategies of KTDC Hotels and Resorts Limited**

Crisis has affected KTDC Hotels and Resorts Limited by way of low occupancy rate. To overcome this situation, the marketing department adopted certain crisis management strategies.

#### **1. Tariff Reduction.**

During the crisis period, the major action taken by KTDC Hotels and Resorts Limited to increase occupancy was by reducing the tariff. While other hotels increased the tariff to substantiate their losses, KTDC Hotels and Resorts Limited maintained the same tariff. Here the strategy was not to increase the tariff. This strategy was found to resist the adverse situations to some extent. The first step of every organisation to withstand the low situation is to reduce the tariff. As a primary measure, KTDC Hotels and Resorts Limited introduced such a basic strategy to resist the downfall in its revenue.

#### **2. Renovation of Properties**

Renovation of the properties was another effective tool used by KTDC Hotels and Resorts Limited to overcome crisis. During the low occupancy period, the KTDC Hotels and Resorts Limited carried out all the renovation activities in their hotels. This was one idea they utilised to face the crisis. During the low occupancy period, income from operations will be low and it is the best time to carry out renovation activities. By doing this, the loss from non-operation

can be kept at its minimum and the properties can be made attractive to welcome the boom period. KTDC Hotels and Resorts Limited renovated two of their main properties, namely Hotel Chaithram in Thiruvananthapuram city and Hotel Samudra at Kovalam as part of such a strategy.

#### **3. Incentives to Agents**

Agents are the connecting link between KTDC Hotels and Resorts Limited and the clients. To boost the occupancy rate at the hotels and resorts of KTDC Hotels and Resorts Limited during the crisis period, agents were engaged and offered incentives for bringing clients to the hotels and resorts of KTDC Hotels and Resorts Limited. Agents are the persons who direct the tourists to the destinations and arrange accommodation, traveling facilities, etc. In view of the good relationship with the agents, they helped in the growth of business. This effort, to a certain extent, kept the occupancy level from a steep fall. It will also help in the continued maintenance of a good relationship with the agents for future growth and development.

#### **4. Freedom for Managers**

Unlike managers of private hotels or resorts, managers of KTDC Hotels and Resorts Limited have only a limited freedom in their operations. Even though there existed limitations in their operations, KTDC Hotels and Resorts Limited have given some powers to their managers to act in accordance with the situations at times of emergencies with little time to react and rectify the situations. But such powers have been found and proved to

be ineffective. The main reason for this was the complex administrative systems and the slow communication processes.

### **Drawbacks for Crisis Management Strategies**

The operations of KTDC Hotels and Resorts Limited are under the strict supervision of the Government of Kerala and also subject to thorough audit of the Accountant General of the state. Unlike private sector operators, KTDC Hotels and Resorts Limited cannot go beyond a certain limit to boost their business by increasing the occupancy rate during crisis period. There are strict guidelines, norms and methods for every operation. This is a major drawback for adopting an appropriate crisis management strategy for KTDC Hotels and Resorts Limited.

### **Financial Performance of KTDC Hotels and Resorts Limited**

The financial performance of KTDC Hotels and Resorts Limited does not

show a good picture (Table 2). There is revenue growth each year, but the net profit has not increased accordingly. There are still huge amounts of accumulated losses which are being carried forward from the previous years. The financial year 2011-2012 showed a loss in the operations. Even though the gross revenue had increased substantially, the loss occurred due to the creation of a provision for payment of pay revision arrears to the tune of Rs.460 lakhs and Rs.300 lakhs against gratuity. Considering the performance of KTDC, except for the financial year 2011-2012, 2009-2010 showed very poor improvement. 2008-2009 and 2009-2010 periods have given a clear image about how the global economic slowdown had affected KTDC Hotels and Resorts Limited, and from there KTDC Hotels and Resorts Limited has managed to increase its profit.

**Table 2**  
**Financial Performance**

(Amount in lakhs)

<b>Financial Year</b>	<b>Total Income</b>	<b>Total Expenditure</b>	<b>Net Profit/Loss*</b>	<b>Percentage Change in Profit/Loss</b>
2007-2008	5934	5787	46	+21
2008-2009	6386	5866	46	0
2009-2010	6593	6121	27	-41
2010-2011	7193	6698	52	+92.6
2011-2012	8740	8325	-70	-234.6

*Source: Annual Reports, KTDC Hotels and Resorts LTD, Various Years*  
*(\*Net profit/loss after interest and taxation)*

**Table 3****Table showing Cancellation Charges**

(Amount in lakhs)

Financial Year	Cancellation Charges	Percentage Change
2007-2008	5.33	-13.23
2008-2009	7.75	+45.39
2009-2010	5.55	-28.37
2010-2011	5.33	-4.00
2011-2012	10.83	+103.19

Source: Annual Reports, KTDC Hotels and Resorts Limited, Various Years

Cancellation charges are income to KTDC Hotels and Resorts Limited, but actually it is a percentage of the income which could have been earned by it. Increase in cancellation charges is actually not good for business. In the years 2008-2009 and 2011-2012, the amount of cancellation charges increased abnormally. This showed that the organisation has faced some problems during that period. The Global economic slowdown and the terrorist attacks in Mumbai and Delhi had adversely affected the tourist inflow. This resulted in the increase in cancellations.

**Table 4****Cancellation Rules of KTDC Hotels and Resorts Limited**

Season	Date of arrival	Percentage of refund
For peak season from December 15 <sup>th</sup> to January 15 <sup>th</sup>	Before 21 days of arrival	90% refund
	Before 15 days of arrival	75% refund
	Before 10 days of arrival	50% refund
	Before 09 days of arrival	No refund and the advance paid will be forfeited
For season and off season from January 16 <sup>th</sup> to December 14 <sup>th</sup>	Before 14 days of arrival	90% refund
	Before 10 days of arrival	75% refund
	Before 05 days of arrival	50% refund
	Before 04 days of arrival	No refund and the advance paid will be forfeited

Source: <http://www.ktdc.com/documents/Citizens-charter.pdf>

**Table 5****Cancellation Charges as a percentage of total income**

(Amount in lakhs)

Financial year	Cancellation charges	Percentage change	Total income	Percentage of cancellation charges on total income
2007-2008	5.33	-13%	5934	0.09
2008-2009	7.75	45%	6386	0.12
2009-2010	5.55	-28%	6593	0.09
2010-2011	5.33	-4%	7193	0.07
2011-2012	10.83	103%	8740	0.12

Source: Annual Reports, KTDC Hotels and Resorts LTD, Various Years



However for the rest of the year, the cancellation charges remained almost the same, which showed that there is a standard in cancellation charges.

Cancellation charges are measurable criteria for the crisis period; in usual cases there will be lots of cancellations during the crisis periods. Cancellation charges show an upward trend during the crisis period. During the H1N1 outbreak, many cancellations were made by foreign tourists because of the negative media reports, and restrictions and warnings from foreign agencies which regulated the travels and tourism industry. This in turn has created a bad perception and has affected the tourist inflow. If such cancellations were turned into revenue, KTDC Hotels and Resorts Limited would have enjoyed the privileges over the other players.

## FINDINGS

1. KTDC Hotels and Resorts Limited does not have any crisis management plans, neither for a major crisis nor for a minor crisis. They do not give any importance for the preparation of crisis management strategies or for forecasting crisis situations.
2. There are only a few crisis management strategies with limited outcome. Most of the strategies used are simple and barely effective. It does not contribute much to the improvement in the financial positions. Most of the strategies are prepared and put together at the time of crisis only.
3. The KTDC Hotels and Resorts Limited has many limitations in the creation of a perfect crisis

management strategy. It is subjected to strict audit and government policies; a strategy which is apt for the situation might not be enforceable due to such restrictions.

4. The KTDC Hotels and Resorts Limited is not as well structured and organised as other private sector players. The complicated structure of KTDC Hotels and Resorts Limited is the main reason for this.
5. Renovating properties during the crisis period is one good method adopted by the KTDC Hotels and Resorts Limited to help utilise the tough times to prepare for the crisis-free periods.

## SUGGESTIONS

1. There should be a team of officials to create appropriate crisis management strategies. This should include persons from the Government, Accountants General's Office, experts from the concerned areas and officials from the KTDC Hotels and Resorts Limited. They should be given sufficient powers to create and implement such strategies.
2. Proper communication facilities should be made available in order to coordinate the situation and to increase the effectiveness and efficiency of the crisis management strategies. The concerned persons should ensure that proper communication systems are in place.
3. Proper publicity and information should be given to the public to eliminate any negative perception about the crisis in the affected areas. The information should clearly



mention about the arrangements made in the safety measures and its effectiveness. This will positively affect the inflow of tourists.

## CONCLUSION

If crisis management strategies are to be classified into 'pre-crisis', 'during crisis' and 'post-crisis' phases, all the four identified Crisis Management Strategies of KTDC Hotels and Resorts Limited will

come under the 'during crisis' phase, which shows that the response towards a crisis is less than what is required. A good crisis management team should always be equipped with necessary plans when a crisis occurs, and should be well prepared to face it. A sincere effort from the management of KTDC Hotels and Resorts Limited is required for strengthening the Crisis Management Strategies.

## References

1. Blake A. & Sinclair M.T., (2003). *Tourism Crisis Management: US Response to September 11. Annals of Tourism Research*, 30(4), 813-832.
2. Cooper, M (2005). *Japanese Outbound Tourism and the SARS and the Iraqi Crises of 2003. Journal of Travel and Tourism Marketing, Special issue: Crises*, 119-133.
3. Faulkner, B. (2001). *Towards a Framework for Tourism Disaster Management. Tourism Management*, 22(1), 135-147.
4. Heyman, E., Ehmer, P (2009). *Trends and Issues in Global Tourism*, Springer Publications, 39-55.
5. Juan, L., Eugenio M., & Sinclair, M.T.(2005). *Quantifying the Effects of Tourism Crises: An Application to Scotland. Journal of Travel and Tourism Marketing, Special issue: crises*, 21-34.
6. Kerala Tourism Development Corporation. (n.d.). Retrieved on August 11, 2014, from [http://en.wikipedia.org/wiki/Kerala\\_Tourism\\_Development\\_Corporation](http://en.wikipedia.org/wiki/Kerala_Tourism_Development_Corporation)
7. KTDC Hotels and Resorts Limited. *Annual Reports & Accounts, 2007-2008 to 2011-2012*.
8. Lams, E. and Prideaux, B. (2005). *Crisis Management a suggested Typology. Journal of Travel and Tourism Marketing* 19(2/3) 1-8.
9. Peters, M., & Pikkemaat, B. (2005). *Crisis management in Alpine winter sports resorts – the 1999 avalanche disaster in Tyrol. Journal of Travel and Tourism Marketing, Special issue: Crises*, 9-21.
10. Pforr, C.,Hosie, P (2008). *Crisis Management in Tourism: Preparing for recovery. Journal of Travel and Tourism Marketing, volume 23, issue 2-4*, 249-264.
11. Smith, D. (1990). *Beyond contingency planning: towards a model of crisis management. Industrial Crisis Quarterly*, 4 (1990), 263-275.
12. World Tourism Organisation (2009). *Travel and tourism under Pandemic Conditions- A Review and Preparation Exercise*. Madrid. World Tourism Organisation.
13. World Tourism Organisation (2011). *Toolbox for Crisis Communications in Tourism*, UNWTO, Madrid.
14. Yu, L., Stafford, G., & Armo, A.K.(2002). *Crisis management and recovery: How Washington D.C. Hotels responded to terrorism. Cornell Hotel and Restaurant Administration Quarterly*, 43(5), 27-40.

## A STUDY ON MARKETING OF AGRICULTURAL AND NON-TIMBER FORESTRY PRODUCTS BY THE SCHEDULED TRIBES

\*Mithesh Madhavan, \*\*Zajo Joseph

### Abstract

This study is focused on tribal people those who are collecting agricultural and non-timber forestry products and the marketing. This study is analyzing the difficulties face by the tribes in marketing of agricultural and non-timber forestry product. Scope of the study is limited in Idukki district only. In addition, trying to evaluate the socio-economic condition of tribe after the implementation of marketing strategies for the marketing of agricultural and non-timber forestry products.

**Key words:-** Scheduled Tribe, Agricultural Products, Non-Timber Forestry Products, Marketing.

During the post independence period, under the Indian constitution, tribal communities were named as 'Scheduled Tribe'. The primary criteria adopted for determining backward communities as "Scheduled Tribe" include, traditional occupation of a definitive geographical area and characteristic culture which includes a whole range of tribal modes of life, i.e., language, customs, traditions, religious beliefs, arts and crafts, archaic traits portraying occupational pattern, economy, etc., and lack of educational and economic development.

In Kerala, even though tribal communities are found in all districts, they are found in large numbers in the districts of Wayanad, Kannur, Kozhikode, Palakkad and Idukki (i.e., in the taluks of North Wayanad, South Wayanad, Munnar Ghat, Devikulam and Thodupuzha) and constitute about 80 percent of the total tribal population in Kerala.

According to the 2001 census, scheduled tribes population in Kerala is 3,64,189. This is 1.14 percent of the total population of Kerala. The literacy level of scheduled tribes in Kerala is 64.35 percent. But at the national level, it is only 47.08 percent. Around 23 percent of the

---

\*Mithesh Madhavan, Research Scholar, University Library, University of Kerala, Thiruvananthapuram.

\*\*Dr. Zajo Joseph, Associate Professor, St.Xavier's College, Thumba, Thiruvananthapuram.

scheduled tribes live in the forests. 27 percent of the scheduled tribes are in the Wayanad, Kannur and Kozhikode districts. 90 percent of the scheduled tribes depend on agriculture for their livelihood. Among these, only 16.51 percent have individual ownership of land. According to the 1999-2000 census, 24.20 percent are below poverty line. In 1993-1994 this was 37.3 percent.

Even though the scheduled tribes are illiterate, their customs, skills and craftsmanship have sometimes given birth to rare and unique products. These products stand aloof from others in quality and architectural beauty. The scheduled tribes produce around 140 unique products in Kerala. Such products include non-timber forest products such as bamboo, honey, frankincense and also agricultural products like pepper, cardamom, coffee, rubber, ginger, turmeric, etc. They have an in depth knowledge about the medicinal plants growing in the forests which helps to cure severe diseases. These products have become part of the history of the community.

### **Statement of the Problem**

Cultivation of agricultural and non-timber forestry products and its marketing is the livelihood for the tribes. Promoting and including the tribes for development is necessary for improving their standards of living and economic welfare. Their

upliftment and development is a major problem as they have their own traditional trades and experiences. They, however,

lack individual ownership of land, technical skills, interest and the courage to face challenges. Moreover, they are unable to market their products at a reasonable profit. Due to their traditional beliefs, culture and

customs, they are not able to communicate with the societies. Marketing of their products is mainly through societies and other governmental organisations. So the outreach of the products is through the intermediaries. As such, evaluation of the marketing aspects of the non-timber forestry products becomes important.

### **Significance of the Study**

Even though the government has implemented many schemes and programmes for the marketing of the agricultural and non-timber forestry products of the scheduled tribes, it is not functioning properly. A majority of the scheduled tribes have no idea about the government policies and programmes for their development and marketing of the agricultural and non-timber forestry products. They are still in the underdeveloped conditions. Hence this study is considered to be relevant.

### **Review of Literature**

#### **Studies about Tribes in Kerala**

The tribes of Kerala are living at different stages of economic development. Some are still in the stage

**The scheduled tribes produce around 140 unique products in Kerala. Such products include non-timber forest products such as bamboo, honey, frankincense and also agricultural products like pepper, cardamom, coffee, rubber, ginger, turmeric, etc.**

of hunting and gathering food and leads a nomadic life. Some are still practicing shifting cultivation. A few are settled agriculturalists. A microscopic minority is working in plantations. The tribal communities who are educated are at a higher level of economic development than those who are educationally backward. There were a few studies about tribals in Kerala. A glance of these studies undertaken by some famous authors are given below:

**Anantha Krishna Iyer** has published 'The Travancore Tribes and Castes' in three volumes. Iyer concentrated his study on the hill tribes which were fast dying out and are on the brink of extinction. In the first volume (1937), he discussed seven hill tribes, namely the Kanikkaran, the Mala Kurumbans, the Malapandaram, the Malapulaya, the Malavedan, the Malayarayan and the Maison. The second and the third volumes (1961) dealt with the account of the tribes of Travancore. In a later study (1961), he described the hill tribes of Kerala as pre-Dravidian. Iyer also undertook the ethnographic survey of the hill and jungle tribes of Cochin and published its results in four volumes. The first volume of his work 'Cochin Tribes and Castes' (1909) includes the description of the tribes viz., the Kadar, the Malayan, the Nayadi, the Ulladon, the Paniya and others.

**Logan William** (1951) mentioned the 'ádima' system that prevailed among the aboriginals and the untouchable classes of Malabar. The exploitative attitude of the feudal lords towards adima was vividly explained by him. Logan's pioneering work has shed light on the exploitative system of feudal landlordism

prevalent in Malabar during the nineteenth century.

**Ayyappan** made several systematic studies on various tribes of Kerala like 'Nayadis of Malabar' (1937) and 'Erulas of Kerala' (1944). Later he conducted a study on Erulas in 1965 and the results published gives an insight into the socio-economic changes that took place in the Erula community.

**A.A.D. luiz** (1962) made a detailed study of all the 48 tribes of Kerala. He has discussed their mode of living, occupation, diet, religion, taboos, marriage and rituals. He provides an insight into the changing pattern of the tribal's social life in the context of the socio-economic conditions of the state as a whole.

**Thurston's** (1966) study was a systematic one and a detailed ethnographic survey on the whole of South India with an account of the changing pattern of the hill tribes of Kerala. He noted the settled ways of life adopted by the Paniyas of Wayanad as a result of their contact with the outside world. He also focuses attention on the way of life, customs and traditions of other communities in the region.

**P.R.G. Mathur** (1971) traces the socio-linguistic evolution of the tribes of Kerala in addition to giving some valuable statistical information. The author describes some of the vital problems faced by the tribals like land alienation, bonded labour, indebtedness, status of tribal women, etc. This book also mentions briefly some of the recent political developments among the tribals like the formation of tribal organisations and the

influence of the naxalite movement on them, etc.

**M.Kunhaman** (1982) in his book examined the inter-regional variations in the level of socio-economic development of the hill tribes of Kerala and the underlying causes.

**Susuman, A Sathiya** (2006) in the paper "Son Preference and Contraceptive Practice among Tribal Groups in Rural South India, examines the son preference and contraceptive practice among tribal groups in rural South India. Parents' preferences for the sex of their children have constituted an important theme in population and social research over the past three decades. Data were collected from a household survey of 398 currently married women of reproductive age group (15-49) from four taluks in the Nilgiris District of rural Tamilnadu and selected with respect to the different tribal communities. Cross tabulation and logistic regression analysis were carried out for finding out the relationships between the socio-economic and demographic variables on contraceptive practice. The use of contraceptive practice by tribal groups in rural areas is strongly linked to the individual's and the household's socio-economic and demographic variables. Findings show that the expectation that a son will provide financial support during old age is strongly associated with the response that a son is important. Son preference is slightly more among the tribal women, particularly among the users of the spacing method, who are more among those preferring the sons. Some of the socio-economic variables like education and occupation of the husband have shown negative influence on higher

fertility and positive influence on the use of contraceptives among the tribal women. It is proposed that there is a need for more comprehension amongst the tribes in different areas in state and in the Indian nation to explicitly bring out the son preference attitudes of tribal people, which have an impact on their fertility and family planning practices.

**Makar atel.** (2009) "Institutional Barriers in Tribal Hill Areas for Agricultural Finance: A Case Study in Nagaland" says that the underdeveloped countries like India suffers from scarcity of capital which is the greatest handicap in their economic development. To mobilise finance, which is the crux of the problem for development, a sound banking system is essential and other financial institutions are required to channelise savings into investments and supply the credit needs for trade and industry. Tribal hill areas in the North-Eastern Region are plagued with some institutional barriers on the path of their achieving the desired economic growth. The present study investigates some of these institutional barriers, which appear unique in character and dimension towards the extension of agricultural finance to the tribal hill people of Nagaland. This study is helpful for undertaking training, research and consultancy functions that are aimed for the upliftment of the tribal rural masses in the North-Eastern Region, comprising of the seven sisters states (Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Tripura) and Sikkim.

### **Scope of the Study**

The present study is undertaken amongst the scheduled tribes in Idukki

district. This study throws light on the marketing of agricultural and non-timber forestry products by the scheduled tribes in Idukki district. It also helps to know the scheduled tribe's contribution in the distribution of agricultural and non-timber forestry products. The geographical spread of the study is limited to the district of Idukki.

### Objectives of the Study

The following are the specific objectives of the study.

1. To study the marketing management of agricultural and non-timber forestry products by the scheduled tribes;
2. To analyse the difficulties faced by the tribes in marketing;
3. To study the programmes and schemes implemented by various governmental institutions and NGOs for marketing their products;
4. To analyse the socio-economic development of the tribal communities after implementation of the marketing strategies effected by the Government; and
5. To make recommendations based on the study.

### HYPOTHESIS

1. There is no significant relationship between the NGO's assistance and improvement in the respondent's income level.
2. There is no significant relationship between the NGO's assistance and improvement in the respondent's confidence level.

### Database and Methodology

The proposed work is designed as a historical, an empirical and an analytical study. Data is collected from both primary and secondary sources.

### Collection of data

The primary data is collected from the agricultural and the non-timber forestry products marketing members among the scheduled tribes. Formal and informal interviews were also conducted for the study.

The secondary data were collected mainly from books, periodicals, articles and other government reports. Beside these sources, data from internet is also used.

### Sampling Design

Scheduled tribes are the universe for the study. A multistage sampling technique is adopted to gather relevant information for the study from the respondents. Idukki district of Kerala is divided into four taluks, viz. Peermade, Udumbanchola, Thodupuzha and Devikulam. In the first stage, from the four taluks of Idukki, two taluks, Peermade and Udumbanchola were randomly selected.

In the second stage, from the selected taluks, two panchayaths were each selected using judgment sampling. A majority of the scheduled tribes are located in these panchayaths. The selected panchayaths are Kattappana and Kanjiyar from Udumbanchola taluk, Ayyappancoil and Upputhara from Peermade taluk. The tribal population in these panchayaths is as follows: Kattappana panchayath-389;

Kanjiyar panchayath-442; Upputhara panchayath-378; and Ayyappancovil panchayath-445.

In the third stage, 30 respondents were selected from each panchayath randomly. From among the scheduled tribes, 120 agriculturists and non-timber marketing members were selected for the interview.

### Data Processing, Analysis and Interpretation

The data collected for the study is edited and analysed with the help of SPSS. For the purpose of analysis, tables, diagrams and mathematical tools such as percentage, average and appropriate simple statistical tools were used to analyse the data.

### Limitations of the Study

1. Most of the tribal people do not maintain proper records to their activities and as a result there were difficulties in collecting the primary data. In the absence of recorded facts, the required data were gathered from the respondents through discussions. Therefore, the reliability of the data depended largely on the information supplied by them.
2. The respondents were reluctant and non-cooperative to discuss and to provide information as they lacked the exposure with external societies. Even their culture were the hindering elements.

**Majority of the tribes surveyed confirmed that they have poor marketing facility and the shortage of a proper marketing system.**

3. Low literacy and poor awareness was also a major hindrance in data collection.
4. Time was also a major constraint.

### Major Findings

1. Majority of the tribes surveyed confirmed that they have poor marketing facility and the shortage of a proper marketing system. This is due to the distance, lack of a fair price, infrastructure facility, storage facility, proper market, lack of information about marketing and unawareness about the market.
2. It is very clear that a majority of the respondents, i.e., about 75 percent of them faced the problem of the absences of a society/organisation to collect their products. Only 25 percent are comfortable with collection of their products.
3. Only 25 percent of the respondents are getting bonus, training, and food grains at subsidised rates from the NGOs.
4. Only 2 percent of respondents get any marketing guidance from the NGOs for marketing their agricultural and non-timber forestry products.
5. Only 23 percent of the respondents are getting loan facility from the NGOs.
6. Only 8.33 percent of respondent got any training from the governmental agencies.

7. 43.34 percent of the youngsters are not interested in the collection and marketing of agricultural and non-timber forestry products.
8. The main reason for moving away from the collection and marketing of agricultural and non-timber forestry products are low profit, difficulty, hard working-condition, unawareness and interest in other employment opportunities and education.
9. Deforestation is the one of main problems faced by the scheduled tribes.
10. Heavy application of fertilizers in the plantations near the forest areas affect the growth of medicinal plants in the forests and also makes serious losses in agriculture products.
11. One of the main problems being faced by the scheduled tribes is the shortage of drinking water facility.
12. They are not getting sufficient subsidy or loan for their agricultural activities.
13. They are not getting better cooperation from the government for marketing their agricultural and non-timber forestry products.
14. Most of the scheduled tribes are yet to get the Forest Right Committee certificate.
15. They do not have better hospital facilities.
16. Many of the forest guards are demanding hush money for the collection of non-timber forestry products.
17. Many outsiders are exploiting the forest wealth.
18. The scheduled tribes face a number of difficulties during off-seasons.
19. None of the respondents having more than Rs10,000/- as monthly income.
20. There is no support by way of handicrafts exhibitions or trade fairs sponsored by the government for marketing their non-timber forestry products.
21. There is neither internal nor external promotional activity for marketing their products.
22. No guidance is provided by the government for the collection and marketing of the products.
23. There are only a few NGOs for the collection and marketing of the tribal products.
24. They do not get any pension for the aged.

## CONCLUSION

The “Scheduled Tribe” of Kerala, and those all over India, constitute a rich, unique, varied, and critical element of Indian tradition. The scheduled tribes can be found in every district of Kerala. Many tribes have or had their own language or dialect, traditions, customs, myths and ritual practices, deities, arts and performances, etc. Many of these have changed or have even deteriorated over a period of time. However, many of the fundamentals and essential elements of their culture and traditions have been equally influential in their lives.



As already stated, the scheduled tribes have been facing many problems in the collection and marketing of their agricultural and non-timber forestry products. The cultivators of agricultural and non-timber forestry products will generate additional economic activities which will in turn accelerate their economic growth.

The tribes of Kerala today are mainly agriculturalists, even though the forest is still an important part of their lives. Regardless, they are inextricably linked to the forest which previously had been their main source of livelihood. All these tribes have an extensive knowledge of the forest, its flora and fauna, which has resulted in an impressive system of traditional medicine. They lived very much in tune with the forest. However, today the tribes are being evacuated from the forests by the government or by the business corporate and given land elsewhere instead. The houses (hamlets) built by the government for these displaced tribes were often found unsuitable and nowhere near the usefulness of the traditional huts that the tribes built.

### SUGGESTIONS

- Scheduled tribes are facing many problems with respect to the cultivation and marketing of their products. A majority of the tribes surveyed, confirmed that they have poor marketing facility and lack of a proper marketing system. For eliminating these problems, the government may take necessary action. The schemes for the tribes may effectively be implemented.

### MANAGEMENT RESEARCHER

- For getting fair prices and better markets, new collection centres could be opened nearer their colonies.
- Open government societies nearer their colonies for the collection and marketing of their products.
- Provide better training programmes with the help of experts for getting marketing guidance.
- Provide more subsidy and loan facilities for marketing their products. This will help increase their standards of living.
- Take necessary action against deforestation and also provide FRC to the scheduled tribes.
- Provide better water facility to the scheduled tribes.
- Provide better promotional activity to the scheduled tribes for marketing their products.
- Take exemplary action against the forest guards who demand bribe from the scheduled tribes.
- During the off-season, provide grand or subsidy for collection and marketing of non-timber forestry products.
- Provide permanent employees in every healthcare centre.
- Implement special package for agriculture for the scheduled tribes.
- Government may take initiative for providing better transportation facility for the scheduled tribes.

## AN EVALUATION OF THE SERVICE QUALITY OF AIR INDIA AND FOREIGN AIRLINES

**\*Binoosa T, \*\*P. M Habeeburahiman**

### Abstract

Today, competition is not only rife, but growing with intensity. Thus, companies need to start paying a more keen attention on their competitors while they must have a better understanding of their customers. The Airlines Companies is one of the major sectors that are suffering from such a competition. Customer satisfaction is what guarantees the future of the airlines. This can be achieved by adapting their services as per the needs of their customers and satisfaction of mainly their passengers. This study attempts to analyse the customers' perception towards the service quality of Air India and other foreign Airlines. Both primary and secondary data are used for the study. The primary data is collected from the passengers of aircrafts by way of a questionnaire. Statistical tools like t-test, tables, graphs, etc. are used to analyse the data.

**Key words:-** Service Quality, Air India, Foreign Airlines, Customer Satisfaction.

The study on the “Service Quality of Air India and foreign Airlines” aims at focusing on the difficulties faced by their customers in Kerala. The airlines industry encompasses a single aircraft conveying cargo articles and mail to different places and the numerous aircrafts carrying passengers to different parts of the world. Services of the airlines industry can be segregated as domestic, regional, within the continent, or travels between

the continents. A thorough analysis of the airlines industry will essentially comprise all of the above. Records show that the demand for airline travel has been on the increase. The 1950s through to the 1960s there manifested a trend where the yearly growth was consistent at approximately 15%. The Airlines industry showed a yearly growth ranging between 5 and 6% consistently in the 1980s and the 1990s. However, the rate of growth cannot be expected to remain the same

---

*\*Binoosa T, Research Scholar, Department of Commerce and Centre of Research, PSMO College, Tirurangadi, Malappuram, Kerala*

*\*\* Dr. P. M Habeeburahiman, Associate Professor, Department of Commerce and Centre of Research, PSMO College, Tirurangadi, Malappuram, Kerala.*

due to several factors. Deregulation is one of the reasons. Deregulation in the airlines industry has led to flexibility in the prices of airlines tickets. Today, the competition is not only rife, but growing with intensity. Hence, the companies need to start paying a more keen attention on their competitors. They must have a better understanding of their customers. The airlines companies are suffering badly from such competitions.

