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Chief Editor's Voice

FOSTERING A POSITIVE INVESTMENT CLIMATE

On completion of one year in office, the Modi government shows a positive sentiment in the investments market. The recent official report claims that the Foreign Institutional Investments inflows surged a record 7.17 % to 40.92 billion dollars during 2014-15 and the Foreign Direct Investment (FDI) inflows jumped to 48 % since Prime Minister Narendra Modi launched the 'Make in India' initiative in September, 2014. It indicates the overwhelming faith and confidence that the overseas investors have imposed in the country's economy. It also signals the expectations of the investors on the reforms initiated by the government towards ease of doing business. Some of the steps taken by the government have increased the confidence of the investors in resurgent India.

On coming to power, as promised in the election manifesto, the Modi Government has amended the FDI policy with a clear intention to foster a positive investment climate in India. In sync with the vision and the focus areas of the present government, such as 'Make in India', 'Digital India', 'Smart Cities', 'AMRUT' (Atal Mission for Rejuvenation and Urban Transformation), etc. the present government is trying to create a conducive climate for investments, both internally and internationally. The perspectives and the plans of action of the present government on this account are proactive and prospective in nature.

'Digital India', the Prime Minister's pet project, is capable of attracting crores of corporate commitments. Several Indian corporate have shown interest in supporting Prime Minister Modi's path-breaking initiatives. It is also expected to generate eighteen lakhs jobs in India. 'Digital India' project neatly draws a road map for investments. The project aims to work with various manufacturers around the world to start production in our country. The government has two things in mind. The first is to provide electronic products at affordable rates, and the other is to reduce the burden of electronic imports.

Within the first 100 days itself, the new government has raised the cap on the FDI in the insurance and the pension sectors to 49 % and 100 % respectively. FDI was allowed in the railway infrastructures. India now stands committed to have an FDI

policy and regime which is investor-friendly. India also promotes investments leading to increased manufacturing, job creation and overall economic growth.

Infrastructure like the highways and the railways is the backbone of any economy. Improving the efficiency of logistics is considered crucial for improving the trade supply chains. In a bid to improve India's road logistic efficiency, the Ministry of Road Transport Highways (MoRTH) is implementing a logistic efficiency enhancement programme (LEEP) which aims to support the 'Make in India' initiative through a 'Move in India" drive. In order to view this demand seriously, India needs infrastructural financing.

In this context, the Chinese initiative, the Asian Infrastructure Investment Bank (AIIB), assumes greater significance. India is the second largest shareholder with a share of 8.52 % and a voting share of 7.5 % in AIIB. India and 49 other founding members of the AIIB signed the Articles of Association on June 29, 2015. AIIB is expected to focus on infrastructure development. It is an example of a constructive cooperation among emerging economies to increase the space available for infrastructure financing. The AIIB, though a Chinese regional initiative, would complement and supplement the global initiatives such as the new development bank set up by the BRICS nations, where India has a very significant role to play.

As the NASSCOM Chairman, BVR Mohan Ready rightly remarked that the 'Make in India', 'Digital India' and 'Smart Cities' initiatives of the Narendra Modi Government have a lot of positives in them. In business terms, it can run into several hundred thousand crores. It would definitely boost up the IT and the ICT business in India. Indirectly these positive feelings and the ease-of-doing-business situation created by the new government would attract Indian and foreign investors to India.

Internally, the signs in the economy are positive. The pickup of the monsoons in June, 2015 has helped a lot to increase the agricultural production. Inflation is expected to remain range bound and within RBI's indicative trajectory this fiscal year. The decline in the wholesale price inflation is attributed to the deceleration in the food prices, even as there is marginal uptick in the fuel and power inflation. Ache din to nahi aaye, aane wala hai (Better days have not yet come, but would come soon). This is a positive note from the chief of a very prominent sector. Let us hope for better days in business for India.

Dr. APJ Abdul Kalam (1931-2015)

Dr APJ Abdul Kalam, the 11th President of India, passed away on 27th July, 2015 at Shillong. With his demise the country has also lost an eminent technocrat-scientist. To say the least, this is an irreparable loss to the country and the void will be felt for years to come.

If one were to portray Dr APJ Abdul Kalam a giant among men in our country, nay the whole world, his physical attributes were a far cry from being called a giant. He was a slightly-built man, about five and a half feet tall and weighed around sixty kilogrammes sans a six pack. Yes, physically he was not a giant. Then, is this sobriquet a misdemeanor?

Absolutely not; for a man who rose from the lower strata of the society, his stature metamorphosed into gigantic proportions when this frail man is juxtaposed with his conquests and achievements along the way and throughout his life despite the many travails he encountered and overcame with mere grit, hard work and perseverance. It would therefore be pertinent at this juncture to take a peep into his life and to understand how the force of an indefatigable human spirit could triumph over all odds that enabled a person to take giant strides to reach the pinnacle.

In sketching his life and career, Avul Pakir Jainulabdeen Abdul Kalam was born on 15th October, 1931 to a Tamil Muslim family in the pilgrimage centre of Rameswaram on the Pamban Island of Tamil Nadu, as the youngest of four brothers and one sister in his family. Kalam, certainly not the one born with a silver spoon in the mouth, has had to fight his way up. In his formative days, after attending school, Kalam distributed newspapers to fend for himself and also help his family since the economic background of his ilk was quite precarious back home. He realized that education plays a big role in one's development and success in life. He was determined to achieve it. In spite of the various challenges, he never lost sight of this fact and pursued his goal single-mindedly even when he had to plough a lone furrow to get him educated.

In his school years, Kalam had average grades but was described as a bright and hardworking student who had a strong desire to learn and spend hours on his studies, especially mathematics. He graduated in Physics in 1954 and moved to Madras in 1955 to study aerospace engineering in the Madras Institute of Technology from where he graduated in 1960. Soon after, Kalam joined the Aeronautical Development Establishment of the Defence Research and Development Organisation (DRDO) as a scientist.

In his illustrious career as a technocrat-scientist spanning over half a century, he was associated with ISRO, DRDO, and other establishments. He was instrumental in the successful development of the Polar Satellite Launch Vehicle and many missiles under this mission including Agni, the intermediate range ballistic missile and Prithvi, the tactical surface-to-surface missile. In recognition of his contributions in this field, he was fondly known as the "Missile man". The country's success in the fields of science and technology bears testimony of his vision and mission. India today has a highly credible missile and nuclear weaponry as a defense deterrent. The Indian tricolour has landed on the Moon. The country has made rapid strides in outer space exploration by successfully launching the Mars Mission in its first attempt itself and at an incredibly low cost.

He was a staunch nationalist and was of the firm belief that if India was to be heard and taken seriously in the international arena, it has to acquire military power and be self reliant in its weaponry and armaments. He was successful to rally round the country's political leadership to support this doctrine and to allocate sufficient funds to take up this task in right earnestness and urgency it called for.

Kalam, as he embarked upon advancing the military might of the country, never lost sight of utilising the fruits of science and technology to benefit the common man. In 1998, along with the cardiologist Dr. Soma Raju, Kalam developed a low cost coronary stent, named the "Kalam-Raju Stent". In 2012, the duo designed a rugged tablet computer for health care in the rural areas, which was named the "Kalam-Raju Tablet". He also made use of the synthetic light-weight material, used in making satellites, to develop light-weight frames to help the polio victims to become mobile.

Kalam served as the 11th President of India, succeeding KR Narayanan. His

term lasted from 25th July, 2002 to 25th July, 2007. He was also the first scientist and the first bachelor to occupy Rashtrapati Bhavan. During his term as president, he was affectionately known as the 'People's President', so much so that an overwhelming majority of them wished a second term for him. He was initially inclined to accept it; however, he withdrew later on due to political interference.

Kalam was the third President of India to have been honoured with a Bharat Ratna, India's highest civilian honour, before becoming the President.

Kalam received honorary doctorate degrees from 40 universities. The Government of India has honoured him with the Padma Bhushan in 1981 and the Padma Vibhushan in 1990 for his work with ISRO and DRDO and his role as a scientific advisor to the Government of India. In 1997, Kalam received India's highest civilian honour, the Bharat Ratna, for his contribution to the scientific research and modernisation of defense technology in India. In 2013, he was the recipient of the Von Braun Award from the National Space Society in recognition of his excellence in the management and leadership of a space-related project.

He was not a man of all work and no play. He had an ear for poetry and music. In fact he enjoyed writing Tamil poems. He was an ardent listener of the Carnatic style of the Indian classical music with an accent towards devotion and philosophy. He was adept in playing the Veena, the South Indian string instrument. He believed in the Hindu culture and philosophy, particularly the Vedanta. Kalam used to read the Bhagavat Gita and was a strict vegetarian. He also practiced Yoga. In fact he was also jocularly known as Abdul Kalam Iyer among his peers.

He has also authored a number of books on various subjects. "India 2020" published in 1998, "Ignited Minds" published in 2002 and "Target 3 Billion" published in 2011 are noteworthy. His autobiography "Wings of Fire" published in 1999 was a bestseller. All his books have wide readership and are being sold even today all over the country and abroad.

All his accomplishments and achievements apart, what endeared Kalam to one and all was his simplicity and humility. He remained to the very last an approachable person to everyone. In fact, he took keen interest in meeting children and interacting with them in order to encourage and inculcate the development of a scientific temper in them. He was also receptive to new ideas. After demitting office as President of

India, he made it his mission to meet as many children as was possible. He always wanted to share his knowledge with the younger generation in all earnestness, so that they would be able to take it further from where he had left. Teaching was his first love and given an opportunity he would be interacting with the students at various levels. He was unwavering in espousing the virtue of nationalism, honesty and uprightness whenever he interacted with youngsters.

It is worth recalling here that when Atal Behari Vajpayee, the then Prime Minister of India, tried to reach him over the phone to know whether he would be willing to be the 11th President of India, he could not attend the call immediately as he was lecturing in a class. Similarly, he breathed his last in a class interacting with students at IIM, Shillong.

On 30 July 2015, the mortal remains of the former President were laid to rest at the Pei Karumbu Ground, Rameswaram with full state honours. Over 350,000 people attended the last rites, including Narendra Modi, the present Prime Minister of India, his cabinet colleagues, the Governor of Tamil Nadu and the Chief Ministers of Kerala, Karnataka and Andhra Pradesh.

Dr APJ Abdul Kalam has left an indelible mark in the annals of modern Indian history as a scientist and technocrat. His contributions to make India strong and self reliant were immense, be it in the fields of military equipments, missiles technology or space programmes. As a statesman also, he conducted himself in a most dignified manner when he adorned the chair as the President of India. Moreover, he was a team builder. In every field he was associated with, he built able teams to succeed him. Work was worship for him. It is said, in his entire career, he availed only two days off - once for attending the funeral of his father and the other for attending the funeral of his mother.

There is something to learn from him for everyone. Blessed are those who could do so directly from him. Even blessed are those who could learn indirectly through him. A true nationalist and dedicated Karma Yogi till his last breath, who gave more to the nation than he had taken from it.

We, at IMDR, join the millions to pay homage to this great man; a giant among men.

R.I.P. Dr Abdul Kalam.

Editorial Board,
Management Researcher.
(Input from V. Balasubrahmaniam)

PERFORMANCE OF THE CORPORATE DEBT MARKET IN INDIA

***Raju G**

Abstract

The corporate debt market has a great role in providing low cost finance to companies for investment and ensuring higher return to the investors by bypassing the intermediary role of banks and other financial institutions. An active corporate debt market also helps the investors to shuffle and reshuffle their portfolios depending upon the expected changes in the market. In India, the size of the corporate debt market is very small while it is larger and more popular than equity markets in many of the developed countries. The corporate debt fund mobilisation in the primary market and the trading of corporate debt securities in the secondary market has shown a substantial increase during the period under study. If this trend continues, the corporate debt securities may achieve more acceptability and recognition as a financial instrument among companies and investors in India in the near future.

Key words:- Corporate, Debt Market, Securities, Bonds, Debentures.

The debt market has a great role in financing the developmental activities of a country like India. It helps to mobilise the savings of the household sector and divert it for financing the productive investment opportunities. It provides low cost funds to the borrower and ensures higher return to the investors by bypassing the intermediary role of banks and other financial institutions. The debt market of India consists of markets for issuance, trading and settlement in the fixed income securities. The fixed income securities include the debt instruments issued by the central and state governments, statutory corporations, banks and non-banking financial institutions and other corporate entities to borrow funds. It mainly consists of two segments viz. the Government Securities Market and the Corporate Debt Market. The Government Securities (G-Secs) market is the oldest and the largest debt market in the country in

**Dr. Raju G, Associate Professor, Department of Commerce, Government College for Women, Trivandrum.*

terms of market capitalisation, trading volume and the number of securities outstanding. The G-Secs have a key role in determining the level of interest rate of the debt securities in the country because the yields on G-Secs are considered as the risk-free rate of return in an economy.

The corporate debt market is the market for securities like bonds and debentures which are issued by joint stock companies. The size of the corporate debt market in India is currently very small and is about 14% of the total debt market in the country. In many developed countries, the corporate debt market is larger and more popular than the equity markets mainly because of the assured risk-free return. Investment in equity is riskier and, therefore, certain class of investors choose to invest in debt market securities, based on their risk appetite and liquidity requirements. In India however, the reverse is true. A vibrant and dynamic corporate debt market enables investors to shuffle and reshuffle their portfolios depending upon the expected changes in the market.

A well developed private corporate debt market is important for nurturing a credit culture and market discipline in the country.

The corporate debt market is further classified as market for Public Sector (PSU) Bonds and Private Corporate Sector Bonds popularly known as Debentures in India. The PSU Bonds, due to the guarantee of the government and the comfort of government ownership, are generally treated as substitutes of sovereign paper. The listed bonds of Public Sector Undertakings are traded in the wholesale debt market of NSE. A well developed private corporate debt market is important for nurturing a credit culture and market discipline in the country. The amount of fund raised by the private corporate sector through the issue of debentures is very insignificant in the Indian debt market. The joint stock companies in India are still considering bank finance as the most preferred source for funding their financial requirements. A major portion of the debt fund mobilisation of the private corporate sector is through private placement basis and not through direct public issue. Similarly, the secondary market activities of the corporate debt securities are also not active in India till now.

Resource Mobilisation in the Primary Market

The details of fund mobilised by the corporate in the primary market through debt and equity securities during the period from 2008-09 to 2013-14 is presented in Table 1. It can be seen from the table that during the year 2008-09, the companies in India have made 47 public issues of which 46 were for mobilising equity capital and only one was for mobilising debt fund. The companies in

India have mobilised Rs. 16,220 crores from public issues in the year 2008-09, of which about 90.7% of the amount is mobilised through the issue of equity shares. The scenario has however changed drastically during the period under study. During the year 2013-14, out of the 90 primary issues, 35 were for mobilising debt funds, and out of the total amount of Rs. 55,652 crores mobilised (76.2%), Rs.42,383 crores was mobilised through debt securities. The corporates were able to mobilise only Rs. 13,269 crores (23.8%) through the issue of equity shares during the same period of 2013-14.

The private placement is the most preferred route for debt fund mobilisation for companies in India because of its operational convenience, minimum disclosure formalities and lower cost of issue. The data relating to the private placement of corporate bonds during the period from 2007-08 to 2013-14 presented in Table 2 reveals

Table 1:

Resource Mobilisation in the Primary Market

Year	Debt (Bond/NCD)			Equity			Total		
	No. of Issues	Amount (Rs. in crores)	% to Total Amount	No. of Issues	Amount (Rs. in crores)	% to Total Amount	No. of Issues	Amount (Rs. in crores)	% to Total
2008-09	1	1500	9.3	46	14720	90.7	47	16,220	100
2009-10	3	2500	4.3	73	55,055	95.7	76	57,555	100
2010-11	10	9451	14	81	58,157	86.0	91	67,608	100
2011-12	20	35611	73.5	51	12,857	26.5	71	48,468	100
2012-13	20	16982	52.3	49	15,473	47.7	69	32,455	100
2013-14	35	42,383	76.2	55	13,269	23.8	90	55,652	100

Source: SEBI, Annual Reports – various issues.

Table 2

Private Placement of Corporate Bonds reported to BSE and NSE

Year	NSE		BSE		Common		Total	
	No. of Issues	Amount (Rs. in crores)	No. of Issues	Amount (Rs. in crores)	No. of issues	Amount (Rs. in crores)	No. of Issues	Amount (Rs. in crores)
2007-08	580	90718	120	11711	44	16056	744	118485
2008-09	699	124810	285	17045	57	31426	1041	173281
2009-10	647	143286	597	49739	34	19610	1278	212635
2010-11	774	153370	591	52591	39	12825	1404	218786
2011-12	1152	189803	783	56974	18	14505	1953	261282
2012-13	1295	206187	1094	72474	100	82801	2489	361462
2013-14	837	1,40,713	997	78,805	90	56,536	1924	276054

Source: SEBI, Annual Report – Various Issues

that in the year 2007-08 through 744 issues, the companies in India have mobilised Rs.1,18,485 crores of debt fund, which increased to Rs. 3,61,462 crores from 2,489 issues in the year 2012-13. But in the year 2013-14, there was a decline in the amount mobilised through private placement in the corporate debt market. During the year 2013-14 from 1,924 issues the companies in India have mobilised Rs.2,76,054 crores through private placement.

Secondary Market Operations of Corporate Bonds

An active secondary market is highly essential for the development of corporate debt market in India. But in India, the secondary market for corporate debt securities is at its infancy stage. As compared to the derivatives and stock market, the turnover in the corporate debt securities market is very negligible. Table 3 shows the details of corporate bond trades in the secondary market from the year 2007-08 to 2013-14. In India, the trading facility for corporate bonds is available in both NSE and BSE. Recently, MCX-SX also offers trading facility for corporate debt securities. From Table 3, it can be seen that the total number of trades in the corporate debt market has increased from 35,573 in 2008-09 to 71,645 in 2013-14. Similarly, the value of corporate debt security traded has also

Table 3

Secondary Market Activities of Corporate Bonds in India

Year	NSE		BSE		FIMMDA*		Total	
	No. of Trades	Amount (Rs. in crores)	No. of Trades	Amount (Rs. in crores)	No. of Trades	Amount (Rs. in crores)	No. of Trades	Amount (Rs. in crores)
2007-08	3,787 (10.6)	31,453 (32.7)	27,697 (77.9)	41,187 (42.9)	4,089 (11.5)	23,479 (24.4)	35,573 (100.0)	96,119 (100.0)
2008-09	4,902 (21.6)	49,505 (33.4)	8,327 (36.6)	37,320 (25.2)	9,501 (41.8)	61,535 (41.4)	22,730 (100.0)	1,48,361 (100.0)
2009-10	12,522 (32.8)	1,51,920 (37.9)	7,408 (19.4)	53,323 (13.3)	18,300 (47.8)	1,95,955 (48.8)	38,230 (100.0)	4,01,198 (100.0)
2010-11	8,006 (18.2)	1,55,951 (25.8)	4,465 (10.1)	39,581 (6.5)	31,589 (71.7)	4,09,742 (67.7)	44,060 (100.0)	6,05,274 (100.0)
2011-12	11,973 (23.2)	1,93,435 (32.6)	6,424 (12.5)	49,842 (8.4)	33,136 (64.3)	3,50,506 (59.0)	51,533 (100.0)	5,93,783 (100.0)
2012-13	21,141 (31.9)	2,42,105 (32.8)	8,639 (13.0)	51,622 (7.0)	36,603 (55.1)	4,44,904 (60.2)	66,383 (100.0)	7,38,632 (100.0)
2013-14	20,809 (29.1)	2,75,701 (27.6)	10,187 (14.2)	1,03,027 (10.3)	39,891 (55.7)	5,92,071 (59.3)	71,645 (100.0)	9,98,938 (100.0)

Source: SEBI, Annual Report – Various Issues

Note: *In the year 2013-14 MCX-SX has recorded a turnover of Rs. 28,139 crores (2.8% of the total turnover) from 758 trades (1.0% of total number of trades).*

FIMMDA: Fixed Income Money Market and Derivatives Association of India.

** Trade Reporting on FIMMDA, Reporting Platform, started w.e.f. September 1, 2007.*

increased from Rs. 96,119 crores to Rs. 9,98,938 crores during the same period.

The number of trades of corporate debt securities in NSE has increased from 3,787 (10.6% of the total number of trades) with the value of Rs. 31,453 crores (32.7% of the total value) in the year 2007-08 to 20,809 trades (29.1% of the total number of trades) with the value of Rs.2,75,701 crores (27.6% of the total value) in the year 2013-14. But in BSE the total number of trades has decreased from 27,697 (77.9% of the total number of trades) with a value of Rs. 41,187 crores (42.9% of the total value) to 10,187 trades (14.2% of the total number of trades) with a value of Rs. 1,03,027 crores (10.3% of the total value) during the period from 2007-08 to 2013-14. The number of trades that has reported to FIMMDA in the year 2007-08 was 4,089 (11.5% of the total number of trades) with a value of Rs. 23,479 crores (24.4% of the total value), which increased to 39,891 trades (55.7% of the total number of trades) with value of Rs. 5,92,071 crores (59.3% of the total value) in the year 2013-14. The MCX-SX in the year 2013-14 has bagged 758 trades (1.0% of the total number of trades) with value of Rs. 28,139 crores (2.8% of the total value).

CONCLUSION

A well developed corporate debt market is highly essential for the successful development of the corporate sector in India. It helps the companies to mobilise funds at a lower cost and at the same time ensures higher rate of return to the investors by eliminating the intermediary role of the banks and other financial institutions. It is found from the study that the corporate debt securities like bonds and debentures are gaining acceptance among both the investors and the companies in India. But instead of the public issues, the companies in India consider private placement as the most preferred route for debt fund mobilisation because of its operational convenience, minimum disclosure formalities and lower cost of issue. The secondary market operations in corporate debt securities have also shown a significant increase during the period under study. If this trend continues the corporate debt securities may achieve more acceptability and recognition as a financial instrument among the companies and the investors in India in the near future.

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THE ROLE OF TEXTILES INDUSTRY IN THE INDIAN ECONOMY

***Nader Angoutin, **Abraham Punnoose**

Abstract

India is traditionally a textiles producing country with textiles in general, and cotton in particular. It is a major industry in the country. Being the second largest textile industry in the world after China, India is among the world's top producers of yarns and fabrics. The export quality of its products increases day by day. One of the largest and oldest industries in India, it is also self-reliant, independent and great. It has an overwhelming presence in the economic life of the country. After agriculture, the textiles industry provides employment to a maximum number of people by employing around 35 million people. Besides this, another 50 million people are engaged in its related activities.

Key words:- Textiles Industry, Textiles Policy, Export Textiles, Economic Growth

The Indian Textiles Industry has an overwhelming presence in the economic life of the country. Apart from providing one of the basic necessities of life, the textiles industry also plays a pivotal role through its contributions to the industrial output, employment generation and export earnings of the country. The Indian textiles industry represents a widely diverse spectrum of activities with the handspun and handwoven sectors at one end, and the capital-intensive sophisticated mill sector at the other. The decentralised powerloom, hosiery and knitting sectors form the largest section of the textiles industry. (Ministry Of Textiles, 2013).

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Literature Review

Misra (1993) noted that the unorganised segment of India's textiles sector comprises of the handlooms, the powerlooms, the small powerprocessors and the traditional handprocessors. In addition to this, there are numerous small-scale garment firms in the woven as well as the hosiery subsectors. Powerlooms either operate on an independent basis or serve a master-weaver system. Here they just process the orders from the master-weaver who provides the raw materials and charges them based on the quantity of the cloth produced. They acquire loans from the non-banking sources. Unlike the organised weaving mills, handlooms in the rural areas rely on non-institutional sources and at higher rates of interest, such as the village moneylenders and from undeclared, untaxed and often illegal income.

A study by Nordas (2004) suggested that China and India could capture 29% and 9% of the EU markets and 50% and 15% of the US markets respectively. However, the simulations of Anantha Krishnan and Jain-Chandra (2005) on the effects of MFA quota elimination uses an applied general equilibrium model of the Global Trade Analysis Project.

Objectives of the Study

1. To study the role of the Indian textiles industry in the Indian economy; and
2. To study the performance of the Indian textiles industry.

Research Methodology

The research data is collected from reliable secondary sources. References from various journals, annual reports, news, and websites pertaining to the textiles industry has been taken in order to ensure complete reliability.

Importance of the Textiles Industry

The textiles industry has made a major contribution to the national economy in terms of direct and indirect employment generation. Net foreign exchange earnings are on account of the export of textiles and clothing alone. The sector contributes about 14% to the industrial production, 4% to the gross domestic product (GDP), and 27% of the country's foreign exchange inflows. The textiles sector is the second largest provider of employment after agriculture. Thus, the growth and allround development of this industry has a direct bearing on the improvement of the economy of India.

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The Indian textiles industry is one of the largest in the world with a massive raw materials and textiles manufacturing base. The economy of India is thus, largely dependant on the textiles manufacturing and trade in addition to the other major industries. Around 8%

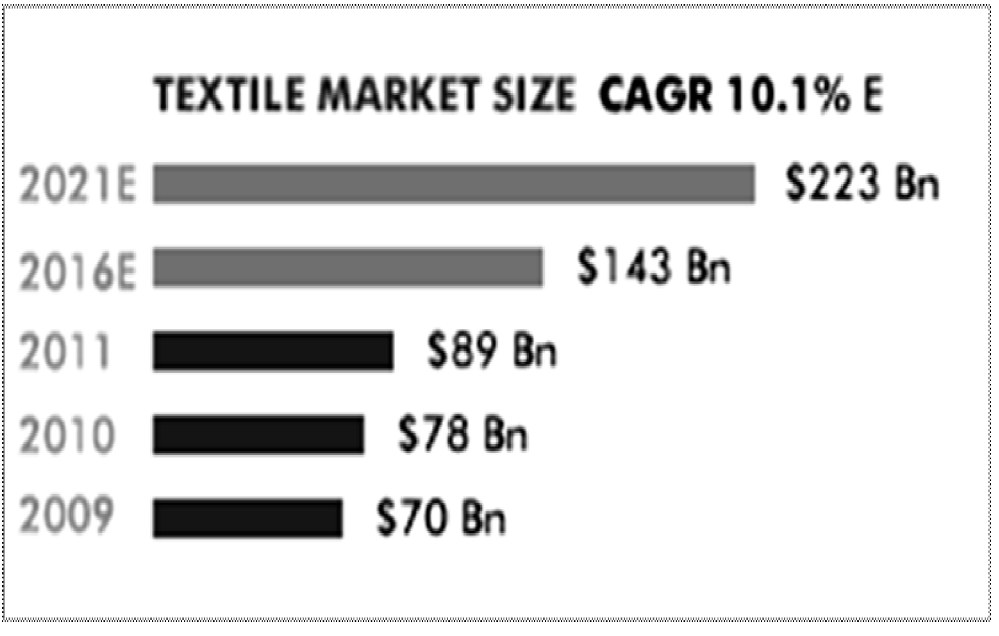
of the total excise revenue collection is contributed by the textiles industry. The textiles industry accounts for 21% of the total employment generated in the economy. It is the largest employment provider after agriculture with the involvement of more than 82 million people directly or indirectly. Indirect employment which includes the manpower engaged in the agriculture-based raw materials production like cotton and related trade and handling could be stated to be around another 60 million people. At present the market size of the textiles industry (exports and domestic) is about US$ 105 billion which accounts for 9% of the total excise collection.

Indian Textiles Industry

India is the second largest producer of textiles and garments in the world. According to a report by the Technopark Advisors, the Indian textiles and apparels industry is expected to grow to a size of US$ 223 billion by 2021. This industry accounts for almost 24% of the world's spindle capacity and 8% of the global rotor capacity. Abundant availability of the raw materials such as cotton, wool, silk and jute alongwith the skilled workforce, has made the country a sourcing hub.

Market Size

The textiles industry is one of the leading sectors in the Indian economy. It is claimed to be the biggest revenue earners in terms of foreign exchange among all the other industrial sectors in India. This industry provides direct employment to around 35 million people which has made it one of the most advantageous industrial sectors in the country.



Some of the important benefits offered by the Indian textiles industry are as follows:

- India covers 61% of the international textiles market;
- India covers 22% of the global market;
- India is known to be the third largest manufacturer of cotton across the globe;
- India claims to be the second largest manufacturer and provider of cotton yarn and textiles in the world;
- India holds around 25% share in the cotton yarn industry across the globe;
- India contributes to around 12% of the world's production of cotton yarn and textiles;
- The market size of the textiles industry (exports and domestic) is about US$ 105 billion at present; and
- The largest employment provider after agriculture (more than 82 million people either directly or indirectly).

The textiles industry in India accounts for 14% of industrial production, which is 4% of the GDP and accounts for nearly 11% share of the country's total exports basket. Exports of textiles and clothing products from India have increased steadily over the last few years, particularly after 2004 when the textiles export quota stood discontinued. India's textiles exports for the year 2011 was reported at US $ 15,016 million by the WTO in the International Trade and Market Access Data.

Table 1:

Textiles Exports in India (in mn US $)

Items	2008-09	2009-10	2010-11	2011-12
Readymade	10383	10064	11026	13072
Cotton	4803	5711	8684	11321
Man made	3325	3970	4704	5630
Woolen, Yarn	484	470	442	508
Silk	684	596	631	473

Source: Ministry of Textiles, International Trade section (updated on 04-09-2012)

Role of the Textiles Industry in India's GDP

Economic growth is the increase in the inflation-adjusted market value of the goods and services produced by an economy over time. It is conventionally measured as the percentage rate of the increase in real gross domestic product (real GDP).

The income of a country can be measured in a number of ways. GDP which stands for Gross Domestic Product is one such measurement of the indicator of the country's wealth that denotes the value of goods and services produced by an economy (irrespective of nationality) during a particular period of wealth. (Moniruzzaman, Toy, and Hasan, 2011).

