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### Chief Editor's Voice

## CASH CRUNCH: NO NEED FOR PANIC

Almost two years have gone down the line since the Union Government has brought demonetization by banning high denomination notes in the country. It has impacted the people initially due to cash crunch and the banks had to dabble with a huge problem, as replacing old currency bills with new ones in a large country with huge population is a herculean task that too when its economy is predominantly a cash driven one. Even though people have overcome the turbulence for quite some time now, as the situation is back to normal, still the scar left in the minds of the people by this experience sends a shiver down their spine whenever they get a whiff of cash shortage. Recently some shortage of cash was felt in certain states like Andhra Pradesh, Telengana, Karnataka and Madhya Pradesh. It continued for a month or two. The Finance Ministry explained this shortage as a manifestation of unusual spurt in currency demand over these months. It was found that due to certain unusual phenomenon, the month of April recorded an increase of Rs 45000 crore in currency supply in this geographic area. In order to quell the panic spreading, time and again the Ministry has asserted that there was no cause for concern, as the government has sufficient cash/currency reserve at their disposal which can be deployed to meet the demand.

RBI also assured that there is enough cash in its vaults and the reason for the current crisis was due to the seasonal phenomenon in certain parts of the

country, and also due to some logistical issues associated with replenishing ATMs. It is well known that the money deposited in the banks by the common man is very precious to them as it is the savings out of their hard earned money. The issue becomes very sensitive when there is a doubt or some difficulty in withdrawing that deposit from banks on their request. The banking business is running on the confidence of the customers. We should not do anything that will impair the trust and confidence of the customers. On this problem, mainly localized, the comments of some of the politicians including former finance minister were untimely and unwarranted. It is at such times of crisis that these seasoned politicians should study the matter in detail and educate the people about the crux of the problem and help them overcome the situation. After all, the banking system of the country is a covetable property of ours and its proper functioning is a national pride.

There was some truth in saying, at a given period, there was a sudden upward trend in the currency in circulation in certain limited areas. It rose to 8% from the normal 4.4% due to some unusual phenomenon in cash transactions. It even went up to 12% creating a sudden shortage of Rs 70000 Cr during a particular period. It may be noted that demand for the money and its supply is not uniform at all seasons and at all places. It may be due to seasonal withdrawal on the part of farmers for agricultural purposes or due to the

unusual withdrawal of cash from different locations by some unscrupulous politicians for the anticipated election expenditure and thereafter. There was also some panic withdrawal by common customers due to fear psychosis created by the people and politicians that there is something wrong with the banks.

The bail in clause of the forthcoming Financial Reconstruction and Deposit Insurance Bill is one of the causes of concern about this crisis. Although the government has repeatedly issued clarifications on this bail in clause under the FRDI bill, in the wake of the recent banking related scams, people are panicking. The FRDI bill aims to set up a Resolution Corporation to monitor financial companies. The RC categorizes the companies as per their risk profiles and step in to prevent them from going bankrupt by writing down their liabilities. The fear of the FRDI bill 2017's bail in clause has led to public withdrawing their deposits from the bank

The government has also made it clear that the cancellation of the liability of a depositor beyond the insured limit cannot take place without his or her prior consent. Further, the use of the bail in clause will be subject to government scrutiny and parliamentary supervision. It is also assured that in the event of a bail in, the Resolution Corporation will ensure that depositors get back at least as much money as they would have if the bank had been liquidated

Bankers have urged members of the public against accelerated withdrawals from their savings bank accounts and deposits. Banks have an additional responsibility to tell customers not to panic. There is a need to alert their customers not to withdraw from banks unnecessarily out of panic and

put it in high risk instruments. They also need to be dissuaded not to stash the cash in bank lockers or keep hard money at home. This will make the money sitting idle and unproductive at the time of crisis. Unless correct information is not disseminated in time, confusion will prevail and despondency will drive some people withdrawing money from the bank and not putting back the surplus cash when their requirements are over.

One of the anticipated benefits of demonetization was to encourage digital transactions. A significant increase in digital transactions would have mitigated the need for cash in the economy. But a look at PoS transactions shows that there has not been appreciable growth in both PoS transactions combined with mobile wallet payments. SBI, the country's largest lender, has urged its customers to withdraw money from the PoS terminals of merchant establishments. The SBI has six lakhs PoS machines; majority of them are enabled to dispense cash.

The Government has intervened timely in this issue and took initiative to mitigate the problems by distributing cash in the affected areas. The government also assured uninterrupted supply/distribution of currency in circulation by continuing with printing of notes in four institutions under the government. The SBI, the principal lender of the country, has the capacity to transfer the money from the State having surplus to the State having shortage in time of cash crunch. Government and bank authorities should give the customers full confidence that their money will be safe and secure in the banks to avoid major upheavals in the economy.

## UNEXPLORED TOURISM DESTINATIONS - A STUDY ON THE PROBLEMS AND PROSPECTS OF CAVE TEMPLES IN SOUTH KERALA

**\*Dr. V. S. Santhosh**

### **Abstract**

Cave temples are a rather uncommon sight in Kerala, although found comparatively in abundance in Northern India. Ancient history reasons the emergence of Buddhism and Jainism as major religions in the subcontinent to these carved out monuments of the worshipped, mythical or real. Indian rock-cut architecture is one of the main forms of architecture seen in caves. It is the practice of creating a structure by carving it out of solid natural rock. Along with sculptures some caves are famous for painting like the Ajanta caves. Tourism can dish up as an effective gadget in integrating the globe into a single universe. The main purpose of this study is to smidgen a meticulous look into the problems and prospects of the cave temples in Southern part of Kerala. By considering the significance of this ecosystem having archeological importance, it is quite important to undertake a study like this.

**Key words:-** Tourism, Cave temples, Tradition, Entertainment, Environment.

**T**ourism is the activity of persons travelling to and staying in places outside their usual environment for leisure, business or any other purpose. Tourism is a popular people based industry providing employment opportunities for a large number of populace and earning

valuable foreign exchange. Tourism is well recognized as an engine of growth in the various economies in the world.

Tourism was developed as a key sector for Kerala's development, not only for the well established reasons of increasing income and employment but also for its potential to generate

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employment in the state. Kerala, the southernmost state of the Indian union enjoys a unique position in all walks of life. The land itself is a nature's gift though very small in area; it has a picturesque variety of landscapes and abundance of plants and habitats. The entire tourism products such as hill stations, back waters, beaches, lagoons, and wildlife sanctuaries are present in the State.

### **Significance of the study**

Tourism can dish up as an effective gadget in integrating the globe into a single universe. It inspires massive investment in infrastructure, and helps to improve the living conditions of the local people. Several countries have transformed their economies by developing their tourism potential. Tourism has great capacity to generate large-scale employment and additional income sources to the skilled and unskilled. The Cave temples are a rather uncommon sight in Kerala, although found comparatively in abundance in Northern part of India. The main purpose of this study is to smidgen a meticulous look into the problems and prospects of the cave temples in Southern part of Kerala. By considering the significance of this product which is having archeological and ecological importance, it is quite imperative to undertake a study like this.

### **Objectives of the study**

1. To examine the problems prevailing for the development of Cave temples in Kerala and tourism sector.
2. To study the prospects of Cave temples in Kerala tourism scenario.

### **Database and Methodology**

The study is based on both primary and secondary data collected from various sources. The data were collected and analyzed with the help of appropriate statistical tools. To substantiate the analysis, existing literature on the topic was used. Informal personal interviews, discussions with the stake holders and personal observations of the researcher were used to supplement the study.

### **About Cave temples**

The rock-cut temple represents the glimpse of an ancient culture that was prevalent at the time of its construction. The temple showcases the traditional artistic excellence in the sculptures carved out from the giant rock. Cave temples are a rather uncommon sight in Kerala, although found comparatively in abundance in North India. Ancient history reveals the emergence of Buddhism and Jainism as major religions in the subcontinent to these carved out monuments of the worshipped, mythical or real. These temples were sponsored by the travelling merchants of those days for whom it was a must to earn the goodwill of every urban society through which they needed to pass through and conduct business with. In return for a fair profit, they ensured to create goodwill among the people of that society by sponsoring a place for worshipping their revered figures and the custom of those days desired the temples were made on rocks. While Buddhism and Jainism rapidly spread roots in Northern India thus, the rulers of the South became skeptical of their beliefs being erased out in the process. So, to negate it, the southern



rulers began fortifying the beliefs of their own land and its people, and in the process replicated some of the steps that the other religions followed.

### **Cave Architecture in India**

Cave architecture is often called as Rock-cut architecture. Indian rock-cut architecture is one of the main forms of architecture seen in caves. It is the practice of creating a structure by carving it out of solid natural rock. Along with sculptures some caves are famous for painting like the Ajanta caves. The earliest caves were natural caves used by people for a variety of purposes such as shrines and shelters. Indian rock-cut architecture is mostly religious in nature. There are more than 1,500 rock-cut structures in India.

Caves were excavated out of rocks, as rocks are very durable as compared to other materials like wood or any other structural building. They were used as (Varshavasa) residences for Buddhist monks during rainy season and as a medium to propagate principles of different religions. The oldest rock-cut architecture is the Barabar caves, Bihar built around 3<sup>rd</sup> Century BC. Other early cave temples were used by Buddhist and Jain monks as places of worship and residence found in western India. Buddhist cave architecture reflected in the form of caves date back from 100 BC to 170 AD. At some places we see traces of wood being used and this indicates imitation of wooden construction of that period. Important Cave temples in South Kerala

#### **1. Madavoorpara Cave temple**

‘Madavoorpara’ cave temple is dedicated to Lord Shiva. It is engraved

out on its steep slope, signifying a tradition whose bits and pieces can still be found here. ‘Madavoorpara’ is now a protected site. The place has been developed both as a centre for recreation as well as for worshipping Lord Siva. The ‘temple’ is actually nothing more than a cave carved out on the surface of the bare rock, which has now been protected with iron doors.

The Madavoorpara rock-cut cave temple is one of the two cave temples that is situated in Thiruvananthapuram district between Pothencode and Chempazhanthy. One of the legends about the origin of the cave temple says that the shrine was built by a Buddhist monk centuries ago. Some believe that the temple was built by Jains. The temple which closely resembles to the ancient cave temples of the Jains has an antiquity of around 1300 years. Thirteen steps had been carved on the same rock leads one to the square-shaped temple. The temple was owned by the Chenkottukonam Ashram before being taken over by the state archaeology department in 1960. Rock cut temples are one of the main styles of Kerala architecture during ancient period.

Today, more important than the cave temple, ‘Madavoorpara’ is being developed to become a perfect recreational spot for those who would want to take a breather from the daily chores of life and spend some time sitting far above all the noise and pollution and observe life from a distant perspective. It is a bit of a difficult climb through the rocky slopes, especially for the elderly, but if one could make it through the beautifully constructed bamboo bridge which leads to the top of the rock, to a

small hut with benches made of bamboo wood inside, waiting for the visitors, it is a visual treat that welcomes one's eyes and a soft breeze to caress the body with a soothing effect.

The bamboo bridge that takes one to the hut atop the rock, and the panoramic view of the greenery that spreads all around that can be viewed sitting inside the hut, is what makes 'Madavoorpara' a true treasure to the city, one that still needs to be properly recognized and utilized in terms of value and potential by the general public. From the top it can be seen the distant images of the Techno park buildings and a few other high rises rising tall from the green carpet that's spread more or less evenly throughout, which still pays justice to the label given to this city by the '*Father of Our Nation*' as being the 'Evergreen City of India'. There is also a children's park built at the base of this rock for families to spend some time for getting entertainment at 'Madavoorpara'.

## 2. Vizhinjam Rock Cut Cave temple

Vizhinjam is a natural port located close to international shipping routes in Thiruvananthapuram city in the Indian state of Kerala. Vizhinjam International deep water Seaport is a Multipurpose Seaport, which was formed a separate company, viz. Vizhinjam International Seaport Limited (VISL) as a special purpose Government company, fully owned by Government of Kerala. Vizhinjam harbour is the site of a unique demonstration plant that converts energy from waves to electricity using Oscillating Water Columns (OWCs). Vizhinjam dates back to the rule of the Ay

dynasty and was the capital of the '*Ay chieftains*' who ruled the southern parts of Kerala in the 18th century. About 850 AD – 1400 AD, the region was the scene of many battles between the Kulasekhara dynasty and the Cholas then Vizhinjam was sacked by the Cholas.

Distinctive and an elaborate display of unrestrained aptitude, the Vizhinjam Rock Cut Cave Temple houses rock cut sculptures dating back to the 18th century. The granite cave encloses a one-celled shrine with a loose sculpture of '*Vinandhara Dakshinamurthi*'. The outer wall of the cave has unfinished sculptures of Lord Shiva holding a bow and dancing '*Lord Shiva*' with his better half '*Goddess Parvathy*'. It is about 17 kilometers from the city centre and is just three kilometers near to Kovalam beach. The cave was left unnoticed for a long time.

Vizhinjam and the nearby areas are famous for Ayurvedic treatment centers and internationally acclaimed beach resorts. Vizhinjam, the seaside village was once the capital of the many chieftains who dominated the southern parts of Kerala. Vizhinjam also was a former Dutch and British factory, of which nothing can now be seen.

## 3. Kottukkal cave temple

Kottukkal cave temple, also known as Kalthrikkovil in Malayalam. The name Kottukkal, which means Kothiya Kallu - carved rock, is a reference to rock cut shrine. The name of the temple is derived from the place (Kottukkal) it was built. The Kottukkal cave temple is located near to Anchal which is 45 kilometers away from Kollam, a southern district of Kerala. The temple bears the signature of

classic rock-cut architecture. The temple complex would give a distance view of a sleeping elephant. The ancient temple was built over a period of time. However, the exact date is not apparent as there is no clear reference to this temple in any of the older literature pertaining to ancient Kerala.

According to local traditions, the big rock was brought to the area by the incarnations of Shiva including Nandi to the area, and another small rock near to it called 'chummaadu para' is believed to be the support to relieve the pain when the bigger hard rock kept in head. Historians interpret its origin back to the 7th century AD when 'Nedila Paranthaka Nedumchadayan' who ruled Chadayamangalam the nearby place, made the rock cut temple. Another school of thought thinks that this temple was built during the Pallava period. The historians subscribing to this school of thought that this temple is contemporaneous with Shore Temple seen at Mahabalipuram, near Chennai in Tamil Nadu. These historians pointed out to the similarity in construction style to point out the same period of construction. They argued that the same set of artisans might have worked on both the temple constructions under the Pallava rulers.

The temple complex has two caves of unequal size. Both of these caves face east as it is the custom followed while building temples from ancient times. The visitors cooling their heels in the premises of the temple would be doing well by enjoying the cool breeze coming from open space below. Moreover, the serenity and tranquility of the environs would

bring back the travellers again to this pleasant spot.

There is the idol of Lord Vigneshwara in between the two rooms. The top portion of the two rooms is covered by a single roof made of stone. The two rooms lead to the inner temples. The temple has on its premises a well that never gets dry. In the ancient times, the water from the temple well was used to irrigate the paddy fields around the temple. Uniqueness about this temple is the presence of the combination of deities of Shiva, Nandi and Hanuman.

The temple is now situated in the centre of a large extent of paddy fields and daily rituals are done under Travancore Devaswom Board. The calmness and tranquility of the area attracts the travelers, and one can reach the spot by road from Kollam. This rock cut temple represents the vibes of an ancient culture and also the traditional artistic excellence prevalent at that time. The monument is protected by the Department of Archaeology, Government of Kerala. It is a reputed national and international tourist attraction too.

### **Challenges of Cave temples in Kerala**

The cave temples in Kerala are now facing the challenges mentioned below:

#### **1. Disposal of waste, hygiene and cleanliness**

The waste disposal system of the tourist centers is not properly maintained, even though they are available. If they are properly maintained it makes the places in a more attractive manner and will

attract more number of tourists. The usage of plastic articles, waste materials etc. make the environment a polluted one.

**2. Guided services**

The services of the guide for the tourists in the destinations are below the standards. The guides deployed in various centers are not properly trained so as to cope up with the demands of tourist. It is an important challenge faced by cave temples and the development of tourism in Kerala.

**3. Lack of proper infrastructural facility**

Even though Kerala is labeled as ‘*God’s Own Country*’, it is not able to meet the basic current requirement of various infrastructural facilities such as toilets, kiosks, fireplaces, benches, parlors, information centers, waiting sheds etc to be needed in various destinations.

Absence of these basic infrastructural facilities in the destinations can be considered as an important reason for the decline of inflow of tourists.

**4. Basic Amenities**

The basic amenities are the factor that helps to promote tourism in Kerala. The basic amenities such as transport facilities, hotels , car parking areas, wash rooms, restaurants, hotels, waiting sheds etc are absent an it makes the destinations a weaker one. Hence, necessary initiatives are to be taken to solve this problem by providing standard facilities to the tourists.