They have to believe that their customers are the core components of their business. Customer satisfaction is what guarantees the future of the airlines and it can be achieved only by an adaptation of their services in accordance with the needs of the passengers.

The perception of service quality varies from person to person, but an enduring element of this quality is the consistent achievement towards customer satisfaction. Satisfying the customer needs keeps them loyal and helps establish a base for the new customers. India at present has fourteen competing Airlines companies in the domestic market as against a single government-owned airline. According to McKinsey Quarterly (2005), the Indian aircraft market is the world's second largest commercial aircraft market. On-time performance and service levels have risen dramatically and the fares have dropped. Passengers' traffic is expected to grow by 20 percent annually over the next five years. What this study expects to accomplish is to provide a better

service quality to the passengers. The flying services of the Air India and the foreign Airlines are divided into three stages: pre-flight, in-flight, and post-flight services. The aim of the company is to provide better service quality to passengers, and the management in particular, is very much responsible for this. Through passengers of the Air India and the foreign Airlines, the management collects reliable feedback about the services provided at pre-flight, in-flight and post-flight stages and this helps in finding out the areas where the company needs to improve the service quality of the airlines.

**They have to believe that their customers are the core components of their business. Customer satisfaction is what guarantees the future of the airlines and it can be achieved only by an adaptation of their services in accordance with the needs of the passengers.**

## REVIEW OF LITERATURE

A search has been conducted on "service quality of Air India and those in the foreign Airlines" in various published journals and books. Some of the important articles which dealt with the subject are noted below:

According to **R.Archana and Dr.M.V Subha (2012)**, the airlines service dimensions were found to have significant and positive influence on the airlines image and passengers satisfaction intensions. In this study, passengers are satisfied with the service provided, and the overall facilities delivered by the airlines companies. This study entails that the airlines marketing managers have to develop various policies to provide guaranteed quality services to the passengers.

Michael D Clemes (2008), says that the airlines industry may be subject to valence in the provision of their services, stemming from an increase in the customer involvement and a continuing demand for more security regulations on the part of the airlines.

**The aim of the company is to provide better service quality to passengers, and the management in particular, is very much responsible for this.**

Bhagyalakshmi Venkatesh and R Nargundkar (2006), suggest that implementation of the basic service quality is essential to combat the growing competition. Differentiation can occur only by adding new service elements along with providing better quality in delivering the current services. Safety has been considered as a major element in choosing an airlines brand.

**Objectives of the Study**

- To assess the service quality provided by Air India.
- To compare the service quality of Air India and the foreign Airlines.
- To know the level of satisfaction of customers in both Air India and the foreign Airlines.
- To analyse the customer’s perception regarding the service quality of Air India and the foreign Airlines.
- To know the problems of the passengers relating to the services provided by Air India and the foreign Airlines.

**Research Methodology**

The study is descriptive in nature and has made use of both primary and

secondary data. The primary data has been collected through a structured questionnaire. This has been collected from passengers who have used the services of both the airlines in the Central Zone of Kerala. For the purpose of this study, 200 passengers were selected by using the judgment sampling method.

The secondary data of the study has been collected from existing literatures like books, journals, websites, etc. This data has been analysed using percentage and t-test. Graphs and diagrams have been used.

**RESULTS AND DISCUSSIONS**

Factors related with physical and other facilities

The first two factors of analysis are related to the appearance of the physical facilities and the food. The customer rating for these two factors are represented below:

Quality of in-flight environment and seating facilities

H0=There is no relation between the quality of the in-flight environment and the seating facilities of Air India and the foreign Airlines.

t value	0.72
Table value	1.812
Degree of freedom	10
Level of significance	0.05

As the ‘t’ value is less than the table value, it is concluded that the null hypothesis is to be accepted. This statistical test shows that quality of the flight environment and the seating facilities provided by the foreign Airlines and the Indian Airlines are different. This factor is a major component to determine the service quality of the airlines.

**Variety and Quality of in-flight Meals**

Rating	Air India		Foreign Airlines	
	Frequency	%	Frequency	%
Excellent	112	56	116	58
Good	48	24	52	26
Poor	40	20	32	16
Total	200	100	200	100

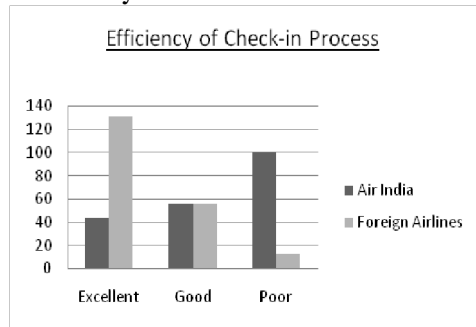
Source: Primary Data

The above table depicts that 56 % of the passengers of Air India rated as excellent the variety and the quality of in-flight meals, 24 % of them opined as good, and 20 % rated them as poor. In the case of foreign Airlines, 58 % of the respondents rated as excellent the variety and the quality of in-flight meals, 26% rated them as good; and rest rated them as poor to some extent. The foreign Airlines customers are more satisfied than the Air India customers.

**Factors related to the reliability of services**

The following five factors of analysis are related with the reliability of services provided by Air India and the other foreign airlines. These following factors are very important which determines the quality of services. The results are represented below:

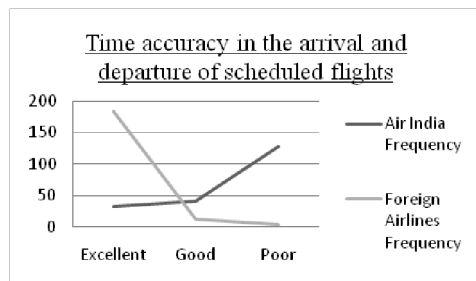
**Efficiency of Check-in Process**



Source: Primary Data

A majority of the Air India customers rate the efficiency of the check-in process as poor; 28 % of them rate it as good; and only 22 % customers have rated it as excellent. But, in the case of foreign Airlines, 66 % of the customers rated the efficiency of the check-in process as excellent; 28 % of them rated it as good; and only the remaining 6 % rated it as poor. Hence, it is indicated that the efficiency of the check-in process are better in the case of the foreign Airlines when compared to Air India.

**Time accuracy in the arrival and departure of scheduled flights.**



Source: Primary Data

A majority of the Air India passengers have rated the time accuracy in the arrival and the departure of the scheduled flights as poor, but a few have rated it as good and only 16 % have rated it as excellent. But 92% of the foreign Airlines

passengers have rated the accuracy in the arrival and the departure of the scheduled flights as excellent, 6 % have rated them as good and only 2% have rated them as poor. Hence, it is inferred that the accuracy in the arrival and the departure of Air India is very low.

**Sudden flight cancellation or delay**

Rating	Air India		Foreign Airlines	
	Frequency	%	Frequency	%
Excellent	28	14	188	94
Good	32	16	8	4
Poor	140	70	4	2
Total	200	100	200	100

*Source: Primary Data*

Most of the customers of Air India have rated this factor as poor; only 16% and 14 % of them have rated this factor as good and excellent respectively. 94 % of the foreign Airlines passengers have rated this factor as excellent; rated as good by 4% and as poor by 2% only. So it is understood that sudden flight cancellations or delays, is a normal case in Air India.

**Remedial procedure for delayed or missing baggage.**

Rating	Air India		Foreign Airlines	
	Frequency	%	Frequency	%
Excellent	72	36	140	70
Good	80	40	40	20
Poor	48	24	20	10
Total	200	100	200	100

*Source: Primary Data*

The ratings by the customers of Air India regarding this factor are 36% as excellent, 40 % as good and 24 % as poor. But, in the case of the foreign Airlines, the customers have rated this attribute 70 % as excellent, 20 % as good and 10 % as poor. It is inferred that here also foreign Airlines are keeping better services quality than Air India.

**Airline makes you feel safe**

Rating	Air India		Foreign Airlines	
	Frequency	%	Frequency	%
Excellent	40	20	168	84
Good	40	20	20	10
Poor	120	60	12	6
Total	200	100	200	100

*Source: Primary Data*

The above data depicts that more than half of the passengers of Air India rate the safety feeling as poor while only 10 % rate it as good. In the case of foreign Airlines, most of the passengers rate the safety feeling as excellent. It indicates that foreign Airlines assure a better feeling of safety when compared to Air India.

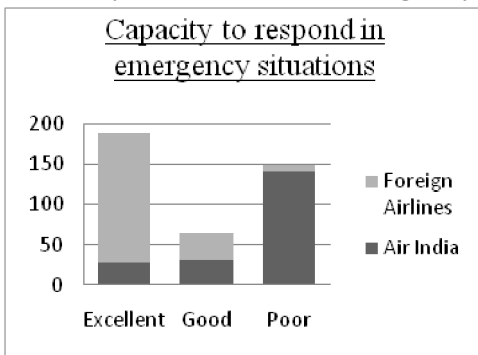
**Prompt response to customer complaints or requests**

H0=There is no relation between prompt response of Air India and foreign Airlines to customer complaints.

<b>t value</b>	<b>0.63</b>
<b>Table value</b>	<b>1.812</b>
<b>Degree of freedom</b>	<b>10</b>
<b>Level of significance</b>	<b>0.05</b>

As the ‘t’ value is less than the table value, it is concluded that the null hypothesis is to be accepted. Response to customer complaint is a good indicator of service quality of the airlines. This test shows that the response of Air India and foreign Airlines to customer’s complaints is different. So the service quality of both the airlines is different.

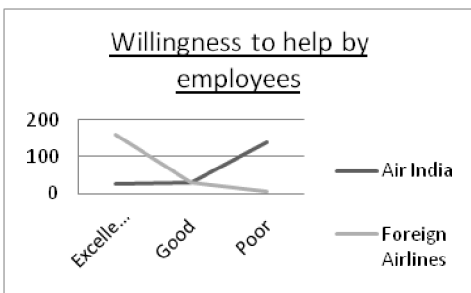
**Capacity to respond in emergency**



Source Primary Data

The above data clearly states that the capacity to respond in emergency situation of Air India is very low when compared with foreign Airlines.

**Employees willingness to help passengers**



Source: Primary Data

From the above data it is observed that most of the customers of Air India rate the willingness to help by the employees as poor, 16 % of them rate as good and 14 % are rated as excellent. In the case of foreign Airlines, rating this factor by 80 % of the customers is excellent, only 16 % customers rated as poor. This shows that the foreign Airlines’ employees are more willing to help the customers when compared with those of Air India.

**FINDINGS**

The major findings concluded from the study are mentioned below:

- ◆ The major factors determining the service quality of Air India are the physical factors and the response systems.
- ◆ The factors having a major share in determining the service quality of the foreign Airlines are the physical factors, the reliability factors and the response systems.
- ◆ The service quality provided by Air India is below average or average.
- ◆ The overall service quality of the foreign Airlines is above average.
- ◆ The service quality of the foreign Airlines is better than that of Air India.
- ◆ Customers are well satisfied with the services provided by the foreign Airlines.
- ◆ In the case of Air India, there are a lot of problems related to the physical reliability and the response system.

## SUGGESTIONS

The suggestions that have come across during the survey from the study as well as from the respondents are mentioned below:

- The Air India should improve the physical facilities like the in-flight environment and the seating facilities.
- The Air India must bring immediate changes in their accuracy level of arrivals and departures of their scheduled flights, sudden flight cancellation or delay, safety systems.
- The Air India should take necessary steps to make changes in their response systems.
- The Air India has to give more preference to customer-oriented packages.

## CONCLUSION

Passengers' perception of quality of service plays a key role in Airlines management. The primary aim of this study was to evaluate the service quality of Air India and the foreign Airlines. Hearing customers is a common and effective way to identify the customers' needs and ways to satisfy them. Here, service quality is based on the customers' overall impression of the relative efficiency of the organisation and its service quality. In order to maintain a greater service quality the airlines should keep watch of the passengers' expectations, perceptions and their changes in preferences.

## References

1. Dr. K. K. Krishnakumar and P Baby (2012) "Role of responsiveness factor in enhancing Domestic airline service quality" *Indian journal of Applied Research* vol; 2 issue - 1, October 2012.
2. Prof. Chanduji Thakor and Kinjal Mistri (2012), "A study of consumer behaviour concerning service quality and various dimensions of services provided by Airlines services" *Abbinav International monthly refereed journal of Research in Management and Technology*, vol.1.
3. R.Archana and Dr.M.V Subha (2012)", *A study on service quality and passenger satisfaction on Indian Airlines" Zenith International Journal of Multidisciplinary Research* vol. 2 issue - 2, February 2012 .
4. Muhammed Muazzeem Hossain (2011) "A consumer perspective of service quality in the airline industry,. *International Journal of Business and Technopreneurship*, vol. 1, issue – 1, February 2011.
5. Dipa Mitra (2010) "A comparative study between Indian public and private airlines with respect to their passenger service", *International Review of Business Research papers* vol. 6, issue – 6, December 2010.
6. J.Joseph Francis and Dr.S Balasubramanian(2010) "An empirical investigation into factors affecting service quality among Indian airline service providers" *International journal of Management* vol.1, issue – 1, May 2010.
7. Michael D Clemes, "An empirical analysis of customer satisfaction in International Air Travel" *Innovative Marketing*, vol. 4, issue - 2, 2008.



8. Jhon F Connel and George Williams, "Transformation of India's domestic Airlines: A case study of Indian Airlines, Jet Airways, Air Sahara, and Air Deccan "; *Journal of Air Transport Management*, vol. 12, issue – 6, November 2006.
9. *Research study of the civil aviation sector in India.*
10. Bhagyalakshmi Venkatesh and R Nargundkar,(2006), "Service quality perception of Domestic Airlines consumers in India: An empirical study", *Vilakshan, XIMB Journal of Management.*

# **MADURAI KAMARAJ UNIVERSITY**

(Directorate of Distance Education Recognised by D.E.C)

*invites application for the following courses*

**M.B.A, M.C.A**

**M.A, M.TM, M.Com, B.A, B.Com**

**B.B.A & Diploma Courses**

*For application forms and prospectus contact*

**INSTITUTE OF MANAGEMENT DEVELOPMENT AND RESEARCH  
(IMDR)**

(Academic Centre of Madurai Kamaraj University)

CONVENT ROAD, TRIVANDRUM 695 001

PHONE: 0471-2453039 Mobile: 9496776039

E-mail: imdrtvm@yahoo.com

## CSR: INITIATIVES AND PRACTICES IN INDIAN BOTTLED WATER INDUSTRY

**\*Shanand K.P, \*\*Dileep A.S.**

### Abstract

Corporate Social Responsibility (CSR) is about how companies manage their internal and external business processes in order to produce an overall positive societal impact. Since the mid-twentieth century many debates of this nature have occurred around the concept of corporate social responsibility. Packaged drinking water industry has grown many folds in India. The product is targeted especially at the travels and tours marketing segments. The market is also growing due to the shortage of water supply in the cities. At present the Indian market is dominated by processed water. Companies try to develop brand image in the minds of the consumers through various CSR initiatives. This paper is an attempt to highlight the CSR initiatives and the practices of major companies of the bottled water industry in India.

**Key words:-** CSR, Bottled Water Industry, Ground Water Depletion

Corporate Social Responsibility (CSR) is about how companies manage their internal and external business processes in order to produce an overall positive societal impact. More specifically, CSR involves identification of various stakeholder groups, their needs, values and aspirations, incorporating them into the company's strategies and its day-to-day decision-making process. The question as to whether this business has broader responsibilities to the society than making profit for its shareholders, can be traced

back for centuries. Since the mid-twentieth century, many debates of this nature have occurred around the concept of corporate social responsibility. CSR was defined by different scholars differently from different points of view. Nevertheless, there is a broad agreement that social and environmental responsibility is now a core business issue, no matter how it is defined.

Packaged drinking water industry has grown many folds in India. The product is targeted especially at the travels and tours marketing segments. The market is

*\*Shanand K.P, Research Scholar in Commerce, Kerala University Library, Palayam, Thiruvananthapuram.*

*\*\*Dr. Dileep A.S, Assistant Professor, Department of Commerce, NSS College, Nilamel, Kollam.*

also growing due to the shortage of water supply in the cities. At present the Indian market is dominated by processed drinking water. The demand for the consumption of mineral water in India has been estimated at approximately 500 million litres of pure water bottles and the market is expected to grow at a rate of 25-35% per annum. The domestic market of mineral water is mainly derived from the tourism sector. Further, the demand may also be from the institutional sector as well as from the higher income bracket group of the urban areas.

Groundwater depletion is a global issue and is related to various issues such as health, economy, security, environment, and especially development. Compared to many other countries, India is facing a more imminent water crisis. China's 1.33 billion people each have 2,117 cubic metres of water available per year, compared with the 1,614 cubic metres in India and as much as 9,943 cubic metres in the U.S. For instance, water is considered as a strategy for tackling poverty alleviation in the developing countries.

Meanwhile, water in the global capitalist economy is defined as a commodity. Global market wants to trade water for profit while the rural communities want self-management, access to clean, safe and adequate drinking water to be able to deal with diseases and poverty. Due to these contradicting interests, movements against the bottled-water manufacturing companies are taking place in various parts of the country. People expect more from companies for bearing this social cost.

**Water is considered as a strategy for tackling poverty alleviation in the developing countries.**

In this background many companies have strategically used CSR as a competitive tool to retain and build its customer base. Companies try to develop a brand image in the minds of the consumers through various CSR initiatives.

Industrial World in the 21<sup>st</sup> century is facing a challenge of satisfying the existing generation without diluting the ability of the forthcoming generations to satisfy their needs. In the recent decades the concept of Corporate Social Responsibility (CSR) plays a vital role in the competitive strategies of the business corporations around the world. CSR acknowledges the debt that the corporation owes to the community within which it operates, because business makes profit at the cost of the society. The emerging perspective on CSR focuses on every stakeholder in all their greetings. While there may be no single universally accepted definition of CSR, each definition that currently exists

underpins the impact that businesses have on the society at large and the societal expectations from them. Based on this,

CSR is a mantra which is concerned with the conduct of the business in accordance with the shareholders' desires, which generally will be to make as much money as possible while conforming to the basic rules of the society; both those embodied in the laws and those embodied in the ethical customs. Corporate Social Responsibility is about how the company manages their internal and external business process in order to produce an overall positive societal impact. In the present turbulent environment, CSR is

inevitably needed for every industry to survive, satisfy various stakeholders and achieve the societal goals. Bottled-water industry has no exemption to this reality.

Bottled-water industry is one of the fastest growing business areas around the world so much so in India. A decline of water availability and quality can increase the competition for clean water. In India the total market of the bottled-water industry was valued at Rupees 60 billion in 2013, of which the top five players accounted for 67 percent of the market shares. This market is expected to grow at a CAGR of 22 percent, to reach Rupees 160 billion in 2018. Currently, Indians are spending about \$330 million a year on bottled-water. While Bisleri continues as the top brand with a 36% share among the national players, Coca-Cola's Kinley follows with 25% shares, followed by Aquafina at 15%. This increasing trend has given birth to the water movement. The right to water movement took place in the water-scarce regions and rivalry can arise between the businesses and the local communities, particularly in India as a developing country where the local populations often lack access to safe and reliable drinking water. Because of this higher social cost, the society expects more from the bottled-water industry.

### Objective of the Study

To explore the CSR initiatives and practices in the Indian bottled-water industry through selected companies.

### Methodology

The study has been based on the three major bottled water manufacturing companies in India which were selected on the basis of their respective market shares. The study is based on secondary data. This secondary data required for

the study has been collected from their websites, journals, magazines and other related reviews.

### CSR Initiatives in Indian Bottled Water Industry

The Indian bottled water industry is controlled by three major brands, i.e. Parle's Bisleri, Coca-Cola's Kinley and PepsiCo's Aquafina. The CSR initiatives of these companies are discussed below:

#### Parle's Bisleri

Bisleri, a brand of bottled water in India, was originally an Italian Company created by Signor Felice Bisleri. It was introduced in Mumbai in 1965. Parle bought over Bisleri (India) Ltd. in 1969. Later Parle switched over to PVC non-returnable bottles & finally advanced to PET containers. Bisleri was the first bottled industry to bring about the concept of selling bottled waters in India. It was first introduced in Mumbai in glass bottles in two varieties in 1965. It has started a plant in Mumbai in 1969. Since 1995, Mr. Ramesh J. Chauhan started expanding Bisleri operations substantially. It is available in an 8-pack size: 250ml cups, bottles of 250ml, 500ml, 1 litre, 1.5 litres, 2 litres, and cans of 5 litres and 20 litres. As of 23 October 2012, Bisleri has 18

**Corporate Social Responsibility is about how the company manages their internal and external business process in order to produce an overall positive societal impact.**

plants, 13 franchisees and 58 contract packers all over India. Bisleri has grown popular for the purest drinking water with 36 % market share in India.

### **Bisleri and CSR**

“It is our endeavour to give back to mother Earth what we take from her” CSR slogan of Bisleri. CSR initiatives of Bisleri can be categorised into three major headings:

- 1) PET recycling;
- 2) Rainwater harvesting; and
- 3) Ozone treatment.

#### **1. PET Recycling**

In order to avoid the nuisances caused by PET bottles when it is not disposed of properly after usage, Bisleri installed centres for recycling PET scraps at various places across the country. Plastic items from other brands are also accepted for recycling in its units. The PET bottles collected are crushed into fine PET flakes which are then used to create useful product like cloth fabric, hand bags, window blinds and other useful products.

#### ■ **PET Crusher Machines in Malls**

With the objective to create awareness about the importance of crushing plastic bottles, Bisleri installed PET crushing machines in famous malls in India like Inorbit Mall, Vashi and Malad, etc. Awareness programmes on PET recycling were also conducted in various locations in the country.

#### ■ **PET Collection from Corporate Companies**

Bisleri’s initiative “Go Green Environment” works in participation with

the bigger corporates to collect the PET scraps. The CSR department along with its partner corporate has to adopt a system to collect and store the PET scraps for recycling on a weekly basis.

#### ■ **PET Collection at Tourist Locations**

Tourist locations are the biggest selling and dumping points for the PET bottles. As a result, these beautiful locations cease to remain beautiful and often turn into plastic dump yards. In order to maintain the beauty of these special locations in India, Bisleri launched the ‘Go Green Initiative’. The Nagaon Beach at Alibaug is a case in point for the initiative. At Nagaon, they devised a unique model of Public-Private Partnership and involved the local communities in their endeavour. The Gram Panchayat in the area gave their support. This helped not only to considerably reduce the PET wastes at the beach, but also created job opportunities for the locals.

#### **2. Rainwater Harvesting**

Bisleri has taken up the role of rainwater harvesting through check dams. 19 check dams have been constructed in Gujarat, in association with the Gujarat government under the Sardar Patel Public-Private Partnership scheme. They argue that this led to the saving of 56,162 litres of water annually. 600 wells and bore wells were recharged. 960 hectares of land were irrigated. A total of 30,000 people and 45,000 animals were benefited across 46 villages.

#### **3. Ozone Therapy**

Pure oxygen when treated chemically forms an unstable compound called

Ozone (O3). This compound, though unstable in nature, has an extra atom of oxygen. This works wonders in the treatment of many ailments of the human body. The Ozone Forum of India had used this magical compound and created the concept of ‘Ozone Therapy’.

Under the leadership of Mr. Ramesh Chauhan, The Jayanthilal Chauhan Education and Research Trust has become the guiding force of the Ozone Forum in India. The primary aim of the trust is to make ‘Ozone Therapy’ easily available across the country. The Ozone Forum of India has been educating doctors on this subject by holding conferences, educational seminars and training programmes. Until 2012, 450 doctors have been trained in the application of ‘Ozone Therapy’ in India.

**Coca-Cola Kinley**

Kinley is a brand of bottled water owned by The Coca-Cola Company with around 25% market shares globally. The Coca-Cola system operates through multiple local channels. TCCC re-entered

the Indian markets and posted the economic liberalisation of 1991 and established Coca-Cola India Private Limited (CCIPL) as its wholly-owned subsidiary in 1992. The Coca-Cola system in India directly employs over 25,000 people including those on contract. The system has created indirect employment for more than 1,50,000 people, in related industries through its vast procurement, supply and distribution system.

**Major CSR Initiatives**

CCIPL’s CSR initiatives referred to as the ‘Me-We-World’ framework. This framework, in addition to addressing the stakeholders’ expectations, also covers all aspects important to the company, given the nature of its operations.

**1. ME - Enhancing Personal Well-Being**

**1.1. Nutrition**

In addition to offering great taste, some of Coca-Colas products also offer functional benefits such as ‘Vitingo’ (powder) with Iron, Vitamin C, Vitamin

**Table 1  
CSR Framework**

<b>Aspiration</b>		
↓		
<b>Growing our business by making a positive difference in the communities we serve</b>		
<b>Me</b>	<b>We</b>	<b>World</b>
<ul style="list-style-type: none"> <li>➤ Nutrition</li> <li>➤ Product quality and safety</li> <li>➤ Responsible marketing</li> <li>➤ Active healthy living</li> </ul>	<ul style="list-style-type: none"> <li>➤ Women’s economic empowerment</li> <li>➤ Strengthening community foundation</li> <li>➤ Human and workplace right</li> </ul>	<ul style="list-style-type: none"> <li>➤ Replenish water</li> <li>➤ Recycle packaging</li> <li>➤ Reduce carbon</li> <li>➤ Source sustainability</li> </ul>

A, Vitamin B2, B12 and Folic acid; another product called 'Zinc Fanta Fun Taste' (powder) which contains Vitamins B3, B6, B9 and B12; and 'Burn' (energy drink) which provide Inositol.

### 1.2. Product Safety and Quality

Products are manufactured following strict policies, requirements and specifications provided through an integrated quality management programme. The programme promotes the highest standards in product safety and quality, occupational safety, and health and environmental standards across the entire Coca-Cola system. Suppliers are also advised to comply with various standards like FSSAI Standard, Global Food Safety Initiative (GFSI), ISO 9001 (quality), etc.

### 1.3. Responsible Marketing

The Responsible Marketing initiatives of Coca-Cola tries to provide consumers with information they can trust. Fact-based nutrition information is provided to facilitate the consumers' choice. Consumer satisfaction is tracked on a regular basis through surveys. Initiatives in this area include:

- communication of calories information;
- ethical marketing to children; and
- consumer engagement and satisfaction.

## 2. WE - Building Stronger Communities

While recognising the impact that the company has on the community in which it operates Coca-Cola is committed to

listen, learn and take into account the views of these communities. The initiatives in the communities are extended to the partners, suppliers and retailers and also reach out to the underprivileged and the resource-deprived communities.

### 2.1. Women's Economic Empowerment – The '5 by 20' Initiative

In September 2010, The Coca-Cola company announced a 10-year global initiative to empower 5 million women through the Coca-Cola system. This initiative aims to help women in breaking down the barriers that prevent them from growing their businesses. By providing access to business skills, financial services, assets and support networks of peers and mentors, the '5 by 20' initiative globally is helping women achieve their entrepreneurial dreams, while also in creating thriving and sustainable communities.

### 2.2. Strengthening Community Foundations

To serve the community fruitfully, the following measures were undertaken:

- ◆ 'Parivartan' retailer training programme;
- ◆ Support My School (SMS); and
- ◆ Career Development Centre.

### Local Community Initiatives

Based on the local needs, CSR initiatives were undertaken in the vicinity of the company's plants. A summary of such activities are given in the following table.

**Table 2**  
**Summary of CSR Initiative**

CSR focus area	Activities undertaken	Approximate amount monthly spent (INR)	Approximate number of beneficiaries
Education	Development of infrastructure in educational institutions	1,58,58,162	8,060
Access to clean drinking water	Infrastructure for protected water supply Installation of hand-pumps	15,03,000	6,270
Public health and safety	Monetary contribution for healthcare Medical/ awareness camps	79,18,105	9,230
Rural development	Rural infrastructure development	28,74,887	3,220
Other social activities	Assistance to self-help groups, under-privileged sections of the society, etc.	40,80,700	4,840
Other environmental programmes	Celebration of thematic events like World Environment Day, etc. towards creating awareness	12,09,252	640
<b>Total</b>		<b>3,34,44,106</b>	<b>33,660</b>

*Source: Coca-Cola India sustainability report 2012*

### 2.3. Human and Workplace Right

#### Respecting Human and Workplace Rights

Coca-Cola, India takes a proactive approach to follow the United Nations Universal Declaration of Human Rights and International Labour Organisations Declaration on Fundamental Principles and Rights at work. Initiatives in this are:

- ◆ Human rights in procurement practices;
- ◆ Workplace safety; and
- ◆ Discrimination free work-place.

### 3. World - Protecting the Environment

According to Coca-Cola, environmental performance is a key cornerstone of their operations. They believe that environmental sustainability is necessary for continued business

operations. All the bottling units have undertaken Source Vulnerability Assessments (SVA) for all water sources used by them; where necessary, Source Water Protection Plans (SWPP) have also been developed to help bottlers to successfully mitigate any impact on any source.

#### 3.1. Water Replenishment

Coca-Cola's efforts to replenish water are focused on harvesting rainwater, constructing check dams, restoring ponds and other natural water bodies as well as supporting agricultural water use, efficiency improvements such as laser leveling and drip irrigation. The major water replenishment project includes:

- Project SANTUSHTI - A drinking water project in Sambhar Lake, Rajasthan



- Project NEERAJAL - A water sustainability project in Rajasthan
- Project SANTUSHTI – II - A watershed project in Sambhar Lake, Rajasthan
- Project UNNATI – II - A watershed development extension project in Mahoba, Bundelkhand
- Project JALADHARA - A watershed development project in Banswara, Rajasthan

**3.2. Reducing Carbon**

The Coca-Cola system recognises that climate change may have long term direct and indirect implications in its business and supply chain. So, they use the best possible mix of energy source, improve the energy efficiency of the manufacturing process and try to reduce the potential climate impact of the products marketed. Conscious efforts are being made to reduce the direct and indirect energy consumption. Innovative measures are undertaken to reduce the Green House Gas (GHG) emissions throughout the value chain. Important non-conventional

energy projects undertaken by Coca-Cola are given below:

- Project UJALA: Solar lighting project, Rajasthan and Bihar; and
- Project JYOTI: Solar lantern project, Rajasthan.