As per the Ministry of Textiles, the Indian textiles industry contributed about

14% to the industrial production, 4% to the country's GDP and 17% to the country's export earnings in 2013. It provided direct employment to over 35 million people and was the second largest provider of employment after the agriculture sector. According to the Ministry of Textiles, the domestic textiles and apparels industry in India is estimated to reach US$ 141 billion by 2021 from US$ 58 billion in 2011. The apparels exports from India is expected to increase to US$ 82 billion by 2021 from US$ 31 billion in 2011. The total cloth production in India is expected to grow to 112 billion square metres by the financial year 2017 from 62 billion square metres in 2011. The role of the textiles industry in the Indian GDP has been undergoing a moderate increase till the year 2004-2005. But ever since 2005-06, the Indian textiles industry has been witnessing a robust growth and reached almost US$ 17 billion during the same period from US$ 14 billion in 2004-05. At present, the Indian textiles industry holds 3.5 to 4% shares in the total textiles production across the globe and 3% shares in the export production of clothing. The growth in the textiles production is predicted to touch US$ 19.62 billion in 2006-07. USA is known to be the largest purchaser of Indian textiles.

Textiles Exports

The Indian textiles industry is one of the largest industry that provides high exports and foreign revenue. The Indian exports performance was affected by the global slowdown during 2008. It had lead to the default in payments or the delayed realisation for exports. This has resulted in the cash flow difficulty for the exporters, hardship in executing the orders and difficulty in getting the export risk cover for the high-risk countries (Mehtha, Deosthali and Mehtha, 2012). But today the textiles and garments industry is playing a significant role in the economy. It is one of the largest and most

Table 2:

India's Textiles and Clothing Exports

INDIA'S TEXTILES & CLOTHING EXPORTS

(In billion US$)

Year	Textiles			Clothing		
	World Export	India's Exports	India's %age share in world exports	World Export	India's Exports	India's %age share in world exports
2004	195.0	6.85	3.51	258	6.62	2.57
2005	203.0	7.85	3.90	276	8.29	3.00
2006	218.6	9.33	4.30	311.4	10.20	3.30
2007	241.3	9.81	4.06	347.06	9.93	2.86
2008	253.4	10.45	4.12	364.91	11.50	3.15
2009	211.1	9.12	4.32	315.62	11.45	3.62
2010	251	12.87	5.13	351	11	3.13
2011	293.5	15.01	5.13	412.45	14.36	3.48

Source: International trade statistics 2012, WTO Secretariat

important sectors of the Indian economy in terms of output, foreign exchange earnings and employment.

Textiles exports form a significant role in the Indian economy in terms of generating employment and earning foreign exchange. Developing economies like India have made transformational changes in the industry in technological ways through various innovative measures; from a low technology level to a producer of high technology products. The Indian textiles industry is also highly diversified and is gradually moving to the branded segments. The role of the Government in the industry cannot be underestimated. It has given an impetus to the industry, especially after the removal of the quota system of the MFA in the year 2004 (Gera, 2012).

Current Textiles and Clothing Exports Trend

A) Trend during the period 2011-12

- In rupee terms, during 2011-12 there has been a surge in the exports of handloom products (68.51%), coir and coir manufactures (40.49%), cotton textiles (37.23%), man-made textiles (25.99&), RMG (24.80%), wool and woolen textiles (20.97%) and jute (4.72%).
- In US dollar terms, a surge was registered during 2011-12 in the handloom products (60.09%), coir and coir manufactures (33.46%), wool and woolen textiles (14.93%), man-made textiles (19.69%), RMG (18.56%), cotton textiles (30.37%) and jute (-0.52%).

Latest Trend during the period 2012-13

- The total textiles export during 2012-13 were valued at Rs, 1,72,494.71 crores as against Rs. 1,59,570.55 crores during the financial year 2011-12, registering an increase of 8.10% in rupee terms.
- In US dollar terms, the same was valued at US$ 31,705.53 million during 2012-13, as against US$ 33,310.21 million during the corresponding period of the financial year 2011-2012 registering a decline of 4.82 %.

The textiles and apparels industries are vital parts of the world economy, providing employment to tens of millions of people, mostly women workers in nearly two hundred countries. The garments industry is experiencing production and organisational changes globally, with deepening trade activities altering the employer–employee relationship.

Table 3:

Textiles Exports by International Trade and Market Access Data: WTO (in million US $)

Country	2005	2010	2011
India	8331.5	9110.5	15016
China	41050	59823	94410
Bangladesh	705.2	885.7	1589.8
Pakistan	7087.5	6509	9082
Sri Lanka	135.9	139	198

Source :International Trade and Market Access Data: WTO 2012

SWOT Analysis of the Indian Textiles Industry

Strength

- India has a rich resource of raw materials for the textiles industry. It is one of the largest producers of cotton in the world and is also rich in the resources of fibres like polyester, silk, viscose, etc.
- India is rich in highly trained manpower. The country has a huge advantage due to low wage rates. In view of the low labour rates the manufacturing cost in the textiles industries automatically comes down to very reasonable rates.
- India is highly competitive in the spinning sector and has its presence in almost all processes of the value chain.
- The Indian garments industry is very diverse in size, manufacturing facility, types of apparels produced, quantity and quality of outputs, costs, requirements of fabrics, etc. It comprises of the suppliers of ready-made garments for both domestic and export markets.
- The textiles industry in India covers a wide gamut of activities ranging from production of raw materials like cotton, jute, silk and wool to providing a high value-added products such as fabrics and garments to the consumers.
- The industry uses a wide variety of fibres ranging from natural fibres like cotton, jute, silk and wool to man-made fibres like polyester, viscose, acrylic and multiple blends of such fibres and filament yarns.

Weakness

- Knitted garments manufacturing has remained an extremely fragmented industry. Global players would prefer to source their entire requirements from two or three vendors and the Indian garments units find it difficult to meet the capacity requirements.
- The industry is still plagued with some historical regulations such as knitted garments still remaining as an SSI domain.
- The labour force is giving low productivity when compared to other competing countries.
- Technology obsolescence despite measures such as TUFS.
- Low bargaining power in a customer rules the market.
- India seriously lacks in trade pact memberships, which leads to restricted access to the other major markets.
- Indian labour laws are relatively unfavourable to the trades and there is an urgent need for labour reforms in India.

Opportunity

- Low per-capita domestic consumption of textiles indicating significant potential growth.
- Domestic market is extremely sensitive to fashion fads and this has resulted in the development of a responsive garments industry.

- India's global share is just 3%, while China controls about 15%. In the post-2005 period, China is expected to capture 43% of the global textiles trade.
- Companies need to concentrate on the development of new products.
- Increased use of CAD to develop designing capabilities and for developing greater options.

Threats

- Competition in the post-2005 period is not just in exports, but is also likely within the country due to the cheaper imports of goods of higher quality at lower costs.
- Standards such as SA-8000 or WARP have resulted in increased pressure on the companies for improvement of their working practices.
- Alternate competitive advantages would continue to be a barrier.

Role of the Indian Textiles Industry in the Economy

Economic growth generally indicates an increase in the real GDP, the real GNP, and in the multiplied product of the population and per capita consumption. The textiles industry plays a significant role in the economy. The Indian textiles industry is one of the largest and most important sectors in the economy in terms of output, foreign exchange earnings and employment in India. It contributes 20% of the industrial production, 9% of the excise collections, 18% of the employment in the industrial sector, nearly 20% of the country's total export earnings and 4% on the GDP.

The textiles sector also has a direct link with the rural economy and the performance of the major fibre crops and crafts such as cotton, wool, silk, handicrafts and handlooms. They employ millions of farmers and craftspersons in the rural and the semi-urban areas. It has been estimated that one out of every six households in the country depend directly or indirectly on this sector. India has several advantages in the textiles sector which includes abundant availability of raw materials and labour. It is the second largest player in the world cotton trade. It has the largest cotton acreage of about nine million hectares and is the third largest producer of cotton fibre in the world. It ranks fourth in terms of the staple fibre production and fourth in the polyester yarn production. The textiles industry is also labour intensive and thus India has an advantage.

The Key Advantages of the Indian Industry

- India is the third largest producer of cotton with the largest area under cotton cultivation in the world. It has an edge in low cost cotton sourcing when compared to other countries.
- The average wage rates in India are 50-60% lower than that in the developed countries. This enables India to benefit from global outsourcing trends in the labour intensive businesses such as garments and home textiles.
- The design and fashion capabilities are the key strengths that will enable Indian players to strengthen their

relationships with global retailers and score over their Chinese competitors.

- The production facilities are available across the textile value chain, from spinning to garment manufacturing. The industry is investing in technology and increasing its capacities. This should prove to be a major asset in the years to come.
- Large Indian players such as Arvind Mills, Welspun India, Alok Industries and Raymonds have established themselves as 'quality producers' in the global market. This recognition would further enable India to leverage its position among the global retailers.
- India has gathered experience in terms of working with global brands and this should benefit the Indian vendors.

CONCLUSION

The result of the study shows that the textile industry is one of the major players in the Indian economy. It also shows that the textile industry has well affected the Indian economic structure such as the amount of growth of the country's industrial output, increase export earnings, gross domestic product and the employment generated.

To effectively tackle the situation, India needs to invest in research and development to develop new products, reduce transaction costs, reduce per unit costs, and finally, improve its raw materials base. India needs to move from the lower-end markets to the middle level value-for-money markets and export high value-added products of international standard. Thus the industry should diversify in design to ensure quality output and technological advancement.India has made little attempt to forge partnerships - in equity, technology and distribution in the overseas markets. The newer nuances of the global apparels trade demand joint control of brand positioning, distributing and quality assurance systems.

The Indian textiles industry has recognised the need for a cradle-to-grave approach when tackling environmental issues, i.e. eco-prescriptions should be applied right from the stage of cultivation to spinning to weaving to chemical processing and finally to packaging. The results of the study showed that the textile industry is one of the major players in the Indian economy. And also textile industry as well as effective is on the Indian economical structure such as: amount of growth of the country's industrial output, increase export earnings, gross domestic product and employment generated.

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SALUTE TO MAHAGURUS

We celebrate September 5 as the World Teacher's Day, remembering all our revered teachers. India is a country of Mahagurus starting from Veda Vyasa to Narayana Guru. In India, every Raja had a Rishi. Some of the Rajas have become Rajarishis too (Raja turned Rishi). Brihaspati was the Deva Guru and Sukracharya the Asura Guru. Viswamitra was the mentor to Rama and Lakshmana. Srikrishna was the friend, guide and philosopher to Arjuna. We have Vasishta, Vidura, Bhishma and Drona as great gurus in the Puranas. Sankara and Madhava were great Acharyas. Samartha Ramadas was the inspirer of Chatrapathi Sivaji and Chanakya guided Vikramaditya in his Raja Sasan (administration). Sriramakrishna Paramahamsa was the visionary guru to Swami Vivekananda. Gandhiji guided modern India to traditional wisdom. So did Gurudev Rabindranath Tagore in the literary world. Peter Drucker and C.K. Prahlad were the mahagurus of modern management. Vyasa is considered as the Viswa Guru, the guru of the world. It is said in Sanskrit that ' Vyasochishtam jagat sarvam', means the entire knowledge in this world is the remnants of the universal guru, Vyasa. The world of wisdom is said to be his contribution. And his contribution has and still is spanning all walks of life. On this auspicious day, which happens to be the birthday of Dr. S. Radhakrishnan, the great visionary of modern India, we salute all teachers of the past, present and future.

RUBBER FUTURES MARKET IN INDIA

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Abstract

Kerala contributes 90% of India's total production of rubber and both Kerala and Tamil Nadu share 86% of the total growing area of natural rubber. India stands third in the list of rubber producing nations in the world. Most of the rubber is consumed by the tyre industry, i.e. 52% of the total rubber production of India. Though India is one of the leading producers of rubber, it still imports rubber from countries like Malaysia, Thailand, Vietnam, Singapore and Sri Lanka. Rubber is traded in the major commodity futures markets in India such as NMCE, MCX, etc. There are some controversies about the futures markets that it neither give price discovery nor provide price risk management tool.

Key words:- Commodity Futures Market, Price Discovery Function, Market Efficiency.

Rubber is a polymer consisting of hydrogen and carbon and is elastic in nature. Natural rubber, also called Indian rubber or caoutchouc, is an elastomer (an elastic hydrocarbon polymer) that is originally derived from latex. Kerala contributes 90% of India's total rubber production. Kerala and Tamil Nadu share 86% of the growing area of natural rubber. India stands third in the list of rubber producing nations in the world. India is also the leading producer of reclaimed rubber and has the capacity to fully consume its natural rubber production. As of the Indian natural rubber consumption, it stands fourth after the USA, China and Japan. Most of the rubber is consumed by the tyre industry, i.e. 52% of the total rubber production

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of India. Kerala is the leading consumer of rubber in India followed by Punjab and Maharashtra. The major market countries of Indian exports are China, Malaysia, Indonesia, Turkey, Sri Lanka, Spain, Pakistan, Singapore, Nepal, and Germany. Though India is one of the leading producers of rubber, it still imports rubber from countries like Malaysia, Thailand, Vietnam, Singapore and Sri Lanka. The production of rubber fluctuates on a monthly level; keeping low during the rainy seasons; production growth in the automobile industry; ratio of domestic rubber utilisation; government policies; international price movements of rubber; speculation; hoarding and storability. Rubber is traded in the major commodity futures markets in India such as NMCE, MCX, etc. There are some controversies about the futures markets that it neither gives price discovery nor provides price risk management tool. So the present study tries to identify the price discovery mechanism of rubber futures market.

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OBJECTIVES

1. To identify the price discovery function of rubber futures market.
2. To assess the lead lag relationship between the spot and the futures prices of rubber.
3. To determine the causality relationship of futures price and spot price of rubber.
4. To examine the market efficiency of rubber futures market.

Price Discovery Function of Commodity Futures Market

Price discovery is one of the major functions of any futures market (Futures Exchange). The buyers and the sellers at the futures exchange conduct trading based on their assessment of inputs regarding specific market information, expert views and comments, demand and supply conditions, market dynamics, weather forecasts, hopes and fears, etc. All these transform into a continuous price discovery mechanism. The trade between the buyers and the sellers leads to assessment of the fair value of a particular commodity that is immediately disseminated on the trading terminal. This free market acts as a platform to bring together all the forces that influences the pricing of the commodity in open auction. This market keeps on assimilating and absorbing new information on a continuous basis throughout the trading day. Futures exchange alone cannot set the prices of the commodities. All these information gets transformed into a single benchmark figure. This figure will be the market price. It may be a readily available

and widely acceptable reference price for the commodity. The present study tries to identify the price discovery mechanism of rubber in the commodity futures market with the help of econometric analysis of the spot and the futures prices of rubber.

Data and Profile of Rubber

Secondary data consist of futures price and spot price for rubber. It is one of the major commercial crops of Kerala which has developed spot market and also traded in the futures market. Futures prices of commodity are taken from NMCE which is one of the major international commodity exchanges in India. The sample period used in the analysis is from 1st January 2006 to 31st December 2011. But the data available are different. So for the purpose of comparison, the prices are taken into account by soothing the data after adjusting the holidays and the non-trading days.

METHODOLOGY

Secondary data is in the form of time series. The time series analysis is found to be the appropriate method for analysis. Some important econometric models are used for the study. In order to test the price discovery and market efficiency of the commodity futures market, Augmented Dicky Fuller (ADF) test, Philip-Perron (PP) test, Johansen Co-integration test, Vector Error Correction Model (VECM), Pair-wise Granger Causality test, etc. were done.

The Test of Stationarity:

The test of stationarity is known as the unit root test. Augmented Dickey Fuller (1981) and Philip and Perron (1988) tests are the most commonly used tests for stationarity. These are based on the fact that a non-stationary series is characterised by a unit root. The present study also used these two tests.

A series Y_t is integrated of the order one or contains a unit root, if Y_t is non-stationary, but ΔY_t is stationary. Dicky and Fuller (1981) devised a procedure to formally test non-stationarity. According to them, testing for non-stationarity is equivalent to testing for the existence of a unit root. It is based on the simple AR (1) model. It needs to examine whether ϕ is equal to one. So the null hypothesis is H0 = ϕ = 1 and the alternate hypothesis is Ha = ϕ < 1.

This can be obtained by a more convenient version of the test by subtracting ΔY_{t-1} from both sides of the equation (1).

$$Y_t - Y_{t-1} = \phi Y_{t-1} - Y_{t-1} + e$$

$$\Delta Y_{t-1} = \gamma Y_{t-1} + et$$

where $\gamma = (\phi - 1)$. Then, the null hypothesis is H0 : $\gamma = 0$ and the alternate hypothesis is Ha : $\gamma < 0$, where if then Y_t follows the Random Walk model;

where if ΔY_t is stationary while Y_t is not, Y_t is called the integrated first order I (1) model. A process is integrated of order d, I (d), if it contains the d unit roots.

Augmented Dicky Fuller Test:-

The ADF equation can be written as

$$\Delta Y_{t-1} = ao + \gamma Y_{t-1} + \Sigma P\,al\,\Delta Y_{t-1} + Ut$$

This test assumes that there is at most one unit root and the error term is a white

noise. The null hypothesis is that the unit root exists. If the test statistics is smaller than the corresponding critical values, the hypothesis may be rejected.

Philips-Perron Test:-

The test of regression for the Philips-Perron test is AR (1) process.

$$\Delta Y_{t-1} = a0 + \beta Yt + 1 + et$$

The PP test makes a correction to the t static of the coefficient ã from the AR (1) regression to account for the serial correlation in et. In this test also the null hypothesis is that the unit root exists. The null hypothesis may be rejected, only when the test statistics is smaller than the corresponding critical values.

Cointegration Test:-

If both the futures price and the spot price series are I (1) process, Johansen's Cointegration tests can be conducted in order to check the cointegration. Before testing for cointegration, each individual series should be examined for I (1) first. The unit root tests such as ADF and PP tests are done for both the series. The ADF test construct a parameter correction for the higher-order correlation by assuming that the series follows an AR (P) process and adding lagged difference terms of the dependent variable to the right-hand side of the regression.

$$\Delta Y_t = a + \beta t + (P-1)\, Y_{t-1} + \theta 1 \Delta Y_{t-1} + \theta 2\, \Delta Y_{t-1} + \ldots\ldots\ldots + \theta k - 1\, \Delta Y_{t-k} + 1 + wt$$

where 'Δ' is the first difference, 't' a time trend variable, 'wt' a white noise and 'k' the lagged number.

Johansen (1988) suggested two test statistics to test the null hypothesis that there are at most 'r' cointegrating vectors. The two test statistics are based on trace and maximum eigen values respectively.

In the present test for efficiency of the futures market, $Y_t = (F_t, S_t)$, n = 2, and the null hypothesis should be tested for r = 0 and r = 1. If r =0 cannot be rejected, it will be concluded that there is no cointegration. Otherwise, if r = 0 is rejected, and r = 1 cannot be rejected, the conclusion is that there is a cointegration relationship.

If the futures price and the spot price are not cointegrated, it can be concluded that there is inefficiency.

Vector Error Correction Model (VECM):

According to the cost of carry relationship, the (log) futures price F_t and the underlying spot price S_t, are cointegrated with a common stochastic trend (Koutmos and Tucker, 1996). Hasbrouck (1995) describes this common stochastic trend as the common implicit efficient price in the cointegrating system. The futures price is described with F_t as the first variable and the spot price is described with S_t as the second variable in the system. The bivariate cointegrated series, $Pt = (F_t, S_t)$ is represented by a Vector Error Correction Model (VECM).

$$\Delta S_t = C_s + \sum_{i=1}^{k} \beta_{si} \Delta S_{t-1} + \sum_{i=1}^{k} \lambda_{si} F_{t-1} - \alpha_s Z_{t-1} + e_{stt}$$

$$\Delta F_t = C_f + \sum_{i=1}^{k} \beta_{fi} \Delta S_t + \sum_{i=1}^{k} \lambda_{fi} \Delta F_{t-1} - \alpha_f Z_{t-1} + e_{ft}$$

where the coefficient of α_s and α_f can be interpreted as speed of adjustment factors.

Pair-wise Granger Causality Test:-

Correlation does not necessarily imply causation in any meaningful sense of that word. The econometric graveyard is full of magnificent correlations which are simply spurious or meaningless. The Granger (1969) approach to the question of whether x causes y is to see how much of the current y can be explained by the past values of y and then to see whether adding the lagged values of x can improve the explanation. y is said to be Granger-caused by x if x helps in the prediction of y, or equivalently if the coefficients on the lagged x's are statistically significant. Note that the two-way causation is frequently the case; x Granger causes y and y Granger causes x. It is important to note that the statement "x Granger causes y" does not imply that y is the effect or the result of x. Granger causality measures precedence and information content but does not by itself indicate causality in the more common use of the term.

Analysis and Results

This study analyses the spot price and futures price data of rubber for the selected periods. The results and interpretations are given below.

Each of the logarithmic price series were examined for I (1). The ADF test and the PP test were performed to test the stationary of the data. The results of both the tests, with intercept, with trend and intercept, without trend and intercept, etc. are given in Table 1. Both the tests suggest the existence of the unit root in each of the price series. The test results also reveal that all price series data become stationary in their first difference.

Table 1
The Statistics of the ADF and the PP Unit Root Tests

		ADF test result	PP test result
		Rubber	Rubber
Intercept	S_t	-1.162130	-1.265469
	ΔS_t	-36.07008	-36.95921
	Critical values of 1 percent	-3.434262	-3.434165
	F_t	-1.113434	-1.165965
	ΔF_t	-38.94638	-38.79396
	Critical values of 1 percent	-3.434262	-3.434165
With intercept and trend	S_t	-1.463128	-1.638926
	ΔS_t	-36.60835	-36.92012
	Critical values of 1 percent	-3.953865	-3.953741
	F_t	-1.689098	-1.695426
	ΔF_t	-38.95687	-38.967832
	Critical values of 1 percent	-3.953865	-3.953741
Without intercept and trend	S_t	0.654674	0.621078
	ΔS_t	-36.69079	-36.89659
	Critical values of 1 percent	-2.569355	-2.496874
	F_t	0.540169	0.524219
	ΔF_t	-38.98269	-38.98764
	Critical values of 1per cent	-2.569355	-2.496874

In the above table, Ft represents the logarithmic futures price, and S_t represents the logarithmic spot price of the commodity at their level. ΔS_t and ΔF_t represent the logarithmic spot and the futures price at their first difference. In all the three cases the test statistics are smaller than the corresponding critical value. So the null hypothesis is rejected. The test results also reveal that all the price series data becomes stationary after the first order difference. Therefore it can be concluded that each of the logarithmic price series is I (1) in NMCE, commodity futures market.

The confirmation that each series is I (1) allows the proceeding to Johansen Cointegration test. With the help of the ADF and the PP tests, it can be identified that both the series have long running relationships and the Cointegration was tested using the Johansen Cointegration test. Based on this Cointegration test, Vector Error Correction Model was used to determine the effects of shocks in the short run and the long run equilibrium.

As there are only two series involved, the number of Cointegrating vectors can be at most one for each commodity. The null hypothesis of the Johansen test is that there are at most ($o \leq r \leq k$) C-integrating vectors. The Eigen values, trace statistics, max-eigen value, and critical values are the test statistics of the Cointegration test which is shown in Table 2 given below.

Table 2

The Statistics of Johansen's Cointegration Test

	Commodities		Eigen Values	Trace stat	Critical value	Max-Eigen value	Critical value at 5%
Intercept	Rubber	H0: r =0	0.039296*	73.10293	15.39396	71.64579*	14.25469
		H0:r ≤1	0.000798	1.413973	3.826565	1.413973	3.826565
With intercept and trend	Rubber	H0:r =0	0.044349*	74.15987	18.38679	71.69896*	17.13959
		H0:r ≤1	0.001479	2.486982	3.826565	2.486982	3.826565
Without intercept and trend	Rubber	H0:r =0	0.043698*	72.10098	12.31980	71.71068*	11.21080
		H0:r ≤1	0.000198	0.363694	4.128706	0.363694	4.128706

Source: Test result from E-Views

The results of the Johansen's Cointegration test with trend and without trend are provided in Table 2. The hypothesis of non co-integrating vector ($r = 0$) can be rejected, as the trace statistics and max-eigen values are higher than the critical value at 5 percent level.

In the test for efficiency of the futures market, $Y_t = (F_t, S_t)$, $n = 2$, and the null hypothesis should be tested for $r = 0$ and $r = 1$. If $r = 0$ cannot be rejected, the conclusion will be of non Cointegration. On the other hand, if $r = 0$ is rejected and $r = 1$ cannot be rejected, there will be Cointegration. The efficiency can be concluded if the futures price and the spot price are cointegrated, as cointegration is a necessary condition for market efficiency.

The trace value and max-eigen value indicates one cointegrating equation with the trend at 5 percent level. This empirical result is a clear evidence for cointegrating the relationship in the NCDEX spot and the futures markets. It means that there is a price discovery process in the spot and the futures markets, as the cointegration of these two markets is a necessary condition for price discovery also.

The evidence of cointegration between the non-stationary spot and futures prices indicates that there is a stable long-run relationship between them. It establishes that the information is transmitted between the futures and the spot prices adequately and this leads to efficiency. Therefore, cointegration between the two non-stationary time series is a necessary condition for the market efficiency (Chowdhury, 1991; Fortenbery and Zapata, 1993; Fraser and Mac Donald, 1992).

After the determination of the cointegrating relation between the futures and the spot markets, the parameters of a bivariate cointegrating Vector Error Correction Model (VECM) was estimated to determine the number of the cointegrating vector for each of the

commodity. The variables are included in two lag forms. The results of the estimated models are presented in Table 3 given below.

Table 3

Vector Error Correction Model for Futures and Spot Prices of Rubber

Variables	Δ spot		Δ future	
	Coefficient	T value	Coefficient	T value
Equilibrium error	-0.152137	-6.24922	0.020649	0.79816
Δ spot (-1)	-0.211035	-6.16928	-0.029149	-0.79855
Δ spot (-2)	-0.063689	-2.00396	0.002765	0.070893
Δ future (-1)	0.325654	10.0214	0.050288	1.28492
Δ future (-2)	0.153624	4.85026	0.008823	0.23196
Constant	0.000126	0.69418	0.000119	0.59465

Source:- Test results from E-Views

The VECM allows for the short run shocks and estimates and the degree of convergence towards the long run relationship. The results indicate that the coefficient of at least one error correction term was significant, confirming the presence of cointegration.

The coefficient of the error correction term was negative and significant in the case of the spot market equation for rubber. This means that the spot prices are stable in the long run and any deviation in their prices due to the external shocks that occurred in the short run was well adjusted by the market forces over time.

The coefficient of error equilibrium was -0.152 in the spot market equation for rubber which indicates that when the average spot price was too high, it immediately falls back towards the futures prices. This means that the spot price corrects to its previous period's disequilibrium by 15.2 percent. It also provides that the unidirectional lead-lag relationship that exists for the spot and the futures prices of rubber. In the case of the short run causality, changes in the futures (spot) price with respect to the lagged changes in the spot (futures), seems to be unidirectional.

In the spot price model of rubber, the co-efficient of the two months lagged futures price was positive and significant. In the futures price model, the lagged spot prices do not seem to affect the futures prices. All these results imply that the price discovery of rubber occurred at the futures market and from there the information flows to the spot market.

Pair-wise Granger Causality Test:- This analysis mainly focuses on the relationship between the spot and the futures prices and also to examine the causality relationship between the commodity futures market price and spot market price. The empirical results of the test are provided in Table 4 given below.

Table 4

Statistics of Pair-wise Granger Causality Test

Commodity	Null Hypothesis	Observations	Lags	F-statistics	Probability
Rubber	Spot price does not Granger cause the future price	1542	5	0.22623	0.9386
	Future price does not Granger cause the spot price	1542	5	51.6543	8.E-17*

Source: Test results from E-Views

In the above table, the test result of rubber shows the F-value and the P-value as 0.22623 and 0.9386 respectively. This means that the low F-value and the high P-value shows a null hypothesis and the

spot price does not Granger cause futures price. Similarly, the high F-value of 51.6543 and the low P-value of 8.E-17, both provide evidence against the null hypothesis. Hence, the changes in the futures price of rubber causes changes in the spot price. Here causation is one way.

The conclusion is that the commodity futures market plays an important role in the price discovery of rubber. This means that the information on the futures market helps the rubber producers to plan their production, processing, storage and marketing of rubber. This is a-one way causation in rubber, which shows that the futures price causes changes in the spot price of rubber. Thus it evidences that the price discovery is more efficient in the futures market of rubber than its spot market. The availability and dissemination of the information from the futures market helps to stabilise the spot price volatility of rubber. All these results help conclude that the price discovery of rubber occurred in the futures market and is transmitted to the spot market.

Major Findings of the Study

The results of both the ADF test and the PP test of stationarity show of the existence of the unit root in each of the price series. The results of both the tests with intercept, with trend and intercept, without trend and intercept, etc. proves that all the price series data have become stationary in their first difference. Therefore it can be concluded that each of the logarithmic price series is I (1) in the NMCE commodity futures market.

Cointegration was tested using the Johansen Cointegration test. The hypothesis of non-cointegrating vector ($r = 0$) can be rejected for rubber as the trace statistics and max-eigen values are higher than the critical value at 5 percent level.

In our test for efficiency of the futures market, $r=0$ is rejected and the efficiency can be concluded if the futures price and the spot price are cointegrated, as the cointegration is a necessary condition for market efficiency.

This empirical result is a clear evidence for the co-integrating relationship in the NMCE spot and futures markets for rubber. After the determination of the cointegrating relation between the futures and the spot markets, the parameters of a bivariate cointegrating Vector Error Correction Model (VECM) was estimated to determine the number of cointegrating vector for rubber.

The VECM allows for the short run shocks and estimates and the degree of convergence towards the long run relationship. The results indicate that the coefficient of at least one error correction term was significant, confirming the presence of cointegration.