**SWOT Analysis**

In order to draw an exact portrait of cave temples in Kerala, a SWOT analysis was made. The important aim this attempt is to analyze the Strengths, Weaknesses, Opportunities and Threats with the emphasis on popularizing these centers.

<b>Strengths</b>	<b>Weaknesses</b>
a. Natural environment.	a. Inadequate infrastructure.
b. Scenic beauty.	b. Taxation policy of the Government .
c. Smooth law and order.	c. Restrictive coastal regulation zone.
d. Innovative brand and positioning.	d. Waste disposal system.
e. Eco friendly products and services.	e. Lack of trained guides.
f. Advanced society and full literacy.	
<b>Opportunities</b>	<b>Threats</b>
a. Unused potentialities of Eco-tourism.	a. Pollution and ecological hazards.
b. Employment opportunities.	b. Natural calamities.
	c. Cultural distortion.

**Suggestive Strategies:**

The major findings of the study unveil that the destinations are not yet tapped in full. It is therefore recommended promoting these places by creating more linkages. The cave temples can be linked with important neighboring locations/spots like Kovalam beach (near to Vizhinjam), Jadayuppara (near to kottukkal) etc. Since it has a great potential in tourism industry in Kerala, the development of these centers helps to avoid overcrowding of tourists during peak season in major destinations.

There is also Illegal rock and sand mining, water pollution and land reclamation can be seen and is suggested to identify and demarcate the encroached portion and steps should be taken to evacuate illegal encroachers, prevent pollution of environment. The government departments should take immediate steps to prevent illegal encroachment and rock mining in order to keep these places for future generation.

It is also suggested that necessary infrastructure must be developed all along the way to these centers. Establish small huts attached with cafeteria with ice-creams, light refreshments and wash rooms for women and gents. It is the high time to keep the ecology and environment of the cave temples and its surrounding areas. It should also develop proper solid waste management system. More initiatives are required to be taken to build

a better Brand image and Brand loyalty for the product 'cave temples'. The Trivandrum and Kollam *District Tourism Promotion Councils* (DTPCs) has to be professionally equipped by inducting a greater number of experts and can be given more power and responsibilities in identifying, developing, maintaining and marketing a larger number of local attractions including cave temples.

Social media marketing is a cheapest way of marketing and propagating spots like cave temples. Hence, it is better to promote the destination through any of the social media networks like face book, whats App, twitter, Blogs. etc. The Government should also provide adequate support for the development of new ventures in this location in the form of subsidy, financial assistance.

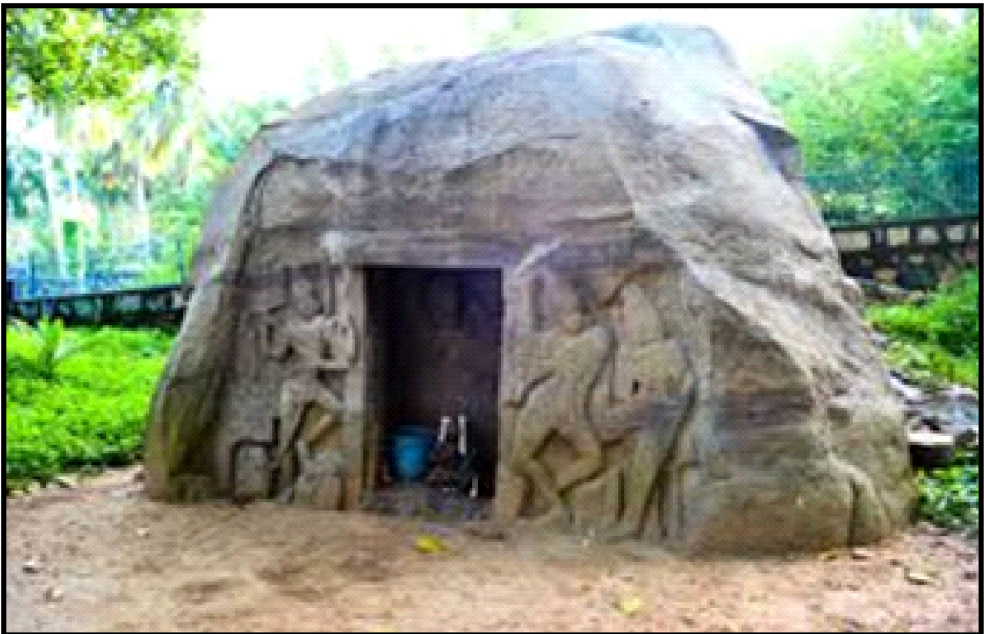
**Conclusion**

The earliest cave temples are related to Buddhism. Later the caves were associated with Hinduism and Jainism. There are variations in the architectural elements according to the religions. Interests in tourists are created due to significance of cave architecture. The caves in our country contain artworks of global importance. Most of them are adorned with exquisite stone carvings. These ancient and medieval structures are amazing achievements of structural engineering and craftsmanship. It will also support for the development of Kerala tourism.

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*Cave Temple*

## PROBLEMS IN IMPLEMENTATION OF WOMEN COMPONENT PLAN BY LOCAL SELF-GOVERNMENTS IN KERALA

\*Chanth R, \*\*Dr. Zajo Joseph

### Abstract

The successful implementation of Women Component Plan (WCP) by Local Self-Governments in Kerala faces a lot of Problems ranging from problems on the part of local bodies to the problems on the part of beneficiaries to make it a successful venture. In order to ensure the empowerment of women at the grass root level, it is mandatory to set apart 10 percent of total plan fund for women centered projects. Many of the WCP projects are traditional in nature and they do not perform in accordance with the expectation.

Generally problems can be classified in to three viz problems related to beneficiaries, outsiders and functioning. The study tries to analyze the extent of these problems in the effective implementation of Women Component Plan.

For the analysis of data descriptive statistics, t-test, Multiple Classification Analysis and Regression Analysis were used. The results showed that education and type of assistance have significant effect on the extent of problems faced by the women beneficiaries.

**Key words:-** Panchayati Raj, WCP, Political Participation

*W*CP (Women Component Plan) was introduced mainly to ensure the economic empowerment of women. For the first time in the history of the local self-government, these bodies were asked to set apart 10% of the grant-

in-aid for projects that directly benefits women. There was no sectoral allocation under WCP and panchayat could prepare any project whose benefits would accrue to women. Unlike earlier programmes which were forced from above, in WCP, the local bodies formulated projects

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based on the felt needs of the people that were put forth in the Grama Sabha. This statutory requirement of setting apart funds for WCP helped the women to occupy space to intervene in the development process. Under WCP, participation of women was ensured in all spheres of activities – be it in expressing opinion, taking part in discussion, formulating project proposals, monitoring or implementation.

### **Review of Related Literature**

Tame Ramya (2014) in her study evaluates the rural development activities of Hiya gram panchayat, tries to identify problems of Hiya gram panchayat in implementing rural development programmes; and to give suggestions for the better implementation of policies and development. The study found that implementation of rural development programmes through the PanchayatRaj Institutions has brought a radical change in the socioeconomic conditions of the rural tribal people in the study village. The implementation of rural development programmes has affected even the social and political affairs of the people. In the economic sphere, these programmes have shaped an improvement in economic position of the village. As a result, most of the tribal villagers have acquired an added income.

Nisha Velappan Nair, John S. Moolakkattu (2014) in their study looks at the performance of the Women Component Plan (WCP) introduced at the local level in Kerala to encourage participatory planning by studying the experience of five village panchayats over a 10 year reference period. There has been

a marked difference among projects carried out under the WCP and general sector projects and projects meant for Scheduled Castes in expenditure efficiency. The article also looks at the nature of projects implemented, the extent of participation of women members in their design and execution, and the opinion of elected representatives on the usefulness of the WCP.

### **Objective**

To analyze various problems faced by the beneficiaries in the effective implementation of women component plan by the Local Self-Governments in Kerala.

### **Data and Methodology**

The present study is based on primary data collected from women beneficiaries of various schemes of local self-governments in Kerala. Multistage random sampling technique was used to gather relevant information from the respondents. In the first stage, State of Kerala was longitudinally divided into three regions viz North, Central and South. Then one district each has been drawn at random from each region. Using random method, five blocks were selected from each districts and one panchayat each was selected from the above said blocks so as to get fifteen panchayats. From the list of beneficiaries of selected panchayats, proportional sample was selected systematically. The total sample size was 390 beneficiaries of various schemes of local self-governments. Pre tested structured interview schedule was used for eliciting answers from the respondents. Statistical tools like t test,



Regression and Multiple Classification Analysis were used for analysis of data.

**Table 1**

**Distribution of sample by their personal characteristics**

Characteristics		n	%
Educational Qualification	Illiterate	59	15.13
	Up to SSLC	145	37.18
	SSLC	112	28.72
	Plus Two	63	16.15
	Graduation and above	11	2.82
Marital Status	Married	332	85.13
	Unmarried	58	14.87
Occupation	Daily wage	154	39.49
	Housewife	236	60.51
Income from other sources	Up to 10000	103	26.41
	10000-14999	224	57.44
	15000 and above	63	16.15
Actual landholding	Below 5	94	24.10
	5-9.99	114	29.23
	10-19.99	103	26.41
	20 and above	79	20.26
Total		390	100.00

Table 1 presents the distribution of sample by their personal characteristics. While analyzing educational qualification it is clear that 16.15 percent of the respondents qualified plus two, 2.82 percent have educational qualification of graduation and above. At the same time it is noticed that 37.18 percent have educational qualification up to SSLC only. As far as marital status is concerned an absolute majority (85.13%) of the respondents are married. In case of occupation, majority (60.51 %) of the beneficiaries is housewives and 57.44percent have income from other sources amounting to 10000-14999. Out of the total respondents 24.10 percent has a land holding of below five cents and

only 20.26 percent have a land holding of twenty cents and above.

**Results and Discussion**

**Table 2**

**Distribution of sample by type of assistance and amount of assistance availed**

		n	%
Type of assistance got from local body	Cattle Rearing	44	11.28
	Sheep Rearing	25	6.41
	Agricultural Gardening	60	15.38
	Rearing of egg lying hens	158	40.51
	House construction (Excluding IAY)	103	26.42
Amount of assistance	250-350	57	14.62
	500-750	161	41.28
	5000-25000	69	17.69
	35000-200000	103	26.41
Total sample		390	100.00

Table 2. Shows the distribution of sample by type of assistance and amount of assistance availed. From the table it is clear that out of the total respondents 40.51 percent got assistance for rearing of egg lying hens, 26.42 percent got for house construction, 6.41 percent got assistance for sheep rearing, 15.38 percent availed assistance for agricultural gardening and only 11.28 percent availed assistance for cattle rearing. As far as the amount of assistance is concerned, 26.41 percent got an assistance ranging from 35000-200000 and 14.62 percent got an assistance ranging from 250-350.

Table 3. Presents opinion of women beneficiaries about level of problems related to beneficiaries, outsiders and functioning while implementing Women Component Plan. Non-co-operation

**Table 3**  
**Opinion of women beneficiaries about level of problems related to beneficiaries, outsiders and functioning while implementing Women Component Plan**

	Problems	Very Low	Low	Medium	High	Very High	Mean	SD	t	Sig.
Problems relating to beneficiaries	Non-cooperation among family members	63	104	176	34	13	2.56	0.97	8.852	0.000
		16.15	26.67	45.13	8.72	3.33				
	Not getting required amount of assistance	34	101	139	84	32	2.95	1.07	0.991	0.322
		8.72	25.9	35.64	21.54	8.21				
Problems relating to outsiders	Ward member's domination	21	73	141	96	59	3.25	1.09	4.591	0.000
		5.38	18.72	36.15	24.62	15.13				
	Interference of outsiders & politics	15	49	93	131	102	3.66	1.11	11.670	0.000
		3.85	12.56	23.85	33.59	26.15				
	Lack of interest among the ward members	26	73	117	108	66	3.29	1.15	5.061	0.000
6.67		18.72	30	27.69	16.92					
Problems relating to functioning	Irregularity in meetings	47	137	140	46	20	2.63	1.01	7.267	0.000
		12.05	35.13	35.9	11.79	5.13				
	Improper maintenance of accounts	11	65	114	146	54	3.43	1.01	8.345	0.000
		2.82	16.67	29.23	37.44	13.85				
	Delay	17	59	156	109	49	3.29	1.01	5.702	0.000
		4.36	15.13	40	27.95	12.56				
	Formalities	16	101	128	104	41	3.14	1.05	2.565	0.011
		4.1	25.9	32.82	26.67	10.51				
	Corruption of officials	51	117	113	88	21	2.77	1.10	4.088	0.000
		13.08	30	28.97	22.56	5.38				
Apathy of Department Staff	40	111	133	80	26	2.85	1.07	2.790	0.006	
	10.26	28.46	34.1	20.51	6.67					

among family members and inadequate amount of assistance is the problems related to beneficiaries. In case of these problems inadequate amount of assistance has the highest mean score of 2.95. At the same time it is noted that non co-operation among family members significantly affect the beneficiaries as the significance level is less than 0.05. Ward Member's domination, interference of outsiders and politics and lack of interest

among ward members are the problems related to outsiders. Among these problems interference of outsiders and politics has the highest individual mean score of 3.66 followed by lack of interest among ward members(3.29) and ward member's domination (3.25). All the three problems have significant impact on beneficiaries as the significance level is less than 0.05. Irregularity in meetings, administrative delay, cumbersome

formalities, corruption of officials and apathy of department staff are the problems related to functioning. Among these problems improper maintenance of accounts has the highest individual mean score of 3.43 followed by administrative delay (3.29) and formalities (3.14). Irregularity in meeting has the least mean score of 2.63. All these problems significantly affects the implementation of WCP as the significance level of all the problems are less than 0.05.

Table 4 deals with the mean opinion score of women beneficiaries about extent of problems faced during implementation of Women Component Plan. From the table it is clear that educational qualification significantly affects the problems related to outsiders, functioning and overall problems affecting implementation of WCP as the significance level of F value is less than 0.05. That is problem related to outsiders, functioning and over all problems decreases as education increases. Marital status and occupation have no impact on the problems in implementation of WCP. Income from other sources significantly affects problems related to outsiders. That is problems related to outsiders' decreases as the beneficiary's income from other sources increases. Actual land holding of the beneficiaries significantly affects the overall problems as overall problems decreases as land holding increases and type of assistance got from the local body significantly affects the problems faced by the women beneficiaries in the effective implementation of women component plan as the significance level of F value is less than 0.05.

In order to find out effect of characteristics of beneficiaries on problems related to implementation of Women Component Plan regression analysis was conducted. Separate regression models were fitted for problems related to beneficiaries, outsiders, functioning and overall problems. Opinion of beneficiaries about extent of problems were taken as continuous dependent variables and characteristics of beneficiaries such as education, marital status, occupation, income from other sources, landholding and scheme of assistance were taken as independent variables. As independent variables are categorical, they were converted in to dummy variables. Table 5 presents the coefficients of regression models.