**3.3. Recycling of Packaging Material**

The Coca-Cola system in India has been making tremendous efforts to reduce and recycle the amount of materials used in packaging. Over the years, in association with partners across the supply chain, the company has worked to identify the opportunities to reduce the weight of the packaging materials. TCCC aims to source 25 percent of PET from recycled or renewable materials by 2015.

**3.4. Sourcing Sustainably**

■ **Project Unnati**

‘Project Unnati’ is Coca-Cola’s collaborative effort with their largest supplier of Mango Pulp - Jain Irrigation, who is also India’s largest and world’s second largest micro-irrigation company, to facilitate a large scale farm intervention.

**Table 3**  
**Recycling of Packaging Material**

Packaging Material	Quantity Recycled (tonnes)
Aluminum	64.83
Glass	23,749.72
PET	1,933.39
Caps	35.37
Others (plastic, metal and wood)	18,938.93

*Source: Coca-Cola India sustainability report 2012*

The project shall help us manage a sustainable supply of mango fruits in the long term, enhance the quality of the mango produced, and improve the livelihood of farmers including women farmers through training on ‘Good Agricultural Practices’ and ‘Ultra High Density Plantation’ (UHDP) technique. The project’s scope is to impact 50,000 farmers including 7,500 plus women farmers over 5 years.

**PepsiCo Aquafina**

PepsiCo is an American multinational food and beverage corporation, headquartered in Purchase, New York, United States, with interests in the manufacturing, marketing and distribution of grain-based snack foods, beverages, and other products. PepsiCo was formed in 1965. Aquafina is a brand of purified bottled water product produced by PepsiCo, consisting of both unflavoured and flavoured water. Aquafina was first launched in the US in 1994. In India, Aquafina’s journey began with its launch in Bombay in 1999 and it was rolled out nationally by 2000. On the strength of its brand appeal and distribution, Aquafina has become one of India’s leading brands

of bottled water in a relatively short span of time with a market share of 15%.

**CSR motto**

“Performance with Purpose” CSR initiatives of PepsiCo is summarised in table 4.

**1. Environmental Sustainability**

In the area of environmental sustainability PepsiCo undertakes the following activities:

- **Water**

PepsiCo undertakes several initiatives to minimise water use in their operations and also efforts were made to help farmers reduce the freshwater consumption in agriculture. In partnership with the local NGOs and panchayats, PepsiCo undertakes water recharge programmes and provide access to water for the needy community. The initiatives of PepsiCo is presented in table 5.

- **Climate Change**

PepsiCo’s climate initiatives are focused on enhancing renewable fuel sources to reduce the energy consumption

**Table 4  
CSR Framework**

<b>Environment Sustainability</b> ↓	<b>Human Sustainability</b> ↓	<b>Talent Sustainability</b> ↓
Water	Product	Culture
Climate change	Market place	Career
Land and packaging	Community	Community
Community		

**Table 5**  
**Access to Water Intervention PepsiCo**

<b>State</b>	<b>Intervention</b>	<b>Benefited people</b>
Maharashtra - Paithan	check-dams, recharge wells	12,000
Karnataka - Neelamangala	roof- top RWH, recharge wells, 3 farm ponds	4,000
Haryana - Panipat	3 ponds rejuvenation, duckweed	10,000
Water access - Neelamangal, Paithan, Mamandur, Palakkad Sangereddy	taps, tanks, pipelines, schools and community	15,000
<b>Total</b>		<b>41,000</b>

*Source: PepsiCo India Corporate citizenship Report.*

through the company's operations and supply chain.

- **Land and Packing**

Measures were undertaken to reduce all forms of solid waste from the company's product by rethinking the whole process of packaging and delivery.

- **Community**

It is the policy of the company to respect and be responsible in the use of natural resources for business and care for the local community. Necessary initiatives were undertaken to minimise the usage of water and recharge water through the community water projects and also in supporting the local farmers.

## **2. Human Sustainability**

With respect to human sustainability, PepsiCo aims at marketing healthy, nutritious and tasty products to the customers. The company is also

committed to be responsible in marketing and nutritional labeling, and also in promoting healthy life style initiatives.

- **Product**

The company promises to market products with wholesome ingredients which promote nutritious eating and drinking. Activities in this respect includes:

- increase the amount of whole grains, fruits, vegetables, nuts, seeds and low fat diary in the global product portfolio;
- by 2015, reduce the average amount of sodium per serving in the key global food brands in the key countries by 25%, when compared to a 2006 baseline; and
- reduce the average amount of saturated fat per serving in the key global food brands in the key countries by 15% by 2020, when compared to a 2006 baseline.

### ■ Marketplace

“Encourage people to make informed choice” is the marketing motto of PepsiCo. Initiatives in this area include:

- display calories count and key nutrients in the food and beverages packing;
- advertise ‘children below 12’ only products that meet the global science based nutritious standards.

### ■ Community

The company is committed to actively work with global and local partners to help address global nutrition challenges. The following are the major initiatives:

- invest in business and research and development to expand the offerings of more affordable, nutritionally relevant products for the underserved and the lower income communities.
- expand PepsiCo Foundation and PepsiCo Corporate Contribution initiatives to promote healthier communities, including diet and physical activity programmes.

### 3. Talent Sustainability

The talent sustainability policy of PepsiCo aims at helping the human resources to succeed and develop the skills needed to drive the company’s growth, while creating employment opportunities in the communities that it serves.

### ■ Culture

PepsiCo promises that its culture enables people to thrive by providing a

supportive and empowering workplace. The company’s initiatives include:

- ensures high level of associate engagement and satisfaction as compared with other Fortune 500 Companies;
- foster diversity and inclusion by developing a workforce that reflects local communities; and
- encourages the company’s associate to lead healthier lives by offering workplace wellness programmes globally.

### ■ Career

The Company is committed to provide opportunities that strengthen the employee’s skills and capabilities to drive a sustainable growth. Initiatives in this area are:

- becomes universally recognised through top ranking as one of the best companies in the world for leadership development;
- create a work environment in which associates know that their skills, talents and interests can fully be developed; and
- conducts training for associates from the frontline to the senior management for progress.

### ■ Community

PepsiCo India takes committed initiatives in the area of developing talents in the local community. The operations in this respect include:

- creation of local jobs by expanding its operations in developing countries; and

- supports associate volunteerism and community involvement through company sponsored programmes and initiatives.

## CONCLUSION

Bottled water industry in India is growing at a fast pace. Scarcity of safe drinking water in the country, increasing health consciousness among people, rise in disposable income, growth in foreign tourist arrivals and changing life style due to increase in urbanisation are the key factors accelerating the growth in the bottled water market. Parle's Bisleri, Coca-Cola's Kinley and PepsiCo's Aquafina are the leading brands in India.

Groundwater scarcity, solid waste and other environmental impact of this water-intensive industry leads to movements against and resistance from local communities and the environmental aspects in various parts of India. In order to counter this, the companies are coming up with CSR as a strategy. While analyzing the CSR activities of Bisleri, Kinley and Aquafina it is seen that Bisleri is mainly concentrating on waste management, but as global giants Coca-Cola's Kinley and PepsiCo's Aquafina perform wide range of CSR activities through separate Corporate Sustainability and Corporate Citizenship report.

## References

1. *Bamali Chaklader, Neeran Gautham (2013). Efficient Water Management through Public-private partnership model: An experiment in CSR by Coca-Cola India. VIKALPA, 4, 97-104.*
2. *Rashmi H., Subraja S. (2008). CSR: A strategic management tool of PepsiCo India. CMRD Journal of Management Research, 7, 39-47.*
3. *Amita Joseph V. (2009). Successful examples of Corporate Social Responsibility. Indian Journal of industrial Relations, 44, 402-409.*
4. *Saba N.K., Balakrishnan M, Batra V.S. (2005). Improving industrial water use: case study for an Indian distillery. Resource Conservation and Recycling, 43, 163-174.*
5. *Tineke Lambody (2011) Corporate Social Responsibility: sustainable water use. Journal of cleaner production, 19, 852-856.*
6. *Kaur Harminder, Gazal Aggarwal (2012) A paradox on Corporate Social Responsibility- Case study on Coca-Cola. International Journal of Physical and Social Science, 2, 264-274.*
7. <http://www.mouthshut.com/product-reviews/Bisleri-reviews-9250052>
8. <http://pepsicoindia.co.in/purpose/environmental-sustainability.html>
9. <http://www.csrworld.net/pepsico%E2%80%93corporate-social-responsibility.html>

### The Indian Retail Industry

India's young population, increasing affluence, changing lifestyle and attitudes towards spending and increasing availability in the smallest of the towns will spur consumption and drive the growth of retail market during the next 10 years according to the report titled "The Indian Retail Medley" By Confederation of Indian Industry (CII).

## ANALYTICAL INVESTIGATION OF CAPITAL STRUCTURE AND PERFORMANCE OF THE INDIAN AUTOMOBILE INDUSTRY

\*Majid Jami, \*\*S. Sajeev

### Abstract

Financial performance analysis clarifies the strengths and weaknesses of a company in terms of amount and importance. The capital structure is one of the most important parts of financial decision making. A good capital structure helps to obtain favourable profit, and the lack of an adequate capital structure result debt position and also the leverage that leads to high financial risk. A restructuring of capital will be recommended for all poor benefit producing Industries and also losing Industries. For favourable capital structure, the companies while raising funds increase debts or equity shares, because the debt and equity are the main sources of finance for an industry.

Hence, an attempt is made in this study to ascertain the relationship between capital structure and performance of the selected companies. The results show that there is a correlation between Independent variables and Dependent variables. They are statistically high.

**Key words:-** Capital Structure, Equity Ratio, Debt to Equity Ratio, Interest Coverage Ratio, Capital Gearing Ratio, Performance, Automobile Industry.

The Automobile Industry in India as well as in the world is one of the main engines of economic growth that affects the overall gross domestic production (GDP).

Financial performance analysis clarifies the strengths and weaknesses of the companies in terms of amount and importance. The capital structure is one of the most important parts of a financial

decision making. A good capital structure helps to obtain favourable profits, and the lack of an adequate capital structure results in a debt position and also a leverage that leads to high financial risk. A restructuring of capital will be recommended for all poor benefit producing and losing Industries. For favourable capital structure, the companies while raising funds, increase debts or equity shares, because the debt and equity are

\*Majid Jami, PhD Scholar, University of Kerala, Trivandrum.

\*\*Dr. S. Sajeev, Assistant Professor, Institute of Management in Government, Trivandrum.

the main sources of finance for an industry. It is only then that proper capital structure could be designed by the industries in terms of make themselves competitive and cost effective.

**REVIEW OF LITERATURE**

**Lazaridis and Tryfonidis (2006)<sup>1</sup>** studied the relationship between working capital management and profitability of listed companies in the

**A good capital structure helps to obtain favourable profits, and the lack of an adequate capital structure results in a debt position and also a leverage that leads to high financial risk.**

Athens Stock Exchange. The study revealed that there is a statistically significant relationship between profitability measured by gross operating profit and the Cash Conversion Cycle. Furthermore, managers can create profit by correctly handling the individual components of working capital at an optimal level.

**Ebaid (2009)<sup>2</sup>** performed a study to survey the impact of choice of capital structure on the performance of firms in Egypt. The performance was assessed using ROE, ROA, and gross profit margin. The capital structure was assessed by short-term debt to asset ratio, long-term debt to asset ratio, and total debt to total assets. Multiple regression analysis was used to assess the relationship between the leverage level and performance. The investigation showed that capital structure has little to no impact on the performance of a firm.

**San and Heng (2011)<sup>3</sup>** carried out a study on the capital structure and corporate performance of the Malaysian construction sector. Their results showed that the financial crises do not show any

major impact on the performance in the construction industry because of the large scale developmental work going on in the country. Weak relationship exists between leverage and performance measured by assets returns, equity returns and profitability in the Malaysian construction industry including small, medium and large sized companies.

**OBJECTIVE OF THE STUDY**

It is to analyse the financial performance of the selected automobile companies with regard to the capital structure.

**HYPOTHESIS OF THE STUDY**

H<sub>0</sub>: There is a significant difference between the capital structures and performances of the selected companies.

**RESEARCH METHODOLOGY**

**Source of Data:**

The study is mainly based on the data collected from the secondary sources which is gathered from the annual reports of different automobile companies, published materials in the form of books and reports, articles from journals and from various websites. The study of the automobile industry covers a period of 7 years, commencing from 2007-08 to 2013-14.

**Sampling:**

The sample units have been selected by considering the following factors:

- (1) The companies which are engaged in production of the automobile industry and data which is available at least from 2007-08, and
- (2) The companies should be listed in the Stock Exchange of India as ‘A group’ companies.

There are 10 companies which satisfy these two conditions and all these ten companies are selected for the purpose of the study. The companies thus selected for the study are: Tata Motors Limited, Mahindra & Mahindra Limited, Maruti Suzuki Limited, Ashok Leyland Limited, Bharat Gears Limited, TVS Motor Company Limited, Bajaj Auto Limited, Hero MotoCorp Limited, Amara Raja Batteries Limited and Motherson Sumi Systems Limited.

**DATA ANALYSIS**

To analyse relationship between the performances of the selected Automobile Companies’ four financial ratios were

estimated, and average, standard deviation and ANOVA test were computed. Ratios are simply means of highlighting in arithmetical terms the relationships between the figures drawn from the financial statements expressed in terms of amount, importance and percentage. In this paper, Equity ratio, Debt to Equity ratio, Interest Coverage ratio and Capital Gearing ratio were computed for the purpose of analysing the performance of the firms.

**Equity Ratio**

Equity ratio refers to show potential creditors, risk to lend future loans, investment, etc. Higher equity ratios are typically favourable for companies. The companies with higher equity ratios should have less financing and debt service costs than companies with lower ratios.

**Hypothesis:** There is a significant relationship between equity ratio and performance of the selected companies.

**Table 1.1**  
**Mean Value & Standard Deviation of Equity Ratio**

Company	Mean	Std. Dev.
Tata Motors	0.346	0.036
Mahindra & Mahindra Ltd	0.481	0.0636
Maruti Suzuki Ltd	0.701	0.0254
Ashok Leyland Ltd	0.374	0.0341
Bharat Gears Ltd	0.279	0.0195
TVS Motor Company Ltd	0.357	0.0269
Bajaj Auto Ltd	0.479	0.1452
Hero MotoCorp Ltd	0.484	0.1222
Amara Raja Batteries Ltd	0.546	0.0948
Motherson Sumi Systems Ltd	0.411	0.076

*Source: Computed from Annual Report of the companies*



From the table 1.1, the equity ratio of various companies over the period under study widely fluctuate. It is seen that the mean equity ratio of Maruti Suzuki Limited is high. Correspondingly, among the sample companies considered, Bharat Gears Limited recorded a low mean equity ratio which is 0.279,  $\pm 0.0195$ . The overall equity ratio of the companies were 0.446,  $\pm 0.1358$ . Also it is to be noted from the table that standard deviation (0.0195) is low for Bharat Gears Limited, hence the data of equity ratio over the various years is found to be more stable and consistent.

**Table 1.2**  
**Correlation**

	<b>DER</b>	<b>Net Profit</b>
<b>DER</b>	1.000	
<b>Net Profit</b>	-0.682	1.000

The correlation between ER with Net profit shows there is a moderate positive correlation between ER with net profit and it is statistically significant. This means that when there is a one degree change to ER, the chance of change to net profit is 56.4%.

**Debt to Equity Ratio**

**Debt to equity ratio** is a long term solvency ratio that indicates the soundness of long-term financial policies of the company. It shows the relation between the portion of assets provided by the stockholders and the portion of assets provided by the creditors. Debt to equity ratio is also known as “External-Internal equity ratio”.

**Hypothesis:** There is a significant relationship between debt to equity ratio and performance of the selected companies.

**Table 2.1**  
**Mean Value & Variance of Debt to Equity Ratio**

Company	Average	Variance
Tata Motors	0.868571	0.063781
Mahindra & Mahindra Ltd	0.438571	0.033181
Maruti Suzuki Ltd	0.072857	0.00109
Ashok Leyland Ltd	0.705714	0.010262
Bharat Gears Ltd	0.945714	0.076262
TVS Motor Company Ltd	0.86	0.1269
Bajaj Auto Ltd	0.341429	0.139781
Hero MotoCorp Ltd	0.171429	0.041881
Amara Raja Batteries Ltd	0.358571	0.130914
Motherson Sumi Systems Ltd	0.687143	0.16919

*Source: Computed from Annual Report of the companies, analysed using SPSS*

From the table 2.1, it is obvious that the mean value of Debt to Equity Ratio of Bharat Gears Limited was found to be maximum which comes to 0.95,  $\pm 0.08$ . Correspondingly, among the sample companies considered, Maruti Suzuki Limited recorded a low mean Debt to Equity Ratio which is 0.07 0.001. Now it is elating to note that the variance of Maruti Suzuki Limited was low, the data of Debt to Equity Ratio over the various years is found to be more consistent and stable, whereas high fluctuations in Debt to Equity Ratio was indexed to Motherson Sumi Systems Limited.

**Table 2.2**  
**Correlation**

	<b>DER</b>	<b>Net Profit</b>
<b>DER</b>	1.000	
<b>Net Profit</b>	-0.682	1.000

The correlation between DER with Net Profit shows there is moderate negative correlation between DER with net profit and it is statistically significant. This means that when there is a one degree change to DER the chance of change to net profit is -68.2%.

**Interest Coverage Ratio**

The interest coverage ratio (ICR) is a measure of the number of times a company could make the interest payments on its debts with its EBIT. It determines how easily a company can pay interest expenses on its outstanding debts. ICR is also known as interest coverage, debt service ratio or debt service coverage ratio.

**Hypothesis:** There is a significant relationship between interest coverage ratio and performance of the selected companies.

**Table 3.1**  
**Mean Value & Variance of Interest Coverage Ratio**

Variance	Average	Company
11.8401	5.154286	Tata Motors
1185.111	50.76143	Mahindra & Mahindra Ltd
2980.062	74.82429	Maruti Suzuki Ltd
29.01735	6.271429	Ashok Leyland Ltd
0.564029	3.225714	Bharat Gears Ltd
407.749	16.25571	TVS Motor Company Ltd
17465647	3028.74	Bajaj Auto Ltd
306239.5	307.8771	Hero MotoCorp Ltd
99896.08	240.64	Amara Raja Batteries Ltd
31.27478	13.93857	Motherson Sumi Systems Ltd

*Source: Computed from Annual Report of the companies, analysed using SPSS*

From the table 3.1, it is obvious the mean value of Interest Coverage Ratio of Bajaj Auto Limited is found to be maximum which comes to 3028.7417465647%. Correspondingly, among the sample companies considered, Bharat Gears Limited recorded a low mean Interest Coverage Ratio, which is 3.230.56. Now it is elating to note that variance of Bharat Gears Limited was low, the data of Interest Coverage Ratio over the various years is found to be more consistent and stable, whereas high fluctuations in Interest Coverage Ratio is indexed to Bajaj Auto Limited.

**Table 3.2**  
**Correlation**

	<b>ICR</b>	<b>Net Profit</b>
<b>ICR</b>	1.000	
<b>Net Profit</b>	0.441	1.000

The correlation between ICR with Net Profit shows there is a moderate

positive correlation between ICR with net profit and it is statistically significant. That means that when there is a one degree change to ICR the chance of change to net profit is 44.1%.

**Capital Gearing Ratio**

**Capital gearing ratio** is a useful tool to the capital structure analysis and the financial strength of the company and is of great importance for the actual and the potential investors. Analysing capital structure means measuring the relationship between the funds provided by the common stockholders and the funds provided by those who receive a periodic interest or dividend at a fixed rate.

**Hypothesis:** There is a significant relationship between the capital gearing ratio and performance of the selected companies.

From the table 4.1, it is obvious that the mean value of capital gearing ratio of Ashok Leyland Limited was found to

**Table 4.1**  
**Mean Value & Variance of Capital Gearing Ratio**

Company	Average	Variance
Tata Motors	0.912857	0.085424
Mahindra & Mahindra Ltd	0.392857	0.043124
Maruti Suzuki Ltd	0.05	0.001233
Ashok Leyland Ltd	58.36	102.4198
Bharat Gears Ltd	1.062857	0.114324
TVS Motor Company Ltd	0.685714	0.120829
Bajaj Auto Ltd	0.327143	0.146824
Hero MotoCorp Ltd	0.128571	0.033148
Amara Raja Batteries Ltd	0.095714	0.001395
Motherson Sumi Systems Ltd	0.617143	0.18159

*Source: Computed from Annual Report of the companies, analysed using SPSS*

be maximum which comes to 58.36102.42. Correspondingly among the sample companies considered, Maruti Suzuki Limited recorded a low mean capital gearing ratio which is 0.05 0.001. Now it is elating to note that the variance of Maruti Suzuki Limited was low, the data of capital gearing ratio over the various years is found to be more consistent and stable, whereas the high fluctuations in the capital gearing ratio was indexed to Ashok Leyland Limited.

**Table 4.2**  
**Correlation**

	<b>CGR</b>	<b>Net Profit</b>
<b>CGR</b>	1.000	
<b>Net Profit</b>	-0.258	1.000

The correlation between CGR with Net Profit shows that there is a low negative correlation between CGR with net profit and it is statistically significant.

This means that when there is a one degree change to CGR the chance of change to net profit is -25.8%.

**Table 4.3**  
**Regression Analysis**

R <sup>2</sup>	Adjusted R <sup>2</sup>	R	Std. Error	n	k	Dep. Var.
0.542	0.176	0.736	888.971	10	4	Mean-Net Profit

The adjusted R-squared value in this case is 17.60%. This explains the fact that the independent variables in the model namely ER, DER, ICR and CGR account for 17.60% variance in the dependent variable net profit. This highlights the fact that the above model is considered to be a low fit.

ANOVA test value for the above table (Table 4.4) shows that 1.48; P Value is 0.3337, (P>0.05), Ho formulated in this

**Table 4.4**  
**ANOVA Test**

Source	SS	df	MS	F	p-value	
<b>Regression</b>	46,83,612.6123	4	11,70,903.1531	1.48	0.3337	
<b>Residual</b>	39,51,351.5010	5	7,90,270.3002			
<b>Total</b>	86,34,964.1133	9				
Regression output		confidence interval				
Variables	Coefficients	Std. error	t (df=5)	p-value	95% lower	95% upper
<b>Intercept</b>	3,295.0477	4,385.8251	0.751	.4863	-7,979.0747	14,569.1701
<b>ER</b>	-1,914.6389	6,592.6601	-0.290	.7832	-18,861.6111	15,032.3333
<b>DER</b>	-2,563.2841	2,651.1499	-0.967	.3780	-9,378.2818	4,251.7137
<b>ICR</b>	0.2192	0.3567	0.614	.5658	-0.6978	1.1362
<b>CGR</b>	-6.4019	16.7641	-0.382	.7182	-49.4955	36.6916

regard is accepted. This means that there is no significant difference between the independent variable and the dependent variable, that is, ER, DER, ICR and CGR have control over the net profit. This clearly shows that the net profit independent on ER, DER, ICR and CGR as it is clearly evidence from the adjusted R-squared value of 17.60%.

The first of this table gives the regression coefficients and their significance. These regression coefficients can be used to construct an Ordinary Least Square (OLS) equation and also to test the hypotheses on each of the independent variables.

$$\text{Net Profit} = -3,295.0477 + (-1,914.6389 \text{ ER}) + (-2,563.2841 \text{ DER}) + (0.2192 \text{ ICR}) + (-6.4019 \text{ CGR})$$

## CONCLUSION

Results of the study show that the adjusted R-squared value in this case is 17.60%. This explains the fact that the independent variables account for 17.60%

variance in the dependent variable net profit. This highlights the fact that the above model is considered to be a low fit, that is, ER, DER, ICR and CGR have control over the net profit. This clearly shows that the net profit is independent of ER, DER, ICR and CGR as it is clearly evidenced from the adjusted R-squared value of 17.60%.

There is significant difference among the mean values of Equity Ratio, Debt to Equity Ratio, Capital Gearing Ratio and Interest Coverage Ratio over the period under the study for the sample companies. This also shows that statistically; mean value of Equity Ratio, Debt to Equity Ratio, Capital Gearing Ratio and Interest Coverage Ratio over the period under the study for the sample companies is different. Hence the data are more stable and consistent. Thus it is concluded that the Equity Ratio of Maruti Suzuki Limited, the Debt to Equity Ratio of Bharat Gears Limited, the Capital Gearing Ratio of Ashok Leyland Limited and the Interest Coverage Ratio of Bajaj Auto Limited are all statistically high.

## References

1. Lazaridis, I. & Tryfonidis, D, *Relationship between Working Capital Management and Profitability of Listed Companies in the Athens Stock Exchange. Journal of Financial Management and Analysis*, 19 (1), (2006), 26 – 35.
2. Ebaid, E. I. (2009). *The impact of capital-structure choice on firm performance: empirical evidence from Egypt. The Journal of Risk Finance*, 10(5), 477-487. .
- 3 San O. T. and Heng T. B., “*Capital Structure and Corporate Performance of Malaysian Construction Sector*”, *International Journal of Humanities and Social Science*, Vol.1 No.2. 2011, pp: 28-36, 2011.

### Strategic Partnership

India announced a one billion dollar credit line to Mongolia for infrastructure development as they upgraded their ties to "strategic partnership" and agreed to deepen defence cooperation besides exploring potential for tie-ups in areas such as civil nuclear sector.

## IMPACT OF ENTREPRENEURSHIP EDUCATION: A COMPARATIVE STUDY AMONG STUDENTS IN KERALA

\*Vivek S.A

### Abstract

Over the last decade, entrepreneurship has emerged as a mainstream business discipline in India. The global explosion of e-business and new business opportunities created by advances in information and telecommunication technologies (ICT) has widely popularised entrepreneurship for new venture creation. But while entrepreneurship is becoming more prevalent in India, its education is not widespread. This paper presents the results of a study on the impact of entrepreneurship education on postgraduate students in Kerala, India. It is found that there is a significant difference on the effects of entrepreneurship education among students who took entrepreneurship or venture creation course(s) and students who did not undertake any of these course(s).

**Key words:-** Entrepreneurship, Education, Venture Creation, Students.

There is no universal definition for entrepreneurship and the scholars' views of the topic have changed considerably since Schumpeter (1934) defined it for the first time. Drucker (1985) called entrepreneurship an "innovative act, which includes endowing existing resources for new wealth-producing capacity". It is important to note, however, that entrepreneurship, a primary source of innovation, may involve the development of new visions and business methods for established companies as well as the creation of new

organisations (Carrier, 1996). Therefore, entrepreneurship can be applied to all kinds of organisations including non-profit institutions.

Although many studies assert that entrepreneurs are different from non-entrepreneurs, there is no unified definition description of entrepreneurs. Instead, scholars have developed various definitions of entrepreneurs (Brockhaus, 1980a, 1980b). Gartner (1985) attempted to find differences in personality and background between entrepreneurs and non-entrepreneurs, namely that entrepreneurs are cultivated by cultural,

---

*\*Dr. Vivek S.A, Assistant Professor, Member Sree Narayana Pillai Institute of Management and Technology, Kollam, Kerala - 691585*

economic, social, political, and educational backgrounds that are fundamentally different than from those of non-entrepreneurs and that each entrepreneur has his or her unique motivation, goals, and talents for venture creation according to his/her unique background.

More recently, Watson, Hogarth-Scott, and Wilson (1998), cited personal background, motivation for start-up, and growth orientation as factors for successful venture creation. According to Morrison's (1999) study, the profile of an entrepreneur is one who:

- (1) is intelligent and analytical;
- (2) is an effective risk manager and a networker;
- (3) possesses a strong set of moral, social and business ethics;
- (4) exhibits a basic trader's instinct; and
- (5) is dedicated to life-long learning in many forms.

The talents included in Morrison's definition are important requirements for becoming successful entrepreneurs in the knowledge era.

It is believed that individuals, who are motivated by factors such as financial rewards, achievement, social, career, and individual fulfillment, need entrepreneurship education that supports and encourages entrepreneurial activity. It is meaningful to conduct a comparative study of the impact of entrepreneurship education for the following reasons:

- (1) It can identify the role of entrepreneurship education and its effects; and

- (2) It could suggest a meaningful new direction for entrepreneurship education.

This is an empirical study conducted in Kerala, where entrepreneurship is just beginning to emerge as an important business discipline. This study determines whether there exists any difference in the impact of entrepreneurship education among students who took entrepreneurship or venture creation course(s) and students who did not take any of these course(s).

## OBJECTIVES

The study is conducted in the academic amphitheatre of Kerala. The specific objectives of the study are:

1. To analyse the concept of entrepreneurship education.
2. To determine the difference on the impact of entrepreneurship education among the students who took entrepreneurship or venture creation course(s) and students who did not.

## Entrepreneurship Education

Watson, Hogarth-Scott, and Wilson (1998) pointed out that, entrepreneurs are different from non-entrepreneurs in many aspects. Furthermore, as Gartner (1985) assumed when he developed his own conceptual framework for describing the phenomenon of new venture creation based on previous studies, the difference among entrepreneurs or new ventures is more considerable than between entrepreneurs and non-entrepreneurs in terms of personality and background. These facts strongly imply that

entrepreneurial talents can be “matured-up” by postnatal education since: (1) inborn nature is not sufficient to explain the difference; and (2) most factors identified in previous studies were achievable through proper education. So an individual’s personality and ability can be uniquely developed according to the context of his or her education and willpower, and motivation can be differentiated according to postnatal environment where an individual grows. Thus, great diversity exists among entrepreneurs based on their “growing background” of social, cultural, and educational environments (Mckelvy, 1982).