The coefficient of the error correction term was negative and significant in the case of the spot market equation for rubber. This means that the spot prices are stable in the long run and any deviation in their prices due to the external shocks that occurred in the short run was well adjusted by the market forces over time.

The coefficient of error equilibrium was -0.152 in the spot market equation for rubber which indicates that when the average spot price was too high, it immediately falls back towards the futures prices. This means that the spot price

corrects to its previous period's disequilibrium by 15.2 percent.

These results broadly indicate that there exists long run relationships between the rubber futures and the spot prices and that the adjustment towards equilibrium is made by the spot prices. It also provides that the unidirectional lead-lag relationship exists for rubber.

In the spot price model of rubber, the coefficient of a two-month lagged futures price was positive and significant. In the futures price model, the lagged spot prices of rubber do not seem to affect the futures prices. These results imply that the price discovery of rubber occurred at the futures market and from there the information flows to the spot market. The cointegration of the spot and the futures markets is also an evidence for market efficiency.

The Granger Causality test results show that in the case of rubber, a low F-value and a high P-value shows the null hypothesis, the spot price does not Granger cause the futures price. Similarly, the high F-value (51.6543) and the low P-value (8.E-17) provide evidence against the null hypothesis. Hence, the changes in the futures price of rubber causes changes in the spot price. Here causation is one way.

CONCLUSION

The conclusion is that the commodity futures market plays an important role in the price discovery of rubber. That means the information on the futures market helps the rubber producers to plan their production, processing, storage and marketing of rubber. This empirical result of Johansen's Cointegration test provides a clear evidence for cointegrating relationship in the NMCE spot and futures markets of rubber. It means that there is a price discovery process in the futures market, as the cointegration of these two markets is a necessary condition for price discovery. These results of VECM indicate that there exists a long run relationship between the futures and the spot prices of rubber and the adjustment towards equilibrium is made by the spot prices. It also provides that a unidirectional lead-lag relationship exists for rubber. In the spot price model of rubber, the coefficient of a two-month lagged futures price was positive and significant. In the futures price model, the lagged spot prices do not seem to affect the futures prices. All these results imply that the price discovery of rubber occurs at the futures market and from there the information flows to the spot market. Thus, it proves that the rubber futures market is efficient. One-way causation in the spot and the futures prices of rubber shows that the futures price causes changes in the spot market. Thus it evidences that the price discovery of rubber is more efficient in the futures market than the spot market. The availability and the dissemination of the information from the futures market helps to stabilise the spot price volatility. All these results help in the conclusion that the price discovery of rubber occurs in the futures market and is transmitted to the spot market. 34.

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CAUSES AND CONSEQUENCES OF AGRARIAN CRISIS IN INDIA

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Abstract

Agriculture, the most important sector of the Indian economy is presently at a crossroad. Though the share of agriculture in the national GDP has decreased to 18% in 2007 and subsequently to 13.9% in 2013-14, the sector continues to provide livelihood support to more than two-thirds of the total population in India. More than 80% of the farmers, mostly with marginal and small holdings depend upon agriculture as the primary activity and are highly vulnerable to multiple risks. The downtrend to the growth of the total factor productivity has increased the vulnerability and induced unsustainability in the farm income. The escalating cost of production and the unremunerated output prices have made farming increasingly unviable.

Key words:- Green Revolution, GDP, Indebtedness, SEZ.

The Green revolution technology has made significant contribution to enhance the farm productivity and achieve self-sufficiency in food grains. However, it has not only increased the regional disparity but also created environmental and ecological consequences. The high input intensive farming practices followed by the farmers in the green revolution areas have been instrumental in the depletion of the groundwater table, an increase in the input costs, a deterioration in the quality of off-soil and a rise in the credit requirement, and consequently an increase in the indebtedness among the farmers. The benefits of the green revolution technology have also started tapering off in the recent years. The slowdown in the performance of the agriculture sector during the past couple of years is also a cause for concern in the

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overall agenda of the food and the income security. The aggregate productivity has been low, the growth of production decelerating, and more importantly, the sector is exposed to risks and uncertainty.

Shiva (2004) considers two main factors responsible for the farmer's distress – the rising cost of production and the falling prices of the farm commodities. Both these factors are rooted in the policies of trade liberalisation and corporate globalisation. Micro studies carried out in Maharashtra, Andhra Pradesh and Punjab {Misra (2006); Rao and Suri (2006); Jodhka (2006)} reveals that among others, the rising cost of production and the depressing market prices are the two main contributing factors in the reduction of profitability and the rise in the farmers distress. The high dependence on the costly purchased inputs and the diminishing returns due to the crops loss and the low prices have made agriculture an unprofitable activity. The enormous increase in the cost of the external inputs, force the farmers to take loan when the crops fail or when the prices crash, they are not in a position to repay the loans. The global integration of the Indian agriculture due to the liberalised policies has increased the price volatility and the risks faced by the farmers. In the pre-reform decades when production of crops declined, the market price of the produced were increased and farmers were compensated of the yield loss through the getting of higher prices with the global trade integrations; a low crop yield in a region may co-exist with a low market price of the product.

The enormous increase in the cost of the external inputs, force the farmers to take loan when the crops fail or when the prices crash, they are not in a position to repay the loans. The global integration of the Indian agriculture due to the liberalised policies has increased the price volatility and the risks faced by the farmers.

The main causes of the distress are:

- Drought and failure of rain fall;
- Loss of the crops due to the inferior quality of the inputs;
- Crash of the market prices;
- Mounting debt burden;
- Inter-locking of the input credit and the product market;
- Failure of the extension services;
- Commercialisation of farming;
- Technology failure;
- Spurious seeds, pesticides and other inputs; and
- Inefficient and inadequate support system.

Main Issues Related to the Crisis

1. The Price Issue:

The most important problem of the Indian farmers is the output price fluctuation. There is a big gap between the producers' price and the consumers'

price. Farmers get only around 30 per cent of the consumers' price. Farmers are only price takers in the product as well as in the inputs market. Such a situation could lead to an increase in the input cost and a decrease in the output price, thereby a decline in the profitability and the returns from cultivation. It is not an easy task to compromise the two goals: to support the income of the farmers on the one hand and to secure the supply of low cost food to the large number of the Indian population on the other. If a high price is permitted, the welfare gain in terms of increased income of the farmers and a loss in terms of high prices by the consumers should be dealt with carefully as most of the farmers are themselves consumers and the remaining well-to-do population can afford higher prices [Acharya (1998)].

The main objective of the Indian government, as it is claimed, had been to protect the farmers as well as the consumers; but in effect, it has been protecting the middle men and the stock holders. The global food prices have been increasing. This is also further pushed by the increasing crude oil prices. Although, our domestic consumers have been protected by the external influence which has increased by 20 percent over the last three years, the benefits have not reached to the farmers. The Commission on Agriculture Cost and Prices (CACP), before fixing the price, takes into consideration several factors such as cost of cultivation, global and domestic prices, demand and supply. It is supposed to have covered the cost of production and some profit margins. But the procurement prices have been supporting only a few sample classes of farmers. It has also failed to stimulate sufficient investments by the farmers.

2. The Decline in Government Investment in the Agricultural Sector:

Studies showed that after the start of the economic reforms, the government expenditures and investments in the agriculture sector had been drastically reduced. This was based on the policy of minimum intervention by the government, enunciated by the policy of globalisation. The expenditure of the government in rural development including agriculture, irrigation, flood control, village industry, energy and transport, declined from an average of 14.5 percent in 1986-1990 to 6 percent in 1990-2000. When the economic reforms started, the annual rate of growth of irrigated land was 2.62 percent and later it got reduced to 0.5 percent in the post reforms period. The consequences were many. The rate of capital formation in agriculture came down, and there was also a reduction in the agricultural growth rate. This has affected the purchasing power of the rural people and subsequently their standard of living too.

3. Liberal Input of Agricultural Product:

The main reason for the crash in the prices of the agricultural products, especially of the cash crops in India, was the removal of all restrictions to import these products. For example, when the Government of India reduced the import duty on tea and coffee from Sri Lanka and Malaysia, their prices in the domestic market got reduced drastically. The cultivation of such products became

unprofitable and their production was fully or partly stopped. Since the removal of quantitative restrictions and the lowering of the import duties were in accordance to the restrictions of the World Trade Organisations (WTO), the crash in the prices of the agricultural products is directly related to the liberalisation policy of the Government.

4. Eroding Farm Profitability:

In addition to the decelerating or stagnating growth trend in the production and productivity, the available figures on the return to farming is a striking evidence of simmering distress in the country sides. Looking at the NSSO and the cost of cultivation statistics, it is apparent that the returns from agriculture for small and marginal farmers are not adequate to take them above the poverty line in case agriculture is the only source of income although there are inter-regional variations in farm profitability due to inter-crop variation in the net returns per hectare. In general, the scenario of income generation from crop production is not very encouraging.

5. The Fragmentation of Land:

The fragmentation of land holdings is new and perhaps the most worrisome feature of Indian agriculture. While the number of persons employed in agriculture has risen, the land under cultivation has remained more or less static. This has resulted in the increased pressure on land, from 267 persons per sq.km. in 1991 to 324 persons in 2001. This has also naturally led to the fragmentation of land. The average size of the rural holdings has declined by 50% between 1960-61 and 1991-92, while the number of operational holdings increased by 80% during the period.

The enactment of land ceiling legislation and the distribution of ceiling surplus land to the landless and the landed poor was introduced as part of the land reforms after independence. Further, land re-distribution was also introduced to promote gender equality by assuring an equal share for women in the family property. The main purpose of the land ceiling and the surplus re-distribution was to ensure a more equitable distribution of land and increase the agricultural productivity thereof. However, the situation shows a completely different result today. Rather than increasing the productivity due to more equitable distributions of the land, there is a fall in the productivity of agriculture due to over-fragmentation. The farmers are unable to reap economies of scale and the rise in the holdings of the marginal and the small farm (less than 2 acres of land) has become a serious impediment to the process of accessing credit.

6. Corporate Control over Land:

In the post-reforms period, non-agricultural GDP has grown much faster than the agricultural one. The important implication of this change is that it has increased the demand of land for non-agricultural purposes. Land is increasingly being diverted from agricultural to non-agricultural purposes. Setting up of industries, roads, bridges, dams, shopping malls, urban townships, etc. have displaced a large number of the rural population. Thousands of acres of land have been taken away from them in the name of 'development' which is adversely affecting

their livelihood. The fact cannot be denied that to achieve faster growth in the economy, land is required for the developmental activities, but the current method of acquiring land of the poor peasants by the government for the corporate to set-up Special Economic Zones (SEZ), even without acquiring a public opinion on the issue, is not desirable in a democratic society. As per the Special Economic Zone Act of 2005, the government has so far earmarked about 400 such zones in the country and very often it is the fertile land that has been acquired. It may be noted that the SEZ is purely a business activity encouraged by the government through the legislative support and the fare concessions with a view to attract Foreign Direct Investment (FDI) and to boost employment, GDP and exports growth. Since the SEZ deprives the farmers of their land and livelihood, it is harmful to agriculture. In order to promote exports and industrial growth in line with globalization, the SEZ was introduced in many countries.

7. Cutback in Agricultural Subsidies:

In the post reform period the government reduced different types of subsidies to agriculture, and this has increased the production cost of cultivation. According to Ramesh Chand, an economist, cut back in subsidy and control of fertilizer price over the last few years has adversely affected the agricultural sector. It has increased the input cost and made agriculture less profitable. Since the decrease in subsidy to agriculture is part of the regulations of the WTO, it is related to the policy of globalisation.

8. Raising Share of Mechanisation:

The share of mechanical and electrical power in India has increased from 40% in 1971-72 to 84% in 2003-04 [GoI (2005)]. India has, in the worldwide population of tractors, significantly increased from 1.87% in 1981 to 5.71% in 2002. India has obtained the second highest annual growth in the number of tractors used in the farm operations, the first being Thailand [Singh (2005)]. The policy of the Government of India is the emphasis on providing the latest technology to the farmers in order to increase farm productivity. It is true that agriculture requires advanced technology in production, harvesting, marketing, storage and processing. However, the major problem is the economic viability of the small and the marginal farming. Technologically advanced machinery and equipments could carry their farm operation timely and precisely but not cost-effectively due to the advantage of the small size.

9. Depletion of Groundwater Resources:

Groundwater irrigation is preferred on the equity, efficiency, productivity and private investment grounds. It also facilitates the diversification of the small and the marginal farming from the traditional to the high-value vegetable crops, as these crops require small doses of water on demand at frequent intervals which can be possible through assured tube-well irrigation. However due to the government policies relating to the agricultural credit, subsidy, inputs and energy and the lack of effective

regulations, groundwater sustainability has become one of the major issues. Although at aggregate level, only 58% of the 399.25 bcm of net annual available groundwater of India is being utilised, the extent of utilisation varies significantly across the regions. States like Punjab, Haryana, Gujarat, Tamil Nadu, Karnataka and Rajasthan have had significant development in the groundwater resources, while some other states such as West Bengal, Bihar, Orissa and Assam have further scope for its development. Out of the 18 major states of India 9 states have some districts with over 100% groundwater exploitation.

The availability of subsidised electricity and the flat rate system of power, encourage the farmers to over-exploit the groundwater as the marginal cost of drawing water from the electrified tube-wells is almost zero. Singh (2008) estimates that 1% point income level of groundwater development by a 0.26% point. It is pertinent to note that the input subsidy as a policy instrument has become questionable in the environment, equity and efficiency grounds. The existing flat rate power tariff system in most of the states has caused depletion in the groundwater table, distorted the cropping pattern, and adversely affected the sustainability of agriculture. It benefits more the big farmers. They have relatively supported the policy which has been widely used to achieve the multiple policy goals including price stabilisation and income support. However it also interplays with the groundwater policy. Therefore the price policy, if properly interfaced with the water policy, can be, and as an instrument, be used to improve the efficiency, productivity and sustainability of groundwater.

10. Poor Infrastructure Facilities:

The rural infrastructure is still underdeveloped. Though the country's road density is high, 749 kms. per 1000 sq.kms. area, 43.5% of the Indian villages are still unconnected. The Asian Development Bank (ADB) states that "There is a strong link between the lack of road connectivity and poverty in India". Recent studies have indicated that spending to improve the rural roads has a great impact on the poverty reduction than the expenditure on agricultural research, irrigation, power, health, water and even education. For every 10 lakhs spent on the rural roads, 124 people are lifted out of poverty. In the Pradan Mantri Gram SadakYojana initiated in 2006-07, with a budget provision of Rs.60,000 crores, there is a positive step in the direction of rural roads network development, and its implementation must be prioritised. Poor storage and food processing facilities coupled with poor roads leads to considerable spoilage of food grains and produce.

11. Rural Indebtedness and Agricultural Credits:

The farmers' indebtedness is one of the main causes for distress in the agricultural sector. Almost half (49%) of Indian farmers' households are indebted. The lack of institutional credit for the small and marginal farmers forces them to go to the private moneylenders. These private moneylenders lend at a very high rate of interest. This, more often than not, results in the inability to close the loan, thereby

enmeshing the farmer in a vicious debt-trap. A high occurrence of loan may be considered worthy if the loans are incurred for the capital investment and the farm operators. Unfortunately, it seems that a large portion of this amount is for personal expenditure, mostly marriages, funerals and religious functions. To be precise, while around 31% is taken for capital investment, 28% is taken for current expenditure and as much as 41% is for non-farm remains with marriages (11%), personal consumption (9%) and non-farm business (7%) being the main components. The most indebted farmers are in Andhra Pradesh (82%), Tamil Nadu (75%), Kerala (64%), Maharashtra (85%) and Haryana (53%).

Table 1 (b) shows the farmers indebtedness as per the size of the land holdings. The marginal farmers form the maximum percentage of farmers household (66%) and also have the most household indebtedness (61%) since little institutional credit is available to these households. The logical inference would be that most of them borrow from private moneylenders and often end up facing the harshest consequences. Our institutional lending practices and norms have not yet evolved a way of reaching out to the neediest without jeopardizing

Table 1 (a)

Estimated Number of Rural Households and Indebted Farmers Households in India

States/UTs	Estimated Number of Rural Households (00)	Estimated Number of Farmers Households (00)	Farmers Households as % of Rural Households	Estimated No. of Indebted Farmers Households (00)	% of Farmers Households Indebted
Andhra Pradesh	142512	60339	42.3	49493	82.0
Bihar	116853	70804	60.6	23383	33.0
Gujarat	36015	37845	105.1	19644	51.9
Haryana	31474	19445	61.8	10330	53.1
Himachal Pradesh	11928	9061	76.0	3030	33.4
Jharkhand	36930	28238	76.5	5893	20.9
Karnataka	69908	40413	57.8	24897	61.6
Kerala	49942	21946	43.9	14126	64.4
Madhya Pradesh	93898	63206	67.3	32110	50.8
Maharashtra	118177	65817	55.7	36098	54.8
Orissa	66199	42341	64.0	20250	47.8
Punjab	29847	18442	61.8	12069	65.4
Rajasthan	70172	53080	75.6	27828	52.4
Tamil Nadu	110182	38880	35.3	28954	74.3
Uttar Pradesh	2214199	171575	7.7	69199	40.3
West Bengal	121667	69226	56.9	34696	50.1
India	**1478988**	**893504**	**60.4**	**434242**	**48.6**

Source: Indebtedness of Farmer Households in India - NSSO Report 59th Round - No. 498

Table 1 (b)
Estimated Number of total Indebted Farmer Household in each size class of Land Possessed in India

Class size of Land Possessed	Estimated Number of Farmers Households (00)	% of Farmer Households	Estimated Number of Indebted Farmers Households (00)	% of Indebted Farmer Households	Prevalence rate of Indebtedness %
<0.01	12594	1.4	5708	1.3	45.3
0.01-0.40	292867	32.8	130112	30	44.4
0.41-1.00	283610	31.7	129211	29.8	45.6
Marginal	589071	65.9	265031	61.1	44.9
1.01-2.00 (Small)	160600	18	81920	18.8	51.0
2.01-4.00 (Semi-medium)	93504	10.5	54409	12.5	45.3
4.01-10.00 (Medium)	425811	4.8	27734	6.4	65.1
10.00+ (Large	7748	0.8	5148	1.2	66.4
All Size	**893504**	**100**	**434242**	**100**	**48.6**

Source: Indebtedness of Farmer Households in India - NSSO Report 59th Round - No. 498

the interests of the banks and its depositors. Clearly, there is a need for some credit guarantee schemes to protect these institutions.

A very interesting trend can be observed here. The small and the marginal farmers that have an area of less than two hectares of land have a debt occurrence of 42% on an average, while the large landholders (above ten hectares of area) have a debt occurrence of around 66%. This implies that as the size of the land holdings increase, so does the occurrence of debt. This is possibly due to the fact that the larger the land holdings means the better the collateral and consequently these farmers have better access to official loans and credit facilities. Thus, the small farmers, who are actually in need of these cheaper credits, do not actually get it. Out of the 45% rate of occurrence, most of the loans are from private moneylenders who charge exorbitant rates of interest and often making it impossible for the farmers to repay the loans. The moneylenders can charge as high as 50% as the rate of interest as against a rate of interest of 8% charges of the institutional credit.

Many schemes and alternative sources such as the Kissan credit card scheme and the microfinance institutions were set up to help improve the situation. However, most of them seem to have failed to deliver the desired results.

Indian agriculture is in a deep crisis. In order to overcome the distress and make agriculture a profitable venture, the policy focus must be on raising the public investment. Conserving and developing the degraded land and the water resources, creating a sound risk-mitigating system, strengthening the supportive

institutions, fostering an effective link between the production and the market, expanding the human capital base, and budding an effective agricultural production and marketing information system, the state support coupled with the right mix of pricing and marketing policies along with the appropriate output mix. All these can make agriculture vibrant, and meeting the aspirations and the welfare needs of the people at large. An efficient regulatory and rule-based mechanism is to be put in place to attract private investments in the key agricultural areas on the one hand, and on the other, to protect the interests of farmers and consumers from the oligopolistic power of the agri-business companies. The NREGS, if implemented effectively, has the potential to generate equitable and pro-poor growth in the rural areas via raising the demand for the wage-goods and carrying out the wage-employment activities related to water and soil conservation, drought proofing, plantation, rural connectivity, etc. The scheme should be effectively linked to the development of agricultural and change of climate.

"There is nothing more humiliating for any country than to import food; therefore, everything else can wait, but not agriculture."- Jawaharlal Nehru (1955).

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IMPROVING OPERATIONAL PERFORMANCE THROUGH SUPPLY CHAIN INTEGRATION: AN EMPIRICAL EVIDENCE FROM THE AGRI - FOOD SUPPLY CHAIN

***Resmi A.G, **J. Rajan**

Abstract

This paper analyses the relationship between the Supply Chain Integration (SCI) and the Operational Performance (OP) in the agri-food supply chain alongwith the contributions to the knowledge of the supply chain management. Besides providing for the managerial insights of the strategy and policy formulation, the paper also has several significant implications in ensuring food security to the population. The requirement of improved customer service and intensified global competition has significantly inhanced the essentiality of supply chain integration. The results of the study provide strong empirical evidence for the significant positive relationship between the supply chain integration and the operational performance.

Key words:- Supply Chain Integration, Operational Performance, Agri-Food Supply Chain, Rice Supply Chain, Food Security, Supply Chain Management.

The World Food Summit of 1996 defined food security as existing "when all people at all times have access to sufficient, safe and nutritious food to maintain a healthy and active life". According to WHO, food security can be defined as the physical as well as the economic access to food in order to meet the dietary needs of the people as well as their food preferences. According to the latest reports from FAO, the global annual food production is well enough to feed the world's population reasonably. But hunger and malnutrition still exist widely due to the improper distribution and access of food. Lakhs of people are dying due to this every year. India, the second fastest growing economy in the world and also a self-sufficient country in food grains, is not a

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contradiction to this. It is ranked 65th out of the 79 countries in the Global Hunger Index

(GHI) 2012, with over 225 million people remaining chronically undernourished. This paper aims to analyse the performance improvement in the supply chain side of the food grains, specifically rice, which is the staple food throughout the world, through supply chain integration.

Review of Literature

Supply Chain Management (SCM): According to Oliver and Webber, SCM is the process of planning, implementing, and controlling the operations of the supply chain with the purpose of satisfying the customer requirements as efficiently as possible.

The requirement of improved customer service and intensified global competition has significantly inhanced the essentiality of supply chain integration.

Supply Chain Integration (SCI): It can be defined as the strategic collaboration of both inter-organisational and intra-organisational processes. The concept of SCI is related to the coordination along production planning, inventory management and distribution activities.

Operational Performance (OP): Measuring and evaluating OP is an inevitable part of supply chain management for its improvement. The measurement system should provide understanding regarding critical value-added process, communicate expectations and deliver high level of performance.

For this study the agri-food supply chain performance indicators are recognised from the conceptual framework developed by Aramyan et al.(Aramyan, Ondersteijn, Kooten, & Lansink, 2006). According to this framework the performance measurement indicators for agri-food supply chain comprise four main categories: Efficiency, Flexibility, Responsiveness, and Quality. In this study only responsiveness and quality are taken into consideration since these are the two major aspects with respect to customer satisfaction.

Responsiveness: High level of customer service, including fill rate, product lateness, customer response time, lead time, and shipping errors are referred to as responsiveness.

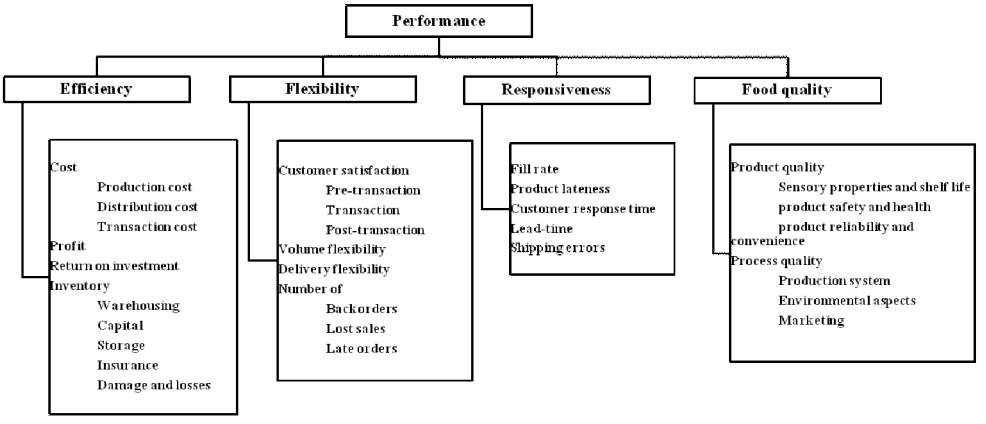
Quality: Quality can be viewed as a multi-dimensional construct and includes intrinsic (product) and extrinsic (process) quality indicators. According to them, product quality consists of three aspects: food safety and health, sensory properties and shelf-life, and product reliability and convenience.

HYPOTHESES

Literature from product development, production and total quality

Fig. 1:

Conceptual framework of agri-food supply-chain performance indicators (Aramyan, Ondersteijn, Kooten, & Lansink, 2006)



management (TQM) provide adequate information regarding relationship between internal integration and operational performance. Internal integration eliminates functional barriers which is necessary for implementing quality management practices as suggested by TQM literature. The lack of internal integration will result in the wastage of both efforts and resources and hence be a negative impact on quality and cost. Literature from product development establishes the significance of internal integration among departments like product design, engineering, manufacturing and marketing thereby improving the product quality and reducing production cost. Both production flexibility and delivery performance which can be improved through internal integration is explained in the production literature. A positive association among internal integration and process efficiency, flexibility, responsiveness, and quality, was also well explained in previous studies.

External integration empowers both external routine activities and internal functions by collecting accurate demand and supply information and cross-firm problem solving. This reduces redundancy of efforts and wastage without which poor performance will result due to high inventory levels, poor production plans and delivery services. External integration also facilitates resolving conflicting objectives and improves cost and wastage reduction, quality improvement, new product development, and better flexibility. A positive association between external integration and cost, reliability, and time-based performance was also explained by previous studies. Both internal as well as external (supplier and customer) integration are positively associated with delivery, production cost, product quality, and production flexibility.

From the above, the following hypotheses are established.

Hypothesis 1

The first hypothesis (H1) is developed to examine the association between internal integration and operational performance.

H1: Internal integration is positively associated with operational performance in the rice supply chain.

$H1_0$: Internal integration is not positively associated with operational performance in the rice supply chain.

Corollary Hypotheses

The corollary hypotheses developed from the relationship between internal integration and the two different dimensions of operational performances are responsiveness and quality. The corollary hypotheses are stated below:

H1.1: Internal integration is positively associated with responsiveness.

$H1.1_0$: Internal integration is not positively associated with responsiveness.

H1.2: Internal integration is positively associated with quality.

$H1.2_0$: Internal integration is not positively associated with quality.

Hypothesis 2

The second hypothesis (H2) is developed to examine the association between supplier integration and operational performance.

H2: Supplier integration is positively associated with operational performance in the rice supply chain.

$H2_0$: Supplier integration is not positively associated with operational performance in the rice supply chain.

Corollary Hypotheses

The corollary hypotheses developed from the relationship between supplier integration and the two different dimensions of operational performances are responsiveness and quality. The corollary hypotheses are stated below:

H2.1: Supplier integration is positively associated with responsiveness.

$H2.1_0$: Supplier integration is not positively associated with responsiveness.

H2.2: Supplier integration is positively associated with quality.

$H2.2_0$: Supplier integration is not positively associated with quality.

Hypothesis 3

The third hypothesis (H3) is developed to examine the association between customer integration and operational performance.

H3: Customer integration is positively associated with operational performance in the rice supply chain.

$H3_0$: Customer integration is not positively associated with operational performance in the rice supply chain.

Corollary Hypotheses

The corollary hypotheses developed from the relationship between customer integration and the two different dimensions of operational performances are responsiveness and quality. The corollary hypotheses are stated below:

H2.3: Customer integration is positively associated with responsiveness.

$H2.3_0$: Customer integration is not positively associated with responsiveness.

H2.4: Customer integration is positively associated with quality.

$H2.4_0$: Customer integration is not positively associated with quality.

Proposed Conceptual Model

The study intends to empirically test a conceptual model to explain the relationship between supply chain integration and operational performance. Both the constructs of the conceptual model are considered as multi-dimensional, hence SCI has three dimensions – internal, supplier, and customer integration; OP has two dimensions – responsiveness, and quality. This facilitates the analysis of operational performance outcomes of different SCI dimensions.

RESEARCH METHODOLOGY

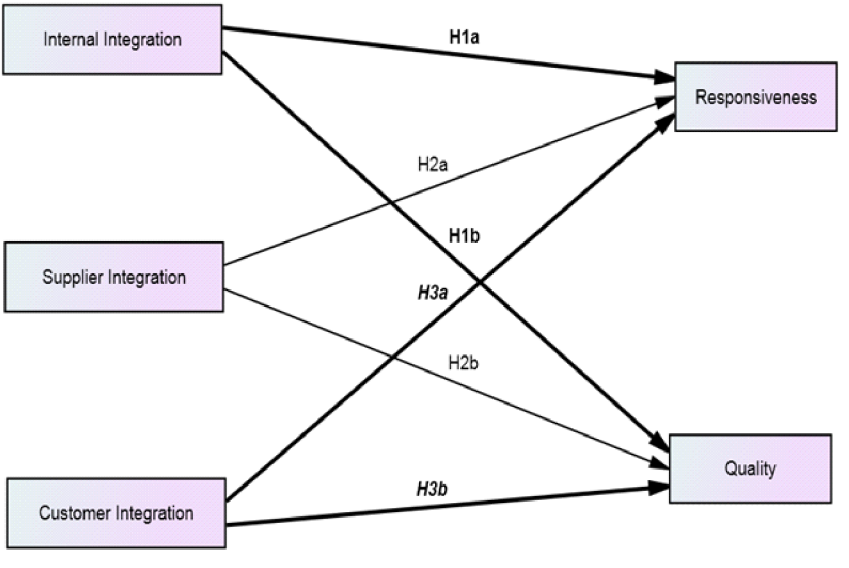
Research Design

The empirical context for the study is the rice supply chain in Kerala. The positivist paradigm defines a quantitative approach for research which is carried out for data collection from the sample of respondents. For this study, data were collected from rice sellers all over Kerala using a structured questionnaire.