From table 5, it can be seen that all the regression models except problems related to beneficiaries are valid as the significance level of F values are less than 0.05. The coefficient of determination is found to be the highest for the regression model of presenting overall problems with R square of 0.550. The result indicates that 55 percent of variation in the overall problems in implementing Women Component Plan is determined by the characteristics of beneficiaries and scheme of assistance. From the coefficient of regression models it can be seen that overall problems are significantly lower among beneficiaries of cattle rearing as the coefficient is -0.303. The problem is also found to be lower among beneficiaries of sheep rearing and rearing of egg lying hens compared to the reference category of beneficiaries of

**Table 4**

**Mean opinion score of women beneficiaries about extent of different types of problems faced by the beneficiaries during implementation of Women Component Plan by their characteristics**

Characteristics		Problems related to						Overall problems	
		Beneficiaries		Outsiders		Functioning			
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Total sample		2.73	0.71	3.44	0.75	3.00	0.55	3.06	0.41
Educational Qualification	Illiterate	2.70	0.68	4.16	0.47	3.66	0.37	3.51	0.28
	Up to SSLC	2.76	0.81	3.69	0.57	3.15	0.42	3.20	0.33
	SSLC	2.76	0.67	3.24	0.64	2.83	0.41	2.94	0.25
	Plus Two	2.68	0.58	2.69	0.58	2.52	0.41	2.63	0.27
	Graduation and above	2.64	0.60	2.49	0.40	2.11	0.20	2.41	0.27
	F	0.227		67.123		85.028		96.042	
	Sig.	0.923		0.000		0.000		0.000	
Marital Status	Married	2.73	0.71	3.44	0.75	2.99	0.54	3.06	0.40
	Unmarried	2.73	0.73	3.44	0.78	3.07	0.62	3.08	0.46
	t	0.007		0.027		1.043		0.451	
	Sig.	0.995		0.978		0.298		0.653	
Occupation	Daily wage	2.72	0.76	3.48	0.79	3.08	0.60	3.09	0.48
	Housewife	2.74	0.68	3.41	0.72	2.95	0.51	3.04	0.36
	t	0.282		0.827		0.286		1.363	
	Sig.	0.778		0.409		0.023		0.174	
Income from other sources	Up to 10000	2.68	0.70	3.69	0.64	3.07	0.59	3.15	0.39
	10000-14999	2.72	0.70	3.39	0.74	2.99	0.56	3.03	0.42
	15000 and above	2.87	0.74	3.21	0.85	2.94	0.44	3.00	0.39
	F	1.377		9.467		1.288		3.459	
	Sig.	0.253		0.000		0.277		0.032	
Actual landholding	Below 5	2.80	0.74	3.66	0.65	3.17	0.48	3.21	0.36
	5-9.99	2.67	0.72	3.41	0.81	3.05	0.60	3.04	0.43
	10-19.99	2.68	0.70	3.38	0.71	2.89	0.58	2.98	0.43
	20 and above	2.81	0.69	3.31	0.78	2.88	0.46	3.00	0.36
	F	1.100		3.907		6.221		6.462	
	Sig.	0.349		0.009		0.000		0.000	
Type of assistance got from local body	Cattle Rearing	2.51	0.84	3.36	0.73	2.93	0.53	2.93	0.41
	Sheep Rearing	2.72	0.72	3.25	0.80	2.75	0.54	2.91	0.35
	Agricultural Gardening	2.92	0.66	3.01	0.72	2.71	0.50	2.88	0.38
	Rearing of egg lying hens	2.72	0.69	3.44	0.74	2.99	0.46	3.05	0.37
	House construction	2.75	0.69	3.77	0.63	3.30	0.58	3.28	0.40
	F	2.145		11.677		15.575		13.765	
	Sig.	0.075		0.000		0.000		0.000	

**Table 5**  
**Coefficients of regression models for the effect of characteristics of beneficiaries on problems faced during implementation of Women Component Plan**

Variables		Problems related to						Overall problem	
		Beneficiaries		Outsiders		Functioning			
		B	Sig.	B	Sig.	B	Sig.	B	Sig.
	(Constant)	2.646	0.000	2.603	0.000	2.358	0.000	2.536	0.000
Education	E1: 1 if illiterate,0 otherwise	0.165	0.499	1.583	0.000	1.438	0.000	1.063	0.000
	E2: 1 if Up to SSLC,0 otherwise	0.207	0.374	1.092	0.000	0.985	0.000	0.762	0.000
	E3: 1 if SSLC,0 otherwise	0.197	0.392	0.721	0.000	0.694	0.000	0.537	0.000
	E4: 1 if Plus Two,0 otherwise	0.096	0.684	0.144	0.443	0.366	0.005	0.203	0.029
Marital status	M: 1 if Married,0 otherwise	-0.013	0.900	0.048	0.555	-0.036	0.525	0.000	0.995
Occupation	O: 1 if Daily wages,0 otherwise	-0.028	0.714	-0.038	0.535	0.039	0.352	-0.009	0.760
Income from other sources	I1: 1 if Up to 10000,0 otherwise	-0.162	0.236	0.314	0.004	-0.114	0.127	0.013	0.805
	I2: 1 if 10000-14999,0 otherwise	-0.108	0.348	0.180	0.049	-0.010	0.869	0.021	0.639
Land holding	L1: 1 if below 5 cents,0 otherwise	0.150	0.290	-0.152	0.179	0.061	0.432	0.019	0.730
	L2: 1 if 5-9.99,0 otherwise	0.065	0.643	-0.144	0.198	0.097	0.206	0.006	0.917
	L3: 1 if 10-19.99,0 otherwise	0.027	0.835	-0.120	0.249	-0.024	0.732	-0.039	0.444
Scheme of Assistance	S1: 1 if Cattle Rearing, 0 otherwise	-0.241	0.075	-0.332	0.002	-0.333	0.000	-0.303	0.000
	S2: 1 if Sheep rearing,0 otherwise	-0.041	0.805	-0.163	0.216	-0.340	0.000	-0.182	0.005
	S3: 1 if Agricultural Gardening,0 otherwise	0.197	0.227	-0.291	0.025	-0.245	0.006	-0.114	0.074
	S4: 1 if Rearing of egg lying hens,0 otherwise	-0.057	0.563	-0.120	0.126	-0.206	0.000	-0.128	0.001
R square		0.035		0.451		0.522		0.550	
F		0.909		20.496		27.248		30.529	
Sig.		0.554		0.000		0.000		0.000	

house construction. Education is found to be a significant determinant of overall problems faced by beneficiaries as the significance level of regression coefficients are less than 0.05. From the coefficient of regression model it can be seen that as education decreases problems increases. The other characteristics such as occupation, Income from other sources and landholding has no significant effect in the overall problems faced by the beneficiaries.

The problems related to outsiders are found to be significantly related to education, income from other sources

and scheme of assistance as the significance level of coefficients are less than 0.05. Education is found to be negatively affected by problems related to outsiders as it decreases with increase in the level of education. This problem is also found to have significant negative influence of income from other sources as the coefficient is higher compared to the reference category of income above 15000. Problems related to outsiders are significantly lower among beneficiaries of cattle rearing and agricultural gardening. Similarly negative effect of education is also seen in the case of problems related

to functioning. Problems related to functioning are also found to be high among beneficiaries of house construction as the coefficient of regression for all other scheme of assistance is negative. From the above analysis it was clear that the most important factors determining the level of problems in the implementation of Women Component Plan are type of assistance and education of beneficiaries. To find out the absolute effect of education and type of assistance on the level of problems faced by beneficiaries Multiple Classification Analysis was conducted and the results are presented in Table 6.

Table 6 presents the unadjusted and adjusted mean opinion scores of beneficiaries about extent of problems with respect to education and scheme of assistance. The adjusted mean score represent the opinion of beneficiaries about the extent of problems they faced after controlling the effect of other independent variables. Hence it represents the absolute effect of variable under consideration on the level of problems faced by the women beneficiaries. The unadjusted mean score represents the apparent level of problems with respect to the type of assistance and education of women beneficiaries. . From the table it can be seen that in case of education

**Table 6**

**Multiple classification analysis table for the level of problems with respect to characteristics of women beneficiaries**

	N	Predicted Mean			
		Unadjusted		Adjusted for Factors	
		Mean	R	Mean	R
Education		0.707		0.687	
Illiterate	59	3.5092		3.4891	
Up to SSLC	145	3.2014		3.1944	
SSLC	112	2.9419		2.9623	
Plus Two	63	2.6337		2.6298	
Graduation and above	11	2.4091		2.4230	
Scheme		0.354		0.221	
Cattle Rearing	44	2.9341		2.8684	
Sheep Rearing	25	2.9072		2.9945	
Agricultural Gardening	60	2.8758		3.0521	
Rearing of egg lying hens	158	3.0470		3.0482	
House construction	103	3.2757		3.1781	
Full model				0.740	

the mean unadjusted and adjusted scores are almost equal in magnitude which indicates that the education of women beneficiaries is not having significant interaction with each other. It means that education level of women beneficiaries is having independent effect on the level of problems. But in case of type of assistance, there exist some minute differences in the adjusted and unadjusted mean score. It means that type of assistance has significant interaction with the education level of women beneficiaries.

### Conclusion

From the above result, it can be concluded that education is an important factor in determining the extent of problems faced by the beneficiaries in the effective implementation of Women Component Plan that is as the level of education increases the extent of problem decreases. In case of type of assistance it has significant interaction with the education level of beneficiaries. From the result it can be inferred that, while determining the type of assistance adequate consideration should be given for the education level of beneficiaries.

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## MEDICAL PRACTITIONERS AS MANAGERS: AN ANALYTICAL STUDY

**\*Dr. C. Vijaya Prabha, \*\*Dr. Gabriel Simon Thattil**

### Abstract

Health care industry is basically a human organization and hospitals are the fundamental unit through which curative health services are delivered. The consumer in this case is a patient who requires personalized services which in all respects need to be tailored to the needs of each patient. Hence, it requires a well-knit organizational division of labour and efficient and responsible management, in order to provide the best possible outcome for each patient. The study is based on medical practitioners drawn from private allopathic hospitals with inpatients facilities. The sample consists of three small hospitals (with < 200 beds) and two large hospitals (with > 200 beds) in Thiruvananthapuram District of Kerala. The sample units consisted of 75 employees from the large hospitals and 75 employees from small hospitals. The employees include all categories of employees like Administrators, Doctors and Para-medical staff. This study analyses the opinion of various healthcare staff regarding the acceptability of medical practitioners in the role of managers.

**Key words:-** Health Care, Curative Health, Para -medical

*H* health care industry is basically a human organization and hospitals are the fundamental unit through which curative health services are delivered. The consumer in this case is a patient who requires personalized services which in all

respects need to be tailored to the needs of each patient. Hence, it requires a well-knit organizational division of labour and efficient and responsible management, in order to provide the best possible outcome for each patient. This study analyses the opinion of various healthcare

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staff regarding the acceptability of medical practitioners in the role of managers.

Hospitals are complex organizations with a large and varied staff structure comprising of a wide spectrum of individuals, starting from highly skilled and qualified super specialists to the unskilled laborer. Management with a human touch is a must in hospital management and each of these employees has his or her own specific role in the total patient care activity, which cannot be substituted or ignored.

The various activities of a hospital may be classified as *operational activities* related to health care which are taken care of predominantly by the Doctors (Medical practitioners) and nurses, and *managerial activities* related to administration usually tackled by an administrative team, but often it is extremely difficult to clearly identify and separate the two.

Few centuries back, a Doctor who showed any interest in management was accused of using it to hide his lack of clinical acumen but today, the review of literature has revealed that several authors are of the opinion that 'if doctors do not get involved in managing their own affairs they will be subject to external control by others who perhaps lack personal insight into the problems of caring for patients'<sup>1</sup>. Evidently, a shift from the typical professional independence of the Doctors to a novel interdependence between the Doctor and the rest of his staff with the formation of a clinical team with representatives from various cadres of healthcare workers has occurred. The present study attempts to give significant

insights into the opinion of various healthcare staff regarding the acceptability of medical practitioners as Managers where they link professional practice with efficient managerial skill. The study is based on private hospitals of Thiruvananthapuram District in Kerala.

### Objectives of the Study

The primary objective of the study was to examine the integrated role of medical practitioners where in they act as managers as well .

### METHODOLOGY

#### (i) Source of Data

**The study is based on medical practitioners drawn from** private allopathic hospitals with inpatients facilities in Thiruvananthapuram District of Kerala.

#### (ii) Samples

Three small hospitals (with < 200 beds) and two large hospitals ( with > 200 beds) were selected.

The sample units consisted of 75 employees from the large hospitals and 75 employees from small hospitals. The employees include all categories of employees like Administrators, Doctors and Para-medical staff.

**Table 1**  
**Sample frame**

EMPLOYEE	Large Hospitals	Small hospitals
Administrator	5	5
Doctors	31	31
Paramedical, technical and ministerial staff	39	39
TOTAL	75	75

**ANALYSIS AND INTERPRETATION**

Different categories of staff like Administrators, Doctors and the

Para-medical staff, were asked to give their opinion regarding which among the following should ideally be the manager of a hospital:

- (a) a non-medical professional administrator without first-hand knowledge of patient care,
- (b) doctor without professional training in management,
- (c) doctor with professional training in management,
- (d) jointly by non-medical professional administrators and doctors, or
- (e) a committee consisting of representatives from all cadres of healthcare staff.

To analyze the data, a five-point scale was used. Based on the extent of satisfaction about the efficiency of the managerial personnel, where ‘1’ denoted the lowest and ‘5’ the highest, and mean values were computed. Interpretation was

done by taking ‘0-1’ as ‘very poor’, ‘1-2’ as ‘poor’, ‘2-3’ as ‘average’, ‘3-4’ as ‘good’, and ‘4-5’ as ‘very good’. The efficiency of management was considered to be effective, where the mean value was above 3. The response of Administrators, Doctors and Para-medical staff was ascertained separately. The survey results are given on Table.2.

Administrators of *large* hospitals opined that the efficiency of management would be ‘good’ if the hospital was managed by ‘Doctor with professional training in management’ (mean value 3.88), ‘non-medical professional administrator and Doctors’ (mean value 3.65) a ‘committee consisting of representatives from all cadres’ (mean value 3.08). It would be ‘average’ (mean value 2.35) if managed by ‘doctor without professional training in management’, and ‘bad’ (mean value 1.94) if managed by ‘non-medical professional administrator’.

Doctors of *large* hospitals also viewed that the efficiency of management would be ‘good’ if the hospital was managed by ‘doctors with professional training in management’ (mean value 3.72), ‘jointly by non-medical professional

**Table 2**  
**Efficiency of Managing Personal –Opinion of *large* hospital staff**

Type of employees	Non-medical professional administrator	Doctor without professional training in management	Doctor with professional training in management	Non-medical professional Administrator and Doctors	A committee consisting of representatives from all cadres
Administrators	1.94	2.35	3.88	3.65	3.08
Doctors	1.83	2.42	3.72	3.85	3.15
Para-medical staff	1.89	2.51	3.91	3.71	3.19
Total	1.87	2.44	3.82	3.76	3.15

Source : Field Survey

administrator and doctors' (mean value 3.85), and 'a committee consisting of representatives from all cadres' (mean value 3.15). Doctors also stated that the efficiency of management would be 'average' if the hospital was managed by 'doctors without professional training in management' (mean value 2.42) and 'bad' if managed by 'a non-medical professional administrator without firsthand knowledge of patient care' (mean value 1.83). The opinion of Paramedical staff of *large* hospitals also was more or less the same.

The Administrators of *small* hospitals also opined that the efficiency of management would be 'very good' if the hospital was managed by 'Doctor with professional training in management' (mean value 4.05). It would be 'good' if the hospital was managed by a 'non-medical professional administrator and Doctors' (mean value 3.95) and a 'committee consisting of representatives from all cadres' (mean value 3.28) and also by 'doctor without professional training in management' (mean value 3.17). It would be 'average' (mean value 2.19) if managed by 'non-medical professional administrator'.

The Doctors and Paramedical staff of small hospitals opined that the efficiency of management would be 'good' if the hospital was managed by 'Doctors with professional training in management' (mean values 3.95 and 4.00 respectively), 'Non-medical professional administrator and Doctors' (mean values 3.71 and 3.86 respectively) and 'a committee with representatives from all cadres' (mean values 3.36 and 3.39 respectively). The Doctors and Paramedical staff of small hospitals opined that the efficiency of management would be 'average' if the hospital was managed by 'non-medical professional administrator' (mean values 2.31 and 2.20 respectively) and 'Doctors without professional training in management' (mean value 2.94 each). The survey results are given in Table 3.

Staff of large and small hospitals were unanimous in their opinion that medical practitioners as professional administrator would be efficient in managing a hospital.

All the categories of respondents in both the small and large hospital viewed medical practitioners as managers to be better in meeting professional standards

**Table 3**

**Efficiency of Managing Personal –Opinion of *small* hospital staff**

Type of employees	Non-medical professional administrator	Doctor without professional training in management	Doctor with professional training in management	Non-medical professional Administrator and Doctors	A committee consisting of representatives from all cadres
Administrators	2.19	3.17	4.05	3.95	3.28
Doctors	2.31	2.94	3.95	3.71	3.36
Para-medical staff	2.20	2.94	4.00	3.86	3.39
Total	2.24	2.24	3.99	3.83	3.35

*Source: Field Survey*

of Managerial skill and thereby efficiency in operations. Good rating was given for:

- (i) 'doctor with professional training in management'
- (ii) jointly by non-medical professional administrator and doctors, and
- (iii) a committee consisting of representatives from all cadres.

Of the three choices with good rating, 'Doctor with professional training in management' was the most preferred.

The role of doctors as Managers is found to be crucial based on the following:

- A. holistic understanding of the Institution- which includes operations and processes as well as the needs of the core service beneficiaries, that is patients.
- B. better use of resources of which the most crucial was always manpower.
- C. acting as the key link in the system where every process is healing centric

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## CONCLUSION

As per the opinion of Staff of large and small hospitals, the highest level of efficiency in managing a hospital would be manifested when it was managed by *Doctors with professional training in management.* Here, the knowledge of medication and the professionalism in management are blended to a well defined goal which creates a system to deliver optimum healthcare. Involving doctors more centrally and pivotally in the management function could institutionalize health care to a broader, holistic, societal model.

It would be safe to forecast that in the future, most of the administrative posts like Medical Director of the Trust Board, Clinical Director, Chief Executive Officer, etc. will probably be occupied by doctors as the medical profession will begin to grasp at the opportunities in management. In fact Good Management and governance is essential for all organizations and all men need to be Managers. Medical Practitioners have a key role as good communication and understanding of human needs are common to both Healing and Managing.