Gartner (1989) suggested that job satisfaction, previous work experiences, entrepreneurial parents, age, and education as the factors which differentiate entrepreneurs from non-entrepreneurs. According to the previous studies, education in particular, is one of the critical factors in distinguishing entrepreneurs from non-entrepreneurs. Based on the point that home-education from parents has a significant impact on an individual’s life, entrepreneurial parents should also be included in the education category. In addition, many organisations allocate a great deal of resources to train their members through external as well as internal education opportunities. Thus, previous work experiences can be included in the category of education, in a broad sense. Consequently, we can generalise that the relative importance of education is very high.

Cho (1998) also maintained that if entrepreneurial talents were innate and could not be built up postnatally,

entrepreneurship education would lose its significance and that entrepreneurial talents should therefore not be perceived as innate. Furthermore, Cho’s (1998) study reveals that entrepreneurship education promotes the intention of venture creation because entrepreneurship-related knowledge and skills stimulate an individual’s motivation to create a new venture.

Timmons (1999) stated that team-based venture creation is more common than individual venture creation. Since it is difficult for every entrepreneur to have all the required managerial knowledge, individuals with complementary backgrounds make effective teams for creating new venture companies. He also emphasised the importance of entrepreneurship education by maintaining that the skills required for a successful venture creation are gained through postnatal learning such as teamwork experiences. In general, entrepreneurship education provides the students with motivation, knowledge, and skills essential for launching a successful venture company (Cho, 1998).

### **Methodology**

The nature of the study is descriptive, which is based on primary and secondary data. Primary data was collected from postgraduate students in Kerala. Secondary data has been collected from various published sources like journals and books.

The problems relating to the study have been discussed in detail with the researchers in this field in order to get a close by into the focus prior to the collection of data. The information obtained through these



discussions is used in formulating the structure of the study.

### Sample Groups

The main purpose of this study is to determine the difference on the impact of entrepreneurship education on postgraduate students in Kerala. To conduct this study, the following two groups were formed:

Group A: Students who took entrepreneurship or venture creation course(s).

Group B: Students who did not take any entrepreneurship or venture creation course(s).

In this study, a probability sampling technique, stratified random sampling method has been used for selecting the respondents from the 'Universe'. 'Universe' for this study is the postgraduate students from the various Departments of the Universities in the state of Kerala. At first, Kerala is divided into three regions or strata namely, the northern region, the central region and the southern region. At the second stage, 25 students belonging to Group A and 20 students belonging to Group B have been selected by random sampling from each of the regions. A total of 135 students were surveyed, where 75 students belong to Group A and 60 students belong to Group B.

### Data Collection Tool

The questionnaire to measure the effects of the entrepreneurship education used in this study developed by Lee, Chang, and Lim (2005), consisted of 16 items, on a five-point likert-type scale; (1 - strongly disagree, 2 - disagree, 3 - neither

agree nor disagree, 4 - agree, and 5 - strongly agree). It measures four dimensions that measure the effects of entrepreneurship education which include: (1) intention of venture creation and confidence in it; (2) knowledge and ability of venture creation; (3) intention of overseas venture creation with teamwork; and (4) recognition of the importance of entrepreneurship education. A brief description of the dimensions is as follows:

#### **(1) Intention of venture creation and confidence in it -**

Gartner (1985) described entrepreneurship as the "creation of a new organisation". The results of previous studies (Cho, 1998; Clark, Davis, and Harnish, 1984)) show that entrepreneurship education often triggers the motivation for venture creation. They supported the intention that venture creation can be increased by entrepreneurship education. According to Han and Lee (1998), increased confidence in venture creation is the main effect of entrepreneurship education. This dimension is measured using 7 items.

#### **(2) Knowledge and ability for venture creation -**

Timmons (1999) suggested that if an individual had the appropriate knowledge for entrepreneurship and an intention for venture creation, he or she could create a venture and succeed in it. If effective education is provided, including the topics for launching a company and expanding it, resource and team management, business plan, marketing, etc. to individuals with interest in venture creation but who do not have the confidence in it, their

confidence and ability will be increased simultaneously. In short, an increased knowledge of venture creation results in an increased ability for venture creation. This dimension is measured using 4 items.

### **(3) Intention of overseas venture creation with teamwork -**

Timmons (1999) asserted that entrepreneurship education is very important since various talents required for venture creation could be obtained through postnatal education. Since overseas venture creation is difficult to be achieved by an individual entrepreneur but requires teamwork and an open paradigm, Lee, Chang, and Lim (2005) introduced “intention of overseas venture creation with teamwork” as an operational definition. This dimension is measured using 3 items.

### **(4) Recognition of the importance of Entrepreneurship education -**

Entrepreneurship education increases knowledge about venture creation. Thus, the individuals who took entrepreneurship education should recognise that it is important for a successful venture creation. Moreover, this perception will accelerate the effect of entrepreneurship education as time passes. This dimension is measured using 2 items.

Researchers confirm the validity of the questionnaire based on the evaluation of a panel of experts. The first panel consists of two leading consultants who are postgraduates - one in management and the other in engineering (with thirty years of experience in the fields of consulting) - were asked to comment on the questionnaire. The questionnaire was presented to another panel consisting of

one University Professor (with thirty-one years of experience) and an entrepreneur (with twenty-five years of experience in managing his own manufacturing firm at Kollam, Kerala). They were asked to evaluate the face validity of the questionnaire. The panel after careful examination of each of the items reported that the scale has adequate face validity. To confirm the reliability of the instrument, Cronbach's  $\alpha$  was calculated based on the pilot study conducted among 42 postgraduate students from the various University Departments of the University of Kerala, Thiruvananthapuram. The samples for the pilot study were formed based on the convenience sampling method. The values for the four dimensions that measure the effects of entrepreneurship education are 0.78, 0.72, 0.85, and 0.76 respectively.

## **RESULTS AND DISCUSSION**

The intent of the study is to determine the difference on the impact of entrepreneurship education among students who took entrepreneurship or venture creation course(s) and students who did not take any of these course(s). This study is also intended to identify the dimensions of the impact of entrepreneurship education for which a variation is prominent. The t-test was used to find out the difference among the groups. Levene's test shown in Table 1 for all variables revealed that the variances are not equal.

The result (t-value of 45.627) presented in Table 2 shows that there is significant difference on the effects of entrepreneurship education among the sample groups studied. The results

[intention of venture creation and confidence in it (t-value 43.730), knowledge and ability for venture creation (t-value 38.860), intention of overseas venture creation with teamwork (t-value 37.640) and recognition of the importance of entrepreneurship education (t-value 29.748)] also shows a significant

difference in all the dimensions among the samples studied. In all the dimensions, the students who took entrepreneurship or venture creation course(s) had higher mean values. This denotes that the impact of entrepreneurship education is more on students who took entrepreneurship or venture creation course(s).

**Table 1**  
**Levene’s Test for Equality of Variances Impact of Entrepreneurship Education Scores among Students**

Particulars	F - Value	Level of Significance
Intention of Venture Creation and Confidence in it	111.682**	.000
Knowledge and Ability of Venture Creation	102.763**	.000
Intention of Overseas Venture Creation with Teamwork	122.746**	.000
Recognition of the Importance of Entrepreneurship Education	98.426**	.000
Impact of Entrepreneurship Education	133.456**	.000

\*\*Significant at  $p < .01$  level

**Table 2**  
**Results of t-test on the Impact of Entrepreneurship Education among Students**

Particulars	Students	Number	Mean	Standard Deviation	t-value
Intention of Venture Creation and Confidence in it	Group A	75	33.60	2.304	43.730*
	Group B	60	17.58	1.546	
Knowledge and Ability of Venture Creation	Group A	75	29.67	1.976	38.860*
	Group B	60	14.53	1.845	
Intention of Overseas Venture Creation with Teamwork	Group A	75	25.73	1.693	37.640*
	Group B	60	14.83	1.378	
Recognition of the Importance of Entrepreneurship Education	Group A	75	14.89	1.357	29.748*
	Group B	60	10.19	1.123	
Impact of Entrepreneurship Education	Group A	75	98.18	6.445	45.627*
	Group B	60	56.72	4.762	

\* Significant at 0.05 level

As displayed in Table 1, there is a significant difference between the students who took the entrepreneurship-related courses and those who did not. This shows that there is a definite pedagogical effect of venture education on the students.

## CONCLUSION

Previous studies maintain that entrepreneurs are cultivated during their lifetime, and that social and cultural environment, personal experience, and education are very important to building entrepreneurship. According to Watson, Hogarth-Scott, and Wilson (1998), motivation for venture creation is one of the critical factors for successful entrepreneurship and Clark, Davis, and Harnish (1984) and Cho (1998) stated that entrepreneurship education could provide motivation for venture creation. Therefore, effective entrepreneurship education and a good concept for venture creation will enhance entrepreneurship, and a strengthened entrepreneurship will result in increased intention and a desire for venture creation. Finally, students with increased intention for venture creation will pursue more knowledge for

entrepreneurship and realize the importance of teamwork (Timmons, 1999). Concurrently, the confidence and the ability in venture creation will also increase (Han and Lee, 1998). This study reveals that there is a significant difference on the impact of entrepreneurship education between students who took entrepreneurship-related courses and those who did not. This result underlines the necessity to impart compulsory entrepreneurship courses to students of undergraduate or postgraduate level in Kerala. The findings of this study, which is supported by empirical evidence, may also provide guidelines for owners of Micro, Small and Medium Scale Enterprises in the use of appropriate influence tactics like doing best business practices supported by learning materials and sponsorships in colleges that promote entrepreneurship. The researcher would be highly obliged if the findings of the study triggers more research in this area. It is suggested to conduct further studies on the impact of entrepreneurship education in the Indian states and other countries where entrepreneurship-oriented culture are poor or still in the embryonic stages of development.

## References

1. Brockaus, R. H. (1980a), *The Effect of Job Dissatisfaction on the Decision to Start a Business. Journal of Small Business Management*, 18(1), 37-43.
2. Brockaus, R. H. (1980b), *Risk Taking Propensity of Entrepreneurs. Academy of Management Journal*, 23(3), 509-520.
3. Carrier, C. (1996), *Entrepreneurship in Small Business: An Exploratory Study. Entrepreneurship: Theory and Practice*, 21(1), 5-20.
4. Cho, B. (1998), *Study of the Effective Entrepreneurship education method and its process. Business Education Research*, 2(1), 27-47.
5. Clark, B. W., Davis, C. & Harnish, V. (1984), *Do Courses in Entrepreneurship Aid in New Venture Creation? Journal of Small Business Management*, 22(2), 26-31.

6. Drucker, P.F., (1985), *Innovation and Entrepreneurship*. New York: Haper & Row.
7. Gartner, W. B. (1985), *A Conceptual Framework for Describing the Phenomenon of New Venture Creation*. *Academy of Management Review*, 10(4), 696-706.
8. Gartner, W. B. (1989), *Who is an Entrepreneur? is the wrong question*. *American Journal of Small Business*, 12(4), 11-22.
9. Han, J. & Lee, M. (1998), *A Study on the Status of Entrepreneurship Education in Korea and its Direction*. *Business Education Research*, 2(2), 5-26.
10. Lee, Sang, M., Chang, Daesung., & Lim, Seong-Bae. (2005). *Impact of Entrepreneurship Education: A Comparative Study of the U.S. and Korea*. *International Entrepreneurship and Management Journal*, 1, 27-43,
11. McKelvey, B. (1982). *Organizational Systematic - Taxonomy, Evolution, Classification*. Berkeley: University of California Press.
12. Morrison, A. (1999). *Entrepreneurship: What Triggers It?* *International Journal of Entrepreneurial Behavior & Research*, 6(2), 59-71.
13. Schumpeter, J. A. (1934). *The Theory of Economic Development*, Cambridge, MA: Harvard University Press.
14. Timmons, J. A. (1999). *New Venture Creation: Entrepreneurship for 21st Century (5th Edition)*. Homewood, Illinois: Irwin- McGraw-Hill.
15. Watson K., Hogarth-Scott S., & Wilson N. (1998). *Small Business Start-Ups: Success Factors and Support Implications*. *International Journal of Entrepreneurial Behavior & Research*, 4(3), 217-238.

**STATEMENT ABOUT THE OWNERSHIP AND OTHER PARTICULARS  
ABOUT THE MANAGEMENT RESEARCHER**

*Form IV (See Rule 8)*

- |                               |   |  |
|-------------------------------|---|--|
| 1. Place of Publication       | : | Trivandrum, Kerala   |
| 2. Period of Publication      | : | Quarterly  |
| 3. Printer's Name and Address | : | Navadhara Printers<br>Sreekaryam, Trivandrum - 695 017   |
| 4. Editor's Name and Address  | : | Dr. C.V. Jayamani<br>TC 8/123, Pooja, Kavil Lane<br>Cheruvakal, Sreekaryam<br>Trivandrum - 695 017 |
| 5. Ownership                  | : | Institute of Management Development<br>and Research, Convent Road, Trivandrum                      |

I, Prof. S. Krishnan Nair, hereby declare that the particulars given above are true to the best of my knowledge and belief.

(Sd/-)  
Prof. S. Krishnan Nair  
Publisher

## FEMALE WORKERS IN UNORGANISED SECTOR IN THE CONSTRUCTION INDUSTRY IN KERALA - ISSUES AND CHALLENGES

\*Sajina. K. P, \*\*B. Vijayachandran Pillai

### Abstract

Unorganised sector constitutes an important part of the Indian economy. More than 90 percent of the workforce and about 50 percent of the national product are accounted for by the informal economy. Most of the socially and economically underprivileged sections of the society are engaged in the unorganised economic activities. They are typically found in the remote areas with difficult access to the markets and institutions, uneducated, poor health, employed in jobs with little security and with inadequate access to productive assets. 90 percent of the Indian women workforce are engaged in agriculture, livestock, textiles and textile products, beverage and tobacco, food products, construction, petty retail trade, education and research and domestic services. The unorganised women workers are living below the minimum accepted standards without adequate physical facilities. The low earnings of these women are insufficient even to meet their daily needs.

**Key words:-** Workforce, Unorganised Sector, Informal Labour, Human Capital Base, Seasonality of Employment.

An Unorganised Sector can be defined as the sector where the elements of the Organised Sector are absent. In the absence of a more analytical definition, the landscape of the unorganised sector becomes synonymous with the kaleidoscope of unregulated, poorly skilled and low-paid workers. While

defining an unorganised sector, we can say that it is a part of the workforce which has not been able to organise in pursuit of a common objective because of constraints such as the casual nature of employment, ignorance and illiteracy, small size of establishments with low capital investment per person employed, scattered nature of establishments,

---

\*Sajina. K. P, *Research Scholar in Commerce, Kerala University Library, University of Kerala, Thiruvananthapuram.*

\*\*Dr. B. Vijayachandran Pillai, *Professor and Head, Department of Commerce and Management Studies, University of Calicut.*

superior strength of the employer, etc. The informal sector is not a separate and closed circuit of work and labour. Different terminologies are used to signify the unorganised sector like informal sector, informal economy, and even informal labour which often highlights the most affected part of the sector, namely, the labour. “Informal labour is a workforce whose use is not governed either by the state regulations or by the collective agreements between the workers and the employers.”

Nearly 90 percent of India’s workforce is found in the unorganised segment. The entire farming sector falls under the informal category, while only one-fifth of the non-farm workers are found in the organised segment. Women workers in the informal economy are associated with low levels of organisation, small-scale production, and casual employment, little or no social protection, and lack of job security or health insurance. The most vulnerable section of the society comprising of women, children, minorities, and illegal immigrants are the prime targets of this exploitation. The organisations in the informal sector do not seek to overturn the class system, but represent a challenge to the hierarchical class relations. The informal or unorganised sector often supplies vital services and goods to the formal economy at cheaper rates due to the low labour and infrastructural costs. This is where the growing number of workers

**“Informal labour is a workforce whose use is not governed either by the state regulations or by the collective agreements between the workers and the employers.”**

in the developing countries is concentrated. They are engaged in activities such as domestic work, construction work, small trades like brick making, coir and basket weaving, household industries, etc. In the rural unorganised sector, women are engaged in agricultural activities, animal husbandry, dairy, fisheries, construction work, etc. In this context, the present paper tries to identify the problems and challenges faced by the female workers in the unorganised sector of the construction industry.

### 1. Unorganised Sector - An Overview

Workers in the organised sector are distinguished by regular salaried jobs with well-defined terms and conditions of employment, clear-cut rights and obligations and fairly comprehensive social security protection. The unorganised sector, on the other hand, has no such clear-cut employer-employee relationships and lack most forms of social protection. Having no fixed employer, these workers are casual, contractual, migrant, and home-based own-account workers who attempt to earn a living from whatever meagre assets and skills they possess. The prominent features of this sector are lower real wages and poor working and living conditions. Further, the sector is characterised by excessive seasonality of employment (especially in the farming sector), preponderances of casual and contractual employment, atypical production organisations and work relations, absence of social security

measures and welfare legislations, negation of social standards and worker rights, denial of minimum wages and so on. Poor human capital base (in terms of education, skill and training) as well as lower mobilisation status of the workforce further add to the vulnerability and weaken the bargaining strength of workers in the informal sector. Thus, the sector has become a competitive and low cost device to absorb labour, which cannot be absorbed elsewhere, whereas any attempt to regulate and bring it into more effective legal and institutional framework, is perceived to be impairing the labour absorbing capacity of the sector. Workers engaged in the unorganised sector do not have the benefit of several laws such as the Minimum Wages Act or the Factories Act. They are also not covered by statutory welfare measures such as maternity benefits, provident fund, gratuity, etc. All of these were put in place after intense struggles by the Indian working class in the pre- as well as the post-Independence periods. The Indian economy is characterised by the existence of a vast majority of informal or unorganised labour employment. The unorganised women workers live below the minimum accepted standards, without adequate shelter and toilet facilities. These women are even unable to meet their daily needs with such low earnings. They marry, bear children and become aged; they undergo these phases of their life with not only no improvement but with the same hardships in the life they have faced. They live under unhygienic environments which have resulted in contracting infectious and contagious diseases. The nature of the women's work ranges from wage

employment or self-employment, family labour and piece-rated work. The prevalence of women workers in the urban unorganised sector is significant in number. They are engaged in activities like domestic work, construction work, small trades like brick-making, coir and basket weaving, household industries, etc. In the rural unorganised sector women are engaged in agricultural activities, animal husbandry, dairy, fisheries, etc. The Ministry of Labour, Government of India, has categorised the unorganised labour force under four groups in terms of occupation, nature of employment, especially distressed categories and service categories.

**2. Classification of the Unorganised Labour Force**

The diagrammatic representation of the types of the Unorganised Labour Force is given below:

**Figure 1**  
**Classification of Unorganised Labour Force**



Occupation	Nature of Employment	Especially distressed Categories	Service Categories
------------	----------------------	----------------------------------	--------------------

*Source: Ministry of Labour, Govt of Kerala.*

**(1) Occupation**

Small and marginal farmers, landless agricultural labourers, share croppers, fishermen, those engaged in animal husbandry, beady rolling, labelling and packing, building and construction workers, leather workers, weavers,



artisans, salt workers, workers in brick kilns and stone quarries, workers in saw mills, oil mills, etc. all come under this category.

## (2) Nature of Employment

Attached agricultural labourers, bonded labourers, migrant workers, contract and casual labourers come under this category.

## (3) Especially Distressed Categories

Toddy tappers, scavengers, carriers of headloads, drivers of animal-driven vehicles, loaders and un-loaders, come under this category.

## (4) Service Categories

Midwives, domestic workers, fishermen and women, barbers, vegetable and fruit vendors, newspaper vendors, etc. belong to this category.

In addition to these four categories, there exists a large section of unorganised labour-force such as cobblers, hamals, handicraft artisans, handloom weavers, lady tailors, physically-handicapped self-employed persons, rickshaw-pullers, auto-rickshaw drivers, sericulture workers, carpenters, tannery workers, power-loom workers and the urban poor.

## 3. The Characteristics of the Unorganised Workers

The following are the major characteristics of the unorganised workers:

- The unorganised labour force is overwhelming in terms of its number and range and therefore they are omnipresent throughout India;

## MANAGEMENT RESEARCHER

- As the unorganised sector suffers from cycles of excessive seasonality of employment, a majority of the unorganised workers does not have stable and durable avenues of employment. Even those who appear to be visibly employed are not gainfully and substantially employed, indicating the existence of a disguised unemployment;
- The workplace is scattered and fragmented;
- There is no formal employer–employee relationship;
- Workers in the unorganised sector are usually subject to indebtedness and bondage as their meagre income cannot meet with their livelihood needs;
- The workers in the unorganised sector are subject to exploitation, especially by the rest of the society. They experience poor working conditions; receive wages much below that which is given to workers in the formal sector, even for closely comparable jobs, i.e., where the labours productivity are no different. The work status is of inferior quality. There is also inferiority in the terms of employment, both in the remuneration and in the employment;
- Primitive production technologies and feudal production relations are rampant in the unorganised sector, and they do not permit or encourage the workmen to imbibe and

assimilate higher technologies and better production relations. Large scale ignorance and illiteracy and limited exposure to the outside world are also responsible for such poor absorption;

- The unorganised workers do not receive sufficient attention from the trade unions;
- Inadequate and ineffective labour laws and standards relating to the unorganised sector; and
- In the rural areas, the unorganised labour force is highly stratified on caste and community considerations. In urban areas while such considerations are much less, it cannot be said that it is altogether absent as the bulk of the unorganised workers in urban areas are basically migrant workers from rural areas.

**4. Significance of the Study**

The construction industry has several features that distinguish it from most other

industries as far as the status and welfare of the workers is concerned. The majority of the construction sites are of a temporary nature, since most structures require little attention of the construction workers

once the construction is completed. This factor, making for mobility of labour in the construction industry, raises special problems on the sites, where temporary arrangements must suffice for the

**The construction workers fall in the category of the unorganised sector. Most of the women in the rural areas who are engaged in construction work, live below the minimum accepted standards without adequate facilities and having lower income that do not meet their daily needs in life.**

provision of welfare amenities. The construction workers fall in the category of the unorganised sector. Most of the women in the rural areas who are engaged in construction work, live below the minimum accepted standards without adequate facilities and having lower income that do not meet their daily needs in life.

**5. Objective of the Paper**

The main objective of the present paper is to identify the problems and the challenges experienced by the female workers in the unorganised sector of the construction industry in the state of Kerala.

**6. Methodology and Data Base**

This is a descriptive study in nature. Data for this purpose have been collected from both secondary and primary sources. The secondary data have been collected from books, journals, periodicals, study reports and research dissertations. The primary data have been collected from the related female workers of the

construction industry in the state of Kerala. In order to ensure a large sample size, a total of 100 female workers have been selected for the investigation. For the purpose of collecting the data from the female workers, a

structured interview has been developed and finalised after conducting a pilot study. The analysis of the data has been done with the help of simple mathematical tools like percentages and averages.

**7. Results of the Analysis**

The results of the primary data analysis are given below:

**7.1 Profile of Female Workers**

A brief analysis of the profile of the sample respondents is collected and presented below:

**1. Age Group of the Respondents**

**Table 1**

**Age group of the Respondents**

Sl. No.	Age Group	No. of Respondents	Per cent
1.	30-34	22	22
2.	35-39	30	30
3.	Above 40	58	58
	Total	100	100

*Source: Survey Data.*

Table 1 above gives the age group of the sample respondents. It shows that a majority (58 %) of the sample respondent belongs to the age group of above 40 years, followed by 35-39 years (30%). It is found that only 22% of the respondents fall in the age group of 30-34.

**2. Marital Status of the Respondents**

**Table 2**

**Marital Status of the Respondents**

Sl. No.	Marital Status	No of respondents	Per cent
1.	Married	40	40
2.	Un married	10	10
3.	Widow	60	60
	Total	100	100

*Source: Survey Data*

Table 2 shows the marital status of the respondents. It is clear that a majority of the sample female workers (60%) are widows, 40% are married, and the

remaining 10 % of the respondents are unmarried.

**3. Educational Qualification**

The data on the educational qualification of the respondents reveals the fact that 49% of the sample respondents have no formal education (Table 3). It is also seen that 25% of the respondents have the qualification of upto 5<sup>th</sup> standard and the remaining 26 percent of the sample respondents are having educational qualification of above 5<sup>th</sup> standard.

**Table 3**

**Educational Qualification**

Sl. No.	Educational Qualification	No. of Respondents	Percent
1.	No formal education	49	49
2.	Upto 5 <sup>th</sup> standard	25	25
3.	Above 5 <sup>th</sup> standard	26	26
	Total	100	100

*Source: Survey Data.*

**4. Experience**

**Table 4**

**Experience**

Sl. No.	Experience	No of Respondents	Percent
1.	Below 5 years	19	19
2.	5-10 years	39	39
3.	Above 10 years	42	42
	Total	100	100

*Source: Survey Data.*

The data on experience of the sample respondents (Table 4) shows that 19 percent of the sample respondents have the experience of below 5 years in the field. Similarly, 39 percent of the

respondents are having experience between 5-10 years and the remaining 42 percent of the sample respondents have experience of more than 10 years in the field.

**5. Average Daily Income**

The data about the average daily income of the sample respondents are given below:

**Table 5**

**Average Daily Income**

Sl. No.	Average daily income	No of Respondents	Percent
1.	Less than 300	11	11
2.	500-300	67	67
3.	Above 500	22	22
	Total	100	100

*Source: Survey Data.*

**6. Family Members**

**Table 6**

**Number of Family Members**

Sl. No.	Number of Family Members	Number of Respondents	Percent
1.	Less than 5	32	32
2.	5-9	41	41
3.	Above 10	27	27
	Total	100	100

*Source: Survey Data.*

The data on family members of the sample respondents (Table 6) show that 32 percent of the sample respondents have family members of less than 5. Similarly, 41 percent of the respondents are having family members of 5-9, and 27 percent of the sample respondents have the family members of above 10.

**7. Nature of Location**

The data on nature of location of the sample respondents (Table 7) show that 70 percent of the sample respondents are from the rural areas and followed by 20

percent from the semi-urban areas. Only 10 percent workers are found to be from the urban areas.

**Table 7**

**Nature of Location**

Sl. No.	Nature of Location	Number of Respondents	Percent
1.	Urban area	10	10
2.	Semi-urban area	20	20
3.	Rural area	70	70
	Total	100	100

*Source: Survey Data.*

**8. Issues and Challenges of Female Workers in the Construction Industry**

The primary survey shows that the female workers in the construction industry experience different problems. These problems are displayed in the Table 8.

As per the above table, it is clear that 89 percent of the workers responded that they suffer from poverty. Likewise, 85 percent of the sample respondents opined that they are facing multiple family problems. Illiteracy is another problem (80%) followed by fatigue and other physical problems, no regularity of work (78%), temporary work (76%), seasonal employment (74%) and lack of awareness about social security measures (72%). The other problems faced by the female workers are low wages (71%), lack of proper skill and knowledge (70%), physical and economical exploitation are the other problems experienced by the female workers (68%), no medical facility (67%), and lack of benefits (64%). It is seen that 58 percent experienced scattered location which is yet another problem. Similarly, no job security is a problem for 57 percent of the sample workers.

**Table 8**  
**Issues and Challenges faced by**  
**Female Workers in the Construction**  
**Industry**

Sl No	Issues and Challenges	Number of Respondents	Percent	Rank Order
1.	No regularity of work	78	78	4
2.	Lack of childcare and homecare	60	60	14
3.	Scattered location	58	58	15
4.	Fear of employers and loss of jobs	40	40	19
5.	Not protected by labour laws	54	54	17
6.	Lack of awareness about social security measures	72	72	7
7.	Illiteracy	80	80	3
8.	Lack of proper skill and knowledge	70	70	9
9.	Low wages	71	71	8
10.	Fatigue and other physical problems	78	78	4
11.	Lack of benefits	64	64	12
12.	No holidays or leave facility	62	62	13
13.	No job security	57	57	16
14.	No medical facilities	67	67	11
15.	Poverty	89	89	1
16.	Excessive burden of work	46	46	18
17.	Temporary work	76	76	5
18.	Family Problems	85	85	2
19.	Exploitation by the employer - physically and economically	68	68	10
20.	Seasonal employment	74	74	6

*Source: Survey Data.*

## 8. CONCLUSION AND SUGGESTIONS

Women play an important role in the unorganised sector. They are socially,

economically and traditionally backward and the least privileged. The study tries to identify the challenges faced by the female workers in the construction industry. It reveals that women engaged in construction suffer from poverty due to seasonal employment and face multiple family problems. Illiteracy is another major problem faced by the female workers in the construction industry. Moreover, their work is also characterised by its casual nature, temporary relationship between employers and employees. There are some special legislative provisions to protect the interest of the construction workers, such as The Building and Other Construction Workers (Regulations of Employment and Conduct of Service) Act, 1996, the Building and Other Construction Workers Cess Act, 1996, The Contract Labour Act, 1970, the Inter-State Migrant Labourers of Employment Conditions of Service Act, 1979, and the Workman Compensation Act, 1923. Construction workers do not get any benefit under the Employees State Insurance Act, 1948, but are covered by the Workman Compensation Act, 1923. However, female workers in the unorganised sector do not get any kind of protection from this legislation. Therefore, the Government of India and the Ministry of Labour and Employment should take necessary initiatives for protecting the workers in the unorganised sector.

## References

1. Nuzhat Parveen & Dr. N.H. Patil, (2010) *Women in Informal Sector: A Case Study of Construction Industry*, *International Research Journal*, August 2010 ISSN- 0975-3486 RNI: RAJBIL 2009/30097 VOL I.