Measures and Questionnaire Design

In this study all measures of the two constructs are adapted from the previous literature. The first construct supply chain integration has three dimensions, internal, supplier, and customer integration. For measuring internal integration the scale is adapted from Flynn et al., Narasimhan &

Fig. 2:
Proposed Conceptual Model



Kim, and Stank et al. The supplier and customer integration are measured using scale adapted from Flynn et al. and Narasimhan and Kim. The second construct operational performance has two dimensions, responsiveness, and quality. For measuring, quality scale is adapted from Aramyan et al. and Luning et al.. Scale adapted from Boyer & Lewis, and Ward & Duray are used for measuring responsiveness.

The conceptual model of this study has a total of 5 groups of variables that are tested using hypotheses: three variables for supply chain integration - internal, supplier, and customer integration; two variables for operational performance - responsiveness and quality. All these variables are measured by implementing the five-point Likert scale which can deliver adequate sensitivity. The data of this study does not need a high sensitivity seven-point or more wider scale. A draft questionnaire is pre-tested to check the content validity and then modified accordingly with the help of experts. The modified questionnaire is used for the pilot-study to scrutinise its appropriateness for the larger study.

Pilot Study

The main purpose of the pilot study is to reduce the ambiguity in the questionnaire by improving the clarity of each question. This will enable the questionnaire to be more suitable to the respondents' range of knowledge and increase the validity and reliability of the measures. A small sample group of 20 rice sellers were included in the pilot study.

Measure Validation and Reliability

The uni-dimensionality of the two constructs is assessed by a confirmatory factor analysis (CFA). The results are summarised in Table 1. It is clear from the table that the comparative fit index (CFI) values are well above the cut-off value of 0.90; the standardised root mean square residual (SRMR) values are below the recommended value of 0.08; and the incremental fit index (IFI) and the Tucker-Lewis index (TLI) are well above the recommended threshold of 0.90.

The reliability of the constructs and scales are assessed by using Cronbach's alpha. As shown in Table 1, the Cronbach's alpha of the two constructs is above 0.6 which indicate that all the measurement scales have adequate reliability. Further, Table 1 also shows that all the indicators have significant loadings (from 0.50 - 0.90) in their respective constructs.

Sampling Design

In this study sampling design is very significant since the data collection is carried out by using a structured questionnaire and inferences are drawn on the basis of the samples. An adequate sample design ensures that, the sample is a true representation of the population. For this study the target population is all the rice sellers in Kerala and the simple random sampling method was adopted..

Unit of Analysis

The unit of analysis is the key entity and it can be individuals, dyads, organisations, groups, artifacts, geographical units or social interactions

Table 1:

Construct Reliability and Validity Analysis

Construct /Indicator	Loading	Reliability and Validity
Internal Integration		
(II1) Have a high level of responsiveness within our plant to meet other department's needs	0.74	Goodness-of-fit indices: $\chi2 = 20.37$, df = 2, $p<0.0001$; CFI=0.97; IFI=0.97; TLI=0.90; SRMR = 0.03; Cronbach's alpha = 0.83
(II2) Have an integrated system across functional areas under plant control	0.74	
(II3) Within our plant, we emphasize on information flows among purchasing, inventory management, sales, and distribution departments	0.74	
(II4) Within our plant, we emphasize on physical flows among production, packing, warehousing, and transportation departments	0.75	
SupplierIntegration		
(SI1) Share information to our major suppliers through information technologies	0.79	Goodness-of-fit indices: $\chi2 = 21.21$, df = 5, $p<0.0001$; CFI=0.98; IFI=0.98; TLI=0.96; SRMR = 0.02; Cronbach's alpha = 0.88
(SI2) Have a high degree of strategic partnership with suppliers	0.76	
(SI3) Have a high degree of joint planning to obtain rapid response ordering process (inbound) with suppliers	0.74	
(SI4) Our suppliers provide information to us in the production and procurement processes	0.73	
(SI5) Our suppliers are involved in our product development processes	0.82	
CustomerIntegration		
(CI1) Have a high level of information sharing with major customers about market Information	0.73	Goodness-of-fit indices: $\chi2 = 4.06$, df = 5, $p<0.0001$; CFI=0.99; IFI=0.99; TLI=0.99; SRMR = 0.01; Cronbach's alpha = 0.87
(CI2) Share information to major customers through information technologies	0.75	
(CI3) Have a high degree of joint planning and forecasting with major customers to anticipate demand visibility	0.74	
(CI4) Our customers provide information to us in the procurement and production processes	0.77	
(CI5) Our customers are involved in our product development processes	0.78	
Responsiveness		
(RS1) Correct quantity with the right kind of products	0.83	Goodness-of-fit indices: $\chi2 = 14.02$, df = 5, $p<0.0001$; CFI=0.99; IFI=0.99; TLI=0.98; SRMR = 0.02; Cronbach's alpha = 0.88
(RS2) Delivery of products quickly or short lead-time	0.70	
(RS3) Provide on-time delivery to our customers	0.74	
(RS4) Provide reliable delivery to our customers	0.72	
(RS5) Reduce customer order taking time	0.85	
Quality		
(QL1) Physical properties of product (rice) are important performance indicators	0.77	Goodness-of-fit indices: $\chi2 = 11.02$, df = 5, $p<0.0001$; CFI=0.99; IFI=0.99; TLI=0.98; SRMR = 0.02; Cronbach's alpha = 0.88
(QL2) All inspections performed present good records	0.76	
(QL3) Product (rice) safety and health are important performance indicators	0.77	
(QL4) Environmental management system is implemented	0.77	
(QL5) The number of sales increases because of marketing activities	0.83	

that are to be analysed by the study. The unit of analysis is at the organisational level i.e. the rice sellers in the context of agri-food supply chain prevailing in Kerala. The inferences and conclusions are drawn from the organisations' performance and the level of supply chain integration practices.

Sample Size

The target population for this study includes all the rice sellers in Kerala. The total number of rice sellers was estimated from the list of members of the Rice Exporters Association and through direct interaction with the rice sellers and exporters operating in different districts

Table 2:

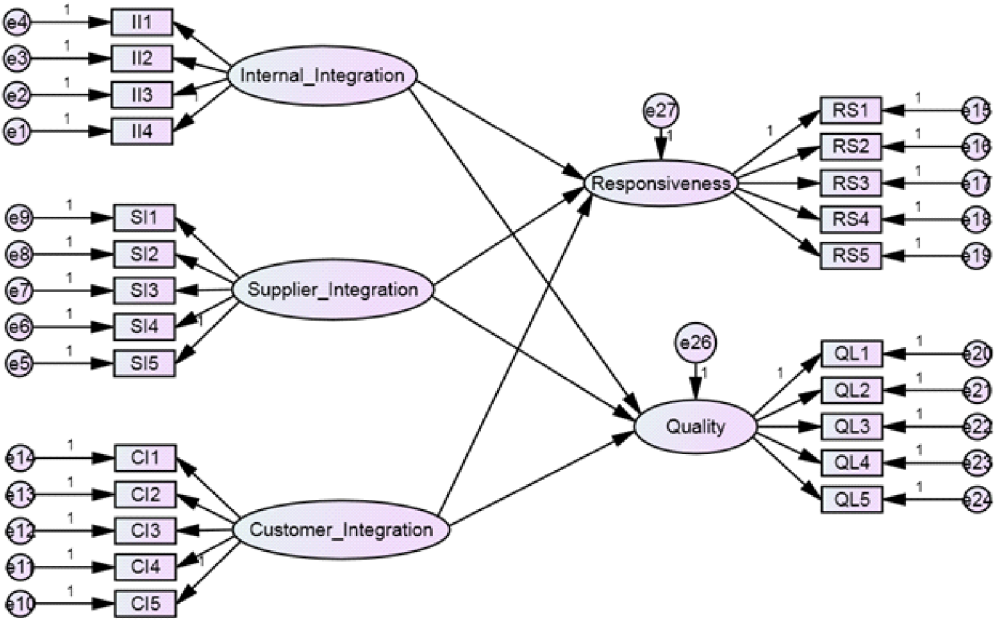
Structural Model Testing

Structural Paths	Standardised Estimates	R^2
H1: Internal Integration - Operational Performance		
H1.1: Internal Integration – Responsiveness	0.68 (5.10)***	0.49
H1.2: Internal Integration – Quality	0.73 (4.31)***	0.54
H2: Supplier Integration - Operational Performance		
H2.1: Supplier Integration – Responsiveness	0.71 (5.12)***	0.51
H2.2: Supplier Integration – Quality	0.73 (4.86)***	0.54
H3: Customer Integration - Operational Performance		
H3.1: Customer Integration - Responsiveness	0.73 (4.62)***	0.50
H3.2: Customer Integration - Quality	0.68 (5.08)***	0.47

Numbers in parenthesis are t – values ****p<0.001*

Fig. 3:

Theoretical Model



of the state. The estimated figure is above 1,50,000, including wholesalers, retailers and other provision stores which sell rice along with other items. The minimum sample size of rice traders required for the study at a 95% level of certainty with a 5% margin of error is 384. Out of the 425 rice sellers approached, 400 of the fully-responded samples are selected for the purpose of analysis.

Data-Collection Procedure

The focus was on the rice supply chain and the samples were identified from the list of members of the Rice Exporters Association and through direct interaction with the rice sellers. The data required for the study were collected by using a structured questionnaire.

Analysis and Results

The study established a structural equation model using AMOS 20.0 to test the three main and its corollary hypotheses. The results are summarised in the Table 2, which shows that the overall fits of three structural models are good with comparative fit index (CFI) values well above the cut-off value of 0.90, standardised root mean square residual (SRMR) values below the recommended value of 0.08, incremental fit index (IFI) and Tucker-Lewis index (TLI) well above the recommended threshold of 0.90.

Discussion of results

From Table 2, it is evident that there is a positive and significant ($p<0.001$) relationship between internal integrations of both responsiveness and quality. Likewise supplier integration is positively and significantly ($p<0.001$) related to both responsiveness and quality. Finally the same is for customer integration, which has a positive and significant ($p<0.001$) relationship with both responsiveness and quality. Hence all the three Null Hypotheses ($H1_0$, $H2_0$, $H3_0$) are rejected. This study complements the prior studies which established the positive impacts of internal, supplier, and customer integrations on both responsiveness and quality. It thus establishes that the proposed theoretical model is applicable to the rice supply chain prevailing in Kerala.

Implications and Contributions to the Theory

It contributes to the theory of operations and supply chain management by providing insights particularly in the context of agri-food supply chains. It establishes both SCI and OP as multi-dimensional constructs different from many of the previous studies. It enables the establishment of a model for better understanding of the relationships between SCI and OP at multi-dimensional levels. Further, the most significant contribution is the testing of the conceptual model.

Suggestions and Contributions to Managerial Practice

The findings contribute to the operations and supply chain managers by providing better understanding regarding SCI-OP relationships. This enables them to act on SCI practices which will result in the desired performance outcomes. The multi-dimensionality of both the constructs enable the SCM practitioners in differentiating the internal, supplier and customer integration efforts required to improve the different performance

outcomes such as responsiveness and quality, since these are extremely sensitive to collaboration with the suppliers and customers.

Limitation and Future Research

This study concentrates on the SCI factor for improving performance outcomes. Perhaps SCI is the key factor in improving the operational performances for which there may be many other approaches. Further this study does not address the other key factors of operational performance such as flexibility and efficiency. These two factors are also extremely sensitive to the different dimensions of SCI. Again this study focuses on the relationship between SCI and OP, in fact there may be intermediate factors which can moderate the relationship. The samples collected is limited to the state of Kerala only, and the model should be further tested using data from different geographical locations and also from different industries other than rice supply chain.

CONCLUSION

The study is unique in the sense that it establishes a model that will provide insights on the relationship between SCI and OP at multi-dimensional levels. Along with contributing to the theory of operations and supply chain management, it will have implications to SCI managers and practitioners by providing them with insights into the strategy and policy formulation. It has a noble cause of reducing hunger and malnutrition which is becoming one of the major concerns of this century by ensuring food security to the population through improved operational performance of agri-food supply chains.

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A STUDY ON THE DOMESTIC AND FOREIGN TOURISTS' VISITS IN KERALA OVER THE YEARS

***C.R Ambily, **B. Gopakumar**

Abstract

Tourism industry is one of the few industries in which Kerala has a lot of potential for development. Its importance has grown considerably over the years. Kerala has been branded as one of the most wanted tourism destinations. A great deal of this is due to the proactive marketing and the promotional measures taken during the last ten years. There are three main helping factors for the tourism products in Kerala. They are the attractions of a destination, the facilities at the destination and the accessibility to the destination. This paper aims at discussing the major tourists' sites of Kerala and also to have a look at the tourists' visits, both foreign and domestic, in Kerala during the last few years.

Key words:- Product, Tourism Products, Proactive Marketing, Global Super Brand, Tourists Attractions.

Tourism becomes important for the economic, social, cultural and educational development of a nation. The tourism industry, while being one of the largest in the world, is also one of the fastest growing industries. Tourism plays an important role in the creation of economic and non-economic benefits to a nation. This facilitates a competitive mentality among the nations with destinations to sell their tourism potentials to the people all over the world.

The state of Kerala is at the tip of India. Edged by a thread of unbroken beach line, the green paddy fields and a unique network of rivers and lagoons are all the special features of Kerala. The tourism industry is one of the few industries in which Kerala has a lot of potential for development. Its importance has grown considerably over

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the years. The growing attention for quality from perspective of the customer is an important issue and this is included as a major thrust area by WTO in its Tourism Vision-2010.

Kerala has a rich legacy in many of the aspects like astrology, ayurveda, places of worship, traditions and rituals. Until the early 1980s, Kerala was a relatively unknown destination, with most of the tourist circuits concentrated around the north of the country. Aggressive marketing companies launched by the KTDC laid the foundation for the growth of the tourism industry. The tag line 'Kerala - God's own Country' was adopted in its promotions and has become a global super brand. Kerala is now regarded as one of the destinations with the highest brand recall.

Kerala has been branded as one of the most wanted tourism destinations. A great deal of this is due to the proactive marketing and promotional measures taken during the last ten years. It will not be right to adopt a complacent attitude that the state has arrived as a tourists' attraction.

A 'product' is the pre-requisite for any organisation which indulges in a marketing function. Unless there is a certain 'product', be it tangible, intangible or a service, marketing is not possible. According to Jeffrin D., "tourism product is not an airline seat, or a hotel bed, or a relaxation on a sunny beach, but rather an amalgamation of many components or a package. All tourists buy packages by themselves or from travel agents'. Although the principles of marketing are the same for all products, a tourism product has some peculiarities, namely,

- The tourism products cannot be transported; the customer has to reach it to make use of it;
- This product is a combination of products and services no single entrepreneur can produce;
- The tourism products cannot be stored for sale; and
- Natural calamities can instantaneously hurt the tourism products.

So the concept of consumer orientation makes it necessary to understand the components of the tourism products from the point of view of the consumers. The product for the tourists cover the complete experience from the time he leaves home to the time he returns back.

Objectives of the Study

1. To identify the tourism products in Kerala; and
2. To compare the growth of the tourists visits in Kerala during the past five years - both domestic and foreign.

The Tourism Products of Kerala

Kerala has been branded as one of the most wanted tourism destinations. A great deal of this is due to the proactive marketing and promotional measures

taken during the last ten years. It will not be right to adopt a complacent attitude that the state has arrived as a tourists' attraction. The constant attention to improve the infrastructure and the environment, i.e. physical, ecological, cultural and social are essential, as also the continuance of the promotional activities. There are three main helping factors for the tourism products in Kerala. They are the attractions of the destination, the facilities at the destination and the accessibility at the destination. The products sold to the tourists are only services, a panoramic view of the places of travel, entertainment, accommodation, facilities, etc. The products are a set of interrelating services of the central and the peripheral services.

Kerala, 'God's Own Country' has emerged as the most acclaimed tourism destinations in the country. Beaches, warm weather, backwaters, hill stations, waterfalls, wild life, ayurveda, year-round festivals and the diverse flora and fauna make Kerala a unique destination for tourists. During the last five years, the state government has been giving very high priority to this sector. Each and every corner of the state offers some beautiful things of attraction to its visitors. Its unique beaches and backwaters fill the mind with the spirit of coolness, peace and leisure. Its beautifully constructed monuments, forts and palaces give a warm welcome to its visitors with its own indigenous stories of legacy, culture, love, sacrifices, etc.

Tourism Products

Central Services	Peripheral Private Services	Peripheral Public Services
A. Transport Air, Sea, Railway, Car hire. **B. Attractions** Parks, Zoo, Heritage Centres, Monuments, Physical landscape. **C. Accomodation** Hotels, Motels, Guest Houses, Farms, Holiday Centres, Apartments, Villas, Chalots, Camp and Campsites. **D. Catering** Restaurants, Motorways, Service Cafes, Fast-food Outlets, Public Houses	Travel Insurance Marketing-printing Advertising Travel Agents, Distributors of Literature, Teletaxi/Car Coach Operations, Private Education Training Establishment, Private Ports, Air Planes, Marines, Banking Travel Cheque Cumae Shops	Government Organisation, Regional Tourist Organisations, Information Centres, Tourism Department (KTDC), Public Education and Training Establishments, Public Ports, Airports, Visa/ Passport Offices, Customs and Excise Services, Police, Medical, Sanitation/Cleaning

Source: Tourism Products modified from D.C Gilbert: Conceptual issues in the marketing of Tourism, Page 7, and S.M Jha Service Marketing, P.185 HPH, 1994.

The Major Backwaters and Beach Destinations of Kerala

District	Backwaters	Beach
Thiruvananthapuram	Thiruvallam Veli Akkulam Boat Club	Kovalam Varkala Shanghumukham
Kollam	Alumkadavu Astamudi Lake	Thangasseri Thirumullavaram
Alappuzha	Kuttanadu Pathiramanal	Alappuzha
Kottayam	Kumarakom	
Ernakulam	Kochi	Cherai Fort Kochi
Kozhikode	Elathur, Canola Canal Kallai River	Beypore Kappad
Kasargod	Chandragiri Valiyaparamba	Pallikere Kappil Kanwatheertha
Malappuram		Tanur Padinjarekara Vallikunnu
Kannur		Muzhappilangad Ezhimala Payyambalam Kizhunna Ezhara Dharmadam

Source: Kerala Tourism Organisation, Essentials of Kerala

Major Monuments of Kerala

Districts	Monuments
Thiruvananthapuram	Padmanabhaswamy Temple Kuthiramalika Napier Museum Sree Chithra Art Gallery
Alappuzha	Krishnapuram Palace
Ernakulam	St. Francis Church Santa Cruz Basilica Mattancherry Palace Jewish Synagogue Bolgatty Palace Hill Palace Museum
Palakkad	Palakkad Fort
Kozhikode	Thali Temple
Wayanad	Ambalavayal Heritage Museum
Kannur	St. Angelo Fort Thalassery Fort Thodeekulam Siva Temple
Kasargod	Bekal Fort Ananthapura Lake Temple

Source: Kerala Tourism Organisation, Essentials of Kerala

The Hill Stations and Wildlife Sanctuaries of Kerala

Districts	Hill Stations	Wildlife Sanctuaries
Thiruvananthapuram	Ponmudi	Peppara Neyyar
Idukki	Munnar Mattupetty Rajamala Marayoor Devikulam Wagamon	Periyar Tiger Reserve Idukki Wildlife Sanctuary Eravikulam National Park Chinnar Wildlife Sanctuary
Palakkad	Nelliyampathi Attapadi Dhoni	Parambikulam Wildlife Sanctuary
Kozhikode	Peruvannamuzhi Tusharagiri	
Wayanad	Vythiri Pakshipathalam Chembra Peak Lakkidi	Wayanad Wildlife Sanctuary
Kannur	Pythal Mala Ezhimala	
Kasargod	Ranipuram	
Kollam		Shenduruni
Kottayam		Kumarakom
Ernakulam		Thattekkad Bird Sanctuary
Thrissur		Chimmini Wildlife Sanctuary

Source: Kerala Tourism Organisation, Essentials of Kerala

Foreign Tourists Arrivals in Kerala

Table 1

Foreign Tourists Arrivals

Year	Number of Foreign Tourists	% Increase
1999	2,02,173	6.44
2000	2,09,933	3.84
2001	2,08,830	-0.53
2002	2,32,564	11.37
2003	2,94,621	26.68
2004	3,45,546	17.28
2005	3,46,499	0.28
2006	4,28,534	23.70
2007	5,15,808	20.37
2008	5,98,929	16.11
2009	5,57,258	-6.96
2010	6,59,265	18.31
2011	7,32,985	11.18
2012	7,93,696	8.28

Source: Kerala Tourism Statistics 2011, Department of Tourism.

From the above table it is clear that foreign tourists' visits in Kerala are increasing year by year. Compared to the previous year, it shows a decline in 2001 and 2009. Foreign tourists' visits in Kerala during 2011 was 7,32,985 and in the previous year it was 6,59,265. That is compared to the previous year where it showed a growth of 11.18%. Again in 2012, it increased to 8.28%.

Domestic Tourists' Visits in Kerala

From the table given below, it is clear that the domestic tourists' visits to the various tourist sites of Kerala are also increasing year by year. Compared to the previous year it showed a decline only during the year 2005. Domestic tourists'

visits in Kerala during 2011 were about 9.40 million as compared to 8.60 million during the previous year. The growth of the domestic tourists' visits during the year was 9.15% and it increased to 7.41% in 2012.

Table 2

Domestic Tourists' Arrivals

Year	Number of Domestic Tourists Arrivals	% Increase
1999	48,88,287	9.07
2000	50,13,221	2.56
2001	52,39,692	4.52
2002	55,68,256	6.27
2003	58,71,228	5.44
2004	59,72,182	1.72
2005	59,46,423	-0.43
2006	62,71,724	5.47
2007	66,42,941	5.92
2008	75,91,250	14.28
2009	79,13,537	4.25
2010	85,95,075	8.61
2011	93,81,455	9.15
2012	100,76,854	7.41

Source: Kerala Tourism Statistics 2011, Dept. of Tourism

FINDINGS

The natural beauty, lush green surroundings, peaceful atmosphere, rich heritage, etc. had attracted the foreign and domestic tourists to Kerala over the years. Every district in the state is provided with beautiful tourists' attractions. From the study it is clear that the foreign tourists' arrivals and the domestic tourists' visits to important places of attractions in Kerala are increasing year by year. The foreign and the domestic tourists' visits to Kerala showed a growth of 8.28% and 7.41% respectively during the year 2012.

CONCLUSION

Kerala's tourism remains as a super brand among all the other states in India due to its rich cultural and geographical diversities, wide range of tourists' products and experiences which include leisure, culture, adventure, spirituality, eco-tourism, wellness and health, etc. Kerala has become one of the most wanted tourists' destinations because of the efforts made by the government and all the stakeholders associated with it during the last ten years. But, there are many things to be considered seriously in order to maintain status quo or to attain the real peak status we actually deserve. Constant attention for improving the infrastructure and the environment, i.e. physical, ecological, cultural and social, are required, not in the mind of any one group but in all of us in order to make our state the real "God's Own Country".

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EMPLOYEE DEVELOPMENT STRATEGIES IN PRIVATE SECTOR BANKS IN KERALA

***T. Rajesh**

Abstract

Every organisation needs the services of trained persons for performing the activities in a systematic and effective way. Training is the process of increasing the knowledge and skills for doing a particular job. It is a systematic programme of an organisation which aims at improving the aptitudes, skills and abilities of the employees to perform a specific job. Development refers to those learning opportunities designed to help the employees grow. It aims to improve the overall personality of an individual. With a view to improving the quality of human services, the Private Sector Banks now adopts various schemes of training to the employees. This paper explores the various training programmes available to private sector bank employees in Kerala.

Key words:- Training, Development, On-the-Job Training, Off-the-Job Training, Training Curriculum.

In modern industrial organisations, the need for training of employees is widely recognised in order to keep the employees in touch with the latest technological developments. After the newly appointed employees have joined an organisation, the next phase of the personnel programme is to impart necessary training to them. It is a long-term educational process. Managerial personnel learn conceptual and theoretical knowledge for a general purpose through a systematic and organised procedure.

With the advancement in technology and the spread of business on a global scale, it has become important for organisations to concentrate on training their employees to meet global challenges. Mere selection of the employees does not ensure that an organisation will be successful. It has to train them to face the continuous challenges of a competitive business world. Training enables the

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employees to do their job more efficiently and prepare themselves for a higher job level.

Michael Armstrong defines training as 'the systematic development of the knowledge, skills and attitudes required by an individual to perform adequately a given task'. According to Edwin B Flippo, training is 'the act of increasing knowledge and skill of an employee for doing a particular job'.

Training is the process of increasing the knowledge and skills for doing a particular job. It is a systematic programme of the organisation which aims at improving the aptitudes, skills and abilities of the employees to perform a specific job. Development refers to those learning opportunities designed to help the employees grow. It is a long-term educational process. Managerial personnel learn conceptual and theoretical knowledge for general purpose through a systematic and organised procedure. Development aims to improve the overall personality of an individual. With a view to improving the quality of human services the Private Sector Banks (PSBs)now adopts various schemes of training to employees.

Training is the process of increasing the knowledge and skills for doing a particular job. It is a systematic programme of the organisation which aims at improving the aptitudes, skills and abilities of the employees to perform a specific job.

OBJECTIVES

The main intent of the study is to evaluate the perception of employees regarding developing strategies in the banking industry and also to examine whether they are satisfied with the sufficiency of the trainng programmes.

Methodology and Data Base

The present study is analytical and descriptive in nature. Both primary and secondary data were used for the study. The primary data were collected from the sample respondents based on the structured interview schedule. The secondary data were collected from the records of the banks under study, official publications of the RBI, Government of India and Government of Kerala, books, periodicals, reports and the internet.

Selection of Sample

The population for the study consists of employees of PSBs. For intensive study, 120 employees were selected on purposive sampling technique.

Tools for Analysis

The data collected were suitably classified and analysed keeping in view the objectives of the study. For the purpose of analysis, statistical tools such as average, percentages, F test, chi-square test and confidence limit were used. The chi-square test was applied to examine the significance of variation in the opinion among the respondents.

Variables used for Analysis

The following variables have been analysed for reviewing the training practices of the PSBs.

1. Area of training.
2. Duration of training.
3. Criteria followed for the selection of trainees.

A detailed discussion on the above mentioned variables is given below:

Area of Training

The PSBs currently perform most of its functions through computersation. This necessitates the need for imparting proper training among the employees at various levels. The important areas of training for the benefit of the employees of the PSBs include computer-oriented work, basic accounting and practical training on business.

Table 1 shows the area of training on computer-oriented work attended by the different levels of employees of the PSBs.

Table 1

Level-wise Classification of the Sample Employees of the PSBs showing Participation in Training on Computer-Oriented Work

Sl. No.	Level of Employees	Number of Employees		Total
		Attended	Not attended	
1	Lower	61.34	38.66	100.00
2	Middle	75.89	24.1	100.00
3	Executive	74.00	26.00	100.00
	Total	**67.00**	**33.00**	**100.00**

Source: Survey Data.

Figures are percentages of their respective totals.

*Chi-square value: 8.557**

Significance level: 0.014

** Significant at 5% level.*

It is clear that out of the employees surveyed, 67% have attended the training on computer-oriented work organised by the PSBs. The level-wise classification of the employees shows that the percentage share of the middle level employees (75.89%) is more in this respect followed by the executive level employees (74.00%) and the lower level employees (61.34%). The application of Chi-square test shows that this difference between the three levels of employees is significant at 5% level.

Another important area of training provided by the PSBs for the benefit of the employees is basic accounting. Table 2 shows the level-wise classification of the sample employees of the PSBs who have attended the training on basic accounting area.

Table 2

Level-wise Classification of the Sample Employees of PSBs showing Participation in Training on Basic Accounting

Sl. No.	Level of Employees	Number of Employees		Total
		Attended	Not attended	
1	Lower	19.75	80.25	100.00
2	Middle	31.25	68.75	100.00
3	Executive	46.00	54.00	100.00
	Total	**26.25**	**73.75**	**100.00**

Source: Survey Data.

Figures are percentages of their respective totals.

*Chi-square value: 16.718**

Significance level: 0.000

** Significant at 5% level.*

Table 2 reveals that the majority of the employees of PSBs (73.75%) had not

attended the training on basic accounting. The level-wise analysis shows that only 19.75% lower-level employees attended the training on basic accounting. The percentage share of the executive-level employees in this respect is 46.00% and among the middle-level employees it is 32.25%. The statistical test proves the difference between the three levels of employees in the participation of the training on basic accounting is significant. The diagrammatic representation of this difference is shown in Table 8.

In order to impart an idea about the practices and procedures followed in its business, PSBs provide practical training on business to the employees.

Table 3 shows the levels of the employees of the PSBs who attended practical training on business.

Table 3

Level-wise Classification of the Sample Employees of PSBs Showing Participation in Practical Training on Business

Sl. No.	Level of Employees	Number of Employees		Total
		Attended	Not attended	
1	Lower	28.15	71.85	100.00
2	Middle	49.11	50.89	100.00
3	Executive	56.00	44.00	100.00
	Total	**37.5**	**62.5**	**100.00**

Source: Survey Data.

Figures are percentages of their respective totals.

*Chi-square value: 22.614**

Significance level: 0.000

**Significant at 5% level.*

Out of the employees surveyed, only 37.5% employees attended practical training on business. 56% executive level employees and 49.11% middle level employees attended this training. But majority of the lower level employees (71.85%) had not attended the training. This difference between the three levels of employees is statistically significant.