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## THE INFLUENCE OF ENVIRONMENTAL ACCOUNTING ON FINANCIAL & OPERATIONAL INDICATORS IN INDIAN CORPORATE SECTOR- AN ANALYSIS

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### Abstract

Alongside with monetary increase, pressure on natural systems and resources of the planet is intensifying. The sad fact is that the economy continues to grow, but the environment that the economy depends on does not grow. The purpose of this study is to investigate the Influence of environmental accounting on financial and operational indicators and determine the accounting status. In this article, the t-student method has been used to confirm or disapprove assumptions. Friedman test has been used to check the impact level and determine the impact rating of each agent. At-pair test was used to examine the expected level of the real level. The results show the Influence of environmental accounting on financial and operational indicators of companies, including the production of Corporate Sector, the reduction of waste production, the technical donations outside the organization to corporate sector, the type of goods produced and the ratio of service debt (repayment of principal and subordinated debt Long-term) to total debt of corporate sector.

**Key words:-** Environmental accounting; financial indicators; Operational indicators

The difficulty of work, according to Plogner (2004), is the combination of natural science and the social sciences to express the relation between existing systems in the world. Like the current world is facing, it is the warming of the planet. According to researchers,

the primary cause of this is greenhouse gas emissions; Developing countries and China, based on the social and economic sciences, emphasize the economic progress of their countries by any means, but environmental scientists come from natural sciences based on environmental issues. It emphasizes that the same

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warming of the planet be due to the emission of greenhouse gases produced in the manufacturing plants.

It is hoped that the results of this study (the study of the impact of environmental accounting on the operational and financial indicators of the company) will create a logical link between financial growth and the increase of environmental standards and help companies to use methods that, along with the growth of biological issues Be aware of the environment.

The industrial world, according to Anderson and Wolf (1996), includes three main parts of producers, consumers and the state, all of which are responsible and affect the community and the environment in many ways and can themselves a Separate subject matter of research. However, in this study, focusing on accounting in the manufacturing units and providing better decisions to improve the corporate environmental performance.

The strategy discussed in this study addresses future threats and changes that could create new and more costs for an enterprise. The operational strategy used is for the costs incurred by the company, but it is not aware of its size and amount. It is possible to use this strategy, cost saving and other proposed methods to manage costs (Burit and Saka, 2006).

Expected future costs for companies from environmental pressures from outside the company, such as government pressure and customers.

## 2. Literature Review

The purpose of environmental accounting is to provide information to

assist managers in evaluating performance, control, decision making and reporting for an organization or region. Environmental accounting is based on concepts, criteria, and environmental and economic values. To achieve this, a change in culture is felt, partly due to changes in environmental accounting and reporting. Environmental auditing provides information that is relevant to the assessment, performance, control, decision making and Reporting helps managers. Environmental accounting is based on economic and environmental concepts, and since it uses values that do not come from the market, its use requires a change in culture. Environmental accounting, part of these changes in the organization and The wider is presented comprehensively. By providing more fundamental knowledge and engaging in day-to-day business activities, helping determine the goal of continuous development as a specific approach.

**Molanazer (2003)** In conjunction with environmental management accounting, “Environmental Management Accounting” has been undertaken, an attempt has been made to identify the conceptual framework for environmental management accounting. Finally, it attempts to demonstrate the evolutionary nature of the conceptual framework.

**Bennet & Mubetz (2010)** published an article titled “Decrease in cost through environmental management accounting.” This article combines the views of various accounting and environmental communities such as the Accounting Accounts Committee [v], the Management Accountants [vi], the Office of the

Environment Delegation [vii], the Environmental Management Accounting Network, on the impact of environmental management accounting at the cost of The finished products are also reduced.

**Graz (2006)** published an article titled “Environmental Management and Clean Production Accounting.” In this paper, the impact of environmental management accounting on the consumption of materials and energy in a way that, along with the optimal use of materials and energy, also reduces waste production.

**Hirsulova et al. (2007)** examined A study titled “Sustainable Development and the Environmental Management System in the Czech Republic,” the purpose of this study was to draw attention to the concept of sustainable development in the Czech Republic and to highlight the status of the environmental management system in sustainable development.

**Nakaagi (2010)** Studied in Vietnam attention has also been focused on environmental issues to achieve the sustainable development process.

In this context, a research paper entitled “The Prospects for the Development and Application of Environmental Management Accounting” was developed by Richardson and Magnusson (2005).

**Josh (2002)** has done much research into environmental management accounting, in one of these studies, entitled “Using Environmental Management Accounting for Environmental Cost Recognition and Measurement,” the patterns in It has been proposed by

Environmental Management Accounting for estimating environmental costs for companies. The study emphasized the need to see environmental costs and remove these costs from overhead headings to use this template.

**Arab Salehi et al. (2013)** in a research entitled “The Relationship of Social Responsibility with Financial Performance of Companies Accepted in Tehran Stock Exchange” through a questionnaire containing 53 questions about their social responsibility towards employees of employees , The environment and institutions in the community (educational institutions, cultural institutions, sports institutions, health organizations, hospitals, charities, rehabilitation centers, etc.). Information from 59 companies during the years 2010-2013 was used. The results show that financial performance is related to the corporate social responsibility of clients and institutions in the society, but the financial performance of corporate social responsibility is not significantly related to employees and the environment.

**Ghazizadeh (2013)** in a research entitled Identifying the Corporate Social Responsibility of the Company with Customer Loyalty (Case Study: Mellat Bank) has investigated the impact of social responsibility on customer loyalty. The results show that there is a significant relationship between organizational responsibility and customer loyalty. Babajani and Foroughi (2003) in a research entitled “Assessing the Accountability of the Accounting System for the Corporate Responsibility of Profit Units” about corporate social reporting and defining the theoretical framework, goals, and objectives. In this research, using the



Delphi method, eight major factors were identified as acceptable criteria for raising the level of accountability of the accounting and financial reporting system of Iran's profit units, and according to accepted criteria and based on the privileges assigned by the members The Delphi group identified the current status of each of these factors in the current system of accounting and financial reporting of Iran's profit units that the current system of accounting and financial reporting of Iranian profit units does not have the capabilities expected to respond to social responsibility.

**Salowski & Zwolch (2014)** In his research, examined the relationship between disclosure of corporate social responsibility and earnings quality. The result of this research suggests that the growing trend of companies to disclose corporate social responsibility information does not necessarily lead to an increase in the quality of profit, and there is a negative relationship between the degree of disclosure of corporate social responsibility and the quality of profit. Also, the results of their research showed that there is a negative relationship between social responsibility of the company with the degree of conservatism of the company and the quality of accruals, and there is a positive relationship with earnings management.

**Oyono et al. (2011)** in a study entitled Corporate Social Responsibility and Financial Performance, reviewed corporate social responsibility and financial performance of 50 Malaysian companies. Their analysis showed that there is a positive and almost weak correlation between corporate social

responsibility and financial performance. Therefore, they claimed that the corporate social responsibility report improved financial performance.

**Arshad & Razak (2011)** in a study titled Disclosure of Corporate Social Responsibility and the Performance of Malaysian Companies. The results of this study showed that disclosure of corporate social responsibility activities has a significant impact on the success of companies. Also, the dominant ownership structure improves the activities of disclosure of social responsibility.

**Sika (2011)** In a study entitled "Investigating the application of sustainable accounting guidelines on the continuation of the activities of companies admitted to the Thai stock exchange, it was concluded that there was a direct and positive relationship between the continuity of the activities and the life of the companies themselves They are required to submit reports that are consistent with consistent accounting standards.

**Chui et al. (2010)** surveyed 1222 companies from Korea, which showed a positive and significant relationship between financial performance and social responsibility.

### 3. Research objectives

The overall aim of this study is "The Impact of Environmental Accounting on Corporate Operational and Financial Indicators." Studying different views of university professors on the impact of the environmental accounting system on the company's operational and financial indicators are considered whether

environmental accounting affects the company's operational and financial indicators.

**Chauhan (2005) & Boyd (1998)** have interpreted environmental accounting as a means of identifying and reporting specific environmental costs. Environmental accounting is beyond cost accounting, and environmental benefits, including cost accounting and benefits from changes in Products or processes of the company, also include changes in environmental impacts. It is not necessary that environmental accounting information is a product of accountants, but any information with explicit or virtual financial content that is used as a decision maker in the company. Product designers, financial analysts, and managers are users of environmental accounting information.

The main objective of the research was to study the impact of environmental accounting on operational and financial indicators of Corporate Sector.

In this regard, the research hypotheses are as follows:

- 1) Environmental accounting affects the production of Indian Corporate Sector.
- 2) Environmental accounting affects the type of goods manufactured by Indian Corporate Sector.
- 3) Environmental accounting affects the annual energy consumption of Indian Corporate Sector.
- 4) Environmental accounting affects the total debt of Indian Corporate Sector as the ratio of service debt

(repayment of principal and subordinated debt).

- 5) Environmental accounting affects Indian Corporate Sector outside of the organization for technical donations.
- 6) Environmental accounting affects the amount of waste produced by Indian Corporate Sector.

For this reason, the variables of research can be summarized as follows:

Environmental costs:

Environmental costs are divided into the following main categories:

- cost of material for the company's products,
- cost of materials related to unproduced production,
- costs related to waste production,
- costs of preventing the impact of Environmental
- moreover, R & D costs related to environmental issues.

Annual consumption of energy, the amount of energy (in the form of liquid, solid, gas or electricity) consumed by one person and in a geographic area.

The ratio of "debt and long-term debt repayment" to total debt is the ratio of repayment of debt securities and long-term liabilities to total debt.

Indicators of waste in the industrial and urban environment are unsustainable patterns of consumption and production, which are mainly used in developed countries, and can be considered as one

of the main reasons for the analysis of natural resources and environmental degradation. It is seriously emphasized that land cannot sustain this level of industrial consumption in the long run. Also, a high level of consumption has endangered the development process of countries. A combination of government, producer and consumer efforts has sought to change the way it operates. The purpose of this change is that, in contrast to the past, there is little emphasis on the consumption of substances, and instead emphasizes the efficient use of energy and resources, as well as the economic system that applies environmental and social costs.

#### 4. Research methodology

Because there is little information about this issue, and on the other hand, it is necessary to consider the opinion of experts about the ability of the environmental accounting system to make changes in the future of the organization, using the Delphi method as a research method for this thesis. The Delphi method and finally a Five-option Likert Design Questionnaire will be used to measure the views in one place. Concerning the validity of the thesis after recognizing the components and specifications through consensus, the views of the experts and theoretical foundations of these components were obtained and in the case of reliability after the questionnaire designed by the Likert method, through its Cronbach's alpha coefficient, its reliability We are testing. The calculated Cronbach's alpha coefficient is 0.8, and since it is above 0.7, its reliability is acceptable. Data and data were gathered in three ways. The study of books,

journals, and related dissertations, the use of the Internet and its information resources, the collection of research data through questionnaires were used.

Since this research seeks to investigate the effect of environmental accounting on operational and financial indicators, it identifies the conditions and is carried out in 2014. The statistical population of this study is the professors of Kerala universities. Using the Cochran formula from the community Unlimited, some samples were calculated and considered. Ultimately, this number included 70 questioners.

Regarding the use of statistical methods, it should be noted that the t-test can be used whenever the goal is to compare the mean of a variable or sample with a constant value. In this test, the assumption of normalization is necessary (although if the sample number is greater than 30, the distribution will be standard based on the central limit theorem).

Using the Friedman test, you can compare the effectiveness of effective factors (in this section, the question is which of the respondents, which factors have a greater impact on the operational and performance indicators of the Corporate Sector?). If the responses are affiliated, they can be compared regarding rating using this method.

#### 5. Research findings

Empirical evidence confirms that the procedure for following variables if the classes are distant can be on a distance scale. Therefore, statistical parameter analysis such as t-test is justifiable for sequential variables.

The results of the first hypothesis are described in Table 1. The value of the test statistic is 16.31. The zero assumption is rejected at the 95% confidence level. Therefore, environmental accounting affects the production of Corporate Sector.

The results of the second hypothesis are presented in Table 2. The test statistic has a distribution of t (almost normal for this data). The value of the test statistic is 5.02, and the zero is rejected at 95% confidence level. So, environmental

accounting affects the type of goods manufactured by Corporate Sector.

For the third hypothesis, according to Table 3, the test statistic has a distribution t (almost normal for these data). The value of the test statistic is 14.55, and zero is rejected at the 95% confidence level. Therefore, environmental accounting affects the annual energy consumption of Corporate Sector.

Regarding the fourth hypothesis, the results of Table 4 show the value of the

**Table 1**  
**Results of the first hypothesis**

Hypothesis	Number	Average	Standard deviation	t value	Significance level	The average difference is from 5/4
<b>First Hypothesis</b>	<b>70</b>	<b>6/41</b>	<b>0/85</b>	<b>16/31</b>	<b>0/000</b>	<b>2/10</b>

*Source: researcher findings*

**Table 2**  
**The results of the second hypothesis**

Hypothesis	Number	Average	Standard deviation	t value	Significance level	The average difference is from 5/4
<b>Second Hypothesis</b>	<b>70</b>	<b>5/04</b>	<b>1/31</b>	<b>5/02</b>	<b>0/000</b>	<b>0/93</b>

*Source: researcher findings*

**Table 3**  
**Results of the third hypothesis**

Hypothesis	Number	Average	Standard deviation	t value	Significance level	The average difference is from 5/4
<b>Third Hypothesis</b>	<b>70</b>	<b>7/18</b>	<b>1/25</b>	<b>14/55</b>	<b>0/000</b>	<b>2/48</b>

*Source: researcher findings*

**Table 4**  
**Results of the fourth hypothesis**

Hypothesis	Number	Average	Standard deviation	t value	Significance level	The average difference is from 5/4
<b>Fourth Hypothesis</b>	<b>70</b>	<b>5/29</b>	<b>1/38</b>	<b>4/77</b>	<b>0/000</b>	<b>0/75</b>

*Source: researcher findings*

test statistic is 4.77. The zero is rejected at 95% confidence level, and as a result of the environmental accounting, the long-term debt ratio (repayment of the principal and subordinated debt) to total debt Corporate Sector are affected.

The fifth hypothesis, with the results in Table 5, shows that the test statistic has a distribution of t (almost normal for these data) and the test statistic is 10.58. Therefore, environmental accounting for technical grants outside the organization influences Corporate Sector has it.

In the sixth hypothesis, the test statistic is 7.08. The test statistic has a distribution of t (almost normal for these data), and Table 6 represents the results of this hypothesis. So, environmental accounting affects the amount of waste produced by Corporate Sector.

**6. Ranking the impact of the environmental accounting system on operating and financial indicators of Indian Corporate Sector.**

Regarding the dependence of responses to compare the effect of the

factors, the most suitable test is using Friedman’s nonparametric test.

The assumption of zero and the opposite assumption in this test are formulated as Formula 1.

**(Relationship 1)**

The average rating of the agents is the same.

The average rating of agents is not the same.

According to table 7, the assumption zero is rejected at the 95% confidence level, since the values of the chi-double statistic are equal to 02.125, which lies in the zero-deflection domain. That is, the influence of environmental accounting on the operating and financial indicators of Indian Corporate Sector is different.

In Table 8, the effectiveness rate is ranked accordingly.

The greatest impact of environmental accounting on the annual consumption of energy, the production of Corporate Sector, the reduction of waste production

**Table 5**  
**Results of the fifth hypothesis**

Hypothesis	Number	Average	Standard deviation	t value	Significance level	The average difference is from 5/4
<b>Fifth Hypothesis</b>	<b>70</b>	<b>6/90</b>	<b>1/21</b>	<b>10/85</b>	<b>0/000</b>	<b>1/50</b>

*Source: researcher findings*

**Table 6**  
**Results of the sixth hypothesis**

Hypothesis	Number	Average	Standard deviation	t value	Significance level	The average difference is from 5/4
<b>Sixth Hypothesis</b>	<b>70</b>	<b>6/03</b>	<b>1/76</b>	<b>7/08</b>	<b>0/000</b>	<b>1/53</b>

*Source: researcher findings*

and technical donations outside the organization to Corporate Sector.

**Table 7**

**Calculating the Chi-square statistic**

Test statistic	
Number	70
The amount of Chi-2	02/125
Significance level	0/000

*Source: researcher findings*

**Table 8**

**Compare the effect of existing effects**

Factors	Average rating	Impact rate
The third hypothesis	8/56	The most
The first hypothesis	7/89	
Sixth hypothesis	6/95	
The fifth hypothesis	5/54	
The second hypothesis	4/35	
Fourth hypothesis	3/44	The least

*Source: researcher findings*

The lowest impact of environmental accounting on the type of goods produced and the ratio of service debt (repayment of principal and subordinated debt) to total debt of Indian Corporate Sector.