2. *Dr. Geetika, Dr Tripti Singh & Anvita Gupta (2011) Women Working in Informal Sector in India: A Saga of Lopsided Utilization of Human Capital, 2011 International Conference on Economics and Finance Research IPEDR vol.4 (2011) © (2011) LACSIT Press, Singapore.*
3. *Dr. Vandana Dave, (2012) Women Workers in Unorganized Sector, women's link, vol. 18, no. 3, July-September 2012.*
4. *Fathima Adeela Beevi Tks (2014) Problems and Prospects of the Unorganised Sector in Kerala: Reference to Sales Women in Textiles, Abbinav National Monthly Referred Journal of Research in Commerce & Management Volume 3, Issue 9 (September, 2014) Online ISSN-2277-1166.*
5. *Unorganised Labour, Ministry Of Labour & Employment*
6. *Radblinah Aulin, Monika Jingmond, Issues confronting women participation in the construction industry.*
7. *www.google.co.in*

**Dr. K. Sasikumar & Dr. Sanoop Gopalkrishna**

## **SOLID WASTE MANAGEMENT**

This compact book describes how to avoid, minimize and manage solid waste and discusses models which, if implemented, can solve many of the current solid waste problems. The text discusses the various sources of waste generation, composition of solid waste and the need for designing a strategic plan for solid waste management. The book is intended as a text for MBA, B.Tech (Chemical Engineering) and M.Tech (Civil/Environmental Engineering, Environmental Science). It will be quite handy for consultants in solid waste management, environmental engineers and municipal corporators.

**PH1 Learning Private Ltd., Rimjhim House, Delhi - 110 092**

Published in 2014 \* Pages 294 \* Price Rs. 275/- \* Paperback

## THE EFFECT OF MANAGEMENT STRATEGIES ON THE SUCCESSFUL IMPLEMENTATION OF ACCOUNTING INFORMATION SYSTEMS (AIS) WITH REFERENCE TO THE RIGHTEL COMPANY

\*Hojjatallah Salari, \*\*G.Raju

### Abstract

In this study, according to the importance of the information and the information systems, the factors affecting the successful implementation of the accounting information systems of RighTel Company is discussed. These factors are attempted in the order of the extent of their impact, to be prioritised. The affecting factors have been classified in the form of one main hypothesis and three sub-hypotheses. To test the hypotheses, the binomial test and analysis of the variance were used. In order to investigate the factors influencing the successful implementation of the accounting information systems and to determine the influence of each one and prioritise them, a questionnaire has been used. The findings showed that the factors considered in this study prioritised in order to management commitment, project management, quality of the users, training and organisation time budgeting have an impact on the successful implementation of the accounting information systems.

**Key words:-** Accounting Information System, Management Commitment, Project Management, Quality of Users Training, Organisation Time Budgeting.

A community, to meet their information needs, is increasingly dependent on the information systems. These information systems are widely expanding and becoming more and more complex. Parallel with the increasing complexity of the accounting information system and the dependence of the system, companies are facing growing risks on their information

systems. Accounting information system is a system for collecting and storing the data in the financial accounting processes. After processing the data, the information is used to generate corporate decision making. Finally, decision makers and managers can contribute to the organisation's strategic plan, with the help of smart financial reporting systems. One of the systems that are involved in the

*\*Hojjatallah Salari, Research Scholar, Dept. of Commerce, University of Kerala.*

*\*Dr. G.Raju, Professor, Department of Commerce, University of Kerala.*

decision making is the accounting information system. Financial information in order to exploit information on an entity has a significant impact on making the right decisions.

Information has become a key source of the organisations. In fact, the competitiveness of the information has changed from tangible to intangible information. Management and accounting with the availability of the mechanised systems

have been able to achieve their organisational goals. In fact, as the manual and the conventional data collections are not possible for the larger firms, these companies have turned to the information systems. Organisations require information systems proportionally to their needs and structure. By noting this, the managements should seek to use a suitable, mechanised information system.

### **Theoretical Foundations of Research**

Informal authority and business strategy considerably and positively affect the characteristics of a Management Accounting Information System (MAIS). The formal business strategy has a much lesser effect on the MAIS for decision making, while the informal one has enormous effect (Aria, 1994). Nowadays information is the winning card of large corporations. Since data collection and conventional manual method for large multinational companies is not possible,

they have turned to the information systems (Marble, 2003). Accounting information systems play an important role in helping the organisation adopt and maintain a strategic position. In order to

achieve a good position to support the activities related to each strategy, it requires that the data be collected in an appropriate manner. The data is then to be converted to be used in the process of management decisions and to have more coordination to these activities. This information must be

reliable and always available to be used in the decision making process (Amiri et al, 2013). The task of the information systems is data storage, processing of the information in the context of the objectives of the institution and providing the information needed for economic decisions with the participation of managers and analysts, and the system designers who are well versed with the computer technology, designed and deployed on the institutions (Doinea et al, 2011). Adoption of a computer-based information system, major changes in the duties of the individuals, will create by means of these systems revolutionary processes that occur in an organisation (Komala, 2012). All organisations need to tailor their information system to meet the needs of their structure. The appropriate use of the information systems is also very important because of its high investment and its internal and

**The task of the information systems is data storage, processing of the information in the context of the objectives of the institution and providing the information needed for economic decisions with the participation of managers and analysts, and the system designers who are well versed with the computer technology, designed and deployed on the institutions.**



external influences, which is worth pondering. The use of reliable information systems, help the organisations to achieve optimal points, because the effective use of these tools leads to the identification of competitors and other competitive advantages (Malian, 2004). The design and the implementation of a strategy require the allocation of resources at the macro level. This usually lasts three to five years. In fact, this process is very similar to the allocation of resources to other activities, such as the product line development, the real estate development, the market research and the production technology. Most of the design and the implementation is based on the organisational needs and the situation in which the system is performed and the feedback from the users (hall, 2008). From the viewpoint of Steves et al, the information systems' life cycle consists of six phases noted below:

The first stage - the adoption of the information systems;

the second stage - obtaining the information system;

the third stage - the implementation of the information system;

the fourth stage - the use and maintenance of the information systems;

the fifth stage - a gradual improvement in the information system; and

the sixth stage - withdrawal.

Several studies emphasising the different aspects of the successful implementation of the accounting information systems have been

conducted. This study has one main hypothesis and four secondary hypotheses which are as follows:

### **Main Hypothesis:**

Management strategies have an effect on the successful implementation of the accounting information systems.

### **Sub-Hypotheses:**

- 1- Commitments of the management affect the successful implementation of accounting information systems.
- 2- Time budgeting has an effect on the successful implementation of the accounting information system.
- 3- Project management has an effect on the successful implementation of the accounting information system.
- 4- The quality of training has an impact on the successful implementation of the accounting information systems.

### **RESEARCH METHODOLOGY:**

The research paper reviews and prioritises the factors influencing the successful implementation of the accounting information systems, according to the conditions of the RighTel Company. This is a descriptive survey. While being practical, it seeks to solve the problems of the society, according to the results of the research.

#### **The Population:**

The subject population of this study is the financial managers of the RighTel Company in Iran for the year 2014.

#### **The Kukeran formula is as follows:**

where  $Z$  = statistics for a level of confidence (e.g. 1.96 for 95 percent)

P and q = expected proportion  
(0.5 used for sample needed)

n = sample size with definite  
population

d = precision (0.05 used for sample  
needed)

N = whole statistical population

$$n = \frac{\frac{Z^2 P q}{d^2}}{1 + \frac{1}{N} \left( \frac{Z^2 P q}{d^2} - 1 \right)}$$

$$n = \frac{\frac{(1.96)^2_{(0.5)(0.5)}}{(0.05)^2}}{1 + \frac{1}{50} \left( \frac{(1.96)^2_{(0.5)(0.5)}}{(0.05)^2} - 1 \right)} = 44$$

**Data Collection Methods:**

In this study, for collecting data and information, a library method was used. On the part of the library, the theoretical foundations for the study were collected from books and journals. The survey data conducted through questionnaire were sent to the managers, collected in two phases. The questionnaire included general questions and specific questions. In the general questions about the demographic characteristics of the respondents, including experience and academic field were inquired. The specialised questions, which consisted of 38 questions and their responders about the impact of each factor on the assumptions associated with the successful implementation of the information systems, by providing a score from zero to hundred, rate the questions

to determine the effectiveness of the factors. The score which is nearest to hundred given to the question, indicated greater impact. Due to the sample size, 50 questionnaires were sent. Since control measures in terms of the questionnaire were implemented, some of the questionnaires were excluded due to illegibility, while some questionnaires were not returned by the respondents. According to the studies conducted and on the basis of the available list, financial executives of the company were estimated to be around 50. The sampling in this study was the simple random sampling and the sample size was calculated by using the Kukeran equation.

**DATA ANALYSIS:**

In this study, both the descriptive and the inferential statistical methods were widely used. First, according to the research objectives and to gain a perception of the population studied, attempts were made to analyse the data obtained from the sample. The techniques of descriptive statistics such as frequency, statistics, mean, standard deviation and variance were used.

**FINDINGS:**

Due to that, as previously mentioned in connection with the hypothesis statistical test, in this test too, the critical area is located to the left of the normal distribution curve, and it will have a value of 1.634 in the error level of 0.05 which is extracted from critical z. Therefore, all the minor and major research hypotheses were accepted. The results of the hypothesis tests are shown in Tables 1 and

2 respectively for the major and minor hypotheses and then each hypothesis were examined alone. Then, by using the techniques of descriptive statistics (Table 3), and ANOVA (Tables 4 to 8), priority of the secondary hypotheses were stated.

**Table 1**

Main hypothesis	Number of questionnaires	Critical Z	Statistical Z test	Result
Management strategies	44	-1.634	10.45	Accepted

The calculated Z (10.4) is larger than the critical Z (-1.634) so, hypothesis H1 was accepted and hypothesis H0 was rejected. In other words, one can say with 95 % confidence that the management strategies have an effect in the successful implementation of the accounting information systems.

**Table 2**

Sub hypothesis	Number of questionnaires	Critical Z	Statistical Z test	Result
Management commitment	44	-1.634	9.73	Accepted
Quality of users training	44	-1.634	10.22	Accepted
Organisation time budgeting	44	-1.634	8.22	Accepted
Project management	44	-1.634	9.88	Accepted

In respect of management commitment, as the calculated Z (9.73) is greater than the critical Z (1.634) so, assuming that the hypothesis H0 is rejected, hypothesis H1 is accepted. In other words, it can be said with 95 % confidence that management commitment successfully impacts the implementation of the accounting information systems within the organisation. The mean value of 66.06 (Table 3) was identified as a contributing factor; in this respect the management commitment is in the first priority among the four sub-hypotheses.

**Table 3**

Hypothesis	Median	Mode	Mean	Standard Deviation	Effect with 95 % confidence
Management commitment	67.30	72	66.06	12.54	61.40-72.14
Quality of users training	59	55	58.75	7.54	55.93-62.58
Project management	65.24	73	64.37	11.20	60.18-68.90
Organisation time budgeting	58.5	50	56.58	10.98	52.40-61.70
Management strategies	62.22	65	61.46	6.97	59.75-65.10

With regard to the organisation time budgeting, as the calculated Z (8.22) is greater than the critical Z (1.634) so, assuming that hypothesis H0 is rejected, hypothesis H1 is accepted. In other words, one can say with 95 % confidence that organisation time budgeting has an impact on the successful implementation of the accounting information systems within the organisation. The mean value of 56.58 (Table 3) was identified as a contributing factor; in this respect organisation time budgeting is in the fourth priority among the four sub-hypothesis.

For the quality of users training, as the calculated Z (10.22) is greater than the critical Z (1.634) so, assuming that hypothesis H0 is rejected, hypothesis H1 is accepted. In other words, one can say with 95% confidence that qualify users training impact on the successful implementation of the accounting information systems within the organisation. The mean value of 58.75 (Table 3) was identified as a contributing factor; in this respect the quality of users training is in the third priority among the sub-hypotheses.

In project management, as the calculated Z (9.88) is greater than the critical Z (1.634) so, assuming that hypothesis H0 is rejected, hypothesis H1 is accepted. In other words, one can say with 95% confidence that project management impacts the successful implementation of the accounting information systems within the organisation. The mean value of 64.37 (Table 3) was identified as a contributing factor; in this respect project management is in the second priority among the sub-hypotheses.

By using Table 4, based on the differences between the means of the secondary hypotheses, prioritised them in tables four to seven. Asterisk (\*) next to the numbers in Table 4 indicate the significant; an error level of 5.00 is used as a basis for comparison.

**Table 4**

Hypothesis(I)	Hypothesis(J)	Difference between hypotheses (I-J)	Significant	hypothesis (I) more effective than hypothesis (J)	Prioritisation
Management commitment	Quality of users training	7.85*	0.00	yes	1
	Project management	1.69	0.20	-	-
	Organisation time budgeting	9.48*	0.00	yes	2

\*Shows significant

In this hypothesis, as per the result there is no significant difference between management commitment and project management, therefore, no comparison is possible. But in the case of quality of users training and organisation time budgeting, a significant difference is available. The mean value of this hypothesis is higher than the mean value of other assumptions. Therefore the first place is allocated to this hypothesis.

**Table 5**

Hypothesis (I)	Hypothesis(J)	Difference between hypotheses (I-J)	Significant	Hypothesis (I) more effective than hypothesis (J)	Prioritisation
Organisation time budgeting	Quality of users training	-2.17*	0.00	No	1
	Project management	-7.79*	0.00	No	2
	Management commitment	-9.48*	0.00	No	3

\*Shows significant

From Table 5 it is obviously clear that there is a significant difference between hypothesis (I), organisation time budgeting and hypothesis (J) included quality of users training, project management and management commitment. As per the results, it was determined that the fourth rank of importance impact on the successful implementation of the accounting information systems is given to the organisation time budgeting.

**Table 6**

Hypothesis (I)	Hypothesis(J)	Difference between Hypotheses (I-J)	Significant	Hypothesis (I) more effective than Hypothesis (J)	Prioritisation
Quality of users training	Organisation time budgeting	2.17	0.1	-	-
	Project management	-5.62*	0.00	No	2
	Management commitment	-7.31*	0.00	No	1

\* Shows significant

Due to the insignificant difference of the mean value of Organisation time budgeting and the quality of users training, comparison is not possible. As per Table 6 there is a significant difference between the quality of users training and the project management. The difference is also available between the quality of users training and the management commitment. The third rank is allocated to this hypothesis.

**Table 7**

Hypothesis (I)	Hypothesis (J)	Difference between Hypotheses (I-J)	Significant	Hypothesis (I) more effective than Hypothesis (J)	Prioritisation
Project management	Quality of users training	5.62*	0.00	yes	1
	Organisation time budgeting	7.79*	0.00	Yes	2
	Management commitment	-1.69	0.20	-	-

\* Shows significant

According to the above table, it is to be noted that the comparison of project management with the management commitment is not possible because there is no significant difference between them. Based on the above data, there are significant differences between hypothesis (I) project management and hypothesis (J) quality of users training and Organisation time budgeting. This hypothesis also is in the second place among all hypotheses.

**Table 8**

Title	Sum of squares	df	Mean square	Statistical F	Significant
Between sub-hypotheses	16704.78	3	1856.09	14.99	0.00
Between questionnaires total	58207.53	740	41.28		
	74912.31	743			

According to Table 8 (ANOVA) and Table 4, based on the difference between

**References**

- Ramli I. & Iskandar D. (2014). *Control Authority, Business Strategy, and the Characteristics of Management Accounting Information Systems. Procedia-Social and Behavioral Sciences, 164, 384-390.*
- Marble, Robert P. "A System Implementation Study: Management Commitment to Project Management." *Information & Management 41.1 (2003): 111-123.*
- Amiri, Ali, et al. "Effectiveness of Responsibility Accounting System of the Organisational Structure and Manager's Authority." *International Journal of Research in Computer Application & Management 3.8 (2013).*
- Hunton, James E., Vicky Arnold, and Dana Gibson. "Collective user participation: a catalyst for group cohesion and perceived respect." *International Journal of Accounting Information Systems 2.1 (2001): 1-17.*

the means of the sub-hypotheses, they are prioritised in terms of Table 4 to 7.

**CONCLUSION:**

This study examined the effects of management strategies on the successful implementation of the accounting information systems. This research has provided useful results in paving the way for future research in this area. Based on the results of this study, we can conclude that the factors influencing the successful implementation of the accounting information systems allocated a wide range to themselves. What have been discussed at the beginning of the study as factors, have all affected their successful implementation. According to Table 3 to 7, the comparisons have been made. Prioritising the sub-hypotheses of the study is as follows:

**Table 9**

No.	Influencing factor	Prioritisation
1	Management commitment	1
2	Project management	2
3	Quality of users training	3
4	Organisation time budgeting	4

Among the management strategies, Management commitment has the highest influence.

- 5 Hall, James A. *Accounting Information Systems*. Mason: South-Western Cengage Learning, 2008. xxviii, 837. ISBN 978-0-324-56089-3.
- 6 Malian, Simon Rouben. "A Study of Information System Designs used by Successful Young Australian IT Entrepreneurs." *Proceedings of the Second Australian Undergraduate Students' Computing Conference*. 2004.
- 7 Doinea, Ovidia, et al. "The Role of Accounting Information in Decision-Making Strategies and Processes." *Economics, Management & Financial Markets* 6.2 (2011).
8. Komala, Adeb Ratna. "The Influence of the Accounting Managers' Knowledge and the Top Managements' Support on the Accounting Information System and its Impact on the Quality of Accounting Information: A Case of Zakat Institutions in Bandung." *Journal of Global Management* 4.1 (2012): 53-73.
9. Tomipa, Vasile, et al. "The Role of Accounting Information in Decision-Making Strategies and Processes." *Economics, Management, and Financial Markets* 2 (2011): 188-193.
10. Suryadi, Kelvindra, Holly Deviarti, and Vini Mariani. "Analysis and Design of Accounting Information System for Small Medium Enterprise Case Study from Indonesia." *Journal of Theoretical & Applied Information Technology* 61.1 (2014).

**Dr. C.V. Jayamani**

**HEALTH MANAGEMENT - A NEW PERSPECTIVE**

Examines the cause of executive diseases and suggests natural methods and lifestyle corrections to keep away all lifestyle induced diseases of modern executives

Natural Living - Fundamentals \* Diseases - Causes and Cure \* Diet and Diet Reforms \* Healthy Food Habits \* Healing Crisis \* Vital Power and Vital Economy \* Better Living for Business Executives \* Yoga for Young Executives \* Gandhiji's Dietetic Experiments \* Modern Perspectives on Health \* Healthy Lifestyle

**Institute of Management Development and Research (IMDR),  
Convent Road, Trivandrum, 695001**

Published in 1999

Pages 175

Hardbound

Price Rs. 200

## ACCOUNTING SKILLS AND ENTREPRENEURSHIP

\*Azadeh Barati, \*\*Georgee K.I.

### Abstract

This paper examines the effect of accounting skills on entrepreneurship. Accounting is the core academic discipline that aids the entrepreneurial drive, given the popular opinion that it is the language of business. The objective of this study is to examine the role of accounting on entrepreneurship for self-reliance and sustainable development. The study considered the accounting profession and the major role it plays in entrepreneurship development. It is the submission of the authors that entrepreneurs with basic accounting knowledge and entrepreneurial skills stand better chances of becoming self-reliant and attaining business success.

**Key words:-** Accounting Skill, Entrepreneurship, Small-Scale Business.

Entrepreneurs are often viewed as a significant determinant of economic prosperity. Recently they have been admired as a source of creativity in the dynamic knowledge-driven economies. Attribution of virtue in entrepreneurs, such as 'creativity', and different and implicitly superior cognitive processes, is a common starting point for many investigators. Other defenders of entrepreneurs have pointed to their ability to 'optimise within limitations' (McCloskey and Sandberg, 1972). This is essentially a 'managerialist' view in which the entrepreneurs perform managerial

tasks, competently or otherwise (Lazonick, 1991). In recent years entrepreneurship has attracted interest from politicians, business people, etc. It seems as if entrepreneurship has an important role to play in today's society as globalisation as well as environmental changes is increasing (Löfstål, 2001).

Accounting skills were found to be helpful for entrepreneurial performance. The entrepreneurs are therefore advised to embark on capacity building in accounting skills in the areas of financial management and recordkeeping.

\*Azadeh Barati, Research Scholar in Commerce, University of Kerala, Thiruvananthapuram

\*\*Dr. Georgee K.I, Associate Professor, Department of Commerce, Mar Ivanios College, Thiruvananthapuram

Entrepreneurs are the agents and the drivers of development in most economies of the world.

The entrepreneur establishes his presence through the

formation of a small and medium scale enterprise (SME). Accounting on its part, is of great importance to the development of small and medium scale enterprises. A good entrepreneur knows accounting skills well.

It is obvious that the government cannot employ all the graduate jobseekers. The only way to solve this problem is to be self-reliant job employers and not jobseekers. The basic freedoms of capitalism, according to Kanu and Nwaiwu (2010:2) are the opportunity for private property. There are important groups of individuals that play essential roles in capitalism. These are the entrepreneurs, managers, workers and consumers.

The entrepreneurs require accounting and other skills for the proper management of their businesses. To prosper in today's competitive market as an entrepreneur, one need a broad range of entrepreneurial skills. Akande (2011) also argues that entrepreneurial skills are those qualities or attributes needed for an entrepreneur to start and successfully manage a business in a competitive environment.

From the forgoing analysis, it becomes clear that business owners need to possess basic skills necessary to start, develop, finance and market their business. It also implies that the inability to install a

proper accounting system would not allow business monitoring, reporting and performance evaluation that are required for the survival of the business.

Many entrepreneurs have failed in the past, probably, for ignoring this important measurement apparatus.

This paper therefore, focuses on the accounting skills for the performance of these entrepreneurs.

### **Purpose of the Study**

To determine how accounting skills can improve entrepreneurship.

### **The Accounting Profession / Skills**

The accounting profession has been defined as the backbone of our societal life. This is because in the words of Nnadi, business organisations use the accounting information to plan and control their activities and to report the results of these activities to their shareholders, creditors, labour unions and government agencies. Non-profit organisations such as churches, town unions and clubs also use the accounting information for planning, conducting and reporting their activities. The Federal, State, Local Governments and other Governmental Agencies use the accounting information in similar ways. According to Adegite (2010) the accounting profession speaks the language of business as it records all transactions of the organisations that have monetary implications. Thus, accounting is that discipline which involves the systematic gathering, classifications, recordings, analyses, interpretations and transmission

**Entrepreneurs are the agents and the drivers of development in most economies of the world.**



of information to assist users make economic decisions.

The accounting profession according to Evbodahe (2009) has been responsible for the spread of financial knowledge and for a commitment to help business and non-business organisations develop the capacity to success. Even at the global level, the international accountancy profession has helped several countries to build stronger and more stable economies. In fact, the accounting profession is empowered by investor confidence and public trust without which the credibility of the information prepared and presented by the management of the organisation will be at risk.

Accounting skills are the totality of the skills ranging from record keeping, attention directing, financial management and reporting skills that are expected to promote effective decisions, performance evaluations and business reporting of any business enterprise (Akanke 2011). He further states that the attention directing skills enable the owner or the manager to make vital decisions on the production and the pricing issues while reporting skills describe the method and technique by which business information are reported to the stakeholders of the business.

According to the Accounting Education Change Commission (AECC, 1990), to be successful in their careers, accounting graduates need skills and abilities that are beyond accounting technical knowledge. They include communication skills, analytical skills and interpersonal

**Business owners need to possess basic skills necessary to start, develop, finance and market their business.**

skills. Accounting graduates are also expected to be able to receive and send information, identify and solve unstructured problems in unfamiliar settings and exercise judgment. Agbiogwu (2010) highlights nine common traits to entrepreneurs besides accounting skills. They are as follows:

- Physical and mental stamina;
- A desire to take control of their own destiny;
- A competitive instinct;
- Resilience in the face of defeat;
- Good judgment;
- Decisiveness;
- The ability to inspire others;
- An unfailing positive attitude; and
- Great communication skills.

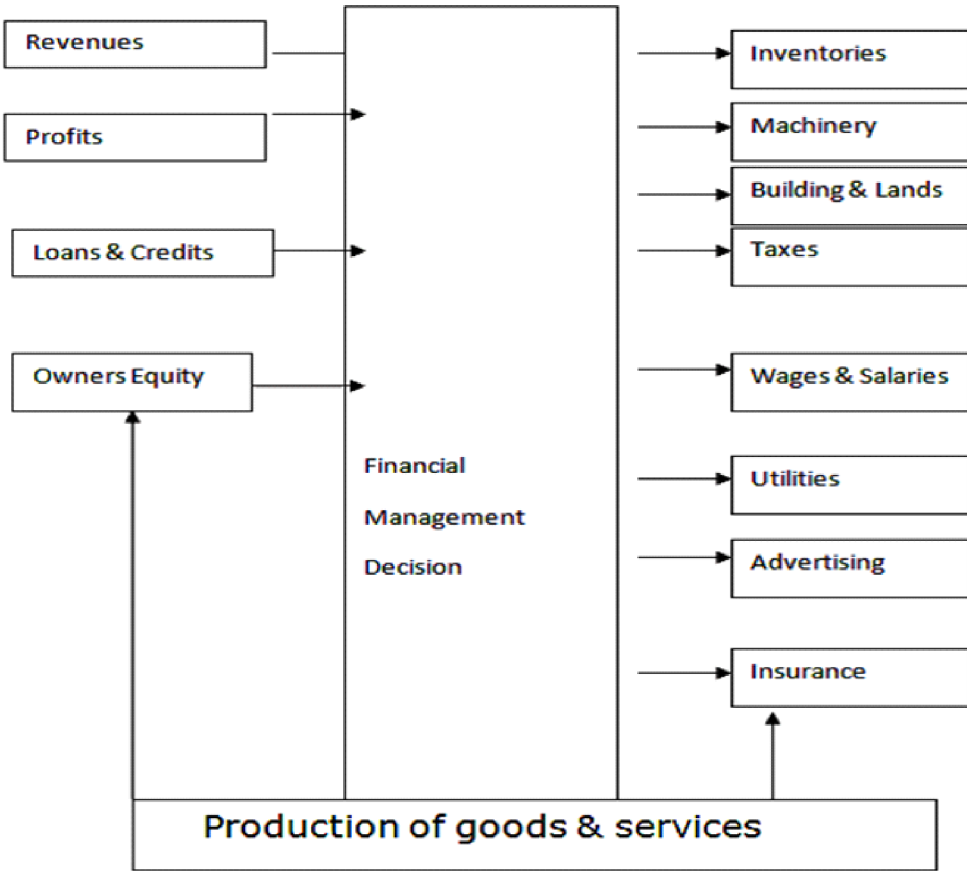
**Managing Business Finances**

One way of keeping a tab on the flow of money is through accounting. By accounting, we mean a system used to record, classify, summarise and interpret the financial data of a business (Brown & Clow 1992).

They further state that the financial data are made up of the transactions that occur in the daily operations of the business. A good entrepreneur should be able to be conversant with the common sources and the use of funds in a business. The diagram below shows the various sources and the use of funds in a typical business.

Table

Various sources and the use of funds in a typical business



Source: B.J & Lon, K. W (1992:153) *Introduction to business, our Business and Economics World*, California Macmillan/ McGraw Hill.

**Relevance of Accounting to Entrepreneurship Education and SMEs**

The relevance of accounting to entrepreneurs and SMEs can be better appreciated when one considers its role in business management. These contributions are summarised hereunder:

1. Accounting has been described as “the language of business” as it records all transactions of the organisations that have monetary implications.
2. Accounting provides financial information on the basis of which business organisations plan and control their operations as well as make decisions.
3. It is not an exaggeration to state that men and women in business and

government are stronger in their perception of business when they have basic accounting knowledge. Little wonder that Hongran (1995) has aptly noted that the study of accounting is almost always a wise investment.

**The accounting profession is empowered by investor confidence and public trust without which the credibility of the information prepared and presented by the management of the organisation will be at risk.**

6. A good accounting system will ensure that error and fraud are detected as soon as possible.

7. From the foregoing, it is clear that accounting has contributed and will continue to contribute to business success.

4. Accounting provides answers to two important questions: (1) how well has the business performed over a given period of time? (2) What is the financial position of the business at a given point in time? The answers to the above questions are provided through the preparation of the profit and loss account and the balance sheet.
5. Accounting is of great importance in the analysis and interpretation of the final accounts in order to assess the financial condition and the commercial soundness of the business to which the account relates.

### CONCLUSION

Accounting skills was found to be contributory to the entrepreneurial performance. The entrepreneurs are advised to embark on capacity building in accounting skills in the areas of financial management and recordkeeping. The entrepreneurs are the agents and the drivers of development in most economies of the world. Accounting skills are highly contributory to the entrepreneurial performance and is therefore a requirement to be possessed by the owners and the managers for effective small business development.

### References

1. Adegite, E. O. (2010), "Accounting, accountability and national development", *The Nigerian Accountant*, Jan/ Mar, (43. 1).
2. Akande, O. O. (2011), "Accounting skills as a performance actor for small business in Nigeria", *Journal of Emerging Trends in Economics and Management Studies (JETEMs)* 2, (5), Oyo State.
3. Brown, B. J. & Clow, K.W. (1992), "Introduction to business, our business and economic world", California, Macmillan/McGraw Hills.
4. Evbodabe, J. I. (2009), "Global trends in the accountancy profession", *The Nigerian Accountant*, Oct/ Dec, (42, 4).