Duration of Training

The duration of the training programmes conducted by the PSBs for the benefit of the employees varies from 3 to 90 days. The duration of computer-oriented training programme attended by the employees of PSBs is depicted in Table 4.

Table 4

Level-wise Classification of the Sample Employees of the PSBs Showing Mean Duration of Computer-Oriented Training Attended

Sl. No.	Level of Employees	Duration of Training		'F' value	Significance level
		Mean	S.D.		
1.	Lower	3.53	34.97	1.129	0.325
2	Middle	26.20	42.49		
3	Executive	35.35	49.05		
	Total	**31.45**	**39.62**		

Source: Survey Data.

Table 4 states that the mean duration of training on computer-oriented work attended by the employees of PSBs is 31.45 days. It is 35.35 days among the executive level employees and 33.53 days among the lower level employees. However, the mean duration of training

in this area attended by the middle level employees is only 26.20 days. However, the analysis of variance ('F' test) shows that the difference between the three levels of employees in the duration of training attended on computer-oriented work is not significant.

The average duration of training on basic accounting attended by the different levels of employees of PSBs also points to the insignificant difference between the three groups.

Table 5

Level-wise Classification of the Sample Employees of the PSBs Showing Mean Duration of Training on Basic Accounting Attended

Sl. No.	Levelof Employees	Duration of Training		'F' value	Signifi-cance level
		Mean	S.D.		
1.	Lower	6.57	2.45	0.552	0.577
2	Middle	10.40	29.60		
3	Executive	10.91	20.43		
	Total	**8.80**	**19.53**		

Source: Survey Data.

As regards the duration of training attended on basic accounting, executive level employees enjoyed better position (10.91 days) whereas the average duration of middle level and lower level employees is only 10.40 days and 6.57 days respectively.

The mean duration of training on practical business attended by the employees of PSBs is given in Table 6.

Table 6

Level-wise Classification of the Sample Employees of PSBs Showing Mean Duration of Training on Practical Business Attended

Sl. No.	Level of Employees	Duration of Training		'F' value	Signifi-cance level
		Mean	S.D.		
1.	Lower	6.15	2.53	4.269	*0.016
2	Middle	4.80	2.47		
3	Executive	11.96	24.62		
	Total	**6.74**	**11.03**		

Source: Survey Data.

** Significant at 5% level*

The mean duration of training attended on practical business of the sample survey is 6.74 days. The average duration of training on practical business area attended by the executive level employees is 11.96 days. The percentage share of middle level and lower level employees is only is 4.8 days and 6.15 days respectively. The analysis of variance ('F' test) shows that the difference in the duration of the training attended by the three levels of employees is statistically significant at 5% level.

Criteria followed for the selection of Trainees

The criteria followed by the PSBs for the selection of employees for training are seniority, efficiency and non-attendance in any training programmes.

Table 7 presents the opinion of employees regarding the criteria adopted for selecting the trainees. It is clear that non-attendance in training (40.75%) and

'seniority' (31.25%) are the major criteria followed for the selection of employees for training. However, the Chi-square test shows the difference in opinion among the employees of PSBs in this respect is statistically not significant.

Table 7

Level-wise Classification of the Sample Employees of PSBs Showing the Criteria Followed for Selection of Trainees

Sl. No.	Level of Employees	Seniority	Efficiency	Non- attendance in any training	Others	Total
1.	Lower	27.73	13.45	41.59	17.23	100.00
2.	Middle	38.39	10.72	35.71	15.18	100.00
3	Executive	32.00	8.00	48.00	12.00	100.00
	Total	31.25	12.00	40.75	16.00	100.00

Source: Survey Data.

Figures are percentages of their respective totals.

Chi square value: 6.171

Significance level: 0.404

Training Provided Before Placing in a Job

This type of training is given to help a new entrant for adapting himself to the new environment. This training helps an employee to acquaint himself about the policies, procedures and rules which are related to his work. It also enables an employee to get an awareness about his position/status in the enterprise in relation to the other employees. Table 8 denotes the opportunity of initial training provided to the employees before they are placed in a job.

Table 8

Level-wise Classification of Employees of Private Sector Banks Showing Initial Training Provided before being Placed in a Job

Sl. No.	Level of Employees	Initial training attended		Total
		Yes	No	
1	Lower	15.13	84.87	100.00
2	Middle	21.43	78.57	100.00
3	Executive	22.00	78.00	100.00
	Total	**17.75**	**82.25**	**100.00**

Source: Survey Data.

Figures are percentages of their respective totals.

Chi-square value: 2.779

Significance level: 0.249

It is clear from the opinion of the sample respondents that a vast majority of the employees of PSBs (82.25%) were not provided training before they were placed in a job. However, the application of Chi-square test shows that that there is no significant variation in the views of different levels of employees of PSBs in this respect.

Method of Training Adopted

The following types of training are generally adopted by the PSBs to train the employees.

1. On-the-job training.
2. Off-the-job training.

In the case of on-the-job training, the employee is trained on the job and is provided at his work place. Off-the-job training consists of lectures, conferences, group discussions, case studies,

programme instructions, etc. The choice of a method or a mix of methods is a function of a number of considerations. The views of employees in respect to the method of training followed by the PSBs are exhibited in Table 9.

Table 9

Classification of the Sample Employees of PSBs Showing the Method of Training Imparted

Sl. No.	Level of Employees	Number of Employees attended		Total
		On-the-job training	Off-the-job training	
1	Lower	44.95	55.05	100.00
2	Middle	36.61	63.39	100.00
3	Executive	46.00	54.00	100.00
	Total	**42.75**	**57.25**	**100.00**

Source: Survey Data.

Figures are percentages of their respective totals.

Chi-square value: 2.417

Significance level: 0.299

Table 9 reveals that both on-the-job training and off-the-job training methods are used by the PSBs to train its employees. The survey data shows that 57.25% of the sample respondents have got the benefit of off-the-job training methods. The middle level employees have the highest percentage in this respect (63.39%) followed by lower level (55.05%) and executive level (54.00%) employees. However, the Chi-square test result points out the fact that the views of different levels of employees in this case are not significant.

Provision of Training at the Right Time

Training facilities are to be provided to employees at the right time. It helps the employees to qualify for a job, do the job or advance the job. Table 10 denotes the views of the employees whether they were provided training at the right time.

Table 10

Level-wise Classification of the Employees Showing the Opinion about Provision of Training at the Right Time

Sl. No.	Level of Employees	Whether Training was provided at the Right Time		Total
		Yes	No	
1	Lower	39.50	60.50	100.00
2	Middle	45.54	54.46	100.00
3	Executive	38.00	62.00	100.00
	Total	**41.00**	**59.00**	**100.00**

Source: Survey Data.

Figures are percentages of their respective totals.

Chi-square value: 1.361

Significance level: 0.506

The majority of the employees (59.00%) of PSBs are of the opinon that they are not given training at the proper time. The level-wise analysis shows that 45.54% of the middle level employees got training at the right time. The percentage share in this respect among the lower level employees and executive level employees is 39.50% and 38.00% respectively. However, the application of Chi-square test reveals that this difference is not significant.

Suitability of the Training Provided to Cope with the Changes in Technology

Training facilities are provided to employees to cope with the technological changes in the field. The basic objective is to assist the employees to learn the new technology. Now, PSBs perform many of its functions through computers. New branches are fully computerised. This necessitates the need for providing sufficient training in adapting oneself to the changes that occur in policies, systems, methods, rules and facilities of the organisation.

Table 11

Level-wise Classification of Employees of PSBs Showing the Opinion on Training Provided to Cope with the Changes in Technology

Sl. No.	Level of Employees	Whether Training is provided to cope with Changes in Technology		Total
		Yes	No	
1	Lower	54.62	45.38	100.00
2	Middle	62.50	37.5	100.00
3	Executive	64.00	36.00	100.00
	Total	**58.00**	**42.00**	**100.00**

Source: Survey Data.

Figures are percentages of their respective totals.

Chi-square value: 2.785

Significance level: 0.248

Table 11 indicates the opinion of the employees as regards the training provided to them to cope with the changes in technology. 58% of the employees are satisfied with the technological changes provided to them. The level-wise classification of the employees shows that the percentage share of the executive level employees (64.00%) is more in this respect followed by the middle level employees (62.50%) and the lower level employees (54.62%). However, this difference of opinion between the three levels of employees is statistically not significant.

Sufficiency of Training Opportunities

A well-educated and well-trained work force is not only an economic resource but also a nation's greatest form of capital. Every organisation needs specialised employees to perform specialised jobs according to the changes that takes place both inside and outside the organisation. The efficiency of any organisation depends directly on how well its members have been trained. Therefore, imparting sufficient training is very essential for the success of the organisation. Table 12 expresses the views of the employees of PSBs regarding sufficiency of training opportunities provided to them.

Out of the employees surveyed 70.75% employees responded that they are not given sufficient training opportunities and only 29.25% of the employees got the benefit of training opportunities. The percentage share in this respect is more among the middle level employees (33.93%) compared to the executive level (28.00%) and the lower level employees (27.31%). The application of the Chi-square test shows that this difference of opinion between the three levels of employees of PSBs is statistically not significant.

Table 12

Level-wise Classification of the Views of Employees regarding Sufficiency of Training Opportunities

Sl. No.	Level of Employees	Sufficiency of Training		Total
		Yes	No	
1	Lower	27.31	72.69	100.00
2	Middle	33.93	66.07	100.00
3	Executive	28.00	72.00	100.00
	Total	**29.25**	**70.75**	**100.00**

Source: Survey Data.

Figures are percentages of their respective totals.

Chi-square value: 1.655

Significance level: 0.437

FINDINGS

1) 67% have attended the training on computer-oriented work organised by the PSBs.

2) A majority of the employees of PSBs (73.75%) had not attended the training on basic accounting.

3) Only 37.5% employees attended the practical training on business.

4) Non-attendance in training (40.75%) and 'seniority' (31.25%) are the major criteria followed for selection of employees for training.

5) A vast majority of the employees of PSBs (82.25%) were not provided training before they are placed in a job.

6) 57.25% of the sample respondents have got the benefit of off-the-job training methods.

7) A majority of the employees (59.00%) of PSBs are of the opinon that they are not given training at the proper time.

8) Out of the employees surveyed, 70.75% responded that they are not given sufficient training opportunities.

CONCLUSION

All newly recruited employees are not well versed practically with the job allotted to them. So, there should be a proper induction training in an organisation. But in the PSBs of Kerala, this practice is not popular. In addition, the training practices in the PSBs of Kerala also suffer from problems such as obsolete training curriculum, critera for selection of on-the-job trainees, etc. All these factors cumulatively lead to low satisfaction of employees in training. These inadequacies and inefficiencies should properly be addressed. The training and development of the employees should therefore be a core theme for the HRM practices of the PSBs.

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

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Prof. S. Krishnan Nair

Publisher

WORKAHOLISM IN ORGANISATIONS WITH SPECIAL REFERENCE TO SOFTWARE COMPANIES

***Sumi K.V**

Abstract

Workaholism is an addiction, like alcohol, to work. It is a major problem in almost every organisation especially software companies. Employees are compelled to work without rest. They are required to sacrifice their personal life and physical well-being. Workaholism do not contribute profits to a company instead it demolishes the efficiency of the knowledge workers in an organisation. Knowledge workers can contribute their potential in a satisfied atmosphere. Frequent compulsions may hamper their quality at the workplace. Workaholism is a major threat in the current age of information technology.

Key words:- Workaholism, NASSCOM, Addiction, Dedication, Knowledge Workers.

Software industry in India has achieved an iconic status in the economy, and is considered as a highly significant economic growth engine for the success of the nation. Advances in information technologies have revolutionised government, scientific, educational, engineering and commercial enterprises. Powerful personal computers, supercomputers, high speed internet facility at low cost and wireless networking technologies have made the industry grow at the highest potential. The revenue from the Indian software sector has grown from 1.2% in the FY1997-98 to nearly 8.1% in the FY2013-14. India continues to maintain leadership position in the global sourcing arena, accounting for almost 55% of the global sourcing market size in 2013 as compared to 52% in 2012. Abundant supply of low cost human resource has been one of the major factors contributing to the growth of the Indian software industry.

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However, the high rate of growth has also been the cause of an increase in the cost of manpower, high attrition and disturbed work-life balance.

Most of the comparative advantages of the Indian software industry are based on the availability of qualified and talented manpower at much lower rates compared to the other developing countries in the world. The Indian software industry is outstanding with respect to its service rather than product-oriented, heavily export-oriented, and is largely managed by professional and entrepreneurial managements. But there still remain the widely reported shortages of skilled software professionals and the possible competition from other low-wages human-capital-rich countries. The Indian firms are trying to move up the value chain by acquiring deeper knowledge of the business domains and management capability, and to reduce costs by developing superior methodologies and tools. Whether these firms will succeed will depend critically on their management skills and willingness to invest along a number of dimensions.

Most of the comparative advantages of the Indian software industry are based on the availability of qualified and talented manpower at much lower rates compared to the other developing countries in the world.

The Indian software industry enjoys a very distinct advantage of a stable political environment, favourable government policies, a large base of English speaking graduates, healthy relationships with the existing global clients, telecom infrastructure and NASSCOM - National Association of Software and Services Companies. Besides this, the Indian software industry also boasts of a low cost advantage, a variety of service offerings from a low-end application development to a high-ended integrated IT solution, a high quality of service offerings and a maturity in the processes. Such huge success in the industry is mainly due to the outstanding performance of the human resources in the organisation. Even though proper steps have been taken to manage these resources and keep them satisfied, still the attrition rate is high in the software industry. The attitude of supervisors also hampers the proper working of the professionals in an organisation. There are superiors who are very rigorous and addicted to work. They love their work and dedicate their full time in their workings. As they naturally push themselves as hard as possible, they push their employees with the same vigour also. They have no other engagement apart from their work. They have no consideration for their family and its relationship. They are thus called workaholics. It is like addiction to alcohol. Their addiction is towards work and has no consideration for their belongings.

Workaholic means someone who spends extraordinary time or effort at his

or her work. A positive workaholic is one who is completely dedicated to work beyond anything and everything. They spend every minute of their time in doing their work with as much enthusiasm and love for their job. Such a person is highly committed and dedicated to the goals of the organisation, and hence he is a team player who can be relied upon. In the software development companies, a majority of the superiors are of such nature. Software professionals are highly committed to their work and with such high dedication, make their organisations huge successes. Software professionals are knowledge workers. They need enough and more time to complete their tasks at the time of product release. A workaholic supervisor makes their subordinates complete their tasks without food, rest, and respite. They are ready to work without any basic necessities. As a result the employees working under such a workaholic get dissatisfied with their jobs. They get depressed, frustrated and even suicidal attempts creep into their minds. Even though the organisation benefits a lot from such a supervisor, the employees getting frustrated, will be compelled to search for other jobs. On the other hand, there are many people who put in long hours at work, but still get back to their families and friends and enjoy extra-curricular activities outside their workplace in their free time. These people are hard workers, but not workaholics. There are significant differences between hard workers and workaholics.

The following are the differences between hard workers and workaholics:

Basis of Distinction	Hard workers	Workaholics
Outside Interests	Have outside interests at free time such as spending time for tours with families and friends.	Have no outside interests. Only love for their work. Total disregard for their family and friends.
Health Problems	Health problems are limited. They have time to relax, exercise and for recreation.	Hugh problems with regard to their physical and mental health conditions. Suffer from high depression.
Handling unforeseen Events	They have a positive attitude to work. Any unforeseen demands are handled with confidence.	They have a negative attitude to work as a result unforeseen demands make them frustrated.
Impact on Subordinates	Hard-working superiors make their subordinates work hard, but also give them time for entertainment.	Workaholic superiors frequently push their subordinates as hard as they push themselves.

Symptoms of Workaholism

Many people will not admit they are workaholics. They often misinterpret themselves as hard working instead of workaholics. From the following symptoms one can judge whether one is workaholic or not:

- Working for more than 40 hours per week;
- Continuous urge to prove to be the best among their colleagues;
- Feeling of intense insecurity of the work; and
- Inability to balance personal life with work life.

Workaholic Companies

Workaholic companies are machines that burn people out. They do not care about creating teams. They exploit the enthusiasm of young people and dry them up. One indicator of a workaholic company is that its contractors rarely stay with it for more than a few years. Employers often require their subordinates to be dedicated like them. Their intension is to put everyone in their 'shoes'. Companies often boast to their employees to consider the workplace as their home. It is just a technique to make the employees feel relaxed but the inner intention is to make them workaholics. A workaholic company needs you more than you need it.

Major MNCs prefer only workaholic people. By nature, people may not be addicted to work, but by providing more monetary and fringe benefits, companies attract talented youths. Such employees are compelled to work long hours for the company. Indirectly these MNCs are reaping twice the benefit they provide their workforce. Prospective employees should not fall into the hands of such giants. They must have the capacity to identify the companies that could satisfy their needs. Working for money makes an employee lose the pleasures of life. They get many health problems too. If a person is broken physically and mentally, there will be no income. We take a job for sustaining ourselves and our families. If everything is lost and work alone remains, there will be no meaning to life.

Before accepting an offer from a company with regard to job proposal, one should have a detailed understanding of the policies and rules of the company. One should collect information with regard to the following:

1. Performance appraisal policy;
2. Deadlines of the projects;
3. If something goes wrong what measures will be adopted by the company;
4. Is there any grievance handling machinery;
5. Past and present working levels of the company; and
6. Career development opportunities in the company.

We may not know whether the company we are about to work with is a workaholic company or not. After working in a particular company, only then will they recognise the fact that they are trapped. So the strategy is to keep

working with sanity. Always be fearless in asking questions to the superiors in front of others, whenever a doubt occurs. Workaholism affects everyone, but not everyone feels free to speak up. If we are shy of asking questions, the ultimate sufferer will be we ourselves.

If the culture of a company as a whole promotes workaholism, then that employer might not be happy with you for pointing it out. The employer always thinks that an employee who works eight hours a day does not work enough, and that he will tempt others to work less. It is not going to be easy, but it is worth the effort. If an employee can demonstrate that workaholism is destructive, then the culture of the company can be changed, which in turn will be a huge success.

Abandoning Workaholism

Modern businesses need strong teams, not overworked individuals. Working for long hours do not contribute much profit to the company instead it costs more. Today, companies need healthy environments, with people who care as much for their teammates as they do for their products. Wokaholism is very harmful to a person's personal and physical life. So it is very important to fight against workaholism. One can restrict workaholism in the following ways:

1. Never prefer a job in a workaholic company. Although it provides huge monetary benefits, it will suck the blood of employees by making them work;
2. Reject workaholism with courage;
3. Understand workaholics and be strong to fight against them;
4. Try to terminate the job in a workaholic company at the earliest; and
5. Spread the word.

Employers are responsible for workaholism, but if the software professionals reject workaholic companies, then these employers will have to change their ways. In order to attain success in software development human resources are essential. So the companies will have to change their workaholic culture if everyone strongly rejects it.

Negative Effects of Workaholism

Workaholism poses serious side effects to both the employees and the employers. It is highly harmful to the organisation. It reduces the profits of the company. Josh Tolan, CEO of Spark Hire states that over 150 years of research proves that long hours kills profits, productivity, and employees. For every extra hour worked, there is a direct cost to your employees. By working more hours in a day, many employees make trade-offs without considering their long-term effects. It is all too common for a workaholic's priority list to quickly become dishevelled as their work-related items drive the disappearance of previously meaningful tasks.

The ill effects of workaholism are detailed below:

1. It is hazardous to health. There is a 67% increase in the risk of developing heart diseases for those who put in 11 hours a day as against those who put in 8 hours.
2. There is an increased likelihood of alcohol abuse. It is 3 times more

likely that those who work 50-plus hours a week will develop the problem of alcohol abuse.

3. It kills productivity. 50% of the employees will become less productive as a result of stress.
4. Loss of sleep is equal to small intakes of alcohol. 20 hours without sleep is equal to an increase of 0.1% blood alcohol level, which is the equivalent to 5 or 6 drinks (for people who weigh 160 to 180 pounds).

Tolan suggests that work is a team effort. With the joint commitment of the members of a team to solidify time off, workaholics have been shown to communicate more and hold each other accountable for working past 40 hours.

Reason for Attractions towards the Software Development Field

In the software industry, workaholics can be found in a bunch when compared to other industries. The main reason for being workaholic is due to their nature of the job. Some of the reasons are explained below:

1. **Estimate variation**: Software development has the nature of research. Whenever a problem arises, these employees have to do a research to find a solution to the problem. Estimates have to be formed with regard to the problem they encounter. There may be variation in their estimates which in turn leads to the consumption of more hours. As a result, software engineers need to work long hours to find a solution.
2. **Creative**: Software development is a highly creative task. Programmers satisfy their ego by doing coding. A majority of the people spend most of their time to get into the good books of their manager. As a result, instead of going home, they spend their time at office for improving themselves.
3. **Performance appraisal:** In software companies, there is frequent performance appraisal. At the time of the appraisal, the person who outperforms the others are rewarded. Everyone wants to surpass their colleagues. As a result working for longer hours is often opted to compete with the others.
4. **Insecurity of job:** Software engineers have highly insecure jobs. Even though they perform for long hours, if their project fails, they will be fired. Most of the software companies are service companies and they have projects from other countries. If only few projects are outsourced, poor performers will be fired. Software professionals are ready to work for long hours by sacrificing their family and friends due to the insecure nature of their jobs.
5. **Low self-esteem:** Employees have the fear that if they do not work long hours, they will be judged as inefficient workers. By staying longer time in the office, it is often considered a matter of ego and is considered an efficient employee.

6. **Severe fear of failure:** Work in software companies has high chance of failure. High concentration and commitment is often required. Any minor mistake may lead to failure of the proposal. Such fear make the employees work whole-time without rest.

7. **Personal problems:** People may come from various backgrounds. If a person needs to support a big family, or need to repay a huge loan, they become workaholic. Such personal problems are a major cause for the people to become workaholic.

CONCLUSION

Workaholism is a symptom of the modern society. We live in a culture where productivity is paramount and the boundaries between leisure and work are no longer clear. Workaholism in the software industry is a serious illness which needs to be treated like cancer. Workaholics report higher levels of stress and major health problems. They are often unwilling to delegate their work which can sometimes lead to slow progress and reduction in efficiency. A satisfied workforce is the success of any organisation. In software companies human resources alone contribute a major share of income. They are the knowledge workers who require high concentration and commitment to perform the task. If they are under stress and pushed to work for long hours, their efficiency and interest in the job gets reduced. There is high chance of heart attacks and suicide attempts due to the workaholic culture prevailing in the software industry. So it is highly essential to fight against workaholism and must terminate jobs from workaholic companies.

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ACTIVITY BASED COSTING AND ACTIVITY BASED MANAGEMENT ON PERFORMANCE OF COMPANIES - AN OVERVIEW

***Shahab Shoghi Beige, ** Resia Beegam S**

Abstract

Traditional management and traditional accounting systems made misdirect costs in the current and amorphous, often changing business environment. The implementation of the Activity Based Costing (ABC) and the Activity Based Management (ABM) would remedy this. The purpose of this paper is to corroborate the new cost systems such as ABC and ABM could make sure competitiveness and efficiency for each company. Companies carry out the ABC and the ABM systems for improving the tracing of costs to objects, premiere allocation of overheads to cost objects, financial and non-financial analysis and measures useful to manager and management accountants in decision making process.

Key words:- ABC, ABM, Implementation Process, Globalisation, TQM.

The process of globalisation has changed the focus of business and industry all over the world. Customer satisfaction is the driving force of all economic activities. After liberalisation the two major factors which have direct bearing on corporate performance are quality and cost. In this liberalised competitive economy, costs have once again become relevant and in the overall technical, managerial and administrative environment, quality has become very important. Quality and cost are the twin canons which will determine whether the enterprise will grow or wither away. As competition hots up, these two forces will receive sharper focus and emphasis. With change of time, the

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environment of business is also changing fast. In today's highly competitive business environment, companies need to identify and measure those strategic activities which lead to future financial success. Traditional measurement systems and measures of performance often fail to provide information to manage a business.

Changes in the business environment triggered by global competition and technological innovation, have led to innovations in the use of financial and nonfinancial information in organisations. The new environment demands relevant information and data about costs and performances within the organisation's activities, processes, products, services and customers.

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As per Kaplan & Cooper, 1998, leading companies usually use their cost systems to:

- design products and services that both meet the expectations of the customers and can be produced and delivered at a profit;
- signal where either continuous or discontinuous improvements in quality, efficiency and speed are needed;
- assist employees in their learning and continuous improvement activities;
- guide product mix and investment decisions;
- negotiate the price, product features, quality, delivery and service with the customers; and
- efficient and effective distribution and service processes to targeted market and customer segments.

Nowadays companies and managers need cost systems to perform three primary functions:

- valuation of inventory and measurement of the cost of goods sold for financial reporting because of the external circumstances with investors, creditors, regulators and authorities;
- estimation of the costs of activities, products, services and customers because of the internal managers' needs to understand and improve the economics of their operations; and
- provide accurate and timely cost information and economic feedback to managers and operators about process efficiency to make both strategic decisions and operational improvements.

ABC and ABM systems emerged to meet the need for accurate information about the cost of resource demands by individual products, services and

customers and these systems also enabled indirect support expenses to be driven first to activities and processes and then to products, services and customers. In this way managers have obtained a clearer picture of the economies of their operations and could improve their decisions.

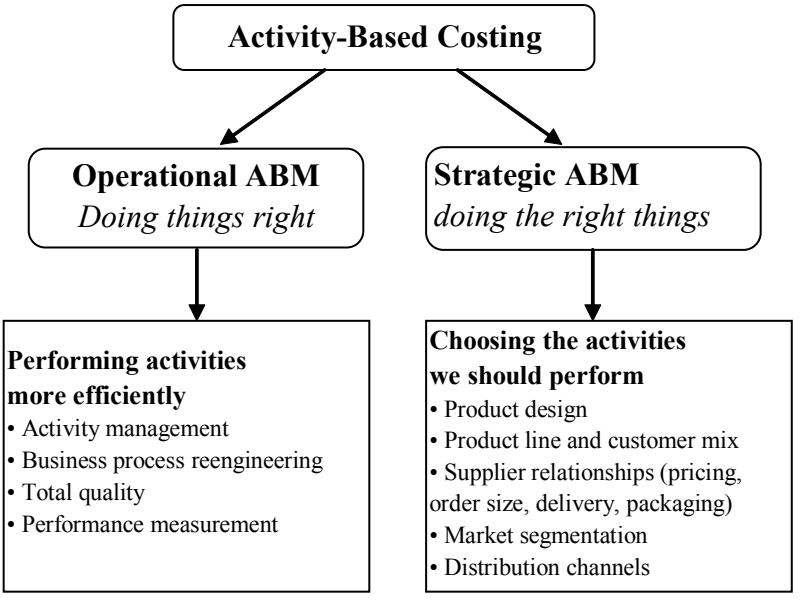
ABC and ABM: An Overview

Activity-Based Costing (ABC) is defined as a methodology that measures the cost and performance of activities, resources, and cost objects. Specifically, resources are assigned to activities, then activities are assigned to cost objects based on their use. ABC recognises the causal relationships of cost drivers to activities. ABC begins with the products of the companies, determines the activities used in the production and delivery of these products, and computes the costs of various activities. The costs of the activities used in the production of a product are then assigned to that product in a manner that approximates a causal relationship. As a result, advocates insist that ABC systems provide more useful information for cost management purposes than traditional systems do. These differences are significant for companies with large amounts of overhead, multiple products, and high product diversity.

In today's competitive environment organisations require a reliable cost system and relevant cost information to survive. By implementing an ABC system, managers can obtain accurate information about the true cost of products, services, processes, activities, distribution channels, customer segments, contracts, and projects. The clearer picture from ABC systems led

Figure 1

Using ABM for Operational Improvements and Strategic Decisions



Source: Adapted by Kaplan & Cooper (1998).

naturally to ABM. ABM enables the organization to accomplish its outcomes with fewer demands on organisational resources.

ABM is subsequently defined by CAM-I (Consortium for Advanced Manufacturing-International) as a discipline that focuses on the management of activities as the route to improving the value received by the customer and the profit achieved by providing this value. ABM includes cost driver analysis, activity analysis, and performance measurement, drawing on ABC as its major source of data. Using ABC data, ABM focuses on how to redirect and improve the use of resources to increase the value created for customers and other stakeholders.

ABM accomplishes its objectives through two complementary applications: operational and strategic.

Operational ABM – It works to enhance efficiency, lower costs and asset utilisation. It can increase the capacity of resources by reducing the machine downtime, improving or eliminating the entirely faulty activities and processes, and increasing the efficiency of the organisation's resources. The benefits from operational ABM can be measured by reduced costs, higher revenues through better resource utilisation and cost avoidance.

Strategic ABM – It explores various ways a company can create and sustain a competitive advantage in the marketplace. It attempts to alter the demand for activities to increase the profitability, encompasses decisions about product design and development where the biggest opportunity for cost reduction exists, and improves relationships with suppliers and customers. Some of the specific uses of ABM in organisations today include attribute analysis, strategic decision-making, benchmarking, operations analysis, profitability or pricing analysis, and process improvement. ABC/ABM systems can use many different attributes or "data tags" for a specific cost. Data attributes allow a company to perform analysis on many different dimensions of a management problem using the same basic store of data.

Organisations that are designing and implementing ABM will find that there are five basic information outputs:

- relevant information about the cost of activities and business processes;
- cost of non-value-added activities - in order to identify the activities that do not contribute to the customer value or the organisation's need and make improvement efforts;
- activity-based performance measures - to provide scorecards, to report how well improvement efforts are working;
- accurate product/service cost (cost objects) information - this is vital for selecting the segmented markets where an organisation competes; and
- cost drivers - in order to identify the factors that can cause changes in the cost of an activity.