**7. Discussion and conclusion**

The results of the research showed that improvement of performance requires optimum utilization of resources; environmental accounting affects financial and operational indicators of Corporate Sector. The annual energy impact of energy in addition to positive effects on companies at the macro level is also valuable. This factor has the greatest impact on accounting Environmental variables. Other variables have also had an impact on environmental accounting,

which includes the amount of production of Corporate Sector, the amount of waste reduction, the technical donations outside the organization to Corporate Sector, the type of goods produced and the ratio of service debt (Repayment of principal and subordinated debt Long-term) to total debt of Corporate Sector. The results of this study are consistent with the research by Martin Bennett and Mubetz (2010), Grage (2006), Arab Salehi (2013), Oyono et al. (2011), Arshad and Razak (2011), Osica (2011). Environmental accounting provides the necessary information (both quantitative and rational) for decision making by managers in line with the process of controlling activities and improving the environmental performance of the business entity. The strategy discussed in this study addresses future threats and changes that could create new and more costs for an enterprise. The operational strategy used is for the costs incurred by the company, but it is not aware of its size and amount. The company can use this strategy to save costs and other proposed methods to manage these costs.

Expected future costs for companies from environmental pressures from outside the company, such as government pressure and customers. Therefore, environmental accounting can, on the one hand, improve the environmental performance of companies to reduce the pressure of government and customers, and on the other hand, with the correct and optimal use of resources, can help companies to improve their financial indicators and help.

For future research, it is suggested that the impact of environmental accounting on reducing the cost of finished products in listed companies in Bombay Stock Exchange be reviewed. Also, the impact

of environmental impact on other operating indicators of companies such as social responsibility, share Product market and customer loyalty.

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### *Environmental Accounting*



## INTERNATIONAL TRADE POTENTIAL OF MARINE PRODUCTS

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### Abstract

Export plays a prominent role in the development and growth of any Country. India is endowed with vast and varied resources for aquaculture and capture fisheries. India, bestowed with fishery resources of three oceans, provides tremendous potential for growth of the fishery industry. The Indian Marine Products Export Industry is an important traditional export sector in Indian economy and it has been identified as one of the thrust areas for export development. Export of marine products from India will depend upon world's demand and supply conditions. This paper is analytical and descriptive which highlights the significance and viability of marine products exports. The need for the present study is to identify different types of marine products exported and in turn determine the export performance and future prospects of this Industry.

**Key words:-** Aquaculture, Export Development, Export Potential, Marine Products, Seafood.

Export plays a very significant role in the development and growth of any Country. Export Trade or International trade refers to the buying and selling or flow of goods and services across national borders or territories allowing both the buyer and seller to expand their markets. Fisheries and aquaculture is an important sector of

food production, providing nutritional security to millions of people contributing to the agricultural exports and engaging about 14-15 million people in different fish related activities. Fisheries sector Contribute to animal protein supply to mankind. The fisheries sector has been one of the major Contributors of foreign exchange earnings for India through

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exports.. The Seafood basket of India comprises mainly Frozen Shrimp, Frozen fish, Frozen Squid, Frozen Cuttle Fish, dried items, Chilled items, live items, Frozen Lobster, Frozen Octopus, Canned items and Fish Pickles. The Principal overseas markets for Indian Marine products are Japan, USA, South East Asia, Middle East and other Asian and European Countries.

**Need for the Study**

India has vast seafood resources. Export of Marine products will depend upon World’s demand and Supply Conditions. The need for the Study is to understand the export potential of Marine products from India into different overseas markets and to clearly determine the export Prospects.

**Objectives of the Study**

- To understand the export potential of Marine products.
- To examine the item wise, port wise and market wise export of Marine products from India.

**Methodology**

The study is pursued using Secondary data. The Sources from which the secondary data were drawn is from the Statistics of MPEDA. The study is analytical in nature.

**Tools for Analysis**

Regression is used in the Study with the help of SPSS.

**Limitations of the Study**

- Primary data is not applied in the Study which is a major drawback.
- Present Fisheries Statistics is unavailable with the concerned authorities which is also a major hindrance to the Study.
- 2015-2016 Export Statistics of various other items were not provided by the MPEDA Authorities while approaching them during data Collection. They were Reluctant to provide me the same. Remaining Export Statistics were obtained because it was published in the MPEDA website.

**Analysis**

**Table-I**

<b>Export Details</b>	<b>2015-16</b>	<b>2014-15</b>
Quantity Tonnes	945892	1051243
Value Rs Crore	30420.83	30213.26
Value US \$ Million	4687.94	5511.12
Unit Value (US\$/Kg)	4.96	5.24

*Source: MPEDA*

**Table-II**  
**Market Wise Export of Marine Products from India**

Market		2010-11	2011-12	2012-13	2013-14	2014-15
JAPAN	Quantity in ton	70714	85800	76648	71484	78772
	Value in Rs Crore	1683.39	2140.67	1999.59	2463.83	3040.26
	US\$ Million	373	456.35	372.57	410.95	502.29
USA	Quantity in ton	50095	68354	92447	110880	129667
	Value in Rs Crore	1990.26	2977.53	4026.48	7744.67	8830.12
	US\$ Million	438.49	637.53	747.45	1286.04	1458.24
EUROPEAN UNION	Quantity in ton	170963	154221	158357	174686	188031
	Value in Rs Crore	3459.4	3810.44	4176.42	6129.69	6715.58
	US\$ Million	765.15	805.38	777.41	1013.28	1106.67
CHINA	Quantity in ton	159147	84515	87776	75783	59519
	Value in Rs Crore	1977.81	1259.23	1444.86	1766.72	1349
	US\$ Million	440.1	263.3	269.47	293.12	221.44
SOUTH EAST ASIA	Quantity in ton	233964	343962	340944	380061	409931
	Value in Rs Crore	2114.48	4193.27	4357.28	8046.59	8620.85
	US\$ Million	469.36	880.09	811.8	1320.95	1416.82
MIDDLE EAST	Quantity in ton	43983	38155	41419	58040	64608
	Value in Rs Crore	670.35	894.38	1113.34	1599.37	2020.86
	US\$ Million	148.31	186.85	209.26	272.65	333.1
OTHERS	Quantity in ton	84225	87014	130623	112822	120716
	Value in Rs Crore	1005.77	1321.72	1738.29	2462.4	2864.93
	US\$ Million	222.5	278.94	323.71	410.71	472.56
Total	Quantity in ton	813091	862021	928215	983756	1051243
	Value in Rs Crore	12901.47	16597.23	18856.26	30213.26	33441.61
	US\$ Million	2856.92	3508.45	3511.67	5007.7	5511.12

*Source: MPEDA*

**Market Wise Export Performance**

**Regression**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.622(a)	.387	.336	1.167
a Predictors: (Constant), US\$ Million, Quantity in ton, Value in Rs Crore				

ANOVA(b)						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30.967	3	10.322	7.579	.000(a)
	Residual	49.033	36	1.362		
	Total	80.000	39			
a Predictors: (Constant), US\$ Million, Quantity in ton, Value in Rs Crore						
b Dependent Variable: Year wise						

Coefficients(a)						
		Un-standardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	2.999	.242		12.371	.000
	Quantity in ton	-1.708E-07	.000	-.034	-.063	.950
	Value in Rs Crore	8.847E-04	.000	4.550	3.628	.001
	US\$ Million	-4.818E-03	.002	-4.289	-2.670	.011
a Dependent Variable: Year wise						

**Table-III**  
**Item wise Export of Marine Products from India**

Item		2010-11	2011-12	2012-13	2013-14	2014-15
Fr. Shrimp	Quantity in ton	151465	189125	228620	301435	357505
	Value in Rs Crore	5718.13	8175.26	9706.36	19368.3	22468.12
	US\$ Million	1261.81	1741.2	1803.26	3210.94	3709.76
Fr.Fin Fish	Quantity in ton	312358	347118	343876	324359	309434
	Value in Rs Crore	2623.89	3284.15	3296.86	4294.81	3778.5
	US\$ Million	583.48	683.5	617.59	708.63	619.66
Fr.Cuttlefish	Quantity in ton	59159	54671	63296	68577	82353
	Value in Rs Crore	1104.57	1346.72	1354.28	1386.98	1833.21
	US\$ Million	244.62	282.72	251.54	228.13	300.69
Fr. Squid	Quantity in ton	87579	77373	75387	87437	69569
	Value in Rs Crore	1010.57	1228.19	1378.08	1731.97	1275.25
	US\$ Million	223.67	262.72	256.9	284.6	209.84
Dried items	Quantity in ton	79059	53721	72953	67901	70544
	Value in Rs Crore	954.94	562.65	819.9	998	1010.16
	US\$ Million	212.22	117.66	152.81	167.89	165.52
Live items	Quantity in ton	5208	4199	4373	5080	5488
	Value in Rs Crore	142.15	154.61	197.89	281.85	301.51
	US\$ Million	31.46	32.46	36.82	46.7	49.62
Chilled items	Quantity in ton	21118	21278	26868	19755	31404
	Value in Rs Crore	257.54	357.42	537.11	527.84	635.93
	US\$ Million	56.93	74.03	99.87	88.48	104.71
Others	Quantity in ton	97145	114538	112841	109212	124947
	Value in Rs Crore	1089.67	1488.24	1565.78	1623.5	2138.94
	US\$ Million	242.72	314.16	292.86	272.34	351.31
Total	Quantity in ton	813091	862021	928215	983756	1051243
	Value in Rs Crore	12901.47	16597.23	18856.26	30213.26	33441.61
	US\$ Million	2856.92	3508.45	3511.67	5007.7	5511.12

*Source: MPEDA*

**Item wise Export Performance**

**Regression**

Model Summary						
Model	R	R Square	Adjusted R Square		Std. Error of the Estimate	
1	.550(a)	.302	.251		1.238	
a Predictors: (Constant), US\$ Million, Quantity in ton, Value in Rs Crore						
ANOVA(b)						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.206	3	9.069	5.921	.002(a)
	Residual	62.794	41	1.532		
	Total	90.000	44			
a Predictors: (Constant), US\$ Million, Quantity in ton, Value in Rs Crore						
b Dependent Variable: Year wise						
Coefficients(a)						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	3.005	.231		13.013	.000
	Quantity in ton	8.335E-07	.000	.163	.479	.635
	Value in Rs Crore	8.336E-04	.000	4.721	3.833	.000
	US\$ Million	-4.773E-03	.001	-4.681	-3.368	.002
a Dependent Variable: Year wise						

**Table-IV**  
**Port Wise Export of Marine Products from India**

Port		2010-11	2011-12	2012-13	2013-14	2014-15
CHENNAI	Quantity in ton	55961	46184	53596	55282	46671
	Value in Rs Crore	1979.76	1847.88	2062.72	2709.97	2458.2
	US\$ Million	436.77	394.61	383.46	456.79	405.71
KOCHI	Quantity in ton	121550	152445	162109	160798	162818
	Value in Rs Crore	1892.14	2859.02	3265.64	4491.03	4989.86
	US\$ Million	418.1	605.25	608.8	748.69	822.23
J N P	Quantity in ton	155829	148891	145723	142073	149585
	Value in Rs Crore	1970.65	2151.66	2399.8	3531.36	3939.46
	US\$ Million	437.73	452.57	448.46	584.74	648.48
VIZAG	Quantity in ton	38217	62215	78542	102146	115672
	Value in Rs Crore	1300.28	2652.15	3344.97	6825.64	7578.27
	US\$ Million	286.44	565.03	620.93	1131.25	1251.83
KOLKATA	Quantity in ton	56060	59151	63832	67148	84994
	Value in Rs Crore	1313.67	1730.89	1811.21	3053.46	3686.35
	US\$ Million	290.5	370.14	335.91	503.23	609.05
TUTICORIN	Quantity in ton	30220	34532	32989	39547	42203
	Value in Rs Crore	880.41	1180.84	1269.03	2163.18	2328.27
	US\$ Million	194.12	250.58	235.91	358.6	383.92
MUMBAI	Quantity in ton	1965	2973	3164	5338	2098
	Value in Rs Crore	273.49	268.51	323.77	454.76	333.72
	US\$ Million	60.73	55.68	60.47	76.49	54.83
MANGALORE/ICD	Quantity in ton	104821	86367	95907	98230	115470
	Value in Rs Crore	688.32	659.41	849.01	1114.63	1363.38
	US\$ Million	152.45	137.9	157.86	182.84	223.2
GOA	Quantity in ton	35728	40432	41377	34288	44684
	Value in Rs Crore	275.3	351.17	366.95	445.92	569.54
	US\$ Million	61.04	73.66	68.33	72.13	93.38
PIPAVAV	Quantity in ton	197478	219801	233738	248621	243640
	Value in Rs Crore	2025.72	2710.34	2808.25	3605.77	3588.35
	US\$ Million	452.22	564.3	525.57	595.61	588.47
TRIVANDRUM	Quantity in ton	2932	2867	3131	3180	2955
	Value in Rs Crore	105.61	117.54	143.56	164.19	141.56
	US\$ Million	23.33	24.56	26.72	27.41	23.3
KANDLA	Quantity in ton	124	0	0	0	0
	Value in Rs Crore	1.75	0	0	0	0
	US\$ Million	0.4	0	0	0	0

*Continued.....*

Port		2010-11	2011-12	2012-13	2013-14	2014-15
PORBANDAR	Quantity in ton	0	0	0	0	20
	Value in Rs Crore	0	0	0	0	0.9
	US\$ Million	0	0	0	0	0.15
KAKINADA	Quantity in ton	0	0	0	62	0
	Value in Rs Crore	0	0	0	3.74	0
	US\$ Million	0	0	0	0.62	0
PARADEEP	Quantity in ton	0	0	0	0	413
	Value in Rs Crore	0	0	0	0	8.98
	US\$ Million	0	0	0	0	1.47
CALICUT	Quantity in ton	132	403	1159	1720	980
	Value in Rs Crore	4.36	11.77	26.65	51.14	34.66
	US\$ Million	0.97	2.48	4.95	8.68	5.74
DELHI	Quantity in ton	0	34	242	0	147
	Value in Rs Crore	0	4.94	17.67	0	5.92
	US\$ Million	0	1.05	3.27	0	0.97
HALDIA	Quantity in ton	0	28	0	0	0
	Value in Rs Crore	0	0.33	0	0	0
	US\$ Million	0	0.07	0	0	0
KARWAR	Quantity in ton	0	0	56	0	42
	Value in Rs Crore	0	0	0.62	0	1.47
	US\$ Million	0	0	0.11	0	0.24
MUNDRA	Quantity in ton	263	573	8274	3201	1026
	Value in Rs Crore	3.79	11.15	119.96	49.68	14.28
	US\$ Million	0.84	2.28	22.32	8.4	2.35
AHMEDABAD	Quantity in ton	432	87	44	97	224
	Value in Rs Crore	124.94	4.77	1.4	3.03	6.74
	US\$ Million	27.81	1.04	0.26	0.48	1.1
AGARTALA	Quantity in ton	0	105	0	97	54
	Value in Rs Crore	0	0.24	0	0.17	0.24
	US\$ Million	0	0.05	0	0.03	0.04
NSICT	Quantity in ton	0	0	0	0	1
	Value in Rs Crore	0	0	0	0	0.11
	US\$ Million	0	0	0	0	0.02
KARIMGANJ	Quantity in ton	51	19	17	153	56
	Value in Rs Crore	0.14	0.04	0.04	0.32	0.16
	US\$ Million	0.03	0.01	0.01	0.05	0.03

*Continued.....*



Port		2010-11	2011-12	2012-13	2013-14	2014-15
MID SEA	Quantity in ton	7600	1963	46	0	0
	Value in Rs Crore	52.23	21.68	0.63	0	0
	US\$ Million	11.44	4.56	0.11	0	0
HILL LAND CUSTOMS	Quantity in ton	3714	2736	3109	1604	144
	Value in Rs Crore	8.35	6.62	13.91	5.21	1.34
	US\$ Million	1.85	1.36	2.56	0.88	0.22
OKHA	Quantity in ton	0	0	0	0	0
	Value in Rs Crore	0	0	0	0	0
	US\$ Million	0	0	0	0	0
PORT BLAIR	Quantity in ton	0	1	0	0	0
	Value in Rs Crore	0	0.01	0	0	0
	US\$ Million	0	0	0	0	0
HYDERABAD	Quantity in ton	2	85	386	173	719
	Value in Rs Crore	0.03	3.24	11.48	5.49	0
	US\$ Million	0.01	0.68	2.13	0.93	0
VERAVAL	Quantity in ton	0	101	0	0	0
	Value in Rs Crore	0	1.77	0	0	0
	US\$ Million	0	0.34	0	0	0
BANGALORE	Quantity in ton	3	8	479	388	810
	Value in Rs Crore	0.22	0.81	6.23	7.75	10.12
	US\$ Million	0.05	0.17	1.15	1.25	1.67
TRICHY	Quantity in ton	10	22	1	14	32
	Value in Rs Crore	0.31	0.44	0.03	1.13	3.31
	US\$ Million	0.07	0.1	0.01	0.2	0.54
KRISHNAPATNAM	Quantity in ton	0	0	294	19594	30690
	Value in Rs Crore	0	0	12.72	1525.62	2066.14
	US\$ Million	0	0	2.36	248.37	341.51
SURUT (INHZA)	Quantity in ton	0	0	0	1	101
	Value in Rs Crore	0	0	0	0.09	7.33
	US\$ Million	0	0	0	0.01	1.21
Total	Quantity in ton	813091	862021	928215	983756	1051243
	Value in Rs Crore	12901.47	16597.23	18856.26	30213.26	33441.61
	US\$ Million	2856.92	3508.45	3511.67	5007.7	5511.12
HAZIRA	US\$ Million	0	0	0	0	4.56
	Quantity in ton	0	0	0	0	423
	Value in Rs Crore	0	0	0	0	27.63
KATTUPALLI	Quantity in ton	0	0	0	0	4571
	Value in Rs Crore	0	0	0	0	248.4
	US\$ Million	0	0	0	0	40.47

Source: MPEDA

**Port wise Export Performance**

Regression

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.302(a)	.091	.076	1.363

a Predictors: (Constant), US\$ Million, Quantity in ton, Value in Rs Crore

ANOVA(b)						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	33.669	3	11.223	6.040	.001(a)
	Residual	336.331	181	1.858		
	Total	370.000	184			

a Predictors: (Constant), US\$ Million, Quantity in ton, Value in Rs Crore

b Dependent Variable: Year wise

Coefficients(a)						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.997	.105		28.443	.000
	Quantity in ton	2.542E-07	.000	.028	.077	.939
	Value in Rs Crore	9.691E-04	.000	2.722	3.309	.001
	US\$ Million	-5.374E-03	.002	-2.658	-2.478	.014

a Dependent Variable: Year wise

**Interpretation:**

There is a significant difference between no. of years (2010 to 2015) and their item wise Quantity in ton, Value in Rupees and US\$ Million (Rates). Hence, the calculated value is less than the table value ( $0.002 < 0.05$ ). So the  $H_0$  is accepted and the  $H_1$  is rejected.