5. Hongran, C. T. (1977), "Cost accounting: A managerial emphasis", 4th ed, New Jersey: Englewood Cliffs.
6. Kanu, I. N. and Nwainwu, B. N. (2010) "Entrepreneurship: Essential themes in theory and practices", Owerri: Great Stars problems international.
7. Lazonic, W. (1991),, "Business Organisation and the Myth of the Market Economy".
8. Löfstål, E. (2001),, "A Quest for Accounting and Control within Entrepreneurial Organisations – the Paxtec Odyssey". School of Economics and Management.
9. McCloskey, D. and Sandberg, L. (1972), 'From Damnation to Redemption: Judgements on the late Victorian Entrepreneur'. Explorations in Economic History, winter 1971-2, Vol. 9 No. 2, 89-108

### IV Dr. CNP Nair Commemorative Lecture, 2014 - Function



## COLLABORATION BETWEEN THE UNIVERSITY AND THE INDUSTRY BASED ON KNOWLEDGE TRANSFER FOR IMPROVING THE ENTREPRENEURIAL BEHAVIOUR OF STUDENTS

\*Mohsen Arabi, \*\*Shyesteh Arabi, \*\*\*J. Rajan

### Abstract

Societies that manage their knowledge and experience from their enterprises and change of occupations could gain high levels of profits and make more profitable decision. This could be achieved by more access to knowledge of the industrial personnel from their process, decreasing repetition of work, increasing creation and innovation, reach high interaction and coordination, and achieve better quality work life. The present paper is an attempt show that the university plays a major role as pioneering key for future education therefore communication between the university and the industry can be made as a dome and it depends on four main fields which are basic researches, collaborative researches, knowledge transfer and technology transfer.

**Key words:-** Entrepreneurial Skill, Collaborative Researches, Knowledge Transfer, Technology Transfer

The topic of university–industry interaction is not new, but since the 1970s it has become more formal, frequent, and planned. It has also aroused a growing interest in governments and policy makers, from both the developed and the developing countries, who still regard it as an under-utilised scientific and

technological resource. The significance of the university–industry interaction has become very important on the agenda of higher education policy–making, at both the national and institutional levels. In the context of globalisation, the marketplace is undergoing rapid changes in competition, technological advancement and a shift to knowledge-based

---

\*Mohsen Arabi, Research Scholar, Institute of Management in Kerala, University of Kerala.

\*\*Shyesteh Arabi, Master of Arts in Education, Department of Education, Islamic Azad University-Iran.

\*\*\*Dr. J. Rajan, Professor and Head, Institute of Management in Kerala, University of Kerala, Kariavattom, Trivandrum

economics. Against this background, the importance of knowledge as a competitive weapon has increased dramatically (vedovello, 1998).

### Technology Transfer

Traditionally, a university has been reckoned as a place of invention, education and research (Wallmark, 1997; Mian, 1994), while an industry is the home of innovation; thus creating a kind of distinction. But, with the present trend, this is no longer the case as it has become clear that the academics and the industry must necessarily cooperate to bring about the required development. The new university functions have been described as the translation of knowledge into economic activity alongside research and teaching. Technology transfer can be defined generally as the transfer of a technology, technique, or knowledge that has been developed in one organisation and then transferred to another where it is adopted and used (Melkers et al., 1993).

### Knowledge Transfer Mechanisms (KTM)s

University interacts, more than before, with the industry. Because of a structural decrease of public funds, they rely more on business sources of funding for financing their research activities. Beside teaching and research activities, one of the missions of the university is contributing to economic development. This has received greater attention over the past twenty years. Quoting the conclusion of Cohen et al. (2002) relating to the

importance given by the industry to informal contacts, conferences and publications, “the high rank of these longstanding methods of information exchange point to the importance of ‘open science’, in contrast to the current policy emphasis on a more formalised method such as contract research”. Individual characteristics of academic researchers have a stronger impact on the variety and frequency of interactions than the characteristics of their departments or universities (D’Este and Patel, 2007).

Making a difference between the traditional forms of exchange and the new KTM)s, it is observed that individual characteristics of the researchers play a major role in explaining the traditional forms, while local group norms play a more important role in predicting the active involvement in the new types of university-industry interactions. The differences in the importance of a wide variety of KTM)s are better explained by individual characteristics, scientific field, characteristics of the underlying knowledge, and the institutional characteristics rather than by the sectoral activities of the firms (Bekkers and Freitas, 2008).

The higher the number of publications of a researcher, the more the researcher will attribute importance to the collaborative and the contract research modes of interaction. For firms, faculty quality is important, but much less for applied research and development rather than for the basic research projects

**Beside teaching and research activities, one of the missions of the university is contributing to economic development.**

(Mansfield and Lee, 1996). Consequently the scientific productivity would play a different role according to the degree of finalisation of the university-industry activities.

### Types of Collaborations

Carayol and Matt (2004), takes into account a large variety of determinants: the characteristics of the two partners involved, and more originally, the characteristics of the collaboration itself, the environment of the collaboration and the strategies of the partners. Using a multi-correspondence analysis, followed by an ascendant hierarchical classification, they reach five coherent types of collaborations. Type 1 consists of low volume, risk and novelty and service-like contractual research. One of the motives guiding academics in such interactions is the establishment of a first tie with the industry that can be subsequently strengthened. Types 2 and 5 are guided by the academic's willingness to increase his research volume. Nevertheless, both types differ on some characteristics. Type 2 consists of bilateral agreements where research is of a low risk and low novelty nature. Type 5 consists of large research consortia, covering new areas of research and where the academic partner is specialised. Both types of collaborations are also characterised by the presence of public funding. In Types 3 and 4, academics are guided by increasing their scientific excellence. Type 3 collaboration with the industry consists of a research content of a basic and risky character with a high degree of novelty. Type 3 is further characterised by significant funding from the firm, a longer duration, and industries belonging mainly to the pharmaceutical

or biotechnology and IT sectors. In Type 4, collaborations are also highly risky, of long duration, but with lower budgets, and the research is of a less basic character and of a lower novelty than Type 3.

### Issues Inhibiting University-Industry Interaction

University and industry are two different social entities. As a result, they differ considerably in the nature and the objectives of their activities. One important barrier that has been widely discussed in literature is the inevitable cultural difference arising due to these differences. Cultural barriers are pervasive in university-industry interactions, given that stakeholders operate under diverse organisational environments and have different norms, standards, and values (Decter et al., 2007).

In the university-industry collaboration, given the early stage of technology development, financial barriers for innovation may be strong given the imperfections of the financial markets for these early stage ventures. This is often a motive on why governments provide additional funding for industry-science collaboration (Veugelers and Cassiman, 2005). The scientists would want protection of proprietary rights of inventions even before proceeding with the partnership. But the acquisition of such rights may be an expensive, long and difficult process. The industry may also expect ownership of the technology by virtue of its investment in the development process. As pointed out by Hall et al. (2000), in some cases, intellectual property right issues represent an insurmountable barrier which prevents

the much sought-after research partnership from ever coming about.

### Knowledge Transfer

Knowledge, defined as the justified true belief, is the core of the knowledge-based theory, which builds upon the resource-based view. The knowledge-based theory views the firm as “a dynamic, evolving and quasi-autonomous system of knowledge production and application” (Blumenberg et al., 2009). This perspective contends that knowledge is the principal resource of firms and that production requires the integration of a broad range of knowledge. In particular, it is stressed that knowledge transfer is a critical factor for a firm and is necessary to rapidly respond to changes, innovate and achieve competitive success (Albino et al., 1999). Knowledge transfer is the process through which knowledge acquisition from a knowledge transmitter is used as a knowledge receiver. It is also considered that knowledge transfer is a dynamic process which involves acquisition, communication, application and acceptance. Knowledge and technology transfer in the context of university-industry collaboration is defined as follows: knowledge and technology transfer between academic institutions and business sectors is understood to be any activity aimed at transferring knowledge or technology.

### University-Industry Interactions

It is several decades since we talked about the industry and the university communication, but what is obvious, and

there is much evidence about it, is the matter that we have yet to make a good and meaningful relationship between the industry and the university. It is not possible to mention the distinct borders easily in many fields, such as, which part of the university territory is considered to be the industry and which part of the industry territory could be considered as the university (Bagherinejad, 2009). It is a case where the university spent much of their time on scientific activities which are purely theoretical, while the industry is doing their practical and manufacture activities (Meredith, 2008). The generated knowledge in the university could be a competitive advantage for the industry (Salter, 2009). Brown

**We have yet to make a good and meaningful relationship between the industry and the university.**

showed in his research in England that the economic success of that country is much dependant on the academic and scientific researches (Brown, 2006). Also the university could utilise the fiscal sources and the industry’s equipments and the university students could be familiarised with the industrial environment by passing their training course through the industry for being confronted with their daily issues (Rothman, 2007 & Franek, 2005). The communication between the university and the industry is done in four main fields: basic researches, collaborative researches, knowledge transfer and technology transfer (Santoro, 2001). University and technology co-operations could leads to research promotions and inventions and technology through supply of funds from the industry and the supply of faculty members and generating scientific research from the university.



**Entrepreneurial Behaviours**

The theory that entrepreneurial behaviour is simply the result of inherited competencies or that entrepreneurship is an innate characteristic of a minority of individuals no longer seems to have many followers. While the mapping of the potential entrepreneurs’ psychological traits remains an important focus of attention, researchers have shown growing interest in trying to ascertain the extent to which the psychological attributes conducive to entrepreneurial behaviour can be culturally acquired and or culturally moderated. More recently, Li (2006) has proposed that the theory of planned behaviour provides a sound theoretical framework for understanding the origins of entrepreneurial intentions, emphasizing that it is possible for people to learn to be entrepreneurs, mainly through the use of the targeted educational approaches.

Drawing on this perspective, it seems pertinent to analyse the contribution that education can make to the development of entrepreneurship. This could be carried out by investigating the extent to which entrepreneurial propensity and intentions could be the result of factors that can be significantly altered through education, as Kolvereid and Moen (1997) have suggested. More concretely, the idea of becoming an entrepreneur may become more attractive to students because they see it as a viable way of combining income generation with a greater degree of

**University and technology co-operations could leads to research promotions and inventions and technology through supply of funds from the industry and the supply of faculty members and generating scientific research from the university.**

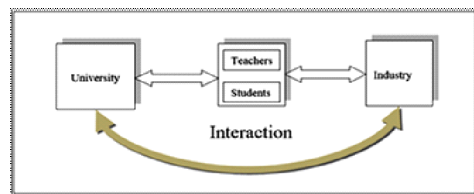
independence than the salaried employment provides (Martínez et al., 2007).

**Model for Enhancing the Entrepreneurial Skills**

One of the important objectives of this study is to construct a viable model for enhancing the entrepreneurial skills through the university-industry interaction. Figure 1 presents the conceptual model of the university-industry interaction for enhancing the entrepreneurial skills. The model envisages that students and teachers as susceptible elements of the administrative setup of the university and industry.

**Figure 1**

**Conceptual model of University– Industry Interaction for enhancing the Entrepreneurial Skills**



The variation in the university-industry interaction was determined by the dichotomous dependent variable which answers the question of whether the university department of the sample respondent collaborates with the industry. The variable was coded 1 for the answer ‘yes’ and 0 for ‘no’. The predictor variables represent the aspects related to constraints to university-

industry interaction and suggestions for improving the same. These independent variables are scored in a five-point scale. A Binary Logistic Regression Model was fitted to the data of the students and teachers with backward selection method using SPSS 21 for identifying the significant factors determining the collaboration of the university with the industry for enhancing the entrepreneurial skills of the students. Path analysis was used to construct a viable model for enhancing the entrepreneurial skills through the university-industry interaction. As students and teachers are the most important elements of the university-industry interaction which are susceptible to administrative modifications, two models were constructed with respect to their points of view. For the model from the students' point of view, twenty five predictor variables were included in the logistic regression analysis. Five variables were retained after the end of the backward conditional selection process.

**Table 1**

**Model Summary of Students' point of view**

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
50.247	0.666	0.952

Table 1 presents a model summary of the students' point of view. The Cox & Snell R Square is found to be 0.666, which indicates that about 67 percent of the variation in the collaboration of the university departments with the industry is determined by the retained five predictor variables. The high value of the Nagelkerke R Square and the -2 Log likelihood also indicate the validity of the logistic regression model predicting the

university-industry interaction. Table 2 presents the significant variables which were retained in the logistic regression equation for the students' point of view.

**Table 2**

**Variables retained in the Equation for Students' point of view with Regression Coefficients**

Code	Variable	Regression Coefficients	Standard Error
Q6.1	Awareness about the expertise and the facilities available at the industry.	46.811	1828.883
Q6.2	Level of the exchange of the information, literature and data with the industry.	15.594	488.134
Q6.9	Inadequate infrastructure (journals, books, transport and communication).	-0.721	0.285
Q6.11	Attendance at seminars, symposiums, workshops and conferences.	19.394	1201.518
Q7.24	Need for more autonomy for the academics to work with the industry	-10.863	457.221
	Constant	-132.843	4036.756

Awareness about expertise, facilities available at the industry, level of exchange of information, literature, data with industry, and attendance at seminars, symposiums, workshops and conferences were found to be positively related with the probability of having university-industry interaction. While, inadequate infrastructures like journals, books, transport, communication, etc. and the need for more autonomy for the academics to work with the industry are the negatively related probabilities of having a university-industry interaction. Regression coefficients which represent the effect of each predictor variable on the

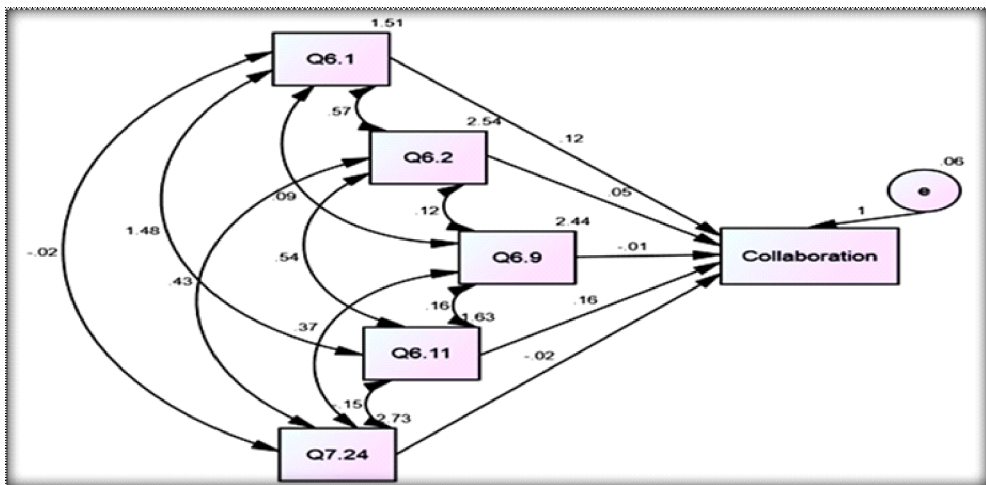
level of the university-industry interaction after controlling the effects of other predictor variables, indicated that awareness about the expertise and the facilities available at the industry has the maximum effect at the level of university-industry interaction. Attendance at seminars, symposiums, workshops and conferences, and the level of exchange of information, literature and data with industry were the other important predictors which were positively related to the level of the university-industry interaction for enhancing the entrepreneurial skills. The need for more autonomy for the academics to work with the industry and inadequate infrastructure like journals, books, transport and communication were found to relate negatively with the level of the university-industry interaction.

Figure 2 presents the model of the university-industry interaction for enhancing the entrepreneurial skills

constructed by the Path analysis. This model provides information about the direct effect of each independent variable on the level of the university-industry interaction as well as its indirect effects through other predictor variables.

Table 3 presents the total effect of independent variables on the level of the university-industry interaction for enhancing the entrepreneurial skills. The indirect effect size is calculated by multiplying the coefficients of the indirect path. The sum of the direct and the indirect effect size is the total effect of the variable on the level of the university-industry interaction for enhancing the entrepreneurial skills. From the table it can be seen that the total effect of the variables representing the awareness about expertise and facilities available at the industry is 0.38 and that of the level of exchange of information, literature and the data with the industry is 0.22. Similarly the total effect of inadequate infrastructure

**Figure 2**  
**Model for the University-Industry Interaction for enhancing the Entrepreneurial Skills from the Students' point of view**



**Table 3**

**Total effect of selected variables on the level of the University–Industry Interaction for enhancing Entrepreneurial Skills from the Students’ point of view**

Variable	Mean	Type of Effect	Path Coefficients		Effect Size	Total Effect	
Q6.1: Awareness about the expertise and the facilities available at the industry	1.51	Direct	Q6.1	0.12		0.12	0.38
		Indirect	Q6.1→Q6.2	0.57	0.05	0.03	
			Q6.1→ Q6.9	0.09	-0.01	0.00	
			Q6.1→ Q7.24	1.48	0.16	0.24	
Q6.2: Level of exchange of the information, literature and data with the industry	2.54	Direct	Q6.2	0.05		0.05	0.22
		Indirect	Q6.2→Q6.1	0.57	0.12	0.07	
			Q6.2→ Q6.9	0.12	-0.01	0.00	
			Q6.2→ Q7.24	0.54	0.16	0.09	
Q6.9: Inadequate infrastructure (journals, books, transport and communication)	2.44	Direct	Q6.9	-0.01		-0.01	0.07
		Indirect	Q6.9→Q6.1	0.09	0.12	0.01	
			Q6.9→ Q6.2	0.12	0.05	0.01	
			Q6.9→ Q7.24	0.16	0.16	0.03	
Q6.11: Attendance at seminars, symposiums, workshops and conferences	1.63	Direct	Q6.11	0.16		0.16	0.37
		Indirect	Q6.11→Q6.1	1.48	0.12	0.18	
			Q6.11→ Q6.2	0.54	0.05	0.03	
			Q6.11→ Q7.24	0.16	-0.01	0.00	
Q7.24: Need for more autonomy for the academics to work with the industry	2.73	Direct	Q7.24	-0.02		-0.02	-0.02
		Indirect	Q7.24→Q6.1	-0.02	0.12	0.00	
			Q7.24→ Q6.2	0.43	0.05	0.02	
			Q7.24→ Q6.9	0.37	-0.01	0.00	

(journal, books, transport and communication) and attendance at seminars, symposiums, workshops and conferences are 0.07 and 0.37 respectively. The total effect of the need for more autonomy for the academics to work with the industry is found to be negative and is equal to 0.02.

The maximum effect on the university-industry interaction for enhancing the entrepreneurial skills from the students’ point of view is the awareness about expertise and the facilities

available at the industry. As per the result, when awareness about the expertise and the facilities are available at the industry, the university–industry interaction for enhancing the entrepreneurial skills will increase significantly. The second important effect on the university-industry interaction for enhancing the entrepreneurial skills is the attendance at seminars, symposiums, workshops and conferences. The level of exchange of information, literature and data with the industry and the inadequacy of infrastructure like journals, books,

transport and communication are also found to increase the university-industry interaction. But, the need for more autonomy for the academics to work with the industry is found to decrease the university-industry interaction for enhancing the entrepreneurial skills.

**Model from Teachers’ point of view**

Twenty six predictor variables were included in the logistic regression analysis. Five variables were retained after the end of the backward conditional selection process.

**Table 4**

**Model Summary of Teachers’ point of view**

Model Summary of Teachers		
-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
224.329a	0.328	0.476

Table 4 presents the model summary of teachers’ point of view. The Cox & Snell R Square is found to be 0.328, which indicates that about 32.8 percent of the variation in the collaboration of the university departments with the industry is determined by the retained five predictor variables. The high value of the Nagelkerke R Square and the -2 Log likelihood also indicate the validity of the logistic regression model predicting the university-industry interaction.

Table 5 presents the significant variables which were retained in the logistic regression equation of the teachers’ point of view.

Lack of motivation and entrepreneurial spirit among the faculty and collaboration with the industry has a

negative influence on the pedagogic mission of a university.

**Table 5**

**Variables retained in the Equation of the Teachers’ point of view with the Regression Coefficients**

Code	Variables	B	S.E.
Q6.2	Lack of motivation and entrepreneurial spirit among the faculty	19.253	2433.01
Q6.5	Collaboration with the industry has a negative influence on the pedagogic mission of a university	1.247	0.390
Q6.13	The university has no policy towards collaboration with the industry	-16.214	2257.977
Q6.22	Conduct of seminars and workshops for the staff from the industry	17.504	3096.713
Q6.23	Tax concession for the companies collaborating with the university	17.303	2838.95
	Constant	-195.449	20079.34

The conduct of seminars and workshops for the staff from the industry and tax concession for the companies collaborating with the university, were found to positively relate with the probability of having a university-industry interaction. However, lack of policy for the university to collaborate with the industry is negatively related to the probability of having a university-industry interaction. Regression coefficients which represent the effect of each predictor variable on the level of the university-industry interaction after controlling the effects of other predictor variable indicated that lack of motivation and entrepreneurial spirit among faculty has the maximum effect of the level of the university-industry interaction.

Conducting of seminars and workshops for the staff from the industry and tax concession for the companies collaborating with the university were the other important predictors which were positively related to the level of university-industry interaction for enhancing the entrepreneurial skills. Lack of motivation and entrepreneurial spirit among the faculty was found to relate negatively with the level of the university-industry interaction.

**Lack of motivation and entrepreneurial spirit among the faculty was found to relate negatively with the level of the university-industry interaction.**

Figure 3 presents the model for the university-industry interaction for enhancing the entrepreneurial skills constructed by the Path analysis. This model provides information about the direct effect of each independent variable on the level of the university-industry interaction as well as its indirect effects through other predictor variables.

Table 6 presents the total effect of the independent variables on the level of the university-industry interaction for enhancing the entrepreneurial skills. From the table it can be seen that the total effect of the variable representing the lack of motivation and entrepreneurial spirit among the faculty is 0.23 and the collaboration with the industry has a negative influence on the pedagogic mission of the university is 0.09. Similarly, the total effect of the lack of a policy for the university to collaborate with the industry, conducting of seminars and workshops for the staff from the industry and providing tax concession for the companies collaborating with the university are 0.06, 0.08 and 0.10 respectively. None of the retained variables have a negative effect on the university-industry interaction for enhancing the entrepreneurial skills.

**Figure 3**  
**Model for the University–Industry Interaction for enhancing the Entrepreneurial Skills from the Teachers’ point of view**

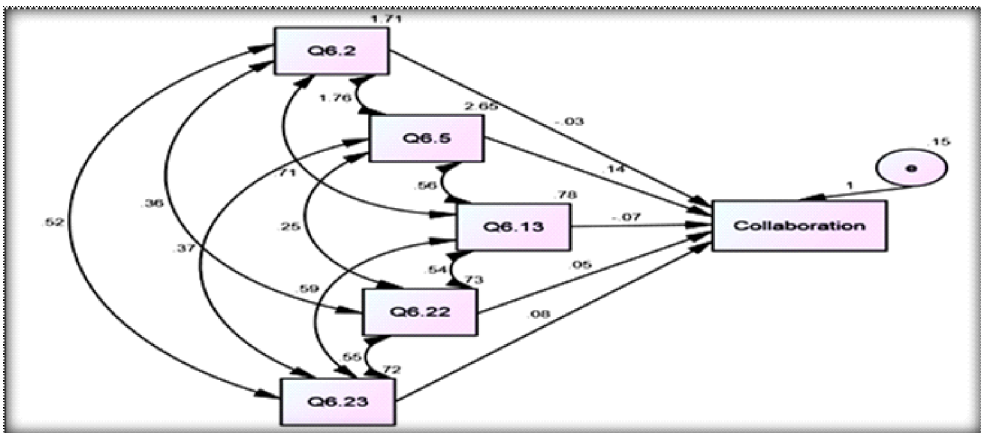


Table 6

**Total effect of selected variables on the level of the University–Industry interaction for enhancing the Entrepreneurial Skills from the Teachers’ point of view**

Variable	Mean	Type of Effect		Path Coefficients		Effect Size	Total Effect
Q6.2: Lack of motivation and entrepreneurial spirit among the faculty	1.71	Direct	Q6.2	-0.03		-0.03	0.23
		Indirect	Q6.2→Q6.5	1.76	0.14	0.25	
			Q6.2→Q6.13	0.71	-0.07	-0.05	
			Q6.2→Q7.23	0.36	0.05	0.02	
Q6.5: Collaboration with the industry has a negative influence on the pedagogic mission of a university	2.65	Direct	Q6.5	0.14		0.14	0.09
		Indirect	Q6.5→Q6.2	1.76	-0.03	-0.05	
			Q6.5→Q6.13	0.56	-0.07	-0.04	
			Q6.5→Q7.23	0.25	0.05	0.01	
Q6.13: The university has no policy towards collaboration with the industry	0.78	Direct	Q6.13	-0.07		-0.07	0.06
		Indirect	Q6.13→Q6.2	0.71	-0.03	-0.02	
			Q6.13→Q6.5	0.56	0.14	0.08	
			Q6.13→Q7.23	0.54	0.05	0.03	
Q6.22: Conduct of seminars and workshops for the staff from the industry	0.73	Direct	Q6.22	0.05		0.05	0.08
		Indirect	Q6.22→Q6.2	0.36	-0.03	-0.01	
			Q6.22→Q6.5	0.25	0.14	0.04	
			Q6.22→Q7.23	0.54	-0.07	-0.04	
Q6.23: Tax concession for the companies collaborating with the university	0.72	Direct	Q6.23	0.08		0.08	0.10
		Indirect	Q6.23→Q6.2	0.52	-0.03	-0.02	
			Q6.23→Q6.5	0.37	0.14	0.05	
			Q6.23→Q7.22	0.59	-0.07	-0.04	

The maximum effect on the university-industry interaction for enhancing the entrepreneurial skills from the teachers’ point of view is the lack of motivation and entrepreneurial spirit among the faculty. As per the result, when lack of motivation and entrepreneurial spirit among the faculty is high, there is a tendency to increase the university-industry interaction for enhancing the entrepreneurial skills. The second important effect on the university-industry

interaction for enhancing the entrepreneurial skills is tax concession for the companies collaborating with the university. According to the teachers, collaboration with the industry has a negative influence on the pedagogic mission of a university. Similarly, lack of specific university policy towards collaboration with the industry is found to increase the university-industry interaction for enhancing the entrepreneurial skills.

## CONCLUSION

The maximum effect on the university-industry interaction for enhancing the entrepreneurial skills from the students' point of view is the awareness about the expertise and the facilities available at the industry. As per the result, when awareness about the expertise and the facilities are available at the industry, the university-industry interaction for enhancing the entrepreneurial skills will increase significantly. The second important effect on the university-industry interaction for enhancing the entrepreneurial skills is the attendance at the seminars, symposiums, workshops and conferences. The level of the exchange of the information, literature and the data with the industry and the inadequacy of the infrastructure like journals, books, transport and communication are also found to increase the university-industry interaction. But, the need for more autonomy for the academics to work with the industry is found to decrease the university-industry interaction for enhancing the entrepreneurial skills. In the case of

teachers, twenty six predictor variables were included in the logistic regression analysis. Five variables were retained after the end of the backward conditional selection process. The maximum effect on the university-industry interaction for enhancing the entrepreneurial skills from the teachers' point of view is the lack of motivation and entrepreneurial spirit among the faculty. As per the result, when lack of motivation and entrepreneurial spirit among the faculty is high, there is a tendency to increase the university-industry interaction for enhancing the entrepreneurial skills. The second important effect on the university-industry interaction for enhancing the entrepreneurial skills is tax concession for the companies collaborating with the university. According to the teachers, collaboration with the industry has a negative influence on the pedagogic mission of a university. Similarly, lack of a specific university policy towards collaboration with the industry is found to increase the university-industry interaction for enhancing the entrepreneurial skills.

## References

1. Albino V, Garavelli AC, Schiuma G. (1999). *Knowledge transfer and inter-firm relationships in industrial districts: the role of the leader firm*. *Technovation*, 19, pp 53-63.
2. Bagherinejad, Jafar. (2009). *Science and technology policy of university and industry communication system for developing technology in Iran, mechanisms and suggestions*, *Research scientific journal of technology and science policy*, first year, No 1.
3. Bekkers R. and I. M. B. Freitas (2008), *Analysing knowledge transfer channels between universities and industry: To what degree do sectors also matter?* *Research Policy*, Vol 37, pp.1837-1853.
4. Brown, G. (2006). *Meeting the productivity challenge. A strong and strengthening economy: Investing in Britain's future*, HC968, UK Treasury, London, available at: [www.official-documents.co.uk](http://www.official-documents.co.uk).
5. Blumenberg S, Wagner H-T, Beimborn D. (2009). *Knowledge transfer processes in IT outsourcing relationships and their impact on shared knowledge and outsourcing performance*. *Int. J. Inform. Manage.* 29.