Based on business examples, it is stated that companies use the ABC/ABM coupled with varying results. Analysis, not control, must become the focus of the managers using financial and nonfinancial information in a process-driven, customer-centred organisation. Defining, measuring, and improving the ability of an organisation to create value, has to become the stimulus for shaping the management information systems, as well as the actions and decisions they support. Achieving this goal lies at the heart of ABC/ABM systems.

Pursuant to the existing literature in the field (Zimerman, 2001; Lukka & Mouritsen, 2002) there is a need for more rigidity, more testing and more theory. According to them "theorising can be a liberating effort, a try of making sense in our world in a more abstract level than that of merely describing the immediately perceived practice. Testing can be viewed as a seeking to find out the connections that hold in the world. Rigidity again can be about seriousness in finding this out. These propositions offer one set of qualitative criteria to create knowledge - good knowledge, relevant knowledge, insightful knowledge.

The Role of Managers and Management Accountants when implementing ABC/ABM

Management accountants can perform an important role in the design of an ABC system. Based on their skills and training, they can help identify what is appropriate for analysis (product, customer, process, etc.) and explain the probable causes of an existing cost system's deficiencies. In addition, based on their detailed knowledge of the information in their company's costing information systems, they are uniquely qualified to judge the level of aggregation appropriate to the ABC costing system. They can use their understanding of costing methods to recommend appropriate methodologies for the assignment of costs to the activities and the cost objects. Finally, they will be able to use their understanding of the information and cost relationships to support the system once it is implemented.

As with any new management technique or tool, an effective change management process must be in place when implementing an ABC/ABM system. An objective of this process should be to ensure that there is support for the system at all levels of an organisation. This includes having a top-level manager to champion the initiative, as well as acceptance by the lower-level managers.

Besides management accountants and managers, the organization's information technology (IT) systems play an essential role in the implementation process. IT refers to information systems and the organisational planning of the resources required, and acquiring, implementing, delivering and monitoring them. For many years, IT has been playing an important role in the operations of the organisational, strategic and managerial systems. It is often difficult, however, for the generalists, who are mostly the board members, to keep up with the rapid changes taking place in the IT sector, and, therefore, to know what questions to ask to ensure that IT issues are being properly

addressed. The IT systems must provide data that measures the outputs. Collectively, the organisation's IT systems should contain the information about most of the cost objects and the resource and activity cost drivers.

Management practices and methods have changed over the last decade and will continue to change. Organisations are moving from managing vertically to manage horizontally. It is a move from a function-orientation to a process-orientation. Total Quality Management (TQM), Just-in-Time (JIT), Benchmarking and Business Process Reengineering (B&PR) are all examples of horizontal management improvement initiatives. These initiatives are designed to improve an organisation's work processes and activities to effectively and efficiently meet or exceed the changing customer requirements.

Management information systems to track and provide information about the horizontal aspects of a business have lagged significantly behind the needs of its managers. ABC/ABM fills this information need by providing the cost and operating information that mirrors the horizontal views. The focus of ABC is on accurate information about the true cost of the products, services, processes, activities, distribution channels, customer segments, contracts and projects. ABM makes this cost and operating information useful by providing value analysis, cost drivers, and performance measures to initiate, drive or support improvement efforts and to improve decision-making.

CONCLUSION

This paper examined how the mix of ABC and ABM helped the companies to assess the needs of the customers and to provide quality products at competitive prices. Ascertaining the product profitability and customer profitability can contribute effectively in the management's decision-making process. Enterprises can improve their efficiency and reduce the cost without sacrificing the value to the customer. At the time of change, which is inevitable in a business, it is imperative that the management's decision-makers must have an accurate, relevant, flexible, and comprehensive cost accounting system to aid them in their decision making process. Designed to the unique strategy, structure, capabilities, and needs of the company, ABC/ABM is a universally useful concept and system that can take on a multitude of shapes and uses. ABC/ABM data should meet the needs of the company's decision-makers and support their efforts to the higher performance of the companies. Analysis of the critical activities, monitoring the process, and ensuring the results of implementation are rolled out into effective decision-making; all lead to the improved performance of the firms and the organisations.

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Transfer Pricing

Transfer Pricing is referred to the setting of the price for goods and services sold between related legal entities within an enterprise (for example between Vodafone and Hutchinson). This pricing is to ensure fair price in the assets transferred. It occurs when a subsidiary company sells goods to its parent company. The cost of such goods called transfer price attracts Income Tax under capital gains. Circumventing this transfer price norm is the case between Ms. Vodafone and the Income Tax Authorities.

A PROGNOSTIC APPROACH ON SHARE PRICE ANALYSIS OF SELECTED I T COMPANIES

***Radhika S, **Gayathry Devi S, ***Jayadev S**

Abstract

Trend analysis is vital in the business and the financial sectors. Trend analysis is frequently used to make projections and assessments of financial health. The worth of a company - its total value - is its market capitalisation, and it is signified by the stock price of that company. Any percentage change in the stock price, will up shoot in an equal percentage, change in the worth of a company. Bearing in mind the mounting consequences and the comparative place in the economic map of India, it is crucial to study the selected IT companies in order to appraise the influence of shares based on the Trend analysis with reference to the overall performance of the market.

Key words:- Trend Analysis, Financial Health, Market Capitalisation, Stock Price, BSE Sensex.

Trend analysis is vital in the business and financial sectors. Trend analysis is frequently used to make projections and assessments of financial health. A company's worth - its total value - is its market capitalization, and it is signifying by the company's stock price. Stock price is a relative and proportional value of a company's worth and only represents the percentage changes in the market capital at any given point of time. Financial analysts observe the precedent performance of their company, together with the present financial conditions, to establish how their company will perform in the future. This is the underlying principle why the investors are so startled

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with the stock prices and every transformation that may happen in the share prices will unquestionably impinge on the traders' approach.

Importance of the Study

Data analysis including Trend analysis is indispensable for a firm's aggressive acumen programme. The capacity to exactly measure customers' reaction to changes in the business and other environmental strictures is a commanding aggressive advantage. Trend analysis methods tolerate business users to craft logical decisions about those business procedures that maximise the revenue from the core customers.

Data analysis including Trend analysis is indispensable for a firm's aggressive acumen programme. The capacity to exactly measure customers' reaction to changes in the business and other environmental strictures is a commanding aggressive advantage.

With the information detonation, an incredible amount of information is available to the organisations, which being raw data, does not provide the useful information. It is the conversion of this raw data into significant facts, relationships, trends, and patterns that could otherwise go unobserved. This makes Trend analysis methods integral to running an organisation's value chain and acquiring and consolidating corporate success. It allows business owners to take analytical decisions about the direction in which their business should head, how to use their resources optimally, and how to focus on business processes to maximise revenue from the core customers. Bearing in mind the mounting consequences and the comparative place in the economic map of India, it is crucial to study the selected IT companies to appraise the influence of shares based on the Trend analysis with reference to the overall performance of the market.

Objectives of the Study

* To examine the relative trend of the IT companies with reference to the BSE Sensex.
* To examine the relationship of the future prices of shares with the BSE Sensex.

Hypotheses

There is no significant relative trend of the IT companies with reference to the BSE Sensex.

There is no significant relationship of the future prices of the shares with the BSE Sensex.

Research Methodology

To carry out the research effectively, various informations needed was identified including the sources from which they could be obtained. Hence the samples of the present study are the five IT Sector Companies namely Wipro, Infosys, HCL Technologies, TCS and Tech Mahindra and the BSE Sensex.

a. Research Design: The research was empirical in nature.

b. Method Adopted: The secondary data about share prices was collected from the Economic Times and the relevant website.

c. Sampling Technique: Simple random sampling technique was adopted for the study.

d. Period of the Study: The research was based on the secondary data related to the shares for the period from 28.07.2014 to 22.07.2015.

e. Techniques Adopted: To gain a practical knowledge insight into the application of the Karl Pearson's Coefficient of Correlation and Trend analysis (Least Square Method) for the evaluation of the future growth in the share prices.

Limitations

* The present study covers only 6 major IT companies;
* The data cannot be representative for a long period of time as the data taken was for a period of 12 months on a 7 days basis; and
* The findings of the study will be applicable only for the conditions which prevailed during the period for which data had been taken.

From table 1.1, the Anova test value shows F = 0.08, p-value = 0.7828, (P>0.05), Ho formulated in this regard is accepted for the share price of TCS. This means that there is no significant difference between the independent variables and the dependent variables. That is, the year has no control over the share price movement of TCS. This means when the period changes the share price of TCS does not change. This clearly shows that the share price movement of TCS is independent on the year as it is clearly evident from the adjusted R Square value. The adjusted R Square value in this case is 0.2% and the year accounts only for 0.2% variance in the dependent variables share price

Table 1.1

Analysis of the Study

Regression Analysis (TCS)						
	r^2	0.002	n	52		
ANOVA table						
Source	*SS*	*df*	*MS*	*F*	*p-value*	
Regression	495.6621	1	495.6621	**0.08**	**.7828**	
Residual	3,22,522.4796	50	6,450.4496			
Total	3,23,018.1417	51				
Regression output					*Confidence Interval*	
Variables	*Coefficients*	*Std. error*	*t (df=50)*	*p-value*	*95% lower*	*95% upper*
Intercept	2,569.2725					
t	-0.2057	0.7421	-0.277	.7828	-1.6963	1.2848

Source: Compiled from secondary data

movement of TCS. This highlights the fact that the above model is considered to be a low fit. Using the regression coefficients for independent variable, the OLS equation is constructed.

Share price movement of TCS = 2,569.2725 +-0.2057 (Period)

The t-value for the share price movement of TCS as per OLS model is found to be -0.277; p-value is 0.7828, (P>0.05), Ho formulated in this regard is accepted. This shows the fact that there is no significant difference in the yearly share price movement of TCS and the share price computed from the OLS equation. This means that the OLS equation for the above analysis may not be utilised for the future predictions of the share prices of TCS.

From table 1.2, the Anova test value shows F = 1.01, p-value = 0.3196, (P>0.05), Ho formulated in this regard is accepted for the share price of Tech Mahindra. That is, the year has no control over the share price movement of Tech Mahindra and when the period changes, the share prices of Tech Mahindra does not change. The adjusted R Square value in this case is 2% and the year account only for 2% variance in the dependent variable share price movement of Tech Mahindra. This highlights the fact that the above model is considered to be a low fit. Using the regression coefficients for the independent variable, the OLS equation is constructed.

Share price movement of Tech Mahindra = 635.8003 +-0.6152 (Period)

The t-value for the share price movement of Tech Mahindra is found to be -1.005, p-value is 0.3196, (P>0.05), Ho formulated in this regard is accepted. This shows the fact that there is no significant difference in the yearly share price movement of Tech Mahindra and the share price computed from the OLS equation and the above analysis may not be utilised for the future predictions of the share prices of Tech Mahindra.

From table 1.3, the Anova test value shows F = 0.51, p-value = 0.4788, (P>0.05), Ho formulated in this regard is

Table 1.2

Regression Analysis (Tech Mahindra)						
	r^2	0.020	n	52		
ANOVA table						
Source	*SS*	*df*	*MS*	*F*	*p-value*	
Regression	4,432.9235	1	4,432.9235	**1.01**	**.3196**	
Residual	2,19,326.5736	50	4,386.5315			
Total	2,23,759.4971	51				
Regression output					*confidence interval*	
variables	*coefficients*	*std. error*	*t (df=50)*	*p-value*	*95% lower*	*95% upper*
Intercept	635.8003					
t	-0.6152	0.6120	-1.005	.3196	-1.8444	0.6140

Source: Compiled from secondary data

Table 1.3

Regression Analysis (Wipro)						
	r^2	0.010	n	52		
ANOVA table						
Source	*SS*	*df*	*MS*	*F*	*p-value*	
Regression	742.6379	1	742.6379	**0.51**	**.4788**	
Residual	72,936.2284	50	1,458.7246			
Total	73,678.8663	51				
Regression output					*confidence interval*	
variables	*coefficients*	*std. error*	*t (df=50)*	*p-value*	*95% lower*	*95% upper*
Intercept	572.2821					
t	0.2518	0.3529	0.714	.4788	-0.4570	0.9606

Source: Compiled from secondary data

accepted for the share price of Wipro. That is, the year has no control over the share price movement of Wipro and when the period changes, the share price of Wipro does not change. The adjusted R Square value in this case is 1% and the year account only for 1% variance in the dependent variables share price movement of Wipro. This highlights the fact that the above model is considered to be a low fit. Using the regression coefficients for the independent variable, the OLS equation is constructed.

Share price movement of Wipro = 572.2821 + 0.2518 (Period)

The t-value for the share price movement of Wipro is found to be 0.714, p-value is 0.4788, (P>0.05), Ho formulated in this regard is accepted. This shows the fact that there is no significant difference in the yearly share price movement of Wipro and the share price computed from the OLS equation and the above analysis may not be utilised for the future predictions of the share prices of Wipro.

From table1.4, the Anova test value shows F = 16.25, p-value = 0.0002, (P<0.05), Ho formulated in this regard is rejected for the share price of Infosys. That is, the year has control over the share price movement of Infosys and when the period changes, the share prices of Infosys change. The adjusted R-Square value in this case is 24.90% and the year account for 24.90% variance in the dependent variables share price movement of Infosys. This highlights the fact that the above model is considered to be a moderate fit. Using the regression coefficients for the independent variable, the OLS equation is constructed.

Share price movement of Infosys = 938.5094 +2.6502 (Period)

The t-value for the share price movement of Infosys is found to be 4.031, p-value is 0.0002, (P<0.05), Ho formulated in this regard is rejected. This shows the fact that there is a significant difference in the yearly share price movement of Infosys and the share price computed from the OLS equation and

Table 1.4

Regression Analysis (Infosys)						
	r^2	0.249	n	52		
ANOVA table						
Source	*SS*	*df*	*MS*	*F*	*p-value*	
Regression	77,607.9533	1	77,607.9533	**16.25**	**.0002**	
Residual	2,34,026.3809	49	4,776.0486			
Total	3,11,634.3342	50				
Regression output					*confidence interval*	
variables	*coefficients*	*std. error*	*t (df=50)*	*p-value*	*95% lower*	*95% upper*
Intercept	938.5094					
t	2.6502	0.6574	4.031	.0002	1.3290	3.9713

Source: Compiled from secondary data

the above analysis may be utilised for the future predictions of the share prices of Infosys.

From table 1.5, the Anova test value shows F = 56.17, p-value = 0.0000, (P<0.05), Ho formulated in this regard is rejected for the share price of HCL Technologies. That is, the year has control over the share price movement of HCL Technologies and when the period changes, the share price of HCL Technologies change. The adjusted R-Square value in this case is 52.90% and the year account for 52.90% variance in the dependent variable share price movement of HCL Technologies. This highlights the fact that the above model is considered to be moderate fit. Using the regression coefficients for independent variable, the OLS equation is constructed.

Share price movement of HCL Technologies = 767.7769 +4.1317 (Period)

Table 1.5

Regression Analysis (HCL Technologies)						
	r^2	0.529	n	52		
ANOVA table						
Source	*SS*	*df*	*MS*	*F*	*p-value*	
Regression	1,99,952.042	1	1,99,952.0428	**56.17**	**0.0000**	
Residual	1,78,002.802	50	3,560.0561			
Total	3,77,954.845	51				
Regression output					*confidence interval*	
variables	*coefficients*	*std. error*	*t (df=50)*	*p-value*	*95% lower*	*95% upper*
Intercept	767.7769					
t	4.1317	0.5513	7.494	0.0000	3.0244	5.2390

Source: Compiled from secondary data

The t-value for the share price movement of HCL Technologies is found to be 7.494; p-value is 0.0000, (P<0.05), Ho formulated in this regard is rejected. This shows the fact that there is a significant difference in the yearly share price movement of HCL Technologies and the share price computed from the OLS equation and the above analysis may be utilised for the future predictions of the share prices of HCL Technologies.

From table 1.6, the Anova test value shows F = 14.96, p-value = 0.0003, (P<0.05), Ho formulated in this regard is rejected for the share price of BSE Sensex. That is, the year has control over the share price movement of BSE Sensex and when the period changes, the share price of BSE Sensex change. The adjusted R-Square value in this case is 23% and the year account for 23% variance in the dependent variable share price movement of BSE Sensex. This highlights the fact that the above model is considered to be a moderate fit. Using the regression coefficients for the independent variable, the OLS equation is constructed.

Share price movement of BSE Sensex = 26,749.2486 + 31.5867 (Period)

The t-value for the share price movement of BSE Sensex is found to be 3.868, p-value is .0003, (P<0.05), Ho formulated in this regard is rejected. This shows the fact that there is a significant difference in the yearly share price movement of BSE Sensex and the share price computed from the OLS equation and the above analysis may be utilised for the future predictions of the share prices of BSE Sensex.

Table 1.7 depicts the actual share price movements of the selected companies along with the BSE Sensex from 28.07.2014 to 22.07.2015 and the projected movements from 29.07.2015 to 16.09.2015.

Table 1.6

Regression Analysis (BSE SENSEX)						
	r^2	0.230	n	52		
ANOVA table						
Source	*SS*	*df*	*MS*	*F*	*p-value*	
Regression	1,16,86,258.4	1	1,16,86,258.4	**14.96**	**.0003**	
Residual	3,90,51,068.4	50	7,81,021.368			
Total	5,07,37,326.8	51				
Regression output					*confidence interval*	
variables	*coefficients*	*std. error*	*t (df=50)*	*p-value*	*95% lower*	*95% upper*
Intercept	26,749.2486					
t	31.5867	8.1658	3.868	.0003	15.1852	47.9881

Source: Compiled from secondary data

Table 1.7

Share Prices of 5 IT Companies and BSE Sensex for 52 Weeks

PERIOD Study Period	TCS	Tech Mahindra	Wipro	Infosys	HCL Technologies	BSE Sensex
28-07-2014	2588.7	547.79	555.1	841.6	806.38	25991.23
04-08-2014	2526.95	542.45	548.8	865.65	776.85	25723.16
11-08-2014	2468.75	540.18	543.6	893.32	757.55	25519.24
18-08-2014	2486.45	549.99	547.65	889.62	763.65	26390.96
25-08-2014	2521.15	577.53	555.45	905.38	798.13	26437.02
02-09-2014	2539.1	601.31	560.6	902.89	821.95	27019.39
09-09-2014	2630.3	609.78	587.45	934.2	820.35	27265.32
16-09-2014	2554.9	605.45	559.45	914.14	803.65	26492.51
23-09-2014	2688.9	617.09	582.25	903.2	861.95	26775.69
30-09-2014	2738.2	621.91	596.35	936.92	857.68	26630.51
07-10-2014	2733.2	627.94	617.85	957.58	865.68	26271.97
14-10-2014	2699.7	591.53	580.3	979.67	861.78	26349.33
21-10-2014	2433.45	581.81	573.25	943.55	752.5	26575.65
28-10-2014	2478.2	592.28	554.1	948.52	750.53	26880.82
05-11-2014	2600.85	653.1	559	1031.5	801.48	27915.88
12-11-2014	2591.75	655.26	554.75	1027.12	802.5	28008.9
19-11-2014	2577.65	656.53	565.25	1044.94	815.43	28032.85
26-11-2014	2628.75	661.5	579.55	1074.42	815.68	28386.19
03-12-2014	2635.05	671.1	592.3	1061.3	826.25	28442.71
10-12-2014	2510.4	642.56	552.1	981.85	786.58	27831.1
17-12-2014	2444.3	624.16	535.7	970.23	769.05	26710.13
24-12-2014	2481.15	630.74	548	967.03	771.65	27208.61
31-12-2014	2554.7	647.89	553.8	985.6	797.98	27499.42
07-01-2015	2416.8	631.25	542	982.4	751.03	26908.82
14-01-2015	2518.15	697.65	552.4	1064.4	789.43	27346.82
21-01-2015	2511.35	699.06	587.55	1082.55	843.48	28888.86
28-01-2015	2534.7	717.68	606.7	1072.55	829.73	29559.18
04-02-2015	2514	713.51	617.65	1071.03	950.33	28883.11
11-02-2015	2460.15	710.73	639.85	1143.6	977.83	28533.97
18-02-2015	2633.9	723.09	668.6	1147.88	1016.58	29320.26
25-02-2015	2671.3	691.29	663.7	1159.03	992.03	29007.99
04-03-2015	2743.4	720.4	658.2	1136.3	1017.98	29380.73
11-03-2015	2609.35	729.8	654.25	1091.8	1029.28	28659.17
18-03-2015	2560.7	700.04	630.5	1115.1	1003.9	28622.12
25-03-2015	2573.1	656.25	660.4	1108.85	1005.05	28111.83
01-04-2015	2543.4	633.1	631.3	1086.13	939.5	28260.14
08-04-2015	2644.35	672.65	617.15	1100.4	956.3	28707.75
15-04-2015	2624.7	659	606.6	1106.6	946.15	28799.69
22-04-2015	2447.9	629.75	544	1069.23	876.05	27890.13
29-04-2015	2485.65	616.8	541.4	980.8	887.5	27225.93
06-05-2015	2462.85	609	532.7	961.25	891.25	26717.37
13-05-2015	2519.95	616.9	542.15	977.98	937.45	27251.1
20-05-2015	2557.55	640.55	564.1	1022.35	960.25	27837.21
27-05-2015	2616.55	549.35	553.05	984.53	989.3	27564.66
03-06-2015	2610.75	547.3	545.5	1011.55	951.65	26837.2
10-06-2015	2602.05	555.85	563.3	1013.1	942.9	26840.5
17-06-2015	2514.95	549.85	545.8	995.8	905.8	26832.66
24-06-2015	2568.4	545.9	565.3	995.1	936.3	27729.67
01-07-2015	2591.8	486.5	552.35	997.7	942.95	28020.87
08-07-2015	2594.05	470.1	553.3	957.2	932.25	27687.72
15-07-2015	2546.25	480.05	577.85	982.65	948.6	28198.29
22-07-2015	2528.1	510.6	585.35	1102.6	981.8	28504.93
Trend Period						
29-07-2015	**2.558.370**	**603.195**	**585.627**	**1.078.968**	**986.757**	**28.423.341**
05-08-2015	**2.558.164**	**602.580**	**585.879**	**1.081.618**	**990.889**	**28.454.928**
12-08-2015	**2.557.958**	**601.965**	**586.131**	**1.084.268**	**995.020**	**28.486.515**
19-08-2015	**2.557.753**	**601.350**	**586.383**	**1.086.918**	**999.152**	**28.518.101**
26-08-2015	**2,557.547**	**600.734**	**586.635**	**1,089.568**	**1,003.284**	**28,549.688**
02-09-2015	**2,557.341**	**600.119**	**586.886**	**1,092.219**	**1,007.415**	**28,581.275**
09-09-2015	**2.557.136**	**599.504**	**587.138**	**1.094.869**	**1.011.547**	**28.612.861**
16-09-2015	**2.556.930**	**598.889**	**587.390**	**1.097.519**	**1.015.679**	**28.644.448**

Source: Compiled from secondary data

FINDINGS

1. The share price changes of TCS, Wipro and Tech Mahindra statistically do not react with the period. This effect had a low impact on the study.
2. The share price changes of Infosys, HCL Technologies and BSE Sensex do react with the period. This effect had a moderate impact on the study.
3. The study showed that investors can, to some extent, predict the share price changes of Infosys, HCL Technologies and BSE Sensex with the period, which is moderately reliable.
4. The reliability of the predictions is more for HCL Technologies.

CONCLUSION

The share market today is one of the important favoured investment opportunity in India. However, to decide on a precise choice of shares is always a formidable task. The historical market price record alone cannot be investigative of the future performances. Consequently, there is a call for as assessment of the future performance companies.

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SOCIAL NETWORK ANALYSIS OF KERALA LOCAL GOVERNMENTS WITH SPECIAL REFERENCE TO THIRUVANANTHAPURAM CORPORATION

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Abstract

Several studies have proved that the best performing local governance depends highly on the informal means of communication on par with the formal means. The enormous increase in the governmental practices have made Local Governments create for themselves such a complex system that are characterised by the dynamic patterns of interactivity among practicing members and their environment. This necessitates the study not only of the individuals within the system or the individual practice components, but also the relationships among the individuals to understand how these practices function with particular reference to their corresponding channels of communication as also whether they are formally structured or not.

Key words:- SNA, Interpersonal Relationships, Formal Communication, Informal Communication, Grass Root Communication.

By building a strong base, Local Governments are the grassroots governance institutions for translating the effects of globalisation into opportunities. It is imperative for them not to miss any opportunity. They will be forced to miss these opportunities when they fail to understand that success depends less on formally reporting the structure by which formal communication is transmitted. An informal communication by any means however makes the formally designed structure infructuous. In the ever-widening network of communications which are provided by the present order of globalisation, it is of utmost importance to reveal the hidden connections that drives on how to get the work done in Local Governments.

Social networks refer to those interpersonal relationships that bind

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people together. They typically consist of family members, friends, acquaintances, neighbours, and colleagues. However the social networks influence each one of them differently. It depends on the individual and his or her environment, the desire of a person, and the ability to understand and comply with professional advice. For example, in some societies, the mother or the mother-in-law is the key decision-maker in the extended family. Teaching the young woman about the benefits and the methods of birth-spacing may be ineffective if her mother or mother-in-law is uninformed or opposed to this practice. Similarly, in a home where a woman cooks for the whole family, dietary recommendations that could enhance her health might not be put into effect if they interfere with the culinary customs and tastes of the members of the family.

Communication channel of the Local Governments both inter-governmental and intra-governmental are from top to bottom and vice versa. It makes the flow of communication dependent on the interpersonal relationship which exists among the formal and the informal organisational structures of the key players, namely, elected representatives, officials and working groups. Social Network Analysis (SNA) examines the structure of the social relationships in a group in order to uncover the informal connections between the people. Social networks are nodes of individuals, groups, organisations and related systems that tie-in one or more types of interdependencies. These include the shared values, visions and ideas, social contacts, kingship, conflict, financial exchanges, trade, joint membership in an organisation and group participation in the events, among numerous other aspects of interpersonal relationships. The strategy for effective communication should be based on the strengths, centrality, and such other features of these social networks.

The attainment of the objectives of development and welfare in the local citizens through better governance and service to the people is expected by the government from time to time while formulating the five year plans.

The attainment of the objectives of development and welfare in the local citizens through better governance and service to the people is expected by the government from time to time while formulating the five year plans. The parties involved in this process of implementation sometimes ignore this fact and consider their own interests or the interest of certain vested groups. But what is lacking today is sufficient communication to attain the visions or set targets. The implementation of the programmes are carried out by the elected representatives of the political parties, rural people and bureaucrats who do not understand the objectives of the government either because they have not conceived the ideas properly or because

of the barriers which prevented them from understanding them properly. From the review of literature it is observed that no such studies have yet been undertaken towards this end, in order to know the extent of the impact of the communication.

Objectives of the Study

It is to assess the effectiveness of the formal and the informal communication networks in Local Governments in Kerala and to understand the impact of the informal communication on the grassroots communication of Local Governments.

Sample Design

The study considered 'Multi-stage Stratified Random Sampling' for selecting the grassroots functionaries of Local Governments in the lowermost strata, viz., Village (Grama Panchayat), Municipality and Corporation.

Methodology for Social Network Analysis

In order to understand how a group functions in an organisation, it becomes necessary to analyse how one communicates at times of necessity and urgency, where the means of communication ranks top in priority, be it formal or informal. This analysis is made through SNA.

SNA examines the structure of social relationships in a group to uncover the informal connections between the people. Social networks are the nodes of individuals, groups, organisations and related systems that tie-in one or more types of interdependencies. It includes the share values, visions and ideas, social contacts, kingship, conflicts, financial exchanges, trade joint membership in the organisation and group participation in the events, among numerous other aspects of interpersonal relationships.

A separate methodology is used for assessing the formal and informal communication networks of local governments in the lower strata. For the purpose of identifying the centrality, closeness, betweenness, and other vital social network indicators, a specific opinion is redesigned for this purpose. It is made use of for capturing the communication networks between and among various formal and informal nodes by selecting a Corporation.

Local Governments and Social Network

Being governance institutions at grassroots, Local Governments are expected to deliver quality services to the citizens and the decision-making process has become more important than ever before particularly for the local governments viz., Grama Panchayat, Municipalities and Corporations, who have to cater to the needs of their daily life.

Grassroots communication networks in local governance consists of the interaction of key players of different communication nodes viz., Local Governments, Grama Sabhas, Oorukkuttams, Ward Sabhas, District Planning Committees, District Planning Offices, Working Groups, Transferred Institutions, District Treasury Offices, Police Stations, Collectorates, Higher Tier Governments, Educational Institutions, various Missions like Kudumbashree,

Non-Governmental Organisations, social activists and to a considerable extent, some informal communication nodes. The interaction to a particular node very largely depends upon the purpose for which the advice or information is required to avail.

In Local Governments there are several occasions in which the decisions are taken on the basis of several alternatives. The beneficiary selection is done on the basis of the list prepared in the Grama Sabhas based on some criteria and eligibility indices. Thus, Local Governments have to communicate to a particular Grama Sabha for the distribution of individual benefits like allocation of houses, pensions and such other service delivery products. Similarly, Local Governments have to get in touch with several formally designed structures to carry out its activities.

Sub-Group Identification

SNA can identify the number of closely knit sub-groups or "cliques" in a network. Within a clique every unit is connected to every other unit. These sub-groups can then be analysed to see whether they share overlapping members.

In the Local Governments it is a matter of fact that the communication passing through the informal networks are at a higher side that it becomes necessary to measure its significance by using the techniques of SNA.

The conventional communication data focuses only on the various actors and their attributes in a communication network and the total communication network as it gives vital answers on who reports to whom. All these calls are for using SNA, wherein the focus is mainly on the actors and their relations which are pertinent in determining the success of Local Governments. As SNA rarely draws samples and it captures and identifies the same population and conducts the census that includes all the elements in the population as units of observation. Since they focus on the relations among the actors, actors cannot be sampled. SNA can extend the boundaries by replicating the populations i.e., instead of one neighbourhood group, two or three can be taken into account for testing the hypothesis by comparing the population. The present study attempts to identify the nature of communication through the formally organised structures of the Grama Panchayat, the Municipality and theCorporation.