There is a significant difference between no. of years (2010 to 2015) and their Market wise Quantity in ton, Value in Rupees and US\$ Million (Rates).

There is a significant difference between no. of years (2010 to 2015) and their Port wise Quantity in ton, Value in Rupees and US\$ Million (Rates).

**Findings**

- The variables selected For Regression are :-  
Independent Variables are Each Items, Each Markets, and Each Ports.  
Dependent Variables are in terms of Quantity, Value in Rupees and in terms of US\$.for Five Years.
- India at present is the second largest fish producing countries in the world.
- There is a significant difference between No .of years (2010 to 2015) and their item wise Exports in terms of Quantity in ton, Value in Rs and US\$ Million (Rates).
- In 2015-16, India has exported 9,45,892 MT of Seafood worth US\$ 4.7 Billion ( Rs. 30,420.83 crores)
- Average unit value realization of Frozen shrimp has come down to US\$ 8.28 per kg in 2015-16 as against US\$ 10.38 in 2014-15.

- Pipav port has exported more quantity of marine products to other Countries from India.JNP and Kochi also contributed more on the export of marine products.
- Frozen Shrimp from India is exported more than the other fish items.
- Export of marine Products from India is more to South East Asia than all the other Markets.

**Suggestions**

- Due to environmental restrictions, Fish Capturing production cannot be improved. So India should concentrate more on Aquaculture.
- The HACCP and other Quality measurement systems should further be strengthened in all the existing Seafood Processing plants in India with a strong Audit Programme.
- Unproductive agricultural land should be used for aquaculture fish Production.
- Improving the image of Indian Fish Products in the World market through frequent participation in International trade Fairs helps to boost marine exports.

**Conclusion**

India has good prospects of becoming a dominant supplier of marine products in the international market. The opening up of the economy and liberalized Industrial policy of India helped to gain a lot in the field. The aquaculture industry is rapidly developing. The vast untapped resources can be utilized successfully to uplift India's marine Products trade in the international Market.

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*Marine Product Export*

## BABYBOOMERS - A PROMISING MARKET SEGMENT IN THE MEDICAL TOURISM INDUSTRY

\*Soumiya A

### Abstract

The growing numbers of baby boomers are contributing significantly to the medical tourism market. The higher costs of medical care in home countries and cheaper costs and sophisticated medical technology of less developed countries drive medical tourists to other medical tourism destinations. Baby boomers are the focus of marketing campaigns and business plans. The ageing baby boomer generation is now reaching the time when they require more and more healthcare which prompts them to opt for medical tourism. The paper aims to study the contribution made by the baby boomers to the medical tourism industry, to identify the prominent medical tourism services utilized by the baby boomers and the suitable tourism activities that can be combined with medical tourism for baby boomers.

**Key words:-** Baby boomers, Medical tourism, Tourism Industry

The term medical tourism is used to describe treatment or surgery which has been planned in advance to take place outside a patient's usual place of residence. It refers to a situation when a patient goes to a different country either for urgent or elective medical procedures. This, in its initial stages, recorded a flow of patients

from the less developed countries to the developed countries for medical care. This trend however reversed with the advent of technology and lower costs in developing countries with large number of nationals from developed countries selecting foreign destinations which suit their requirements for medical care.

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Babyboomer is a descriptive term for a person who was born between 1946 and 1964. They make up a substantial portion of the world's population, especially in the developed nations – it represents nearly 20% of the American public. Being the largest generational group in US, babyboomers have a significant impact on the economy.

Babyboomers are the focus of marketing campaigns and business plans. The ageing babyboomer generation is now reaching the time when they require more and more healthcare which prompts them to opt for medical tourism. Babyboomers usually retire to destinations like Panama, Costa Rica, Nicaragua and other destinations where medical care is more affordable than in the US. Retirement of Americans to Central America and Mexico and Europeans to Canary Islands increases the medical tourism potential in these locations.

Understanding the significance of babyboomers in the medical tourism market, the paper aims at studying the following objectives based on secondary data.

### **Objectives**

- 1) To study about the contribution of babyboomers to the medical tourism industry.
- 2) To identify the prominent medical tourism services utilized by babyboomers
- 3) To identify the suitable tourism activities for babyboomers that can be combined with medical procedures

### **Contribution of babyboomers to the medical tourism industry**

The aging population of babyboomers is a major reason for the growth of the medical tourism industry. As per the American Hospital Association, there were about 78 million babyboomers. By the year 2030, the babyboomer age cohort in the US will number 61 million between the age of 66 and 84. The US Department of Health and Human Services, 2011 reveals that in the year 2000, 12.4% of the population were 65 years or older and by the year 2030, 19% of the population will be 65 years or older. The babyboomers, as they age, require costly medical treatments and care, which proves beneficial to the medical tourism industry. Older generations require advanced technology, need frequent care due to longer recovery periods and there is an increasing need for end of life care. The major reason for the babyboomers seeking healthcare in less developed countries is because, as they usually live on fixed income (as most of them are retired), there is increased pressure on social security funding. The cheap medical facilities in less developed countries drive the uninsured and underinsured babyboomers to these low cost destinations. According to the Consumer Financial Literacy Survey of 2009, 33 percent of Americans have not set aside any savings towards investment. A survey conducted jointly by the New York Times newspaper and the Kaiser Family Foundation during late 2015 found that around 20% adults aged less than 65 years with health insurance reported having problems paying their medical bills over the previous 12 months. The Gallup

Healthways wellbeing index reveals that the proportion of adults in the US without health insurance stood at 11.9% during the fourth quarter of 2015. These figures highlight the importance of medical tourism. Quality treatment with most modern facilities comparable to that of the developed countries is yet another reason.

The retirement of baby boomers and the elderly in the USA will have far reaching effects in the medical tourism industry. The aging and retirement of baby boomers have affected the US healthcare system to a great extent, thereby increasing the possibilities of medical tourism. The affect of baby boomers on the medical tourism industry can be viewed in three angles – the emerging trends for Americans to retire overseas, the highly increasing demand on the US healthcare system by baby boomers and the high costs the Americans have to undergo for treatment in their home country. A report published in 2007 by the American Health Association entitled, ‘When I’m 64: How boomers will change healthcare’ reported that the number of Americans above 65 years will double by 2050, the number above 85 will quadruple by 2050, and by 2030, over half of American adults will be over 50 years. More than one sixth of the boomers had one chronic condition, one third was obese and one fourth had diabetes. By 2020, forty percent of patient visits to doctors will be made by boomers.

### **Prominent Services Utilized by Baby Boomers in Medical Tourism**

The key findings of the report ‘When I’m 64 : How boomers will change

Healthcare – by American Hospital Association, May 2007 reveals that more than one sixth of the boomers by the year 2030 will be managing more than one chronic condition, one third will face problems of obesity, one fourth will be living with diabetes. The knee replacements done in baby boomers will increase eight times.

As boomers age, the prevalence of chronic diseases also increases. The number of baby boomers with multiple chronic diseases also increases. It will grow to almost 37 million in 2030.

Diabetes is a major illness that baby boomers face. By 2030, at least one fourth of the baby boomers – about 14 million will be diabetic, which raises the need of continuous inpatient and outpatient treatments.

Arthritis is another area where baby boomers seek treatment. As the trends of arthritis increases among boomers, the demand for alternative therapies, pain control treatments, exercise regimens and joint replacements increases.

Obesity is yet another problem faced by the boomers. By 2030, one third of the boomers i.e. about 21 million will be obese, which increases the need for different weight management techniques and cosmetic procedures like liposuction, non invasive weight loss procedures, weight loss surgery and other bariatric procedures.

Falls are a common cause of injury to baby boomers. Falls may cause traumas. More than one third of the baby boomers falls every year. As the number of falls increase, there is more flow of people to emergency departments.

The demand for palliative care in medical tourism has been rising significantly. The baby boomers reaching the end of life stages have been cited as an important reason for this. The vision of strategic palliative care is that all patients and family members who have a life limiting illness that could benefit from palliative care have timely and easy access to palliative care, if it is provided in a coordinated way.

Baby boomers are always beauty conscious. The increasing need for cosmetic procedures on the part of baby boomers has led to the development of cosmetic tourism in developing countries. The American Society of Plastic Surgeons in 2015 reported that a total of 3.9 million cosmetic procedures were performed in adults above 55 years. The boomers show interest not only in invasive procedures, but also in non invasive procedures. They usually travel to low cost destinations for cosmetic procedures, thus developing medical tourism. Plastic Surgery is the most common procedure among baby boomers. According to the American Society of Plastic Surgeons, the most common procedure sought by the boomer generation are botox, eyelid surgery, liposuction, breast augmentation etc. According to the American Society for Aesthetic Plastic Surgery in 2010, there were 84,685 surgical procedures among patients aged 65 and older. They included 26,783 cosmetic lid operations, 6469 liposuctions, 5874 breast reductions, 3875 forehead lifts, 3339 breast lifts and 2414 breast augmentations. People aged 51 to 64 accounted for 22.7% of all cosmetic surgery while people past the age of 65 made up 21% of all facelifts performed, according to the group.

Other services which are in high demand among baby boomers are knee replacements and hip replacements. The common reasons for hip replacements are arthritis, diseases that cause the bones in the joints to die, injuries, fractures and bone tumors that break down the hip joint. Knee replacements can be caused due to rheumatoid arthritis, hemophilia, unusual bone growth, knee injury, knee deformity and loss of cartilage. Knee replacement surgeries have nearly doubled over the last decade and have almost tripled in the 45 – 64 age groups. A recent study done to identify the trends in joint replacement reveals that although there is an increase of 2% in specialists doing joint replacement, the actual need is likely to increase by 500 percent. The reason for this is due to the increasing demand from the baby boomers who desire to maintain an active lifestyle.

As per a report released by the US Centre for Disease Control and Prevention (CDC) even though the boomers live longer, they do not lead healthier lives. The table given below shows the percentage of adults aged 55 – 64 with select chronic conditions.

Year	Diabetes	Obesity	High cholesterol	Hypertension
2002	16.7	38.9	39.1	49.5
2012	18.9	40.6	50.1	51.4

In this table, the figures corresponding to 2002 represent the condition of those aged 55 – 64 years during that year, while the figures corresponding to 2012 represent the same number for those aged 55 – 64 in 2012.

Incidence of all chronic conditions featured in the CDC report show slight increases from 2002 to 2012.



Monitoring chronic conditions is essential for those aged 55 – 64 because diabetes, obesity and high cholesterol increases the risk of illness like heart disease, which is the leading cause of death in the US.

Baby boomers face not only physical problems, but also psychological distress. The following table reveals the percent of adults aged 55 – 64 reporting mild to serious psychological distress by income group.

Year	Below Poverty Line	100-200% above poverty	200-399% above poverty	400% above poverty
2003	26.7	17.7	10.2	4.6
2013	31.6	19.9	11.5	4.6

Boomers at every income level reported an increase in moderate to severe psychological distress, except those making 400% above poverty.

The following table reveals the percent of adults aged 55 – 64 with healthcare coverage by income group

Year	Below Poverty Line	100-200% above poverty	200-399% above poverty	400% above poverty
2003	72	76.3	87.5	96.1
2013	68	72.1	84.5	96.3

Among those aged 55 – 64, the percentage with healthcare coverage slightly decreased in 2013 compared with the same age group in 2003. Only the highest earning group showed an overall increase in coverage during this interval.

The next table reveals the top five causes of death in the ages 55 – 64.(per 100000 persons).

For every 100000 adults aged 55 – 64, there were fewer deaths than the same

age group ten years ago. There was a decrease despite increase in chronic conditions and stress.

Year	Cancer	Heart Disease	Unintentional Injuries	Chronic Restrictive lung Disease	Diabetes
2003	341.6	232.3	32.7	43.1	38.3
2013	288.2	184.6	43.4	40.5	33.2

While heart disease and cancer remain the two leading causes of death, they both claim far fewer lives among adults aged 55 – 64 than ten years ago. Chronic Restrictive Lung Disease and diabetes showed smaller declines. Of the top five causes of death for boomers, unintentional injury was the only to rise since 2003.

The paradox of a decrease in the number of deaths and the worsening of health is due to the increased use of prescription drugs, anti diabetic pills and cholesterol lowering drugs.

### Combination Packages for Babyboomers

Babyboomers can be considered as a promising segment in the tourism industry as they are usually healthier, more educated, independent, and wealthy and have abundant leisure time with less social and family obligations. The large share of discretionary money possessed by this second rich group in the society, contributes significantly to the leisure sector. They are characterized as a generation which always wants to be active and is ready to spend any money for this purpose. This group usually prefers longer vacations with greater concern for personal safety and security.

Babyboomers should be viewed as a heterogeneous group of people who have different motivations, destination

preferences, preferred modes of travel and personal values. Some prefer to travel with their family, others with their friends while some others like to retire in a different culture for an extended period of time. They usually prefer real life experiences where they can learn and broaden their minds. They like to learn about different cultures and like to gain knowledge through real experiences.

The travel of babyboomers creates a significant impact on the type of holidays that they choose and the destinations that they visit. Instead of preferring beach holidays, this generation usually prefers educational and cultural tourism which provides them new knowledge and a different cultural experience.

Babyboomers are an important segment in leisure tourism. It is estimated that by 2050, about 2 billion people will be aged 60 years and over – about 22% of the world population. Usually, older adults contribute to an increasingly larger share of holiday spends. In 1999 alone, one third of holiday spending was made by this segment – about 593 million international travelers were above the age of 60.

Understanding the fact that babyboomers are more attracted towards leisure tourism, cultural tourism and

educational tours, these activities can be combined with their medical packages. Leisure and educational tours can be combined with less serious medical procedures and cosmetic tourism. Adventure tourism is another area which can be clubbed with cosmetic tourism. Rest and relaxation after medical procedures can be arranged in resorts and spas which will provide a mind refreshing experience. Post procedure period can also be spend in a different cultural setting ,where babyboomers who usually prefer more social interactions than other age groups get a good opportunity to learn more about the local culture of the destination country. These different tourism activities can be combined with medical procedures to attract more babyboomers to a medical tourism destination.

### Conclusion

The babyboomers have made valuable contribution to the medical tourism industry. They are continuously crossing borders for better and cheaper medical care. Hence, marketers should be able to utilize the opportunities offered by this promising segment. They should effectively combine tourism activities suitable for babyboomers to make medical visits more attractive.

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## A STUDY ON THE EFFECTIVENESS OF RISK MITIGATION MECHANISMS OPERATED IN SELF HELP GROUPS IN ALAPPUZHA DISTRICT IN KERALA

\*Sreevidhya S

### Abstract

As far as rural poor in India are concerned, to make both ends meet is not an easy task to them. Even though Govt. has taken various measures to overcome poverty, still there are many people especially women who depend on money lenders for meeting their financial needs. Micro finance is implemented by the Govt. as a remedial measure for this situation. The present study titled "A study on the effectiveness of risk mitigation mechanisms operated in self help groups in Alappuzha district in Kerala" addressed the various risk mitigation mechanisms taken by the banks like Grading of SHGs, Frequent visits/monitoring, Capacity Building and Training, Monitoring and Review of SHG Lending, Financial Literacy Campaign, Interest Subsidy, Auditing of accounts and checking of records etc. The participation level of SHG members, positive influence of these mechanisms on the repayment attitude of the members, influence of peer pressure, reduction of loan default rate etc indicates that the risk mitigation mechanisms taken by the banks are proving to be successful in achieving its purposes.