6. Carayol N. and M. Matt (2004), *Does research organisation influence academic production? Laboratory level evidence from a large European university*. *Research Policy*, Vol. 33, pp.1081-1102.
7. Cohen W. M., Nelson R.R. and J.P. Walsh (2002), *Links and Impacts: The Influence of Public Research on Industrial R & D*. *Management Science, Special Issue on University Entrepreneurship and Technology Transfer*, Vol,48 No1, pp.1-23.
8. D'Este P. and P. Patel (2007), *University-industry linkages in the UK: What are the factors underlying the variety of interactions with industry?* *Research Policy*, Vol. 36, pp. 1295-1313.
9. Franek, R. (2005). *The internship bible*, Princeton review publishing, Broadway, NY. Garrison, D.R (1997), 'self-directed learning: toward a comprehensive model', *Adult education Quarterly*, vol.48.No.1, pp.18-33.
10. Decter, M., and Bennett, M., and Leseure, M. (2007), *University to business technology transfer-UK and USA comparisons*. *Technovation*, Vol. 27, pp.145–155.
11. Hall, B., Link, A., and Scott, J. (2000), *Universities as Research Partners*. Cambridge MA, National Bureau of Economic Research, Working paper 7643, April.
12. Kolvereid, L. and Moen. (1997). *Entrepreneurship among business graduates: does a major in entrepreneurship make a difference?* *Journal of European Industrial Training*, Vol.21.No.4.pp 154-162.
13. Martínez, D.; Mora, J-G and Vila, L. (2007). *Entrepreneurs, the Self-employed and Employees amongst Young European Higher Education Graduates*. *European Journal of Education*, Vol. 42.No.1.
14. Melkers, J., Bulger, D., and Bozeman, L. (1993), *Technology transfer and economic development*. In Bingham, R., Mier, R., editors. *Theories of local economic development*. Newbury Park (CA).
15. Meredith, S., Burke, M. (2008). *Building bridge between university and industry: theory and practice, education and training*, Vol.50.No.3, pp.199-215
16. Mian, S. A. (1994), *US university-sponsored technology incubators: an overview of management policies and performance*. *Technovation* Vol.14 No.8, pp.515–528.
17. Rothman, M. (2007), 'Lessons learned: advice to employer from interns', *Journal of education for business*, Vol. 82 No.,p.140.
18. Santoro, M.D, Chakrabarti, A.K.(2001). *Firm size and technology centrality in industry – university interaction*, IT IPC working prepares IPC-01-001.
19. Scharfetter, D., Rammer, C., Fischer, M. M., and Fröhlich, J. (2002), *Knowledge interactions between universities and industry in Austria: Sectoral patterns and determinants*. *Research Policy*, Vol. 31, pp.303–328.
20. Veugelers, R., and Cassiman, B. (2005), *R & D cooperation between firms and universities: Some empirical evidence from Belgian manufacturing*. *International Journal of Industrial Organization*, Vol. 23, pp. 355– 379.
21. Wallmark, J. (1997), *Inventions and patents at universities: the case of Chalmers Institute of Technology*. *Technovation*, Vol.17,No.3, pp.127–139.
22. Vedovello, C. (1998), *Firms' R & D Activity and Intensity and the University–Enterprise Partnerships*. *Technological Forecasting and Social Change*, Vol.58, pp. 215–226.

## ACCOUNTING MODELS AND METHODS OF MEASURING INTELLECTUAL CAPITAL

**\*Mohammad Toolabi, \*\*Mohsen Babaee, \*\*\* S. Jayadev**

### Abstract

One of the main challenges and problems of traditional accounting systems is that financial statements and reports do not reflect the value of intellectual capital in the business units. The role of intellectual capital in creating value for companies and business units is much greater than the role that financial assets in the unit can play. The profession of accounting and accountants has an important role in finding effective ways to control and to measure the intellectual capital by models and methods of assessing these capitals. In this paper, in addition to the defining of terms and concepts of intellectual capital, the emphasis on the importance of measurement, methods and models for the measurement of intangible assets and intellectual capital have been mentioned in order that the business units report these valuable assets in their financial statements and that their intellectual capital would be disclosed.

**Key words:-** Intangible Assets, Intellectual Capital, Structural Capital, Human Capital, Human Resources.

Today, everyone knows that the Internet and the World Wide Web network had announced the emergence of a new era called “the era of knowledge” and the fading away of the industrial era. In the Industrial Age, which began in the 1890s, the emphasis was on mass production and distribution. But in

the era of knowledge, what leads to success in business and industry is human knowledge. This intangible asset is recognised as the intellectual capital and the development of the intellectual capital is the vital area of creating benefits (Yalama and Coskun, 2007). Knowledge-based business environment needs a new approach that includes the new intangible

---

*\*Mohammad Toolabi, Research Scholar of Commerce, University of Kerala, Trivandrum.*

*\*\*Mohsen Babaee, Research Scholar of Commerce, University of Kerala, Trivandrum.*

*\*\*\*Dr. S. Jayadev, Assistant Professor, P.G. Department of Commerce, VTMNSS College, Dhanuvachapuram, Trivandrum.*

assets such as knowledge, competence of human resources, innovation, customer relations, organisational culture, systems, structural organisation, and so on. The idea of intellectual capital has now incarcerated the attention of the academic researchers and business managers to a great extent, on account of the importance of intangible assets in the business.

**Human Capital of an organisation is the most important asset and a source of creativity and innovation.**

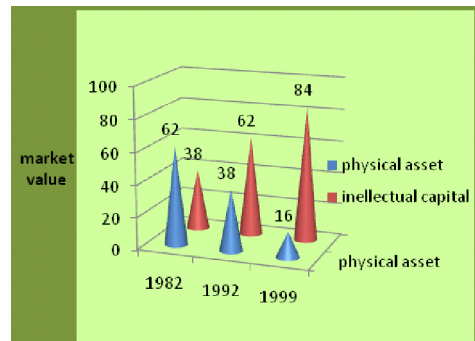
**Need and Significance of the Study**

In 1982, out of one hundred dollars invested in shares of producing companies in America, 62% was spent on tangible assets. But in 1999, this reached 16% which means that about 84% of the market value of the firms was intellectual capital. The increase in the ratio of intangible assets to tangible assets has resulted in better performance and return on the investment as compared to those companies which were ignorant of these assets and the intellectual capital in particular, and the fluctuation in the stock prices of the former is less. (cariola et al., 2006).

The importance of this issue becomes more evident when a company is sold for a price which is four or five times more than the value of its assets, the additional amount being the value of intellectual capital such as human capital, structural capital, communications, brands, and so on. Most of the times these valuable assets have no place in the financial statements of the companies and create difficulties in the process of determining the selling price and assessment of the

companies' capitals. In this background, the attempt of the researcher through the present article is to explain the concepts and definitions of intellectual capital, the importance of managing and creating value in the company's financial statements and its measurement with the help of models, formulas and quantitative measurements, as done in countries like Germany, Japan and Denmark.

**Figure 1**  
**The development of the market value of the firm's intellectual capital (Chen et al, 2008).**



*Components and Definitions of Intellectual Capital*

While summarising the various definitions of the intellectual capital and its components, intellectual capital can be divided into 3 categories: Human Capital, Structural Capital (Organisation) and Customer Capital (Bontis, 1999).

Human Capital of an organisation is the most important asset and a source of creativity and innovation. Perhaps, this is one of the most vital components which are in practice. The combination of

human capital includes knowledge, skill, strength, innovation, and ability to perform the duties to magnify a company's values, culture and philosophy.

Structural Capital is defined as hardware, software, databases, organisational structure, the exclusive rights of the trademarks and the organisation's ability to support the employees' productivity. It is divided into corporate culture, organisational structure, organisational learning, operational processes and systems information (Black S and Lynch L., 1996).

Customer Capital is considered as a bridge and catalyst in the intellectual capital activities, which is one of the main requirements and the determinant of converting the intellectual capital into the market value and also the company's business performance.

**Successful Management of Intellectual Capital**

To have a positive influence on the future value of the firm, it is required to have a better understanding of the intellectual capital, for which the guidelines issued by the American Institute of Certified Public Accountants (AICPA), worth mentioning, is noted below:

1. Identify the firm's intellectual capital;
2. Outlining the key factors;
3. Measuring intellectual capital;
4. Management of intellectual capital;

**Structural Capital is defined as hardware, software, databases, organisational structure, the exclusive rights of the trademarks and the organisation's ability to support the employees' productivity.**

5. Reporting intellectual capital.

The first step is to identify the firm's intellectual capital through interviews, workshops or online surveys and includes measurement of its value which depends on the firm's strategy. All intellectual capitals of a firm are not worth automatically. They become valuable only when they can help the firm achieve its objectives.

The next step is to map value creation. This visual representation has two primary functions: to ensure that the strategy is consistent with all the elements of intellectual capital, and to examine the role and importance of intellectual capital in promoting the strategy.

After identifying and outlining the value of the intellectual capital, firms can begin to assess them based on the tools and techniques for measuring the intellectual capital.

When the intellectual capital is measured, it can be managed. With the help of evaluation, it is possible to understand whether the intellectual capital has improved or deteriorated, and can discover what activities or programmes have had effects on the performance. This information can be used in decision-making, reviewing and testing strategy and managing the risks associated with the use of the intellectual capital.

The final step is the reporting of the intellectual capital and its aim is to provide

information about the intellectual capital of an organisation to its stakeholders with a view to improve the image and reputation of the firm.

### Reasons for Measuring Intellectual Capital by Companies

1. Measurement of the intellectual capital can help to develop business strategy of an organisation.
2. By identifying and developing the intellectual capital, an organisation can gain competitive advantage.
3. Creating key performance indicators will help the evaluation of strategy implementation.
4. The use of non-financial evaluation of the intellectual capital can be attributed to the company's refund plans and bonus pay.
5. There is a growing awareness that knowledge adds considerably to the value of the business and in some cases knowledge shows almost all the foundation value.

Hence it is essential that the ultimate aim of every organisation is value maximisation, as such it is high time the organisations measure their intellectual capitals and include them in their financial reports.

### Methods of Measuring Intellectual Capital

As noted, the traditional accounting ignores values such as experience, skill, reputation of partners or owners. There is a big gap between the market value and the book value of the commercial units

in operation. In order to eliminate and minimise the gap among more than 30 models identified for recognition and measurement of the intellectual capital, 10 important models and their characteristics are explained below:

#### 1) Tobin's Q

Tobin's Q model was developed by James Tobin (1978), the winner of the Nobel Prize for economics. The ratio measures the relation between a company's market value and the replacement value of the company (the replacement cost of company assets). Theoretically, in the long term, this ratio will take the side of the unit, but the experimental evidence suggests that this ratio can vary significantly with the number one at the same time. For example, software companies that utilise large amounts of intellectual capital have a ratio of about seven or above, while the companies which utilise tremendous amount of physical capital have a ratio of about one. Tobin's Q ratio is very similar to the market ratio to the book with the exception when calculating. Tobin uses refundable cost physical assets instead of physical assets book value. The resulting ratio is applied in the following way: if the Kiwi ratio of a company is greater than the amount of units and also competitive Q amount, the company has the ability to earn more profits than such similar companies.

#### 2) Human Resource Accounting

Human resource accounting is one of the old important methods which were first used in the 1960s and the 1970s. This

**Customer Capital is considered as a bridge and catalyst in the intellectual capital activities.**

method has some similarities with the concept of the intellectual capital and its measurement. Human resource accounting is one of the pioneering works in the field of intellectual capital which includes some methods to calculate the value of human resources. But it seems that these methods have no effect on the performance of other firms and this is one of the negative points of this method. According to Flame Halts definition (1985), human resource accounting includes measurement of costs incurred by business units and organisations when it is in the recruitment, selection, training and development of human assets. It also includes the measurement of individuals' economic value for organisations.

### 3) **Invisible Balance Sheet**

Invisible Balance Sheet is one of the pioneering methods in the field of intangible assets. It is a practical method for reporting of the manpower which is the main source and the first generator of technical knowledge. In order to complete the financial report with relevant information to employees, such as stability, knowledge, ability, effectiveness and potential revenue, 35 non-financial indicators were proposed. In the invisible balance sheet, the difference between a company's stock market value and the book value is explained by three interdependent categories of assets such as human capital, organisational capital (structural) and customer capital.

### 4) **Balanced Score Card**

This method tries to balance the long-term and the short-term objectives, financial and non-financial measures, forward indicators and finally the internal

and the external aspects of the company. Generally, four perspectives including customer, financial, internal processes and learning and growth are used to convert the high level strategy into the real measurements (standards). The relationship between each of these four aspects should also be considered. These are relatively equivalent to the three components of intellectual capital which are called the human capital (knowledge and experience), the structural capital (the knowledge of systems and processes within the organisation) and the customer capital (client relationships). Therefore the above aspects can properly be implemented to assess the knowledge management situations and its evaluations.

### 5) **Scandia Navigator**

Scandia is a Swedish financial services company, who developed intellectual capital reporting internally for the first time and in 1994, as the first big company, it represented an enclosed intellectual capital report to the shareholders along with the traditional financial statement. Scandia experienced a wide range of means and methods of measuring the intellectual capital and finally developed its particular means named Scandia Navigator, with five areas of financial, customer, processing, renewal and development of the human resource.

### 6) **Human Resource Costing and Accounting**

This method calculates the hidden costs associated with the impact of human resources that reduces the company's profits. The intellectual capital is measured by calculating the cost of human rights in the partnership assets investment.

### 7) **Technology Broker**

The server technology model divided the corporate knowledge into 4 categories: human central assets, infrastructure assets, intellectual properties and market assets. The model determined the value of the corporate intellectual capital through the assessment process. Each model is part of a special audit by a questionnaire survey on variables related to the asset class.

### 8) **Intangible Assets Monitor**

Intangible Assets Monitor defines three types of intangible assets which resulted from the difference between the market values. These three components of intangible assets consist of the external structure (brands, customer and supplier relationships), the internal structure (management, law, statute, attitude, software) and the personal qualification (education, experience, expertise). The three indicators focus on the growth and renewal, efficiency and stability of each component of the intangible assets and classify intangible assets under the control of the internal structure. The model is based on the premise that human resource is the only true factor in business and other structural aspects both the internal and the external resources are implicit in human activities.

### 9) **Economic Value Added**

This method is relatively one of the newest methods for assessing organisational performance and has acquired extraordinary popularity. This approach focuses on maximising the shareholder's wealth which is the generated cash flow (after deducting taxes) by the company minus the cost of the capital expenditure spent for generating the cash

flow. Therefore, it represents the real gain versus the profits on paper. The economic value added is the difference between the net sales and the total operating costs, taxes and capital expenditures while the capital expenditures are calculated by multiplying the weighted average cost of the capital in the total capital (invested). In practice, the economic value added increases when the weighted average cost of the capital is less than the return on the net assets, or vice versa. At present, economic value-added approach is deployed as an appropriate manner and is being accepted increasingly for business planning. In another words, any change in the economic value added, provides a measure for realising whether the intellectual capital of an organisation has been effective or not.

### 10) **Calculated Intangible Value**

Calculated Intangible Value model is based on the assumption that the excess income of a company, for example, the income in excess of the industry average revenue, results from its intellectual capital. The data required for this method is prepared from the company's balance sheet. Implementation of this method can be divided into six stages:

- Calculate the average pre-tax income of the company for the last three years (a).
- Calculate the average year-end physical medium, for the last three years (b).
- Divide the income by the value of the physical assets to calculate the rate of return on the physical assets to get  $(c = \frac{a}{b})$ .

- For the last three years (d) the average rate of the return on the physical assets for the industry to calculate the average rate of the return is now less steps (e) to continue. The average income tax rate in the last three years to calculate.
- Calculate excess return

$$F = [(Q - d) * (b)] * (1 - e)$$

with regard to (f)

- Finally the excess return (f) on an appropriate percentage, for example, the cost of capital of the company.

**Methods for calculation of the Value of Intellectual Capital Quantitative**

In order to respond to the question of how to calculate the monetary value of the intellectual capital, the following formulas may be used:

$$1) IC_1 = \frac{R_c - R_f}{WACC}$$

$$2) IC_2 = (\mu_c - \mu_f)$$

$$3) IC_3 = \sum_{t=1}^T \left( \frac{MV_t - BV_t}{1 + I_{nft}} \right) \Rightarrow 4) IC_4 = \left( \frac{MV_\mu - BV_\mu}{1 + I_{nft}} \right)$$

Formulas Guide	Notation
Intellectual Capital	IC
Company Revenue	$R_1$
Weighted Average Cost of Capital	WACC
The average yield of the industry during the T period	$\mu_c$
The average yield of the company during the period	$\mu_f$
Average of company's assets during the T time	TA
Rate inflation during the time of T	$I_{nft}$
Average of inflation rate during the T period	$I_{nfm}$
Average of market value and book value during the time of T	$MV_t, BV_t$
Average of market value and book value of the company during T time	$MV_\mu, BV_\mu$

**Methods for Measuring Intellectual Capital**

In a general classification of the intellectual capital measurement, the methods are classified into four general categories:

**Class A: Direct intellectual capital methods**

These methods speculate the amount of intellectual capital by various monetary components belonging to the properties. The techniques such as Technology broker method, accounting and human resources costing, and human resource accounting fall in this category.

**Class B: The Investment Market Methods**

This method calculates the difference between the market value of the capital stock of the company and its shareholders capital to consider the intellectual capital. Invisible Balance Model and Tobin's Q fall in this category.

**Class C: Return on Assets Methods**

These are the pre-tax income of the company within a specified period, and calculate it as the range of the physical assets in the business. Economic Value Added and Calculated Intangible Value belong to this class.

**Class D: Methods Scorecard**

Under this method, various components of the intangible assets or the intellectual capital are identified and prepared as indices, which are reported on a score card displayed in the diagrams. The Balanced Scorecard method, the Scandia Navigator and the Intangible Assets Monitor are the methods included under this category.



## CONCLUSIONS

The intellectual capital is the intangible assets that create value for the firms and is considered to be one of the key factors in creating a competitive advantage for the companies. Considering the fact that such values are of a higher order, their measurement, recognition and control could, possibly, resolve the common accounting errors or problems, i.e. failing to report and reflect the intellectual capital. By signalling tangible assets, a

considerable change in the management control of the company would be made. In this paper, the various components and definitions and reasons for measuring the intellectual capital and assets were discussed. Amongst more than 30 models, 10 methods and 4 formulas have been evaluated for measuring and evaluating the intellectual capital with a view to observe its reflection in the balance sheet and the statements of the intellectual capital of the financial firms.

## References

1. Barney, J.B. (1991), "Firm resources and sustainable competitive advantage", *Journal of Management*, Vol. 17 No. 1.
2. Becker B. and Huselid M. (1998), "High performance work systems and firm performance: a synthesis of research and management implications", *Research in Personnel and Human Resource*, n. 16.
3. Black S. & Lynch L. M. (1996), "Human capital investment and productivity", *The American Economic Review*, n. 86.
4. Bontis N., Cabrita M., (2008), "Intellectual capital and business performance in the Portuguese banking industry", *Int. J Technology Management*, Vol. 43, Nos. 1-3.
5. Brambandkar, A. Erickson, S, Applebee, I. (2007). "Intellectual Capital and Organizational Performance an Empirical Study of the Pharmaceutical Industry", *ECKM 2007, 8th European Conference on Knowledge Management, Barcelona*.
6. Brooking, A. (1996). "Intellectual Capital: Core Assets for the Third Millennium Enterprise", London, Thomas Business Press.
7. Cappelli P. and Neumark D. (1999), "Do 'high performance' work practice improve establishment-level outcomes", *NBER Working paper 7374*.
8. Chen, M.Y, Lin, J.Y, Hsiao, T.Y, Thomas, W.L. (2008). "Censoring model for evaluating intellectual capital value drivers", *Journal of Intellectual Capital*, Vol.9, No.4, and pp: 639-654.
9. Drucker, P.F. (1993), "Post-Capitalist Society", (Oxford: Butterworth Heinemann).
10. Dedman, E. & Lin, S. W. -J. 2002, "Shareholder wealth effects of CEO departures: evidence from the UK", *Journal of Corporate Finance*, vol. 8, pp. 81-104.
11. DMSTI 2003a, "Analysing intellectual capital statement", Danish Ministry of Science, Technology and Innovation.
12. Edvinsson, L. & Sullivan, P. 1996, "Developing a model for managing intellectual capital", *European Management Journal*, vol. 14, no. 4, pp. 356-364.
13. Elias, N. 1972, "The Effect of Human Asset Statements on the Investment Decision: An Experiment", *Journal of Accounting Research*, vol. 10, pp. 215-233.

14. FASB 2001, reporting: "Insights into enhancing voluntary disclosures "Improving business", *Financial Accounting Standards Board: Norwalk, CT.*
15. Firer, S. & Williams, S. M. 2005, "Firm ownership structure and intellectual capital disclosure", *SA Journal of Accounting Research*, vol. 19, no. 1, pp. 1-1
16. Kallunki, J. Karjalainen, P. & Martikainen, M. (2005). "Investments in human capital in different institutional environments". *Advances in International Accounting* 18, 121-140.
17. Kaplan, R. S. & Norton, D. P. (1994). "Balance scorecard: translating strategy into action". Boston : Harvard Business School Press. La Porta, R., Lopez-de-
18. Silanes, F., Shleifer, A. & Vishny, R. (1998). "Law and Finance". *Journal of Political Economy* 106, 1113-1155.
19. Lev, B. (2001). "Intangibles: Measurement, Management and Reporting". Washington DC: Brookings Institute Press.
20. Lev, B. & Zarowin, P.(1999). "The boundaries of financial reporting and how to extend them", *Journal of Accounting Research*. 37(2), 353-383.
21. Lewis, G. (1997), "Building intellectual capital", *Management Accounting*, (UK) 75(6), 54.
22. Lumpkin, G. G. & Dess, G. T. (2005), "The role of entrepreneurial orientation in stimulating effective corporate entrepreneurship". *Academy of Management Executive* 19(1), 147-156.
23. Marr, B., Mouritsen, J. and Bukh, P. N. (2003), "Perceived Wisdom", *Financial Management*, July/August 32.
24. Mauritsen, J. Bukh, P.N. & Marr, B. (2004). "Reporting on intellectual capital why, what and how?", *Measuring Business Excellence* 8(1), 46-54.
25. McKinnon, J. L. & Dalimunthe, L. (1993), "Voluntary disclosure of segment information by Australian diversified companies", *Accounting and Finance* 33, 33-50.
26. Meek, G. K., Roberts, C. B. & Gray, S. J. (1995). "Factors influencing voluntary annual report disclosures by US, UK and Continental European multinational corporations", *Journal International of Business Studies* 26(3), 555-572.
27. Olsson, B. (1999), "The construction of transparency through accounting on intellectual capital?" *Journal of Human Resource Costing and Accounting*, 4(1), 7-10.
28. Ollson, B. (2001). "Annual reporting practices: information about human resources in corporate annual reports in major Swedish companies", *Journal of Human Resources Costing and Accounting*, 6(1), 39-52.
29. Petrash, G. (1996), "Dow's journey to acknowledge value management culture", *European Management Journal* 14(4), 365-373.
31. Raffournier, B. (1995), "The determinants of voluntary financial disclosure by Swiss listed companies", *European Accounting Review*, 4(2), 261-280.
32. Roslender, R. & Fincham, R. (2001), "Thinking critically about intellectual capital accounting", *Accounting, Auditing and Account ability Journal* 14(4), 383-398.

"Educating and skilling our youth to enable them to get employment is the altar before which we must all bow."

- Arun Jaitley

## A COMPARATIVE STUDY ON THE MANAGEMENT OF NON-PERFORMING ASSETS OF SBT, ICICI AND A SERVICE CO-OPERATIVE BANK

\*P.M. Alavikutty, \*\*Rahmath Arikkanchola

### Abstract

Banking occupies a crucial place in undertaking the development efforts and acts as a vehicle for socio-economic transformation as well as a catalyst for economic growth. The non-performing asset is one of the foremost formidable problems that have shaken the entire banking industry in India. Like a cankerworm it has been eating into the banking system for some time now. At the macro level, NPAs have choked off the supply line of credit to the potential borrowers, thereby having a deleterious effect on capital formation and arresting the economic activities in the country. At the micro level, the unsustainable level of NPAs have eroded the profitability of banks through reduced interest income and provisioning requirements, besides restricting the recycling of funds leading to serious asset liability mismatches. Unfortunately the high level of NPAs of banks is adversely affecting the profitability, liquidity and solvency position of the banking sector. Therefore NPAs should be brought down to internationally accepted level (i.e. 2-3 percent of loan assets).

**Key words:-** Bank, Non-Performing Assets, Gross NPA, Net NPA, Standard and Sub-Standard Assets, Overdue.

A strong banking sector is important for a flourishing economy. The banking industry has undergone a sea change after the first phase of economic liberalisation in 1991. While the primary function of banks is to lend funds as loans

to various sectors such as agriculture, industry, personal loans, housing loans, etc., in recent times the banks have become very cautious in extending loans. The reason being mounting non-performing assets (NPAs) and nowadays these are one of the major concerns for banks in India.

\*\* Dr. P.M. Alavikutty, HOD & Associate Professor, Department of Commerce & Centre of Research, PSMO College, Tirunangadi.

\*\* Rahmath Arikkanchola, Assistant Professor, Department of Commerce & Management Studies, Government Arts and Science College, Tanur.

NPAs reflect the performance of banks. A high level of NPAs suggests high probability of a large number of credit defaults that affect the profitability and net-worth of banks and also erodes the value of the asset.

The Indian banking system has undergone a noteworth transformation following financial sector reforms, and at present it is passing through a decisive phase. It is adopting the international best practices in the area of regulation and supervision with a view to strengthen the banking sector. The banking system witnessed reforms such as introducing prudential norms; allowing entry of new private sector banks and enhanced presence of foreign banks; permission to access the capital market, operational flexibility and functional autonomy to public sector banks; strengthening of corporate governance practices and disclosure standards.

The public sector banks have not only reduced the lending rates but have also managed to record a higher average net profit and lower NPAs level than the private sector banks. The Public Sector Banks have shown very good performance over the private sector banks as far as the financial operations are concerned. The nonperforming assets of the public sector banks have been increasing regularly year by year. The only problem that hampers the possible financial performance of the public and

private sector banks are the increasing results of the non-performing assets. Cooperative banks were started in our country to remove the proverbial poverty of the millions of small agriculturists. It was adopted as a most powerful weapon for ending the stagnation of the poor masses.

**The prudential and provisioning norms and other initiatives undertaken by the regulatory bodies have pressurised the banks to improve their performances. This has consequently resulted in the trimming down of the NPAs as well as improvement in the financial health of the Indian banking sector.**

A cooperative bank promotes economic activity and provides banking facilities and services to the rural people. The cooperative banks do not hesitate in accepting non-members as their customers and thus they spread the

message of cooperative principles and extend their benefits to a wider section of the people. Cooperative banks are also not free from problems of outstanding loans and non-performing assets.

The non-performing assets drastically impact the working of the banks. The efficiency of a bank is not always reflected by the size of its balance sheet but by the level of return on its assets. NPAs do not generate interest income for the banks, but at the same time banks are required to make provisions for such NPAs from their current profits.

This comparative study is to access and analyse credit risk management policy through NPAs analysis. The study observed that the prudential and provisioning norms and other initiatives undertaken by the regulatory bodies have pressurised the banks to improve their

performances. This has consequently resulted in the trimming down of the NPAs as well as improvement in the financial health of the Indian banking sector.

### NON-PERFORMING ASSETS

NPA is a classification used by financial institutions that refer to loans that are in jeopardy of defaults. Once the borrower has failed to make interest or principal payments for 90 days, the loan is considered to be a non-performing asset. Non-performing assets are problematic for financial institutions since they depend on interest payments for income. Troublesome pressure from the economy can lead to a sharp increase in non-performing assets and often results in massive write-downs. With a view to moving towards international best practices and to ensure greater transparency, it has been decided to adopt the “90 days’ overdue” norm for identification of NPA, from the year ending March 31, 2004. Accordingly, with effect from March 31, 2004, a non-performing asset (NPA) shall be a loan or an advance where-

- \* interest and/or instalment of principal remain overdue for a period of more than 90 days in respect of a term loan;
- \* the account remains ‘out of order’ for a period of more than 90 days, in respect of an overdraft /cash credit (OD/CC);
- \* the bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted;

### MANAGEMENT RESEARCHER

- \* interest and/or instalment of principal remains overdue for two harvest seasons but for a period not exceeding two and a half years in the case of an advance granted for agricultural purposes;
- \* any amount to be received remains overdue for a period of more than 90 days in respect of other accounts;
- \* the amount of liquidity facility remains outstanding for more than 90 days in respect of a securitisation transaction undertaken in terms of guidelines on securitisation dated February 1, 2006; and
- \* in respect of derivative transactions, the overdue receivables representing positive mark-to-market value of a derivative contract, if these remain NPAid for a period of 90 days from the specified due date for payment.

### ‘Out of Order’ Status

An account should be treated as ‘out of order’ if the outstanding balance remains continuously in excess of the sanctioned limit or drawing power. In cases where the outstanding balance in the principal operating account is less than the sanctioned limit or drawing power, and there are no credits continuously for 90 days as on the date of the balance sheet or credits are not enough to cover the interest debited during the same period, these accounts should be treated as ‘out of order’.

### ‘Overdue’

Any amount due to the bank under any credit facility is ‘overdue’ if it is not paid on the due date fixed by the bank.

## ASSET CLASSIFICATION

Banks are required to classify non-performing assets further into the following three categories based on the period for which the asset has remained non-performing and the reliability of the dues:

- i. Sub-Standard Assets;
- ii. Doubtful Assets; and
- iii. Loss Assets.

### Sub-Standard Assets

With effect from 31 March 2005, a sub-standard asset would be one which has remained as an NPA for a period less than or equal to 12 months. In such cases, the current net worth of the borrower/guarantor or the current market value of the security charged is not enough to ensure recovery of the dues to the banks in full. In other words, such an asset will have well defined credit weaknesses that jeopardise the liquidation of the debt and are characterised by the distinct possibility that the banks will sustain some loss, if deficiencies are not corrected. Sub-standard asset is the asset in which bank have to maintain 15 percent of its reserves.

### Doubtful Assets

With effect from March 31, 2005, an asset would be classified as doubtful if it has remained in the sub-standard category for a period of 12 months. A loan classified as doubtful has all the weaknesses inherent in assets that were classified as sub-standard, with the added characteristic that the weaknesses make collection or liquidation in full, on the basis of currently known facts, conditions and

values, highly questionable and improbable. Assets which are considered as non-performing for period of more than 12 months are called as Doubtful Assets.

### Loss Assets

A loss asset is one where loss has been identified by the bank or internal or external auditors or the RBI inspection, but the amount has not been written off wholly. In other words, such an asset is considered uncollectible and of such little value that its continuance as a bankable asset is not warranted, although there may be some salvage or recovery value. All those assets which cannot be recovered are called as Loss Assets.