Corporation

SNA in Corporation has been worked out with a total of twenty nine different communication nodes occupied by both the elected representatives and officials. In this network there are seven elected representatives holding the positions of the Mayor and the Chairmen of the six standing committees and there are twenty two officials working at different levels of key positions, such as Secretary, Deputy Secretary, P.A. to Secretary, Corporation's Engineer, Project Engineer, Council Secretary, Accounts Officer, Revenue Officer, Health Officer, Project Officer, Town Planning Officer, Assistant Town Planning Officer, Health Supervisor, Assistant Executive Engineer, Assistant Engineer, Assistant Accounts Officer, Superintendent, Head Draftsman, UDC, LDC, Daffedar and Peon. The

functions in general of these major role players are given below:

1. Secretary

The role of the Secretary in the communication network of the Corporation is of utmost importance. It is the connecting link between the elected representatives and the officials in the Corporation. He has the overall charge of administration and is engaged in the approval of all important works affecting the routine matters of the Corporation. He is responsible for the support in the planning and implementation of the developmental projects, acts as the Secretary to the Council, is responsible for providing support to the functioning of the various Committees and in ensuring the implementation of their decisions.

2. Deputy Secretary

He is also in charge of the general supervision of the staff of the Corporation. He is also entrusted with the other matters assigned by the Secretary as the occasion demands and to hold charge of the office when the Secretary is out of station.

3. P.A. to Secretary

He acts as a leading communication node by virtue of his closeness to the Secretary and the Deputy Secretary. He is also in charge of the general supervision of the office, overall supervision of public relations in the office and of the administrative section.

4. Corporation's Engineer

Public Works accounts for the lion's share of the total plan schemes of the Corporation and hence the role of the Engineer is central in deciding the schemes for implementation. It is the engineer who provides the necessary technical support to the Secretary. He is responsible for all the constructions and the maintenance works taken up by the Corporation. He is in charge of the general administration of the engineering wing of the Corporation.

5. Project Engineer

He is responsible for providing all necessary technical support to the Engineer. He is to ensure timely execution of the major projects of the Corporation.

6. Council Secretary

He is to ensure necessary clerical support to the Council of the Corporation. He supervises and implements the developmental projects and urban poverty alleviation projects including some centrally sponsored schemes and social security pension schemes.

7. Accounts Officer

He is responsible for the maintenance of all books of accounts of the Corporation. He has to scrutinise all the bills and make payments thereon. He is also responsible for the accounting activities and preparation of the budget of the Corporation.

8. Revenue Officer

Revenue is the key resource generating area. In order to have a more citizen-centric relation, the Corporation has a Revenue Officer. He is responsible for the generation of revenue including collection of revenue from the existing sources like rent, rates and taxes and

explore new and improved sources of revenue. Thus he has a central place in the communication network of the Corporation.

9. Health Officer

He is responsible for all matters relating to health and sanitation within the Corporation area. He is also in charge of the general administration of the health section and health circle of the Corporation.

10. Project Officer

He is in charge of the general supervision and activities of the officers and staff in the Kudumbashree section, preparation of the action plan for the state, and the centrally sponsored schemes.

11. Town Planning Officer

He is responsible for ensuring compliance of the building norms and prevention of unauthorised constructions. He prepares the master plans and detailed town planning schemes and zoning up of the areas. He is responsible for acquisition, alienation and plan works. He is also responsible for the general administration of the Town Planning wing of the Corporation.

12. Assistant Town Planning Officer

He is to assist the Town Planning Officer in all the activities. He examines and recommends grant of building permits, regularisation of unauthorised constructions in the jurisdiction of the Corporation.

13. Health Supervisor

He is responsible for the supervision of the activities of the health inspectors, junior health inspectors, sanitation and anti-malaria workers and all public health matters of the Corporations. He is also responsible for taking decisions on granting D & O trade license.

14. Assistant Executive Engineer

He is responsible for assisting the Engineer in all his activities. He also supervises all the activities of the Assistant Engineers, Public Works Officers and Work Superintendents. He verifies and approves the plans and estimates prepared for various works in the Corporations.

15. Assistant Engineer

He assists the Assistant Executive Engineer in all his activities. He prepares the estimate for the public works and verifies all the bills and the Measurement Book (M Book).

16. Assistant Accounts Officer

He assists the Accounts Officer in all his activities. He supervises the work of the clerical staff in the Accounts section. He verifies the personal and the periodical registers of the clerks in the section.

17. Superintendent

He provides necessary support to the section heads. He supervises the work of the clerical staff in the concerned sections. He is also responsible for verification of the personal and the periodical registers of clerk in the section.

18. Head Draftsman

He supervises the works of the draftsmen. He is in charge of the activities related to the tender schedule and tendering of the public works.

19. Upper Division Clerks

They are the highest hierarchy linking administration and service delivery at the grassroots level with little supervisory role. They are responsible for the upkeep of the filing system and supervision of Lower Division Clerks.

20. Lower Division Clerks

They are the lowest hierarchy in the communications network in all matters related to the Corporation. Their communication nodes with respect to the different social network analysis indicators are better than the other transferred functionaries in the Corporation.

21. Daffedar

The major role of the Daffedar in the Corporation is to facilitate and accelerate the flow of communication from a particular node to the appropriate node. He occupies a major role in the communications network of Corporation.

22. Peon

Being the lowermost tier in the organisational structure of the Corporation, the communications network of the peon is directly to the citizens concerned.

The codes used for indicating the various nodes in this communications network diagram in respect of the Corporation is shown in Table 1.1.

Table 1.1

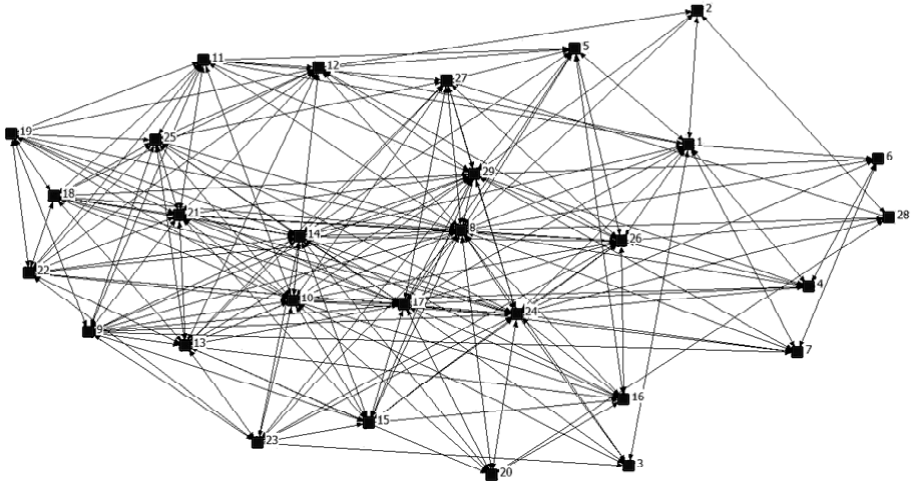
Mayor	1
SC 1	2
SC 2	3
SC 3	4
SC 4	5
SC 5	6
SC 6	7
Secretary	8
Deputy Secretary	9
P.A. to Secretary	10
Corporation's Engineer	11
Project Engineer	12
Council Secretary	13
Accounts Officer	14
Revenue Officer	15
Health Officer	16
Project Officer	17
Town Planning Officer	18
Asst. Town Planning Officer	19
Health Supervisor	20
Asst. Executive Engineer	21
Asst. Engineer	22
Asst. Accounts Officer	23
Superintendent	24
Head Draftsman	25
UDC	26
LDC	27
Daffedar	28
Peon	29

SNA conducted among the above nodes of communication in the Corporation indicates that it is more a reciprocally designed structure as is evident from Fig 1.1.

Fig. 1.1 indicates that the Superintendent has the maximum number of nodes directly reporting to him. It is followed by the Corporation's Secretary who is in turn is followed by the Peon.

Fig. 1.1

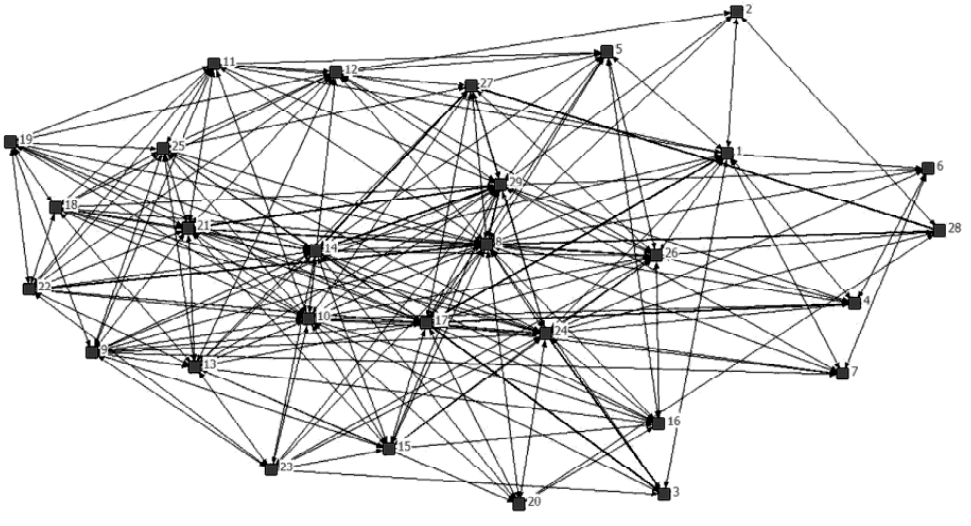
Network Diagram of the Select Functionaries and Standing Committees in the Corporation



Source: Analysis of primary data.

Fig. 1.2

Network Diagram of Selected Functionaries and Standing Committees in the Corporation based on Reciprocity



Source: Analysis of primary data.

Reciprocity of Nodes in the Communication Network of the Corporation

On analysis of the reciprocity of various nodes of the communication networks in the Corporation, it is found that there are only very few nodes without reciprocal relationship.

The red arrows indicate those nodes having reciprocal relations while the blue arrows indicate non-reciprocal relationships (Fig. 1.2). This indicates that the majority of the interactions by the different nodes in the communications network of the municipality are reciprocal. The blue arrows show the non-reciprocal interactions and the red arrows denote the reciprocal interactions. All interactions in the network with the different nodes except those between the Mayor, Standing Committee 2, Standing Committee 3, P.A. to Secretary, Accounts Officer, Project Officer, Assistant Executive Engineer, Assistant Engineer, LDC and Daffedar are reciprocal in character.

Betweenness of Nodes in the Communications Network in the Corporation

On analysis of the betweenness of the various nodes of communications network in the Corporation, it is found that there are only very few nodes without reciprocal relationship. The size of the node representing the Secretary is very high followed by that of the Superintendent (Fig 1.3). The Betweenness measures of different nodes and the descriptive statistics are shown Table 1.2 and Table 1.3.

Table 1.2
Betweenness Measures

	1	2
Code No.	Betweenness	nBetweenness
8	99.589	13.173
24	60.111	7.951
10	41.127	5.440
29	38.325	5.069
17	32.753	4.332
26	22.534	2.981
14	22.030	2.914
1	20.938	2.770
12	16.042	2.122
13	12.655	1.674
9	8.888	1.176
11	8.660	1.145
21	6.653	0.880
23	6.031	0.798
27	5.251	0.695
25	4.404	0.583
20	4.340	0.574
5	4.191	0.554
22	4.080	0.540
18	3.013	0.398
2	2.932	0.388
28	2.686	0.355
16	2.478	0.328
15	2.274	0.301
7	1.703	0.225
4	1.556	0.206
19	1.412	0.187
3	0.727	0.096
6	0.620	0.082

Table 1.3

Descriptive Statistics for each Measure

		1	2
		Betweenness	nBetweenness
1	Mean	15.103	1.998
2	Std.Dvia.	21.477	2.841
3	Sum	438.000	57.937
4	Variance	461.276	8.071
5	SSQ	19992.309	349.800
6	MCSSQ	13376.997	234.053
7	Euc Norm	141.394	18.703
8	Minimum	0.620	0.082
9	Maximum	99.589	13.173

Source: Analysis of Primary Data using computer Software programme

Network Centralization Index = 11.57%

Closeness of the Nodes in the Communications Network in the Corporation

On analysis of the closeness of nodes in the communications network in the Corporation, it reveals that low farness or high closeness is for the Secretary followed by the Superintendent. The Fig. 1.4 shows the network diagram with node size on the basis of closeness. It is seen that the size of the node representing the Secretary is very small followed by that of the Superintendent. The value of closeness centrality measure of the Secretary is very high (100) followed by the P.A. to the Secretary (82.353).

The Closeness Centrality Measures of the different nodes and the descriptive statistics are shown in Table 1.4 and Table 1.5.

Table 1.4

Closeness Centrality Measures

	1	2	3	4
	In Farness	Out Farness	In Closeness	Out Closeness
8	28.000	31.000	100.000	90.323
10	34.000	34.000	82.353	82.353
24	35.000	34.000	80.000	82.353
14	36.000	38.000	77.778	73.684
17	37.000	34.000	75.676	82.353
29	39.000	36.000	71.795	77.778
13	40.000	40.000	70.000	70.000
26	40.000	40.000	70.000	70.000
21	40.000	41.000	70.000	68.293
12	42.000	42.000	66.667	66.667
25	42.000	42.000	66.667	66.667
9	42.000	42.000	66.667	66.667
1	43.000	44.000	65.116	63.636
11	43.000	44.000	65.116	63.636
18	43.000	43.000	65.116	65.116
22	44.000	43.000	63.636	65.116
15	44.000	44.000	63.6	63.636
27	45.000	45.000	62.222	62.222
23	45.000	45.000	62.222	62.222
19	45.000	46.000	62.222	60.870
16	46.000	46.000	60.870	60.870
5	46.000	46.000	60.870	60.870
4	48.000	49.000	58.333	57.143
20	48.000	48.000	58.333	58.333
7	49.000	49.000	57.143	57.143
3	50.000	53.000	56.000	52.830
6	50.000	50.000	56.000	56.000
2	51.000	51.000	54.902	54.902
28	55.000	50.000	50.909	56.000

Source: Analysis of Primary Data using computer Software programme

Table 1.5

Descriptive Statistics

		1	2	3	4
---		In Farness	Out Farness	In Closeness	Out Closeness
1	Mean	43.103	43.103	66.215	66.127
2	Std.Devia.	5.647	5.517	9.807	9.225
3	Sum	1250.000	1250.000	1920.249	1917.682
4	Variance	31.886	30.438	96.179	85.098
5	SSQ	54804.000	54762.000	129939.438	129278.344
6	MCSSQ	924.690	882.690	2789.201	2467.845
7	Euc Norm	234.103	234.013	360.471	359.553
8	Minimum	28.000	31.000	50.909	52.830
9	Maximum	55.000	53.000	100.000	90.323

Source: Analysis of Primary Data using computer Software programme

Network In-Centralisation = 71.28%

Network Out-Centralisation = 51.05%

Degree Centrality of nodes in the Communications Network in the Corporation

The communications network diagram of nodes with their size based on the degree centrality is shown in Fig. 1.3.

The degree centrality is high for the Secretary as the node size is bigger. This is followed by the Superintendent (Fig 1.3). The Freeman's degree centrality computed for different nodes and the descriptive statistics are shown in Table 1.6 and Table 1.7.

Table 1.6

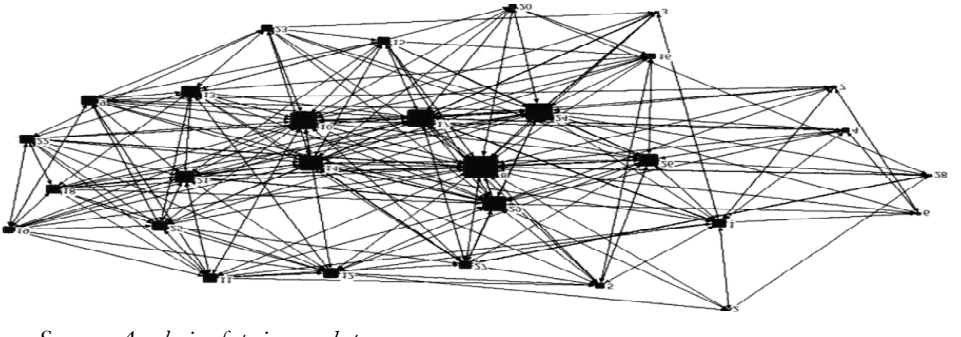
Freeman's Degree Centrality Measures

	1	2	3
	Degree	Nrm Degree	Share
8	28.000	100.000	0.072
24	22.000	78.571	0.057
17	22.000	78.571	0.057
10	22.000	78.571	0.057
29	20.000	71.429	0.052
14	20.000	71.429	0.052
13	16.000	57.143	0.041
21	16.000	57.143	0.041
12	14.000	50.000	0.036
25	14.000	50.000	0.036
9	14.000	50.000	0.036
1	13.000	46.429	0.034
22	13.000	46.429	0.034
11	13.000	46.429	0.034
18	13.000	46.429	0.034
27	12.000	42.857	0.031
15	12.000	42.857	0.031
23	11.000	39.286	0.028
19	11.000	39.286	0.028
16	10.000	35.714	0.026
5	10.000	35.714	0.026
4	8.000	28.571	0.021
20	8.000	28.571	0.021
7	7.000	25.000	0.018
3	6.000	21.429	0.015
6	6.000	21.429	0.015
28	6.000	21.429	0.015
2	5.000	17.857	0.013

Source: Analysis of Primary Data using computer Software programme

Fig. 1.3

Node Size in the Network Diagram of Select Functionaries and Standing Committees in the Corporation based on Degree Centrality



Source: Analysis of primary data.

Table 1.7

Descriptive Statistics

		1	2	3
		Degree	Nrm. Degree	Share
1	Mean	13.379	47.783	0.034
2	Std.Dvia.	5.623	20.081	0.014
3	Sum	388.000	1385.714	1.000
4	Variance	31.615	403.249	0.000
5	SSQ	6108.000	77908.164	0.041
6	MCSSQ	916.828	11694.229	0.006
7	Euc Norm	78.154	279.120	0.201
8	Minimum	5.000	17.857	0.013
9	Maximum	28.000	100.000	0.072

Source: Analysis of Primary Data using computer Software programme

Network Centralization = 56.08%

Heterogeneity = 4.06%. Normalised = 0.63%

Density of the Nodes in the Communications Network in the Corporation

The density (matrix average) of the nodes in the communications network of the Corporation is worked out to be 0.4643 with standard deviation of 0.4987, which is considered to be a good indicator.

CONCLUSION

SNA of the above nodes of communications in the Corporation indicates that it is more a reciprocally designed structure which indicates that the Superintendent has the maximum number of nodes directly reporting to him. This is followed by the Secretary and then by the Peon. On analysis of the reciprocity of the various nodes, it is found that there are only very few nodes which has no reciprocal relationship. The red arrows indicate those nodes having reciprocal relations and the blue arrows indicate non-reciprocal relationships. This indicates that the majority of the interactions by the different nodes in the communications network are reciprocal. The blue arrows in the network show non reciprocal interactions and red arrows denote the reciprocal interactions. All interactions in the network with different nodes except those between the Mayor, Standing committee 2, Standing Committee 3, P.A. to Secretary, Accounts Officer, Project Officer, Assistant Executive Engineer, Assistant Engineer, LDC and Daffedar are reciprocal in character.

On analysis of the betweenness of the various nodes, it is found that there are only very few nodes that has no reciprocal relationship. The size of the node representing the Secretary is very high. It is followed by that of the Superintendent.

On analysis of the closeness of nodes, it reveals that low farness or high closeness is of the Secretary, followed by the Superintendent. The network diagram is with the node size on the basis of closeness. It is seen that the size of the node representing the Secretary is very small, followed by the Superintendent. The value of closeness centrality measure of the Secretary is very high (100) followed by the P.A. to Secretary (82.353). The degree centrality is high for the Secretary as the node size is bigger in case of the node representing the Secretary, followed by the Superintendent.

The density (matrix average) of the nodes is worked out to be 0.4643 with a standard deviation of 0.4987. This is considered a good indicator.

Social Network Analysis made on the functionaries and elected representatives of Local Governments viz., Corporation, indicates a common trend that the grassroots communication is not being channelised through the formally designed structure of the respective organisational chart. In all the cases, the Secretary has the highest centrality indicators in respect of betweenness, closeness and degree centrality. The second position goes to the Superintendent and the Peon of these Local Governments. This is a clear indication of the fact that when it comes to the grassroots communication, it is not the formal organisational structure but the informal organisational structure that matters.

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"We will be remembered only if we give to our younger generation a prosperous and safe India, resulting out of economic prosperity coupled with civilizational heritage."

Dr. APJ Abdul Kalam

INVESTOR'S PERCEPTION ABOUT COMMODITY FUTURE IN THE CURRENT MARKET SCENARIO

***Senthil D**

Abstract

Commodity Future is observed as an avenue to invest directly in the commodity market. The study has aimed to evaluate the investor's perception towards the service provided by brokers and agencies, redressal mechanism, transaction cost, and income tax liability. The prime objective of futures market is to hedge or mitigate the price risk in commodities. The unique feature of futures market is that we do not have to actually hold the commodities in physical form or take delivery in physical form. A sample of 100 respondents is taken for this study. The study concludes that the government has to reduce the rate of tax liability on the income from commodity trading.

Key words:- Futures Market, Price Discovery, Risk Management

The market where the commodities are bought and sold by entering into a contract to settle the transaction at some future date and at a specific price is called futures market. The unique feature of futures market is that we do not have to actually hold the commodities in physical form or for that matter take delivery in physical form. The prime objective of futures market is to hedge or mitigate the price risk in commodities. As we are aware, the prices in the spot market are volatile and are always fluctuating. As a trader or investor would want to eliminate or at least minimise our exposure to such price risks, we can use futures market to settle our contract.

Review of Literature

Few studies are available on the performance and efficiency of Indian commodity futures market. Inspite of a considerable empirical literature, there is

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no common consensus about the efficiency of commodity futures market.

1. Naik, Gopal and Jain Sudhir Kumar (2002), emphasised that the agricultural commodity futures market has not fully developed as a competent mechanism of price discovery and risk management. The study found some aspects to be blamed for the deficient market such as poor management, infrastructure and logistics. The dominance of the spectators also dejects hedgers to participate in the market.

2. Desgupta, Basab (2004), described the monopolistically competitive nature of the Indian Commodity Derivative Market which stabilises the spot prices. The result showed the co-movement among the futures prices, the production decisions and the inventory decisions.

3. Ahuja, Narender L. (2006), concluded that the Indian commodity market has made enormous progress since 2003 with the increased number of modern commodity exchanges, transparency and trading activity. The volume and value of the commodity trade has shown an unpredicted mark. This has happened due to the role played by the market forces and the active encouragement of the Government by changing the policy concerning commodity derivatives. He suggested the promotion of the barrier-free trading in the futures market and the freedom of the market forces to determine the price.

4. Roy, Ashutosh (2006), suggested the participation of banks in the commodity futures market for effective commodity price risk management, as financing by banks could provide an efficient hedge against price risk.

Investors have preferred commodity futures market as a vital channel for income generation from their investments. As a result, the commodity futures have registered a record growth in the recent years. It is becoming popular among the investors, as it has more scope for futures oriented programmes.

5. Bhattacharya, Himdari (2007), pointed out that significant risk returns features and diversification potentials have made commodities popular as an asset class. Indian futures markets have improved pretty well in the recent years and would result in the fundamental changes in the existing isolated local markets particularly in the case of agricultural commodities.

6. Nath and Lingareddy, Tulsi (2008),, Golka C. emphasised that trading in the commodity futures contributed to an increase in inflation as the results showed that during the time period of futures trading, the spot price of selected commodities and their volatilities had posted a remarkable increase.

7. Kaur, Gurbandini and Rao, D.N. (2010), stated that the commodity spot and the futures prices has closely tracked each other in selected agricultural commodities and no significant volatility has been found in the prices of the futures and the spot contracts of those agricultural commodities.

8. Brajesh, Kumar and Pandy, Ajay (2009), observed that the commodity futures market in India provided higher hedging effectiveness in the agricultural commodities as compared to the non-agricultural commodities and the price risk management role of the Indian commodity futures market has also increased with increased activities in the market.

9. Kumar, Brajesh and Pandy, Ajay (2013), investigated the short run and the long run market efficiency of the Indian commodity futures market. They had tested four agricultural and even non-agricultural commodities for market efficiency and unbiasedness. The result confirmed the long-run efficiency of the commodity futures prices and the inefficiency of the futures prices in the short-run prices. He found many factors like the lack of participation of the trading members, the low market depth and the thin volume with the interference of the Government in the commodity markets, etc., as the major evils for the inefficient price risk management.

Objective of this Study

The main objective behind this research work is to find out the investor's perception on the commodity futures in the current market scenario. It was conducted to find the potential of the commodity futures in the coming near future.

The main purpose is to come out with those factors which make them hold to invest in the commodity futures. It also tries to find out how much the existing investors are satisfied with the performance of their transactions in the commodity market and if they are willing to invest in the future, despite the current prevailing conditions of the market.

Research Methodology

The data used in this study was obtained from 100 investors who had more than one year experience in this field. The questionnaire was constructed on the basis of the following aspects of trading:

(1) Personnel demographic data:
   (a) Total monthly income; and
   (b) Age

(2) Contributing variable:
   (a) Service provide by brokers and agencies;
   (b) Redressal mechanism;
   (c) Transaction cost; and
   d) Income tax liability.

Hypothesis

1. H0 = There is no association between income and service provided by brokers and agencies

2. H0 = There is no association between income and redressal mechanism.

3. H0 = There is no association between income between transaction cost.

4. H0 = There is no association between income and Income tax liability.
5. H0 = There is no association between age and service provide by brokers and agencies.
6. H0 = There is no association between age and redressal mechanism.
7. H0 = There is no association between age between transaction cost.
8. H0 = There is no association between age between Income tax liability.

Limitations of the Study

The study is limited to only 100 investors.

The survey is conducted only in one city (Neyveli).

The study has also the limitations of time, place and resources.

Analysis of Data

1. Income-based:

It is obvious from the Tables 1 to 4 that all four income based variables namely service of the broker, redressal mechanism, transaction cost and income tax liability were found to be significant at 0.05 levels.

Table 1

Income vs Service of the Broker

	Below 25000	25001-50000	Above 50000	Total	Chi-square Test	
Good	9	8	8	25	value	df
Average	16	20	22	58	0.634	4
Poor	5	6	6	17		
Total	30	34	36	100		
The probability is 0.960. This proves that there is no association between the variables income group and the service of the broker.						

Table 1 clearly states that most of the investors are not happy with the brokers' services. They feel it to be at a satisfactory level. Especially the recommendations of the brokers are not up to the mark. This has made the investors take their own decisions rather than depend on the brokers.

Table 2

Income vs Redressal Mechanism

	Below 25000	25001-50000	Above 50000	Total	Chi-square Test	
Good	8	10	9	27	value	df
Satisfactory	12	9	11	32	1.69	4
Poor	10	15	16	41		
Total	30	34	36	100		
The probability is 0.792. This proves that there is no association between the variables income group and the redressal mechanism.						

Table 2 states that investors from all income levels rate the present redressal mechanism as poor. This makes it clear that the investors still need a better mechanism to utilise the market potential.

Table 3

Income vs Transaction Cost

	Below 25000	25001-50000	Above 50000	Total	Chi-square Test	
Low	9	7	10	26	value	df
Reasonable	16	20	22	58	1.78	4
High	5	7	4	16		
Total	30	34	36	100		
The probability is 0.776. This proves that there is no association between the variables income group and the transaction cost.						

Table 3 shows that all income groups feel that the transaction costs is reasonable.

Table 4 shows that the liability of income tax chargeable is very high. Further commodity futures come under the heading business income. So 30% of the profit of the commodity futures is chargeable.

Table 4

Income vs Liability of Income Tax

	Below 25000	25001 - 50000	Above 50000	Total	Chi-square Test	
Low	0	0	0	0	value	df
Reasonable	3	5	4	12		
High	27	29	32	88		
Total	30	34	36	100		

2. Age Based:

It is obvious from Tables 5 to 8 that all four age-based variables namely broker's service, redressal mechanism, transaction cost and income tax liability were found to be significant at 0.05 levels.

Table 5

Age vs Service of the Broker

	Below 30	31-50	Above 50	Total	Chi-square Test	
Good	9	7	9	25	value	df
Average	16	18	24	58	5.5	4
Poor	7	8	2	17		
Total	32	33	35	100		
The probability is 0.239. This proves that there is no association between the variables income group and the service of the broker.						

Table 5 shows that 58% of the investors are of the opinion that the services rendered by the broker and the agent are average. 25% of investors feel that broker's service is good. 17% of the investors state that broker's service is poor.

Table 6

Age vs Redressal Mechanism

	Below 30	31-50	Above 50	Total	Chi-square Test	
Good	7	12	8	27	value	df
Satisfactory	10	9	13	32	2.58	4
Poor	15	12	14	41		
Total	32	31	35	100		
The probability is 0.630. This proves that there is no association between the variables income group and the redressal mechanism.						

Table 6 shows that 41% of the investors are not satisfied with the present redressal mechanism. 32% of the investors feel that the current redressal mechanism is average. Only 27% of the investors feel that the redressal mechanism is good at the present level.

Table 7

Age vs Transaction Cost

	Below 30	31-50	Above 50	Total	Chi-square Test	
Low	12	7	7	26	value	df
Reasonable	16	20	22	58	3.31	4
High	4	6	6	16		
Total	32	33	35	100		
The probability is 0.507. This proves that there is no association between the variables income group and the transaction cost.						