**Key words:-** Self Help Group, Risk Mitigation, Financial guidance, Grading of SHGs

Indian economy is at present going through a phase of transition from the state of underdevelopment to development. There are various problems which it is facing during this transition phase namely insufficient growth and development of the economy, serious population pressure, massive unemployment and poverty.

Every seventh unemployed person in the world is an Indian and every third poor person in the world is also an Indian. The statistics speak about the gravity of the problems of unemployment and poverty which demand an immediate solution.

Our country is predominantly agricultural with 70% of the population earn their livelihood from agricultural

sector. Approximately 400 million people in India living below or close to the poverty line could be roughly translated in to 75 million households out of which around 60 million are rural households. So poverty in India has predominantly a rural character. The rural poor are in perpetuating poverty and are the victims of the 'vicious circle of poverty'. Therefore the established policy prescription tries to break this circle of poverty through the supply of credit. It is believed that one, two or three doses of credit infusion can break the circle. Hence the credit is the major policy thrust of rural poverty alleviation. As a remedial measure for these depressed conditions existing in India and with the objective of enhancing the saving habit of rural people, India adopted Micro finance programme, promoted by Nobel Laureate Dr. Muhammad Yunus. There may be various medium of micro finance; however the most prominent among them is the medium of SHGs. After the implementation of the programme, the micro finance sector has grown rapidly and attains incredible achievements

A major effort to provide banking services to the weaker and unorganised sector was the Self Help Group - Bank Linkage Programme which was launched by NABARD in 1992 with 500 SHGs. It has become the largest micro finance in the world, facilitating financial inclusion, unfolding livelihood opportunities and enabling socio economic empowerment of the poor, mostly women. Notwithstanding the massive expansion of SHG-BLP, it has suffered from weakness and distortions in various ways,

thus affecting the graduation of SHG members towards micro-entrepreneurship and full participation in livelihood activities. Many of the SHGs make delay and default in loan repayment which expose the banks to varying levels of risks. Even though the lending to SHGs is outside the purview of the individual credit risk rating framework right now and only portfolio approach is adopted, the banks have to be ready with a roadmap for managing both the credit risk and the operational risk in Micro finance so that they will be comfortable to comply with the forthcoming Basel II norms. All these warranted remedial measures for smooth, qualitative and sustainable growth to SHGs and NABARD as come out with guidelines of SHG-Bank Linkage. One of the recommendations made by NABARD is the improvement of Risk Mitigation Mechanisms through the introduction of self-rating by SHGs, audit and deployment of Business facilitators from among the active SHG members, NGOs or existing Business Correspondences (BC) of banks for audit in SHGs. This will improve the banker's confidence and comfort in financing of SHGs.

### **Significance of the Study**

As far as rural poor in India are concerned, to make both ends meet is not an easy task to them. Even though Govt. has taken various measures to overcome poverty, still there are many people especially women who depend on money lenders for meeting their financial needs. Micro finance is implemented by the Govt. as a remedial measure for this situation

The SHG- Bank Linkage Programme which started as a pilot programme in 1992 has developed with rapid strides over the years. It has become the largest micro finance programme in the world facilitating financial inclusion, unfolding livelihood opportunities, and enabling socio-economic empowerment of poor mostly women. It allows for large-scale outreach of Microfinance services to the poor in India. These banking services are made available at low cost, are easily accessible and flexible enough to meet poor people's needs.

As far as Alappuzha District is concerned, the growth of SHGs is remarkable. The SHGs in the district are active in cultivation and manufacturing of value added products from agricultural products and are becoming active in the coir sector also. The SHG-Bank Linkage programme of the district has proved to be successful poverty alleviation programme in rural area in terms of its outreach, generating income, reducing poverty, providing livelihood etc.

Even though it has a massive expansion, it has suffered from weakness and distortions. Some of the institutions who are offering loans to SHGs are facing recovery problems namely loan default. As a remedial measure for this condition, Government, Banks and other bodies jointly decided to implement Risk Mitigation Mechanisms to improve the confidence and comfort of banks in financing of SHGs. In such a context an analysis of the risk mitigation mechanisms will help to know how far its objectives are achieved will also help to design new measures to improve the performance so

that SHG-Bank linkage programme can succeed in all aspects.

### **Objectives**

1. To investigate in to the Risk Mitigation Mechanisms operated in SHGs in Alappuzha Dist
2. To study the extent to which the Risk Mitigation Mechanisms are effective in achieving its purpose
3. To study the operational viability of implementing Risk Mitigation Mechanisms in SHGs

### **Research Methodology**

#### **Types of data**

The study is making use of both primary and secondary data.

#### **Source of data**

Primary data for analyzing the effectiveness of Risk Mitigation Mechanisms were collected from SHG members and banks that are engaging in SHG lending. The data are collected through the sample survey among the selected SHGs using interview schedules and issuing pre-tested questionnaire among the officials of various banks who offering loan to SHGs.

The secondary data were collected from various books , journals, reports, newspaper & web site ,etc

#### **Tools of Analysis**

For the purpose of analyzing and interpreting the data percentage method was used

**Population & Sample design**

1. More than 2, 70,000 SHGs are functioning in the Alappuzha District. From different parts of Alappuzha district 100 SHGs who passes through the Risk Mitigation Measures of banks and Govt. were selected for this study on a convenient sampling basis. From each SHG one member is selected on a random basis. Thus a sample of 100 members were interviewed in total to elicit the data required for the study
2. Almost all banks in Kerala are engaged in SHG lending. From among them 10 banks were selected at random for collecting data for this study

**Findings**

The following are the findings of the present study.

- 1) Majority of respondents are in the age group of 35-45. It indicates they are more productive and active.
- 2) Most of the respondents are married. Respondents does not includes any unmarried people
- 3) Almost all respondents are literate .It indicate that they are capable of taking decisions and solving problems
- 4) Almost all respondents are aware of the bye-laws and participatory decision making
- 5) Majority of the SHGs handle cash effectively i.e., rotated among all members

- 6) Most of the SHG members repay the loan in time i.e. usually they do not make delay
- 7) Almost all SHGs meet four times in a month for discussing their operations
- 8) Majority of the respondents haven't made any loan default after attending the guidance programs of banks
- 9) Respondents are of the opinion that the motivation from peer pressure and counseling from the banks can positively influence their early repayment attitude
- 10) Almost all respondents are satisfied with the allotment of credit in their group
- 11) Most of the SHGs handle the loan request in a democratic way, ie, as per the rules . This indicate that all members get availability of credit
- 12) Majority of the respondents agree with the 'Grading of SHGs' for sanctioning loans by banks
- 13) There is enough monitoring and review by banks
- 14) The training and advices from banks can positively influence the prompt payment attitude of the respondents
- 15) The respondent members of SHGs make prompt payment due to the peer pressure from their group
- 16) The subsequent or next loan from the bank will act as a motivational factor for prompt payment
- 17) The financial guidance and training from banks to SHG members will

positively influence the respondents to make prompt repayment of other external loans also.

- 18) All respondent banks are providing loan to SHGs
- 19) All respondent banks make adequate visit to SHGs
- 20) In the opinion of respondent banks, all SHG members support the Risk Mitigation Mechanisms of Banks
- 21) Respondent banks are of the opinion that financial guidance given by them have high influence on the prompt repayment attitude of the SHG members
- 22) Participation of the SHG members in the Risk Mitigation Programs of the banks are satisfactory
- 23) Respondent banks are of the opinion that there is a positive change in the loan default rate of SHG members after implementing Risk Mitigation Programs
- 24) The various Risk Mitigation Mechanisms of the banks and Government are the following
  - i. Grading of SHGs
  - ii. Frequent visits/monitoring
  - iii. Capacity Building and Training
  - iv. Monitoring and Review of SHG Lending
  - v. Financial Literacy Campaign
  - vi. Interest Subsidy
  - vii. Auditing of accounts and checking of records

## Conclusion

SHG- Bank Linkage programme introduced by NABARD as a supplementary credit delivery mechanism to reach the poor in a cost effective and sustainable manner is growing to be a successful programme of the Government in terms of making available cheaper credit to poor, bringing them to the main stream of development, improving the standard of living etc through their diversified activities. Even though the credit is given to the group after assessing the repayment history, the delinquency in SHGs is starting to attract the attention of Government and Banks that lend them. One of the recommendations of NABARD to overcome this condition was the improvement of Risk Mitigation Mechanisms. The present study titled "A study on the effectiveness of risk mitigation mechanisms operated in self help groups in Alappuzha district in Kerala" addressed the various risk mitigation mechanisms taken by the banks like Grading of SHGs, Frequent visits/monitoring, Capacity Building and Training, Monitoring and Review of SHG Lending, Financial Literacy Campaign, Interest Subsidy, Auditing of accounts and checking of records etc. The participation level of SHG members, positive influence of these mechanisms on the repayment attitude of the members, influence of peer pressure, reduction of loan default rate etc indicates that the risk mitigation mechanisms taken by the banks are proving to be successful in achieving its purposes and the implementation of the programme was also get a warm welcome as the SHGs are ready to go with these measures not only for their own benefit but also for their country's benefit.

## AN ANALYTICAL STUDY ON WORKING CAPITAL MANAGEMENT IN VIJAYAMOHINI MILLS

**\*Dr. Pradeesh S, \*\*Nisha A S**

### Abstract

Efficient management of working capital is very important for the success of an enterprise. The Chief finance officers of most companies spend most of their time and effort on day to-day working capital management. The study undertaken is on "An analytical study on working capital management in VIJAYAMOHINI MILLS". It describes about how the company manages its working capital and the various steps that are required in the management of working capital. Working capital management is a sensitive area in the field of financial management. Every business needs funds for two purposes; for its establishment and to carry out its day-to-day operations. Funds are required for a firm for the purchase of raw materials, payment of wages and other day-to-day expenses etc. These funds are known as working capital.

**Key words:-** Working Capital, Absolute Liquidity Ratio, Current and Liquid Ratio

Working capital refers to the cash a business requires for day-to-day Operations or, more specifically, for financing the conversion of raw materials into finished goods, which the company sells for payment. Among the most

important items of working capital are levels of inventory, accounts receivables and accounts payable.

Analysts look at these items for signs of a company's efficiency and financial strength.

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The working capital is an important yardstick to measure the company's Operational and financial efficiency. Any company should have a right amount of cash and lines of credit for its business needs at all times. Working capital constitutes a large portion of total investment in assets. It is estimated that about 60% of total net assets of the public sector companies in India is in the form of Current Assets. This underlines the importance of the Working Capital Management.

### **Statement of the Problem**

Efficient management of working capital is very important for the success of an enterprise. The Chief finance officers of most companies spend most of their time and effort on day to-day working capital management. Still, due to the inability of financial managers to properly plan and control the current assets and current liabilities of their companies, the failure of a large number of businesses can be attributed to the inefficient working capital management. Inadequate working capital leads the company to bankruptcy. On the other hand, too much working capital results in wasting cash and ultimately the decrease in profitability. Management strategy aimed at maintaining a balance between liquidity and profitability has far reaching consequences on the growth and survival of the firm. Thus, the manager of a business entity is in a dilemma of achieving desired trade-off between liquidity and profitability in order to maximize the value of a firm. Empirical evidences suggest that managers can create value by reducing their firm's number of day's accounts receivable and inventories and shortening

the cash conversion cycle. The study focuses on the impact of working capital management on profitability of VIJAYAMOHINI MILLS THIRUMALA, TRIVANDRUM.

### **Significance of the Study**

The study of working capital and its management have an immense significance in the working of any organization. Without a very good amount of planning of the working capital system, the operation of the company becomes very difficult. The working capital system of the large organization like VIJAYAMOHINI MILLS could be complicated and a proper study will help to understand the functioning of working capital management and examine its effectiveness. The study will also be highly beneficial for management in designing their future policy. Working capital management is essentially an accounting strategy with a focus on the maintenance of sufficient balance between a company's current assets and liabilities. An effective working capital management system allows business to not only cover their financial obligations, but it is also a way to help companies boost their earnings. Working capital is a prevalent metric for the efficiency, liquidity and overall health of a company.

### **Scope of the Study**

This project is based on analysis of balance sheet and profit and loss account of VIJAYAMOHINI MILLS for the five years that is from financial years 2011-2012 to 2015-2016. Various financial analysis tools and techniques like ratio analysis, trend analysis and comparative statement analysis have been in this project.

This project will be a learning device for a finance student. This would also be an effective tool for credit policies of the company. This will show the liquidity position of the company and also how do they maintain a particular liquidity position.

### Objectives of the Study

The objectives of project on evaluation of working capital are as follows:

1. To study the Working Capital management.
2. To study the concept of working capital and components of working capital.
3. To analyze the changes in working capital of the company
4. To evaluate the key changes in the financial statement by using trend analysis.
5. To study the profitability, liquidity and working capital position of the company.

### Research Methodology

Research methodology consists of the research methods that were used to conduct the research in collection of data and a plan of how the study was conducted. Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done systematically. This project "A study on working capital management of VIJAYAMOINI MILLS, Thirumala" is considered as an analytical research.

Secondary data is the data taken by the researcher from secondary sources.

Secondary data are those which have already collected and stored. It can easily get from records, annual reports of the company etc. It will save time, money and efforts to collect data. Secondary data required for the study has been collected from published and unpublished sources. It includes; Annual reports, Journals, Company's internal records, Company manuals, Books based on financial management and Website. The study shall cover a period of five years that is from financial year 2011 to 2016.

### Review of Literature

Review of literature refers to the collection of the result of the various researchers relating to the present study. It takes in to consideration the research of the previous researchers which are related to the present research in any way.

Working capital management can be considered as an important source of profitability of a firm. Many researchers investigated the impact of working capital management on profitability. This past research demonstrated that efficient working capital management profitability. Studies adopting a new approach towards working capital management are reviewed here.

**Walker** (1964) made a pioneering effort to develop a theory of working capital management by empirically testing, though partially, three propositions based on risk-return trade-off working capital management. It studied the effect of the change in the level of working capital on the rate of return in nine industries for the year 1961 and found the relationship between the level of working capital and the rate of return to be negative.

**Krishnamurthy's** study (1964) was aggregative and dealt with inventories in the private sector of the Indian Economy as a whole for the period 1948-61. The study used sales to represent demand for the product and suggested the importance of accelerator. Short-term rate of interest had also been found to be significant.

**Satys'** (1966) was a cross section analysis of total inventories of companies across several heterogeneous industries for the period 1955-60 using balance sheet data of public limited companies in the private sector. The study brought out the importance of accelerator represented by change in sales. It also showed negative influence of inventory investment.

**Weston and Brigham** (1972) suggested that short-term debt should be used in place of long-term debt whenever it use would lower the average cost of capital to the firm. It suggested that a business would hold short-term marketable securities only if there were excess funds after meeting short-term debt obligations. It further suggested that current assets holding should be expanded to the point to the marginal returns on increase in these assets would just equal the cost of capital required to finance such increase.

**George** (1972) was cross section analysis of balance sheet data of 52 public limited companies for the period 1967-70. Accelerator, internal and external finance variables were considered in the equations for raw materials including goods-in-process and total inventories. However, equations for finished goods inventories considered only output variable. Accelerator and external finance variables were found to be important.

**Cohn** (1973) and **Pringle** (1973) illustrated the extension of Capital Asset Pricing Model (CAPM) for working capital management decisions. They tried to inter-relate long-term investment and financing decisions and working capital management decisions through CAPM. It emphasized that an active working capital management policy based on CAPM would be employed to keep the firm's shares in a given risk class. By risk, it meant unsystematic risk, the only risk deemed relevant by CAPM.

**Seamy and Rao** (1975) of the flow of funds of public limited companies had an equation for aggregate inventory investment. RBI data for the period 1954-68 had been used. The explanatory variables considered were accelerator, flow of bank borrowings, an index of man days lost, capacity by the call rate. Accelerator, bank finance and fixed investment were found to be significant.

**Hilton** (1976) have found this variable, inventory-sales ratio, to be statistically significant. 'Fixed investment is generally expected to affect inventory investment inversely because of competing demand for the limited funds. However, in case of an expanding firm, the two components may be complimentary. Besides, availability of funds from retained earnings and external sources, may affect investment decision by providing funds for financing inventory investment. Therefore, retained earnings and flow of debt are postulated to have positive coefficients. The studies described so far, are the important studies conducted abroad. A number of studies on working capital management have been conducted in India also.

**Gapinathan Thachappilly** (2009) in this articles it discussed about the Financial Ratio Analysis for performance evaluation. The analysis is typically done to make sense of the massive amount of numbers presented in company financial statements. It helps to evaluate the performance of a company, so that investors can decide whether to invest in that company. It looking at the different ratio categories in separate articles on different aspects of performance ratios, investment evaluation ratios.

**Jo Nelgadde** (2010) in this article it briefly explains about the asset management ratio. It divided into different types of categories.  $\text{Turnover} = \text{sales} / \text{Net fixed asset}$ .