## LITERATURE REVIEW

Keeping in view of the importance of NPAs management in banks, a large number of studies have been carried out. The noteworthy among them are given below:

**Prashanth K. Reddy (2002)**, in his research paper on the topic, "A comparative study of Non-Performing Assets in India in the Global Context" examined the similarities and dissimilarities, and the remedial measures. The study reveals that the sheltering of the weak institutions while liberalising the operational rules of the game is making implementation of operational changes difficult and ineffective.

**JAIN (2002)**, in his thesis titled, "Non-performing Assets in Commercial and Development Banks in India" highlighted that the future profitability of banks would depend on their alertness, operational efficiency, customer

orientation, creation of large volume of performing assets, and attainment of optimum levels of productivity.

**Bidani (2002)**, in his book titled, “Managing Non-Performing Assets in Banks,” highlighted that banks are concerned with their heavy NPA portfolio which was impairing their profitability and are taking all possible steps to contain the same. Banks have achieved a reasonable degree of success to bring down their existing NPAs but due to heavy slippage of standard accounts to NPA category the overall position continued to deteriorate.

**Misra (2003)**, in his article, “Managing Non-Performing Assets: A Professional Approach”, highlighted that the profitability of the financial institutions largely depended upon the level of income generated through optimum use of the assets after paying the cost of fund for acquiring them and other administrative costs involved therein.

**Reddy (2003)**, in his research paper, “NPAs: Threat to Financial Stability”, confirmed that financial stability is an essential prerequisite for a sustainable long-term economic growth of any country. The authors concluded that the macro and micro level reforms and adherences to cleaner practices on the part of banks, regulator, borrowers and government will enable the system to get rid of the NPAs overhang and let the financial system be an essential adjunct for economic growth.

**Skaur and J. S. Pasricha (2004)**, concluded a research on management of NPAs in Public sector banks over an 8 years period ending 2002, and showed that gross NPA has registered a constant

increase from 1995-2002. This study pointed out the sector-wise and bank-wise position of NPA in PSBs. It was suggested that the following of a proper policy of appraisal, supervision and follow-up of advances be taken up to control the NPAs.

**Khasnobis (2005)**, in his article, “NPAs Emerging Challenges in India” studiedly stated that the Indian banking sector has played a commendable role in fuelling and sustaining growth in the economy.

**Kumar (2005)** in his article, “Non-Performing Assets in Indian Banks” stated that the Indian banking sector is facing a serious problem of NPAs. The extent of NPAs has been comparatively higher in the public sectors banks.

**Dr. Janardhar G. Naik (2006)**, pointed out the problem of NPAs management in the banking sector and concluded that the Government of India has to set ARCs to manage NPAs to face the challenges before the banking sector.

**Bhatia (2007)**, in his research paper entitled “Non-Performing Assets of Indian Public, Private and Foreign Sector Banks: An Empirical Assessment”, explored an empirical approach to the analysis of Non-Performing Assets (NPAs) of public, private, and foreign sector banks in India. The NPAs are considered as an important parameter to judge the performance and the financial health of the banks.

**Shalu Rani (2011)**, examined the existing position of banks in the SCBs of India in respect of NPAs, the causes and remedial measures thereof and concluded that the level of NPAs has increased, eroding

whatever reduction was made with the ever increasing level of fresh NPAs and the tightening of norms by RBI from time to time.

**Prof. G. V. Bhavani Prasad and D. Veena (2011)**, studied the NPAs in the Indian Banking Sector -Trends & Issues, and concluded that the public sector banks which currently account for more than 78 percent of the total banking industry assets are saddled with NPAs, falling revenues from the traditional sources, lack of modern technology and a massive work force while the new private sector banks are forging ahead and rewriting the traditional banking business model by way of their sheer innovation and service and the adoption of modern technology.

**Non-performing assets need a resolution; otherwise it can break the backbone of the entire economic and the financial system.**

## OBJECTIVES OF THE STUDY

Non-performing assets need a resolution; otherwise it can break the backbone of the entire economic and the financial system. The important objectives of the present study are:

- to study what kind of role NPAs are playing upon the operations of banks;
- to analyse sector-wise NPAs of banks;
- to understand association of gross NPAs, gross advances, NNPA and net advances of these banks; and
- to understand the problems and opinions of borrowers whose accounts turned to NPA and the forces that lead them to make

defaults in repayment of interest and principal towards loans.

## RESEARCH METHODOLOGY

This study is an analytical as well as a descriptive research based on both primary and secondary data. The study is conducted at the Kottakkal area with a sample size of 100 borrowers having loan accounts in SBT, ICICI and ESCB in a proportion of 34 borrowers from ESCB, 33 from SBT and another 33 from ICICI.

### Primary Data:

Borrowers were selected on a convenient sampling basis for acquiring detailed knowledge on NPA. A structured questionnaire was used to collect problems and opinions of borrowers whose accounts turned to be NPAs. The concerned officials of selected banks were interviewed based on an interview schedule and details on various aspects of NPA and the management of NPA were collected, analysed and conclusion drawn.

### Secondary Data:

For this study, the secondary data was collected from the various annual reports of SBT, ICICI and ESCB, RBI publications like 'Trend and Progress of Banking in India', statistical tables relating to banks in India, etc. The articles and papers relating to NPA published in different business journals, newspapers and periodicals were studied and the data available in various websites of internet were also used.



**ANALYSIS AND INTERPRETATION**

**1. TABLE SHOWING GROSS NPA RATIO**

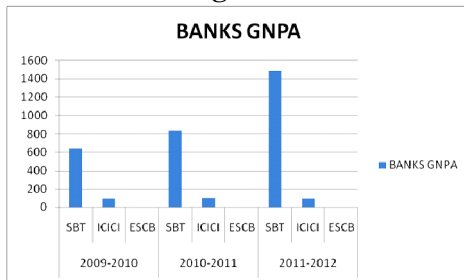
**Table No 1**

(Rs in crores)

YEAR	BANKS	GROSS ADVANCES	GNPA	
			AMOUNT	PERCENTAGE OF GROSS NPA
2009-2010	SBT	38565	642	1.66
	ICICI	1476	96	6.50
	ESCB	286	0.2	0.07
2010-2011	SBT	46044	835	1.81
	ICICI	2498	101	4.04
	ESCB	300	0.18	0.06
2011-2012	SBT	55345	1489	2.69
	ICICI	2921	96	3.29
	ESCB	320	0.17	0.05

Source: financial statements of banks

**Figure 1**



From the above table and graph it is clear that SBT has the highest NPA during all the three years while NPA of ESCB is much less compared to the other banks.

**2. TABLE SHOWING NET NPA RATIO**

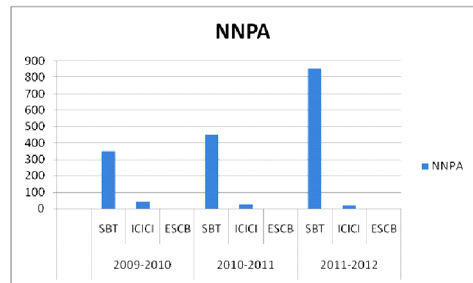
**Table No 2**

(Rs in crores)

YEAR	BANKS	NET ADVANCES	NET NPA	
			AMOUNT	PERCENTAGE OF NET ADVANCES
2009-2010	SBT	38461	350	0.91
	ICICI	1812	43	2.37
	ESCB	286	0.18	0.06
2010-2011	SBT	46019	451	0.98
	ICICI	2164	25	1.16
	ESCB	292	0.15	0.05
2011-2012	SBT	55346	854	1.54
	ICICI	2537	19	0.75
	ESCB	310	0.125	0.04

Source: financial statements of banks

**Figure 2**



From the above table and graph it is clear that SBT has more NNPA compared to other banks. Over the years NNPA of ICICI and ESCB are coming down, but NNPA of SBT keeps increasing year by year.

**3. TABLE SHOWING PROVISIONS ON NPA**

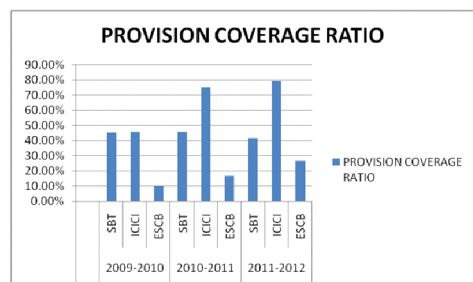
**Table No 3**

(Rs in crores)

YEAR	BANKS	GROSS NPA	PROVISION	
			AMOUNT	PERCENTAGE
2009-2010	SBT	642	291	45.33
	ICICI	96	44	45.83
	ESCB	0.2	0.02	10.00
2010-2011	SBT	835	384	45.99
	ICICI	101	76	75.2
	ESCB	0.18	0.03	16.67
2011-2012	SBT	1489	623	41.84
	ICICI	96	76	79.17
	ESCB	0.17	0.045	26.47

Source: financial statement of banks

**Figure 3**



From the above it is clear that ICICI bank creates more provisions on NPA. The provision coverage ratio of ESCB keeps increasing year by year.

**4. TABLE SHOWING SECTORWISE NPA**

**Table No 4**  
(Amounts in percentages)

YEAR	BANKS	AGRICULTURE & ALLIED SECTOR	INDUSTRY	SERVICE	PERSONAL LOANS
2009-2010	SBT	0.78	1.92	2	1.29
	ICICI	3.05	19	0	
	ESCB	0.5			
2010-2011	SBT	0.83	2.06	0	1.31
	ICICI	3	0.77	1	1.83
	ESCB	0.5			
2011-2012	SBT	0.73	8.79	0	1.74
	ICICI	1.25	0.69	0	1.26
	ESCB	0.4			

Source: financial statements of banks

From the above table and graph it is clear that total NPA of the ESCB is from agriculture and allied sector and NPA of SBT is mainly from industrial sector. During 2011-2012 ICICI has more NPA from the personal loans sector.

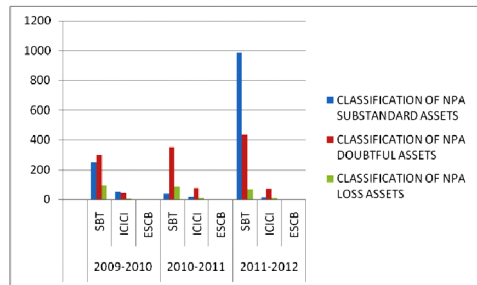
**5. TABLE SHOWING CLASSIFICATION OF NPA**

**Table No 5 (Rs in crores)**

CLASSIFICATION OF NPA				
YEAR	BANKS	SUBSTANDARD ASSETS	DOUBTFUL ASSETS	LOSS ASSETS
2009-2010	SBT	250	300	92
	ICICI	50.2	40.3	5.5
	ESCB	0.1	0.08	0.02
2010-2011	SBT	40	350	85
	ICICI	18	74	9
	ESCB	0.09	0.07	0.02
2011-2012	SBT	985	435	69
	ICICI	14.5	73.5	8
	ESCB	0.075	0.095	0

Source: financial statements of banks

**Figure 4**



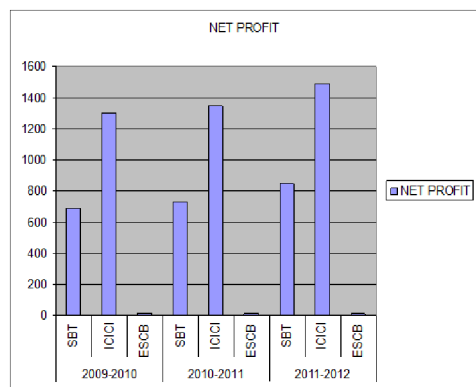
**6. TABLE SHOWING NET PROFIT OF BANKS**

**Table No 6**  
(Rs. in crores)

YEAR	BANKS	NET PROFIT
2009-2010	SBT	685
	ICICI	1300
	ESCB	10
2010-2011	SBT	729
	ICICI	1345
	ESCB	11
2011-2012	SBT	850
	ICICI	1485
	ESCB	12.5

Source: financial statements of banks

**Figure 5**



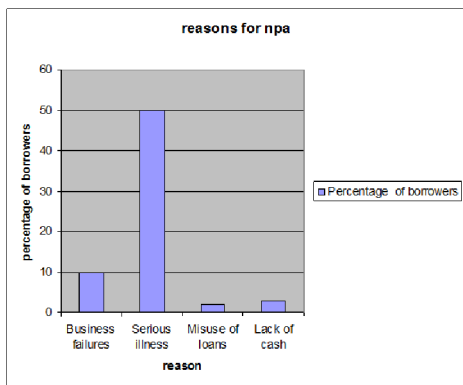
**7. Ranking Reasons for Non Repayment of Loans**

**Table No 7**

Reason	Percentage of Borrowers
Business Failures	10
Serious Illness	50
Misuse Of Loans	2
Lack Of Cash	3

*Source: primary data*

**Figure 6**



From the above table and graph it is clear that serious illness of borrowers are the main problem which leads them to make default in repayment of loans taken.

**FINDINGS**

ICICI bank is the best NPA manager having increased level of total advances and net profit. ICICI bank has an improved asset quality over the years since it gives attention mainly to clients profile before granting loans and advances. Compared to ICICI bank and ESCB, SBT has increased level of NPA. While analysing sectorwise NPA, it is clear that the industrial sector contributes higher NPA compared to the agriculture, service

and the personal loans sectors. ICICI bank and ESCB implement sufficient and effective measures to reduce NPA and trying to their best to overcome its impact on profitability and liquidity. Even though there is existence of NPA, banks are having an increased profit potential over the years.

**SUGGESTIONS**

- √ Bankers should make a fairly accurate personality-morale profile assessment of prospective and current borrowers and guarantors.
- √ Besides considering personal interaction, the banker should
  - try to study the person’s personal credit reports;
  - do trade-credit reference checking;
  - check references from present and former bankers; and
  - determine how borrowers handle stress.
- √ Public sector banks should try to upgrade technology and should formulate customer friendly policies to face competitions at national and international levels.
- √ Bankers should ensure that the assets pledged by the borrowers are fully insured. Recovery should start from the month of default with prompt legal system.
- √ It is clear that if credit monitoring system is not strengthened, the assets would deteriorate in value over time and only scrap value would be realised at the end. So effective credit monitoring system should be implemented.

√ It is suggested that the government should formulate bank-specific policies through RBI for the upliftment of public sector banks.

## CONCLUSION

Banks occupy a crucial place in undertaking developmental efforts and acts as a vehicle for socio-economic transformation as well as acting as a catalyst for economic growth. The main problem of every bank is existence of NPA which erodes its profitability.

Even though proper credit appraisal, supervision and follow-up of advances are followed, total elimination of NPA is not possible in banking business owing to various reasons. Their incidence can however be minimised through effective credit monitoring mechanisms. Therefore, continuous improvement in asset quality on sustainable basis through well structured and effective credit monitoring has to be practiced in order to survive global competition.

## References

1. Dr.VS Kaveri , *NPA in Education Loan - An Overview, Indian Bank Association, Volume 8, Issue No 9 (September 2012) ,Page No 20.*
2. Dr.Vibha Jain, *NPA in Commercial Banks, Regal Publication New Delhi, First Edition (2007), Page No. 78-79.*
3. S .Raman, 'Banking Theory and Practices'.
4. S .Singh and Yogesh Singh , 'Risk Management In Banks'.
5. C.S. Balasubramanian, *Non-Performing Assets And Profitability Of Commercial Banks In India- Assessment and Emerging Issues, Volume No 1 ,Issue No7,Abhinav National Monthly Refereed Journal Of Research In Commerce And Management.*
6. K.C. Shekhar & Lekshmy Shekhar, *Banking Theory and Practice, Vikas Publishing House, 2011.*
7. *Several Articles, Editorials and News Items from Economic Times, The Hindu, Business India and Other Economic and Business Dailies.*
8. *www.npasource.com*

## The Challenge of Air Pollution

The count of particulate matter (PM<sub>2.5</sub>) and carcinogenic particles which penetrate the lungs entering straight into the blood stream, is a staggering 215 in Delhi. This is nearly 21 times the recommended limit. The PM<sub>2.5</sub> is made up of fine particles and believed to pose the greatest health risks.

## Glossary

**Management by Communication:** Communication is the process of passing information and understanding from one person to another. A manager spends 90 % of his time in communication. Effective communication is the cornerstone of management. The success of all managerial function depends on successful communication.

**Management by Exception (MBE):** It is the practice whereby only the information that indicates a significant deviation of the actual results from the budgeted or planned results is brought to the notice of the management. Its objective is to facilitate the management to focus on really important tactical and strategic tasks. In MBE, the decision that cannot be made at one level of management is passed on to the next higher level.

**Management by Objective (MBO):** Management by objective is a process of defining objectives within an organisation so that management and employees agree to the objectives and understand what they need to do in the organisation in order to achieve them. The term “management by objectives” was first popularized by Peter Drucker in his 1954 book *The Practice of Management*. The essence of MBO is participative goal setting, choosing course of actions and decision making.

**Management Development:** Management Development is the overall concept that describes the many ways that organisations help employees develop their personal and organisational skills, either as managers in a management job or with

an eventual management job in mind. Building the skills of managers through management development options is critical for the effective functioning of the organisation. This is because of the power of a manager to impact the organisation through his or her ability to supervise the work of other employees.

**Management Functions:** Management in all business and organisational activities is the act of coordinating the efforts of people to accomplish the desired goals and objectives using available resources efficiently and effectively. Management comprises planning, organising, staffing, leading or directing, and controlling an organization (a group of one or more people or entities) or effort for the purpose of accomplishing a goal. Resourcing encompasses the deployment and manipulation of human resources, financial resources, technological resources, and natural resources.

**Management Information System (MIS):** MIS (Management Information System) is a general term for the computer systems in an enterprise that provide information about its business operations. It is also used to refer to the people who manage these systems. Typically, in a large corporation, “MIS” or the “MIS department” refers to a central or centrally-coordinated system of computer expertise and management, often including mainframe systems but also including by extension the corporation’s entire network of computer resources.

**Management Levels:** Most organisations have three management

levels: first-level, middle-level, and top-level managers. These managers are classified in a hierarchy of authority, and perform different tasks. In many organisations, the number of managers in every level resembles a pyramid. The top consists of the Board of Directors (including non-executive directors and executive directors), President, Vice-President, CEOs and other members of the C-level executives. Middle-level managers consist of general managers, branch managers and department managers. They are accountable to the top management for their department's function. Consisting of supervisors, section heads, foremen, etc. they focus on controlling and directing. They usually have the responsibility of assigning the employees' tasks, guiding and supervising employees on their day-to-day activities.

**Management Principles:** Management principles and practices are designed to give you a basic understanding of the roles and functions of a manager and to explain the principles, concepts, and techniques used by the managers in carrying out their work. A principle refers to a fundamental truth. It establishes cause and effect relationship between two or more variables under a given situation. They serve as a guide to the thoughts and actions. Therefore, management principles are statements of fundamental truth based on logic which provides guidelines for the managerial decision-makings and actions.

**Management Reserve:** It is a designated amount of time and/or budget to account for parts of the project that cannot be predicted. Major disruptions in the project caused by serious weather conditions, accidents, natural disasters, etc. are examples. Use of the management reserve generally requires a baseline

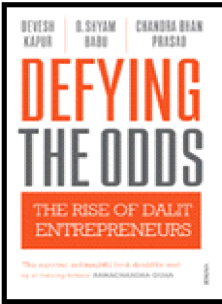
change. Management reserve is money set aside by the senior management for the project in case something goes wrong for which no advance planning could be made in the project. The project manager however does not have the authority over these funds and have to request it from the senior management.

**Management Resources:** Management is an individual or a group of individuals that accept responsibilities to run an organisation. They plan, organise, direct and control all the essential activities of the organisation. Management does not do the work themselves. They motivate others to do the work and co-ordinate (i.e. bring together) all the work for achieving the objectives of the organisation. Management brings together all the **6 Ms** i.e. Men and Women, Money, Machines, Materials, Methods and Markets. They use these resources for achieving the objectives of the organisation such as high sales, maximum profits, business expansion, etc.

**Management Science:** It is the study of statistical methods, such as linear programming and simulation, in order to analyse and solve organisational problems. The study is the same as operations research. Management Science is defined as the use of economics, behavioural science, mathematics and statistics to conduct rigorous scientific research.

**Management by Results:** It is getting things done through others. It always tries to transform human efforts into best results. Management by results is the process of getting things done through coordinating the cooperative efforts of people who have been organised and motivated towards the accomplishment of goals.

## Book Review



## DEFYING THE ODDS

By **Devesh Kapur, D. Shyam Babu, Chandra Bhan Prasad**

Random House India

Indian philosophy preaches about equity and excellence. The views of Vyasa, Sankara and Mahatma Gandhi testify this truth. But in real life we come across inequality and marginalisation. The predicament of the Dalit communities, even after several political decisions and affirmative actions, is still far from satisfactory. The book under review tells the stories of how, over the last century, the Dalits have sought to escape their predicament through multiple ways such as religious conversion and anti-establishment movements, education and empowerment. The book titled "Defying the Odds" attempts to explain how they succeeded in supporting the political parties professing an egalitarian ethos and even creating their own political parties. The pre-independent India has seen several measures and combined efforts that have made a difference and relative position of the Dalits in the Indian society.

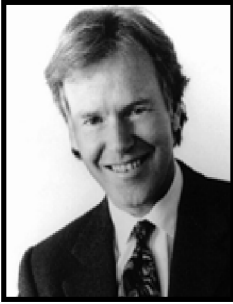
Nevertheless though much distance of the long road has been traversed so far, the journey is far from complete as there are still miles to go before they can sleep. As the book rightly focuses, the Dalits need additional arrows in their quivers to advance their interests. They have to find new weapons to fight a winning war in an already losing battle. The book tells the stories of these people who, inspite of always being in the periphery of the social circle themselves, have succeeded to transform the market opportunities and entrepreneurship as an instrument of empowerment and social transformation.

Right from the Puranic period through the pre-Independence era to the present day, education is believed to be the golden path to empowerment. However, for the Dalits, even education as the catalyst of progress were long been viewed as an instrument of oppression rather than empowerment. With the history of many Dalits

and landless labourers, penurious as also permanently indebted to moneylenders and landlords, business remained an impossible and improbable proposition to this poor and potentially vulnerable society.

Traditionally, business being the domain of traders and moneylenders, they always kept a distance from the dreams of the Dalits. But, the book says that things have been changing, albeit slowly and sometimes unevenly, favouring the wellbeing of the Dalits. Such changes are slowly creating a winning edge in their business efforts. This is part of the result of a host of legal and constitutional protections on the one hand, and partly of the cumulative efforts of millions of daily struggles on the other, that has culminated in the creation of a small but emerging middle class, as a consequence of all the affirmative actions.

Amidst these unprecedented changes, there has been a remarkable growth of Dalit entrepreneurs, defying the odds as the title of the book declares. From the experience of twenty one entrepreneurs, it reveals several factors to explain this. First, the Dalit entrepreneurs have grown in number due to the natural consequences of entrepreneurial growth in India. Educational scenario, social outlook, administrative actions, political decisions and intellectual climates have all changed in India. On the economic front too, a lot of changes have taken place from decades of stagnation to a vibrant developmental design. Independent India has witnessed massive population growth and a parallel growth in our economy. Net employment has also grown mostly in the informal sectors like transportation, construction and other service sectors outside agriculture. All these factors favoured the growth of the emerging Dalit entrepreneurs.



## Creative Thinkers of Management 7

### PETER SENGE

**P**eter Senge is a Senior Lecturer in Leadership and Sustainability at the MIT Sloan School of Management.

The Journal of Business Strategy (September/October 1999) named Senge one of the 24 people who have had the greatest influence on business strategy over the last 100 years. The Financial Times (2000) named him one of the world's top management gurus, and BusinessWeek (October 2001) rated Senge one of the top 10 management gurus.

Senge has lectured extensively throughout the world, translating the abstract ideas of systems theory into tools for better understanding of economic and organisational change. He studies decentralising the role of leadership in organisations so as to enhance the ability of the employees to work productively toward common goals, and the managerial and institutional changes needed to build more sustainable enterprises—those businesses that foster social and natural as well as economic well-being.

Senge's work articulates a cornerstone position of human values in the workplace; namely, that vision, purpose, reflectiveness, and systems thinking are essential if organisations are to realize their potential. He has worked with leaders in business, education, civil society, healthcare, and government.

Senge is the founding chair of the Society for Organisational Learning (SoL), a global community of corporations, researchers, and consultants dedicated to the "interdependent development of people and their institutions." He is the author of the widely acclaimed book, *The Fifth Discipline: The Art and Practice of the Learning Organisation* (1990). With colleagues Charlotte Roberts, Rick Ross, Bryan

Smith, and Art Kleiner, he is the co-author of *The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organisation* (1994) and a second fieldbook *The Dance of Change: The Challenges to Sustaining Momentum in Learning Organisations* (March 1999), co-authored by George Roth. In September 2000, Senge co-authored a fieldbook on education, the award-winning *Schools That Learn: A Fifth Discipline Fieldbook for Educators, Parents, and Everyone Who Cares About Education* (2000).

*The Fifth Discipline* hits a nerve within the business and education communities by introducing the theory of learning organisations. Since its publication, more than one million copies have been sold worldwide. In 1997, Harvard Business Review identified it as one of the seminal management books of the past 75 years. *The Fifth Discipline Fieldbook* was developed in response to questions from the readers of *The Fifth Discipline* who wanted more help with tools, methods, and practical experiences in developing enhanced learning capabilities within their own companies. *The Dance of Change* is based on the more recent experiences of companies that are developing learning capabilities over many years, and the strategies developed by the leaders to deal with the many challenges this work entails. He has also authored many articles published in both the academic journals and the business press on systems thinking in management. He has also co-authored *Presence: Human Purpose and the Field of the Future*.

Senge holds a BS in engineering from Stanford University as well as an SM in social systems modelling and a PhD in management from MIT.



**Dr. C.V. Jayamani**

**KERALA LIFESTYLE FOR MODERN YOUTH**

The book gives valuable tips to the modern youth about food habits and lifestyle to be adopted to sustain healthy and youthful life throughout their life.

Hundred Years of Healthy Life \* Kerala the Land of Magical Fruits \* Better Lifestyle for Modern Youth \* Vegetarianism for Vibrant Health \* Health and Happiness \* Practical Nature Cure for Young People \* Health and Beauty : the Kerala Style \* Five Fold Food and Foodless Food \* Health, Personality and Excellence \* Yoga for Youth \* Kerala Tradition

International Centre for Kerala Studies (ICKS), University of Kerala, Thiruvananthapuram  
Published in 2007                      Pages 114                      Priced Rs. 80                      Paperback

**Dr. C.V. Jayamani**

**LECTURES ON BHAGAWAD GITA AND MANAGEMENT**

Explains the application of our traditional management concepts described in Bhagawad Gita in solving modern management problems

Bhagawad Gita and Management \* Bhagawad Gita - a Behavioural Approach \* Towards Effective Communication \* Managerial Excellence - Gita Perspective \* Executive's Health \* Personality and Excellence \* Globalization - Impact on Executive Health and Efficiency \* Health Management - Gita Perspective \* Healthy Lifestyle for Prospective Executives \* Managing Social Organizations - Traditional Way \* Alternative Initiative for Eco-friendly Living

Bharatiya Institute for Advanced Studies and Research; Samskriti Bhavan,  
GPO Lane, Thiruvananthapuram  
Published in 2007                      Pages 117                      Priced Rs. 75                      Paperback

**Dr. C.V. Jayamani, Dr. R. Vasanthagopal**

**ENVIRONMENTAL MANAGEMENT-ANCIENT TO MODERN TIMES**

Examines the causes and consequences of environmental degradation and suggest remedial measures to tide over the global situation through traditional methods.

Man and Environment \* Environmental Ethics \* Vedic Approach to Environmental Management \* Non-Violence to Nature \* Sustainable Development \* Limits to Growth \* Kuznet's Curve \* Environmental Economics \* Market Failure \* Environmental Pollution \* Environmental Laws \* Environment and Health \* Global Environmental Issues \* Global Warming \* Carbon Trading \* Green Technology \* Bio-diversity Conservation \* Corporate Responsibility \* Environmental Accounting \* Corporate Experiences \* Green GDP

New Century Publication, Bharat Ram Road, Ansari Marg, Daryaganj, New Delhi 110002  
Published in 2013                      Pages 210                      Priced Rs. 695                      Hardbound

**INSTITUTE OF MANAGEMENT DEVELOPMENT AND RESEARCH**

**(IMDR)**

**MADURAI KAMARAJ UNIVERSITY**

ACADEMIC CENTRE FOR DIRECTORATE OF DISTANCE EDUCATION

(Recognized by D.E.C., New Delhi)

IMDR is a registered organization set up by eminent academicians and leading industrialists of Kerala with the aim of promoting research, training and extension of knowledge in the fields of Education, Management, Finance, Banking, Marketing, Rural Development and other allied areas.

**Courses offered:** MBA/MCA/MA/M.Com/B.Com/BBA/BCA/PG Diploma and Diploma Courses

**New Courses introduced:**

B.Sc Hotel Management and Catering Service\*

B.Sc Hospital and Airline Catering Management\*

B.Sc Tourism and Hospitality Management\*

B.Sc Computer Science\*

B.Sc Visual Communication\*

B.Com Information Technology\*

MA English Language and Linguistics

MA Human Rights

MA Women's Studies

M.Com Computer Applications

**MBA** with new specializations in International Business Management, Tourism and Hotel Management, Hospital Management, Operations and Project Management, Airline and Airport Management & Logistics and Supply Chain Management

**Courses under consideration**

B.Sc Nutrition and Dietetics

B.Sc Psychology

B.Sc Mathematics

\* \* \*

For details contact:

IMDR, Mulavana Buildings, Convent Road, Thiruvananthapuram - 695001.  
Phone: 0471-2453039 Mobile: 9496776039 e-mail: imdrtvm@yahoo.com

*\* subject to conditions*