Table 7 shows that 56% of the investors are of the opinion that the transaction costs at the present level is reasonable. 26% of the investor's opine that the transaction costs are low. Only 16% of the investors are of the opinion that the charges of transaction are high.

Table 8

Age vs Liability of Income Tax

	Below 30	31-50	Above 50	Total	Chi-square Test	
Low	0	0	0	0	value	df
Reasonable	4	3	5	12		
High	28	30	30	88		
Total	32	33	35	100		

Table 8 states that 88% of the investors feel that the chargeable liability of income tax is very high.

FINDINGS

It is evident from the results of the study that,

- the brokers and the agents are providing satisfactory services to their clients;
- most of the investors are not fully satisfied with the present redressal mechanism;
- transaction costs are reasonable; and
- the current income tax rate is very high.

SUGGESTIONS

1. The brokers should improve their services to their clients.
2. The brokers should conduct awareness programmes at frequent intervals. It would help the investors overcome the bottlenecks in their transactions.
3. The investors' grievances must be addressed by SEBI, Governments and other concerned agencies.
4. Most of the retail investors are in the service of the government. They are prohibited from futures trading as per existing laws. Hence the Government should offer relaxation to these Government employees. This would increase the volume of transactions made.

CONCLUSION

The study concludes that investors have preferred commodity futures market as a vital channel for income generation from their investments. As a result, the commodity futures have registered a record growth in the recent years. It is becoming popular among the investors, as it has more scope for futures oriented programmes.

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A STUDY ON INVESTMENT BEHAVIOUR OF KERALITES IN CAPITAL MARKET

***B. Rajendran, **K. Sasikumar**

Abstract

The capital market has been acknowledged all over the world as vital for a long term economic development. In India, the capital market has the potential of contributing to the economic growth. It is essential for a long-term capital formation and has a significant role in promoting larger mobilisation of savings and channelising them to productive sectors. By developing the capital market, it provides more employment opportunities and reasonable returns on investments to all stakeholders. The principle of economic growth focuses on generating savings and channelising them into productive investments. Hence the present study attempts to identify the reasons for the low participation in the capital market and to study in depth the investment behaviour of Keralites in it.

Key words:- Stock Market, Savings, Capital Market, Money Market.

Kerala attained the status of being the first totally literate state in India but the overall economic development of the state is not upto mark. The development of the capital market provides more employment opportunities and reasonable returns on investment to all stakeholders. The principle of economic growth focuses on generating savings and channelising them into productive investments. Even though the Indian stock market surpassed many of its previous records, the number of Keralites who are investing in the capital market is still very low. Many research studies conducted in Kerala revealed that a large portion of the investments may be physical assets or financial assets in the form of bank deposits, chitties, PF deposits and other low-interest bearing securities.

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Significance and Scope of the Study

The crucial problem facing Keralites is highly educated unemployment. The live register of employment exchanges reveals considerable increase in the number of professional and technical job seekers. The state revenue condition is not in a position to meet its increasing developmental expenditures. The per capita debt liability of the state of Kerala is much higher than the neighbouring states. The development of the capital market could uplift the overall economy of the state. The development of capital market can be a panacea for all social and economic evils prevailing in the state. The study is restricted to Kerala and the outcome of the study will be useful to channelise these savings to the capital market.

The development of the capital market could uplift the overall economy of the state. It can be a panacea for all social and economic evils prevailing in the state.

OBJECTIVES

The objectives of the study are given below:

1. To study the investment of households into the financial markets in India.
2. To study the socio-economic characteristics of Keralites who invest in the capital market.
3. To study the savings motives of investors in the capital market.
4. To study the pattern of investments by Keralites and factors responsible for the choice of investments in the capital market.

DATA BASE AND METHODOLOGY

The research design applied for the study is descriptive and the data required for the study were collected from primary and secondary sources.

The secondary data were collected from websites, stock exchanges, publications, reports and thesis. The primary data was collected from 710 investors through questionnaire. The collected data were processed and analysed with the help of the software 'Statistical Package for Social Science' (SPSS). Both statistical and mathematical analysis were used for this purpose.

1. Socio-Economic and Demographic Characteristics of the Investors

The first part in the questionnaire deals with the socio-economic and demographic characteristics of the investors, viz. marital status, religion, caste, level of education, occupation, place of residence, etc. Table1 shows the profile of the sample respondents.

From Table 1, it can be seen that among the 710 investors, 686 (96.6%)

Table -1

Profile of Sample Respondents

Category	Status	South Nos.	Central Nos.	North Nos.	Total Nos.
Marital Status	Married	220(96.5)	235(96.3)	231(97.1)	686(96.6)
	Unmarried	8(3.5)	9(3.7)	5(2.1)	22(3.1)
	Others	-0	-0	2(.8)	2 (.3)
	Total	**228(100)**	**244(100)**	**238(100)**	**710(100)**
Religion	Hindu	97(42.5)	63(25.8)	69(29.0)	229(32.3)
	Christian	114(50)	53(21.7)	108(45.4)	275(38.7)
	Muslim	17(7.5)	128(52.5)	61(25.6)	206(29.0)
	Total	**228(100)**	**244(100)**	**238(100)**	**710(100)**
	CVTS (Chi-Square Test)			*1213.504*	
	P Value			*0.000**	
	Result			*Significant*	
Caste	SC/ST	5 (2.2)	5 (2)	5 (2.1)	15 (2.1)
	OBC	70 (30.7)	67 (27.5)	82 (34.5)	219 (30.8)
	Forward	153 (67.1)	171 (70.1)	149 (62.6)	473 (66.6)
	Others	0 (0)	1 (.4)	2 (8)	3 (4)
	Total	**228(100.0)**	**244(100.0)**	**238(100.0)**	**710(100.0)**
Level of Education	School	28(12.3)	29(11.9)	29(12.2)	86(12.1)
	College	46(20.2)	51(20.9)	50(21.0)	147(20.7)
	Professional	117(51.3)	119(48.8)	112(47.1)	348(49.0)
	Technical	24(10.5)	31(12.7)	36(15.1)	91(12.8)
	Others	13(5.7)	14(5.7)	11(4.6)	38(5.4)
	Total	**228(100.0)**	**244(100.0)**	**238(100.0)**	**710(100.0)**
Occupation	Private/ Govt.	97(42.5)	123(50.4)	83(34.9)	303(42.7)
	Professional	101(44.3)	93(38.1)	105(44.1)	299(42.1)
	Business	12(5.3)	12(4.9)	24(10.1)	48(6.8)
	Agriculturist	0.(0)	0.(0)	2(8)	2.(3)
	Homemaker	11(4.8)	10(4.1)	10(4.2)	31(4.4)
	Pensioner	7(3.1)	6(2.5)	14(5.9)	27(3.8)
	Total	**228(100.0)**	**244(100.0)**	**238(100.0)**	**710(100.0)**
Place of Residence	Panchayat	10(4.4)	12(4.9)	10(4.2)	32(4.5)
	Municipality	6(2.6)	9(3.7)	7(2.9)	22(3.1)
	Corporation	212(93.0)	223(91.4)	221(92.9)	656(92.4)
	Total	**228(100.0)**	**244(100.0)**	**238(100.0)**	**710(100.0)**

Source: Primary data

Note: Figures in bracket shows % to total

were married and only 24 (3.4%) were unmarried and either widowed, divorced or separated. So, it may be inferred that the investment habit of the people begins mostly after marriage only.

It is clear that out of the selected investors, 38.7% are Christians, 32.3% are Hindus, and 29% are Muslims. This shows that religion of the selected investors and their location of stay are dependent on each other. This also shows that the opinion of the investors with reference to their place of residence is closely associated with their religions. This highlights the fact that when there is a change in the regions, the composition of the religion also tend to change.

66% of the selected investors are representatives of the forward class; 30.8% were from the OBC; and 2.1% belong to the SC/ST. From the table it is clear that the investment behaviour of the sample respondents from the forward class is very high. Just below them are the other backward classes while the representatives of the SC/ST are very reluctant to invest in the capital market due to lack of awareness and low income. Hence, it is concluded that the majority of the investors in capital market are people from the forward class.

The educational status of the investors in capital market is also given in Table 1. It shows that 49% of the sample investors have professional qualifications, while 20.7% have college education. Here, it is evident that professionally qualified people are more interested to invest their savings in capital market, due to better awareness and more resultant income.

The classification of the investors on the basis of occupational status shows that 42.7% of the sample respondents are from the salaried group and 42.1% are professionals. This means that the majority of the investors in the capital market were the salaried class and professionals. Agriculturists consist of only 3% and housewives who showed interest on investments is only 4.4%. The involvement of the business people in this sector is negligible, i.e. 6.8% only. However the percentage of pensioners is quite high among the sample respondents against that of the housewives, businessmen and agriculturists.

Region-wise classification shows that 50.4% of the investors, who are employees in either the government or private sectors, are from the central region. In this regard, the northern region shows less interest on investment in the capital market (34.9%). Between the central and the northern regions, investors are more from the southern parts (42.5%).

Agriculturists in the south and the central regions are not interested to invest in capital market. Meanwhile, 8% of the agriculturists in the northern region, 4.8% of the homemakers in the southern region, 4.1% from the central region, and 4.2% from northern region show an interest in the capital market. It is found that only 3.1% of the pensioners from the southern region, 2.5% from the central region and 5.9% from the northern region showed an interest in the capital market.

Classification of the investors on the basis of their places of residence showed that 92.4% of the sample investors were from the Corporation area, while only

4.5% and 3.1% were from the Panchayat and Municipal areas respectively. So it may be inferred that the majority of the capital market investors were from the Corporation area which may be because of greater awareness about the capital market.

The investors in the capital market residing in the Corporation area from the southern region were 93%, while those at the central and northern regions were 91.4% and 92.9% respectively. At the Panchayat level, the southern region had 4.4%, the central region had 4.9% and the northern region had 4.2% investors respectively. In the Municipal area, the investors from the southern region were 2.6%, while it was 3.7% and 2.9% from the central and northern regions respectively.

2. Classification of Investors based on Size of Family and Number of Earning Members

The family details of the investors, namely size and number of earning members, were elicited from the respondents. The details are given in Table 2.

Here, all the investors were classified into three categories, viz. small, medium and large size as given in Table 2. The small-size household implies households having members up to two members, medium-size household upto four members, and large-size household more than four members.

When considering the family status, it was observed that 58.5% of the sample investors belonged to the medium-size

Table-2

Family Status of Investors in Capital Market in Kerala

Category	Status	South Nos.	Central Nos.	North Nos.	Total Nos.
Family Size	Small	87(38.2)	113(46.3)	75(31.5)	275(38.7)
	Medium	139(61.0)	126(51.6)	150(63.0)	415(58.5)
	Large	2.(9)	5(2.0)	13(5.5)	20(2.8)
	Total	**228(100.0)**	**244(100.0)**	**238(100.0)**	**710(100.0)**
No. of earning members	One	26(11.4)	18(7.4)	20(8.4)	64(9.0)
	Two	192(84.2)	203(83.2)	197(82.8)	592(83.4)
	Above Two	10(4.4)	23(9.4)	21(8.8)	54(7.6)
	Total	**228(100.0)**	**244(100.0)**	**238(100.0)**	**710(100.0)**

Source: Primary data

Note: Figures in bracket shows % to total

family, while 38.7% belonged to the small-size family. Family status and number of family members also directly influenced the investment behaviour of an individual.

The number of earning members in a household has a direct impact on the economic status. Table 2 shows that 83.4% of the sample investors have two earning members while 7.6% have more than two earning members. The data shows that the majority of the sample respondents have at least two earning members in the family.

3. Annual Family Income Status of Investors in Kerala

The details regarding the annual family income furnished by the respondents are given in Table 3.

Table 3 shows the allocation of the annual family income of the sample investors. 42.8% comes under the income range of rupees seven to nine lakhs. Annual family income between rupees one to three lakhs showed a curiosity in the capital market investment. But the lowest income group (less than rupees one lakh) showed a modest interest (4.1%) on the capital market investment. 10.1% of the people are above the income level of rupees nine lakhs. Hence, it may be inferred that the capital market investors are mostly from the high income groups.

4. Investors Based on Income Tax Assessment

The details of the respondents who pay Income Tax are given in Table 4.

Table 4 shows that 99.6% of the sample respondents are Income Tax Assessees and submit their returns regularly. Region-wise also there was not much variation. This indicates that capital market investors are tax payers.

FINDINGS

1. The study indicated that investors with various income levels do show

Table-3

Annual Family Income Status of Sample Respondents

Income	Status	South Nos.	Central Nos.	North Nos.	Total Nos.
Annual Family Income	< 100000	10(4.4)	10(4.1)	10(4.2)	30(4.2
	100000-300000	5(2.2)	6(2.5)	5(2.1)	16(2.3)
	300000-500000	57(25.0)	51(20.9)	50(21.0)	158(22.3)
	500000-700000	40(17.5)	50(20.5)	40(16.8)	130(18.3)
	700000-900000	89(39.0)	105(43.0)	110(46.2)	304(42.8)
	> 900000	27(11.8)	22(9.0)	23(9.7)	72(10.1)
	Total	**228(100.0)**	**244(100.0)**	**238(100.0)**	**710(100.0)**

Source: Primary data

Note: Figures in bracket shows % to total

Table 4

Sample Respondents who Pay Income Tax

Category	Status	South Nos.	Central Nos.	North Nos.	Total Nos.
Number of I.T. Assessee	Assessee	227(99.6)	244(100.0)	236(99.2)	707(99.6)
	Non-Assessee	1(.4)	0(0)	2(.8)	3(.4)
	Total	**228(100.0)**	**244(100.0)**	**238(100.0)**	**710(100.0)**

Source: Primary data

Note: Figures in bracket shows % to total

a significantly different preference to investments.

2. Educationally qualified and employed high income people show more interest to invest in capital market.
3. The preference of the investors to invest in capital market instruments was different.
4. The personal expectations of the investors are different.
5. Majority of the investors in capital market are from urban population.
6. Majority of the Capital Market investors were income tax payers
7. Majority of the existing investors would like to increase their investment in the next two years.
8. Investors in Kerala prefer to invest their savings in different companies and they prefer blue chip and medium-size companies.
9. The capital appreciation is considered by all age groups as important factors.
10. The objective of the investors is to earn dividend for higher education of their children.

SUGGESTIONS

On the basis of the findings and conclusions drawn from the study, the following recommendations are made. These recommendations will be useful to the policymakers in the state as well as at the national level for framing future policies.

1. The financial institutions, corporate and regulatory authorities, brokers, asset management companies and Government need to initiate steps to educate and popularise capital market investments.
2. There is a need for creating awareness about the equity and derivative markets through the print and electronic media.
3. The government needs to introduce more schemes in the form of tax concessions to channelise funds towards capital markets.

4. Too much volatility is the major apprehension of investors in the capital market; hence SEBI and the government need to take steps to minimise the same.

5. From the study it was found that investors were more from the corporation area, hence steps should be taken to attract rural and semi-urban people to invest in capital markets.

6. Take steps to introduce capital market as a subject of study, even at the base level. The Ministry of HRD needs to consider this and introduce capital market as a curriculum from the sixth standard onwards. The investment habit among students should be fostered by introducing investment clubs from the eighth standard onwards.

7. There is no awareness among the investors that it is possible to invest even small amounts in the stock market. This awareness needs to be created among the public through the print and the electronic media.

8. From the study it is learnt that investment is mainly looked after by the male members of a family. As females and youths who are engaged otherwise have enough time, there is a need for SEBI and the government to come out with advertisements through films, short films, documentaries and the print media to explore more investments from these sections.

9. The Mutual Funds, ULIP and PF authorities may introduce capital protection and guaranteed return schemes to attract investors.

10. Steps should be taken by SEBI and its associates to a fair and truthful disclosure of information to the investors, so as to know what kind of risks they are taking when they invest in capital market instruments.

11. Depository services are unknown to investors. In this digital era every single investor should be aware of the services provided by the depository participants and SEBI may direct depository participants to conduct awareness, seminars and workshops at major locations.

12. There is an administrative delay involved from the Asset Management Companies to process redemption requests and release payments; steps may be taken to the speedy processing and repayments.

13. The government and agencies may entrust institutes and universities to educate the households to invest more in the capital market by reducing their unproductive expenses.

14. SEBI may introduce new blog sites to provide professional advice on stock and scheme selection free of cost.

15. The rating of schemes by reputed credit rating agencies would give higher confidence to the investors. Hence SEBI may introduce rating and popularise it through media.

16. SEBI may direct Asset Management Companies to chalk out schemes

that are attractive investment than gold, silver, diamond, etc.

17. The co-operative sector in Kerala is a vital cog in the economy. There is a possibility for attracting small investors at grass root level through co-operatives. Hence steps may be taken to distribute capital market products through them.
18. The mutual fund agencies may extent their campaigns in the rural area to mobilise more savings towards capital market.
19. The general public may be equipped with the understanding of the formalities and benefits of the Systematic Investment Plans (SIP), and popularise pledging facility available on capital market instruments.
20. The capital market agencies and distributers may widen their network to reach the public.
21. The capital market players should tailor products to encourage small investors and implement public contact programmes to attract the public to the capital market.

Great Indian Missions

- **Mars Mission**
- **Make India Campaign**
- **Swatch Bharat Abhiyan (Clean India)**
- **Waste-to-Wealth Programme**
- **Global Campaign on Climate Change**
- **Digital India Campaign**
- **National Skill Development Programme**

Glossary

Job Hunting or Job Seeking or Job Searching: It is the act of looking for employment. It may be due to unemployment, discontent with a present job or a desire for a better position. The job hunter or seeker typically first looks for job vacancies or employment opportunities. Common methods of job hunting are: finding a job through a friend or an extended business network, personal contacts, online social network service using an employment website, job listing search engines, looking through the classified in newspapers, using a private or public employment agency or recruiter. Looking on a company's website for open jobs, typically in its applicant tracking system and going to a job fair are not uncommon in present day practices.

Job Satisfaction: Also called Employee Satisfaction has been defined in many different ways. Some believe, it is simply, how content an individual is with his or her job; in other words, whether or not one likes the job or the individual aspects or facets of a job, such as nature of work and supervision. Others believe, it is not as simplistic as this definition suggests, instead that multidimensional psychological response to one's job is involved. There are many aspects to job satisfaction depending on what each individual person feels to be important.

Job Analysis: It is the process that is used to collect information about the duties, responsibilities, necessary skills, outcomes, and work environment of a particular job. You need as much data as possible to put together a job description, which is the frequent outcome of job analysis. Job analysis may include activities like reviewing the job responsibilities of the current employees, doing Internet research and viewing sample job descriptions online or offline, highlighting similar jobs and analysing the work duties, tasks, and responsibilities that need to be accomplished by the employee filling the position. Researching and sharing with other companies that have similar jobs, and articulation of the most important outcomes or contributions needed from the position are the other activities.

Job Description: Effectively developed, employee job description is a communication tool that is significant for an organisation's success. Job description is a written statement that describes the duties, responsibilities, required qualifications, and reporting relationships of a particular job. It is based on objective information obtained through job analysis, an understanding of the competencies and skills required to accomplish needed tasks, and the needs of the organisation to produce work. A

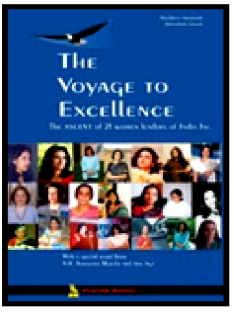
poorly written employee job description surely add to workplace confusion, hurt communication, and make people feel as if they do not know what is expected from them. Job description clearly identifies and spells out the responsibilities of a specific job. It also includes information about working conditions, tools, equipments used, knowledge and skills needed, and the relationship with other positions.

Job Enrichment or Job Enhancement or Vertical Job Expansion: It adds new sources of job satisfaction by increasing the level of responsibility of the employee. It is a vertical restructuring method by virtue of giving the employee additional authority, autonomy and control over the way the job is accomplished. It makes the job more meaningful, enjoyable and satisfying. It gives the workers more autonomy for planning and controlling the job. Job enrichment gives the workers opportunities for achievement, recognition, advancement and growth. The workers, therefore, are motivated to work harder.

Job enlargement: It means a horizontal expansion of a job. Job enlargement refers to having additional duties and responsibilities in a current job description. It adds more duties, and an increased workload. It is a vehicle employers use to put additional workload on employees, perhaps in economical downtime. Due to downsizing, an employee might be lucky to have a job at all, despite the fact that his duties and responsibilities have increased. Another approach is by adding more variety and enlarging the responsibilities which in turn will provide the chance of enhancement and more productivity. It is also useful for motivating the workers to perform their tasks enthusiastically.

Job Burnout or Job Stress: It has been described as the erosion of the soul, a cross between helplessness and hopelessness, a severe loss of motivation and/or a mismatch between the requirements of the employer and the capabilities of the employee. Burnout can come about as the result of stress, low morale, poor working conditions, a bad boss, or simply having too much to do and not enough time to do it. Alcohol, anxiety, depression, diseases like diabetes, heart problems, high cholesterol, fatigue, insomnia and obesity can also cause burnout. Burnout can occur at every level of an organisation; from the mailroom to the boardroom. It is commonly found among helping professionals like nurses, teachers, and social workers but it is also found among police officers, lawyers, EMS workers, factory workers, white collar executives, customer service people, middle-level managers, and salespeople.

Book Review



THE VOYAGE TO EXCELLENCE

The Ascent of 21 Women Leaders of India Inc.

NISCHINTA ABHIRAM, DEBASHISH GHOSH

Pustak Mahal, New Delhi Page 280 Price 395

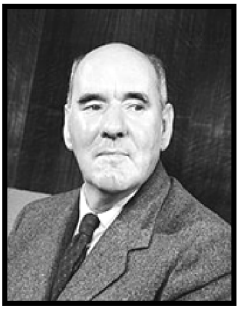
The book under review tells the stories of 21 successful women entrepreneurs in the Indian business world starting from Akhila Sriram of Sriram Investment Limited, Chennai to Zia Modi of AZB & Partners, Delhi.

Women in India constitute only a small percentage of the workforce and when it comes to businesswomen in the 21st century India, it comprises less than 21% of the Indian entrepreneurs. Women in business have now begun to exert a greater influence at the workplaces. This new wave is fairly recent and is a welcome development in a country like ours. Very impressive progress has been made by women entrepreneurs since the 1980s. As more such icons are created, newer breeds of women leaders are springing up at different levels of various organisations. The women entrepreneurs who have emerged in the past two decades in India have successfully shattered the glass ceiling to grow into vital dynamic leaders and are being recognised for their contributions in the economic and social spheres.

'The Voyage to Excellence' by Nischinta Amarnath and Debashish Ghosh charts the challenges and success of 21 women who won against all odds with passion, courage and conviction and have ascended the 21st century leadership of India Inc. In this bold venture, Debashis Ghosh, a participant of MBA programme, IIT Madras; and Nischinta Amarnath, who was pursuing her graduation in Economics in Stella Maris College, Chennai, gives an insight into the dynamics of business model spearheaded by these exceptional human beings. The real story of Indian businesswomen revealed in the book will inspire the young minds in India on how to go ahead with the challenges of the 21st century business world. The book serves as a beacon for thousands of young girls and boys who are on the threshold of their careers.

This book is not just about businesswomen. It is about the celebration of what it takes to succeed in the face of high social and cultural odds. It tells the story of women who scaled greater heights challenging the socioeconomic, cultural and gender barriers of a largely male-dominated business world.

The experiences of successful women entrepreneurs explained in this book are excellent indicators of what exactly the problems that plagued their careers are. Apart from chronicling the lives and experiences of the 21 extraordinary women executives, it also reveals the indomitable human spirit that gives expression through the amazing creative endeavour, drive and ambition of the two young students who made this book happen.



Creative Thinkers of Management 9

CYRIL NORTHCOTE PARKINSON (1909-1993)

Modern management is challenged by four dysfunctions which are well explained as four principles. They are the Peter Principle (Lawrence J Peter), the Pareto Principle (Vilfredo Pareto), the Parkinson's Principle (Cyril Northcote Parkinson) and the Procrastination Principle. Parkinson's Law was invented by Cyril Northcote Parkinson while he was working as a Naval Officer.

Cyril Northcote Parkinson (1909-1993) was not a management guru in the traditional sense. But his realisation about time management is universally accepted. In this respect he stands in the line of Laurence Peter whose principle (Peter Principle) says, "In a hierarchy, every employee tends to rise to his level of incompetence". He also subscribes to the views of Scott Adams (Dilbert principle). The Dilbert principle refers to a 1990s theory by Dilbert cartoonist Scott Adams which states, "companies tend to systematically promote their least-competent employees to a generally middle management level in order to limit the amount of damage they are capable of doing".

Parkinson's first calling was as a naval historian, and his Ph.D. thesis at the London University was entitled 'War in the Eastern Seas, 1793-1815'. For the rest of his life he continued to write naval history and a number of fictional stories set at sea, in much the same genre as C.S. Forester and Patrick O'Brian. But Parkinson is best known for his non-naval book, 'Parkinson's Law'. The book was the expanded version of his article first published in 'The Economist' in November 1955. Satirically illustrated by Britain's then leading cartoonist, Osbert Lancaster, the book was an instant hit. It was wrapped around the author's law which states, "work expands to fill the time available for its completion". Thus, Parkinson wrote, "an elderly lady of leisure can spend the entire day in writing and dispatching a postcard to her niece at Bognor Regis … the total effort that would occupy a busy man three minutes all told, may in this fashion leave another person prostrate, after a day of doubt, anxiety and toil."

Parkinson's first humorous and satirical article published in the Economist on 19th November, 1955 was perceived as a critique on the efficiency of public administration and civil service bureaucracy. Through this he was trying to criticise the phenomenon of continually rising headcount and related cost attached to these. The article noted that, "Politicians and Taxpayers have assumed that a rising total in the number of civil servants must reflect a growing volume of work to be done". Parkinson's well accepted law examined two sub-laws, namely 'The Law of Multiplication of Subordinates' and 'The Law of Multiplication of Work', providing 'scientific proof' of the validity of these, including mathematical formulae.

Prof. C.N. Parkinson of the University of Malaya, whose book 'Parkinson's Law' has sold more than 80,000 copies.

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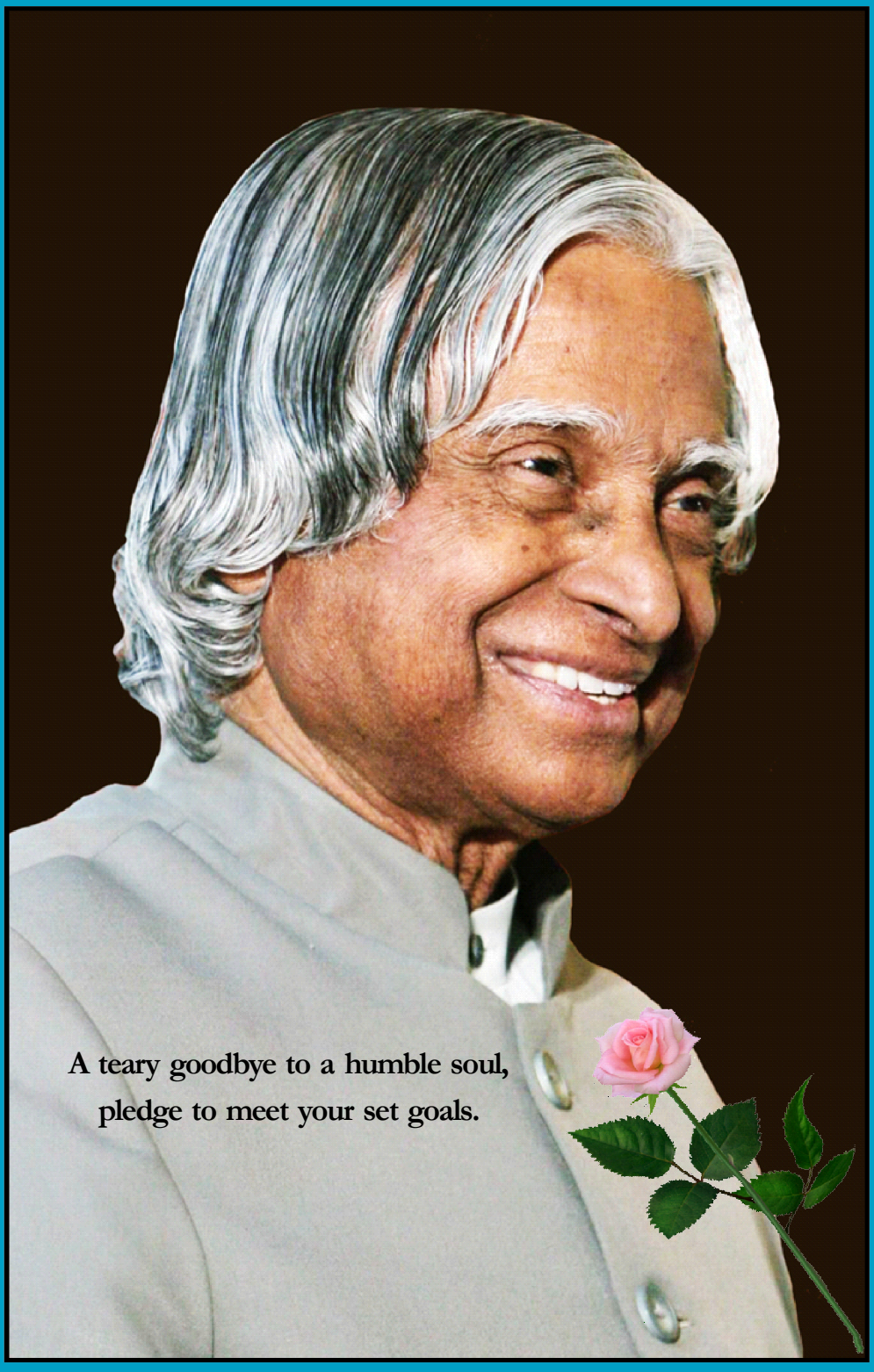

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