### **Cotton Textile Industry**

Cotton textile is one of the oldest and largest industries of our country. It has been rapid strides during the century of its existence. India has the world's highest acreage under cotton but in terms of production among 55 major countries it ranks only forth being next to USA and CHINA. Cotton is grown in this country over an area of about 8 million hectors and average production during the last few seasons has been about 87 lakhs, In India this industry includes three different sectors namely mills, power looms and handlooms using different levels of equipment's and technology. Among the above mentioned sectors, mill is the most important because it produces a large quality of output and provides more employment opportunity and helps to earn a lion share of the foreign exchange to the national economy. The industry gives direct employment opportunity to

about 20% of all industry and earns 10% of foreign exchange earnings.

There are some indications that weaving was already known in the Paleolithic. An indistinct textile impression has been found at Pavlov, Moravia Neolithic textile is well known from funds in the pile dwellings in Switzerland. One extant fragment from the Neolithic was found in forum at a site which dates to about SOOOBC. During the second half of the 17<sup>h</sup> century, cotton goods were imported from India. Because of the competition with the wool and the linen industries, in 1700, the government placed a ban on imported cotton goods. Cotton had become popular, however, and a home based cotton industry spring up using the raw material imported from the colonies. Since much of the imported cotton came from England, ports of the west coast of Britain, such as Liverpool, Bristol and Glasgow, became important in determining the sites of the cotton industry. Of course, the wool and linen manufactures made sure that many restrictions were imposed on the import of cotton, but as cotton had become fashionable, there was little they could do to stop the trend.

These inventions turned the tables and it was the weavers who found it hard to keep up with the supply of thread. In 1770, John Kay's Flying Shuttle loom, which had been invented in 1733 and doubled a weaver's productivity and was widely in use. In conjunction with the spinn9ng name, this new loom was used in factories built in Derbyshire, Lancashire and Scotland. The spinners and weavers no longer worked for themselves. The equipment and the raw material needed

in the industry were far too expensive. The spinner and weavers were now the workers or employees of the person who owned the factory and who could pay for the raw materials. Instead of working for themselves, at home and at their own place, the workers were now paid a wage to carry out job of in a cotton mill for a specific period of time each day. This also meant that, in order to find work, many people needed to move into the area where the cotton mills have been built. With the technological advances in both spinning and weaving, it might be supposed that the supply of raw materials could have been a limiting factor to production. Even in this area, however, technology had lent a hand. A machine steps in called Cotton production. Even in this area, however, technology had lent a hand. A machine steps in called Cotton Gin, invented by an American, Eli Whitney, made extracting the cotton from the plant much easier. The cotton growers were able to keep up with the demand for raw materials from across the Atlantic.

During the late mediaeval period, cotton began to be imported to northern Europe. Without any knowledge of what it came from other than it was plant, noting its similarities to wool, people in the region could only imagine that cotton must be produced by plant born sheep. JOHN MANDEVILLE. Writing in 1330 stated as fact the now preposterous belief. "There grew in India a wonderful tree which bore tiny lambs on the ends of its branches. These branches were so pliable that they bent down to allow the lambs to feed when they are hungry". This aspect is retained in the name for cotton in many European languages, such as

German Baumwolle which translates as 'tree wool'. By the end of the 16<sup>th</sup> century cotton was cultivated throughout the warmer regions of Asia and America.

The main steps in the production of cloth are producing the fiber preparing it, converting it to yarn, converting yam to cloth and then finishing the cloth. The cloth is taken to the manufacture of garments. Preparation of fibers differ the most, depending on the fiber used. Flax requires retting and while wool requires carding and washing. The spinning and weaving process are very similar between fibers however.

Spinning evolved from twisting the fibers by hand, to using a drop spindle, to using a spinning wheel. Spindles or parts of them have been found in archaeological sites and may represent one of the first pieces of technology available. They were invented in India between 500 and 1000 AD.

Now India and China are the two Asian giants competing to capture the world textile market. Though China possesses biggest challenges to India, Indian products have an edge over that of china in the world market.

### **Cotton Textile Industry in India**

Cotton textile industry is the oldest and perhaps the largest manufacturing textile industry in the country. It is more than 100 years old and occupies dominant position in the industrial structure. The cotton industry is the forerunner of Indians transformation from an agrarian economy to industrial advancement. It laid the foundation for the development of a number allied industries and services.

The Indian entrepreneurship had its training ground in textile industry and the subsequent proliferation into manifold avenues of industrial progress and economic activity has been made possible by the pioneering efforts of the textile industry.

The linkage this industry reaches the common man is some from or his everyday life. The pre-eminent place of this industry in the national economy is oblivious from the fact that it caters to the clothing needs of the vast population, contributes over Rs.2000crores to the central and state exchequers by the way of direct and indirect taxes earns foreign exchange of over Rs.1000crores, Forming 11 percent of the exchange earning through export of merchandise and contributes about 6 percent of the Gross National Product.

Recognizing its crucial importance the textile policy statement says :”The textile occupies a place of unique importance in the economy of the country by virtue its significant share in the industrial production large workforce employed and the fact that it not only caters to the clothing needs of the community but also generates sustained and balanced growth and development of this industry is, therefore vital to economic growth of the country as also for the most essential need of the people.

### **Cotton Textile Industry in Kerala**

The textile industry in Kerala is not only the oldest industry of the state, but also an industry which occupies an important position in the state economic development. The process in the state occupies a way position in the state “as

set in motion by the cotton textile industry. The earliest known registered factory is the Malabar spinning and Weaving Company at ponnaianwara in Calicut. The second important textile setup in the Quilon Spinning Mills. The development of textile industry in the state took place only after the independence and during the plan periods. The development of the textile industry in the state took place in the private sector. But some of the mills become sick unit and were taken over by the NTC. The Kerala state textile corporations was incorporated in 1972 with the objectives of promoting textile industry and assisting switch mills. The particular features of cotton textile mills in Kerala is that most of these are either in the hands of government or in the co-operative sector, 7 are in the state sector, 5 in the central sector and 13 in private sector. The installed capacity of the textile units in Kerala is over 7 lakh spindles and about 1900 looms.

### **Working Capital Management**

Working capital management refers to a company’s managerial accounting strategy designed to monitor and utilize the two components of working capital current assets and current liabilities to ensure the most financially efficient Operation of the company. Working capital management is significant in financial management due to the fact that it plays a vital role in keeping the wheel of the business running. Every business requires capital without which it cannot be promoted. Investment decision is connected with investment in current assets and fixed assets. There are two assets required to be financed by fixed capital and working capital. Fixed capital cannot

be utilized without current assets. It is just like a blood in the human body, which there is no body. The efficiency of business enterprises depends largely on its ability to manage its working capital. Working capital management therefore is one of the important phases of a firms overall financial management. Every business needs funds for two purposes for its establishment and to carry out its day to day operations. Long term funds are required to create production facilities through purchase of fixed asset such as plant and machinery, land and building, furniture etc... funds are also needed for short term purchases for the purchase of

raw materials, payment of wages and other day to day expenses these funds are known as working capital. Working capital refers to that part of firm's capital which is required for financing short term or current assets such as cash, marketable securities, debtors and inventories.

Working capital plays an important role in the day to day activities of a business enterprise. The working capital management intimately links the functioning of every department in the business concern. If working capital is mismanaged, it may affect the existence of the business itself. In such units the production of cash in the current assets

### FUND FLOW STATEMENT OF CHANGE IN WORKING CAPITAL AS ON MARCH 2015 -2016

Particulars	2015	2016	Effect on increase	Effect on decrease
A) Current Asset				
Current Investments				
Inventories	48506055.72	66696469.31	18190413.59	
Trade receivable	22126471.71	21472620.50		653851.21
Cash and bank balances	537530.15	2967186.83	2429656.68	
Short term loans and advances	2136912.88	1827998.21		308914.67
Other current assets	480481.00	605579.00	125098.00	
Inter sub-office current accounts				
Inter unit current accounts				
<b>TOTAL (A)</b>	<b>73787451.46</b>	<b>93569853.85</b>		
B) Current liabilities				
Short term borrowings	1941905.12			
Other current liabilities	14125942.35	17341815.80	3215873.45	
Trade payable	16622902.68	32977628.40	16354725.72	
Short term provision	5824328.00	4595254.00		1229074
Inter sub-office current accounts				
Inter unit current accounts				
Head office fund loan and current account	701572388.80	818482214.29	116909825.49	
<b>Total (B)</b>	<b>740087466.95</b>	<b>873396912.49</b>	<b>157225592.93</b>	<b>1537988.67</b>
Working capital	-666300015.49	-779827058.64		
Net decrease in working capital	-133309445.54			155687604.26
	-779827058.64	-779827058.64	157225592.93	157225592.93

*In these statements of the year 2014-2015 show the inadequate working capital because of the increase in current liabilities.*

**FUND FLOW STATEMENT OF CHANGE IN WORKING CAPITAL  
AS ON MARCH 2014-2015**

Particulars	2014	2015	Effect on increase	Effect on decrease
A) Current asset				
Current Investments				
Inventories	88890838.72	48506055.72		40384783.00
Trade receivable	7184016.60	22126471.71	14942455.11	
Cash and bank balances	186847.65	537530.15	350682.5	
Short term loans and advances	1649911.73	2136912.88	487001.15	
Other current assets	363053.00	480481.00	117428.00	
Inter sub-office current accounts				
Inter unit current accounts				
<b>Total (A)</b>	<b>98274667.37</b>	<b>73787451.46</b>		
B) Current liabilities				
Short term borrowings	38478994.92	1941905.12	1905989.8	
Trade payable	32520235.13	16622902.68	15897332.45	
Other current liabilities	11370299.38	14125942.35		2755642.97
Short term provision	5665141.00	5824328.00		159187.00
Inter sub-office current accounts				
Inter unit current accounts				
Head office fund loan and current account	639486418.31	701572388.80		62085970.5
<b>Total (B)</b>	<b>692889988.7</b>	<b>740087466.95</b>	33736804.33	105385583.5
Working capital	-594615321.3	-666300015.4		
Net decrease in working capital	-71684694.07		71648789.14	
	-666300015.4	-666300015.4	105385583.5	105385583.5

*In these statement of the year 2014-2015 show the inadequate working capital because of the increase in current liabilities.*

would be high, but the industry may face the shortage of inventory. If the blocked funds in current assets are not properly utilized at the right time for the purchase of inventory, it will not only increase the profit earning capacity of the firm but also reduce the risk. Similarly, current liabilities should keep in such a proportion that current assets can be converted into cash to pay for it during the period of solvency crisis.

In the word Shubin, "Working capital is the amount of fund necessary to cover the cost of 'operating the enterprises". The primary aim of the working capital management is to manage the enterprises current assets in such a way that

satisfactory level of working capital is maintain. The current assets should be enough to cover the current liabilities in order to ensure margin of safety.

### Current Ratio

This is the most widely used ratio. It is the ratio of current asset to current liabilities. It shows a firm's ability to cover its current liabilities with its current assets. It is expressed as follows: Current ratio = Current Asset / Current Liability. Generally 2:1 is considered ideal for a concern. If the ratio is higher than 2, it is very comfortable for creditors but for the concern, it is indicator of idle fund and a lack enthusiasm for work. On the



contrary, a low ratio would mean in adequacy of working capital may deter smooth functioning of the enterprise.

Current assets include cash and those assets which can be converted in to cash within a year, such as marketable securities, debtors, inventories and prepaid expenses. While current liabilities include creditors, bills payable, accrued expenses, short term bank loan, income tax payable.

YEAR	CURRENT ASSETS	CURRENT LIABILITIES	RATIO
2011-2012	72497186.95	47064627.71	1.54
2012-2013	50223439.51	38969300.32	1.28
2013-2014	102475352.70	495555675.51	2.06
2014-2015	73787451.46	740087466.95	0.09
2015-2016	93569853.85	873396912.5	0.01

The above table shows, the relationship between current assets and current liabilities. In the year 2012-2013 the current ratio is 1.28 this is an average of the current assets and current liabilities. In the year 2013-2104 shows the high current ratio. But in the year 2105-2016 decreasing trend will show.

**Quick Ratio**

Quick ratio is also known as acid test ratio. It is determining by dividing quick assets that i.e., cash, marketable investments and sundry debtors, by current liabilities this ratio is a bitterest of financial strength than the current ratio as it gives no consideration to inventory which may be very low moving. Quick ratio=Quick asset/current liability

YEAR	QUICK ASSETS	CURRENT LIABILITIES	RATIO
2011-2012	7308499.21	47064627.71	0.15
2012-2013	18358226.75	38969300.32	0.47
2013-2014	9020775.98	495555675.51	0.018
2014-2015	24800914.74	740087466.95	0.033
2015-2016	70820764.63	873396912.5	0.081

The above table shows the relationship between quick assets and current liabilities. In the year 2012-2013 shows the high quick ratio. But in the year 2013-2014 there is a lower quick ratio. Simultaneously there is increasing trend in the following table.

**Absolute Liquid Ratio or Cash Ratio**

Although receivables, debtors and bills receivables are generally more liquid than inventories, yet there may be doubts regarding their realization into cash immediately or in times. Hence some authorities are the opinion that the absolute liquid ratio should be calculated together with current ratio and test ratio. The acceptable norm for this ratio is 50% or 0.521. Liquid asset= Liquid asset/ current liability

YEAR	ABSOLUTE LIQUID ASSETS	CURRENT LIABILITIES	RATIO
2011-2012	1458240.93	47064627.71	0.03
2012-2013	2784151.57	38969300.32	0.07
2013-2014	186847.65	495555675.51	0.0003
2014-2015	537530.15	740087466.95	0.0007
2015-2016	2967186.83	873396912.5	0.0033

From the above table we can see that the absolute liquid ratio is 0.07 in the year 2012-2013, this is the highest. But the year 2013-2014 there is a 0.0003 decreasing trend were following. Simultaneously there is increasing trend in the following years.

**Gross Profit Ratio**

It measures the relationship of gross profit to sales and is usually represented as a percentage. Gross Profit Ratio = Gross profit \* 100 /Net sales

YEAR	GROSS PROFIT	NET SALES	RATIO
2011-2012	166807997.00	215273038.94	77.48
2012-2013	191148426.89	365286442.00	52.32
2013-2014	237371989.76	324583379.00	73.13
2014-2015	214202133.29	401747270.00	53.31
2015-2016	193462783.66	303140740.00	63.81

This table shows that gross profit ratio by the firm in the year 2012-2013 is the average of gross profit and net sales. In the year 2013-2014 increased to 73.13. In the year 2014-2015 the gross profit ratio is decreased to 53.31. but in the year 2015-2016 shows an increasing trend comparing these five years 2011-2012 is the highest gross profit ratio.

**Operating Ratio**

The operating ratio can be used to determine the efficiency of a company’s management by comparing operating expenses to net sales. It is calculated by dividing the operating expenses by the net sales. The smaller the ratio, the greater the organization’s ability to generate profit. The ratio does not factor in expansion or debt repayment. Alternatively, it may be expressed as a ratio of sales to cost. In such case a higher ratio indicates a better ability to generate revenue. Operating ratio= Operating cost/ Net sales\*100

YEAR	COST OF GOODS SOLD+ OPERATING EXPENSES	NET SALES	RATIO
2011-2012	209589845.1	215273038.94	97.36
2012-2013	256470192.8	365286442.00	70.21
2013-2014	310097102.1	324583379.00	95.53
2014-2015	292449642.5	401747270.00	72.29
2015-2016	208611651.4	303140740.00	68.81

From the above table shows the relationship between operating cost and net sales. In the year 2011-2012 is the highest operating ratio that is 97.36. But in the year 2012-2013 there is a decreasing trend of 70.21. In the year 2013-2014 increased to 95.53. But 2014-2015 there is a decreasing trend and this will continue in the following years.

**OPERATING PROFIT RATIO**

Operating net profit ratio is calculated by dividing the operating net profit by

sales. This ratio helps in determining the ability of the management in running the business. Operating profit ratio = (Operating profit / Net sales) × 100

YEAR	OPERATING PROFIT	NET SALES	RATIO
2011-2012	124026148.9	215273038.94	57.6
2012-2013	125826661.00	365286442.00	34.44
2013-2014	164646877.4	324583379.00	50.72
2014-2015	135954624.1	401747270.00	33.84
2015-2016	146858879.22	303140740.00	48.44

From the above table shows the relationship between operating profit and net sales. In the year 2011-2012 shows 57.6 operating ratio and in the year 2012-2013 shows a decreasing trend of 34.44. In the year 2013-2014 is showing increasing trend of 50.72. But in the year 2014-2015 is the lowest operating ratio of 33.84 and there is a increasing trend where following in the year 2015-2016.

**Conclusion**

Working capital is the capital required for maintenance of day to day business operations. The present competitive market calls for proper and efficient management of working capital .It is because if there is ineffective working capital management may force the firm to shut down the business operations and it may even lead to bankruptcy .Hence the goal of the working capital management is not just concerned with the management of current assets and current liabilities but also concerned with maintaining the satisfactory level of working capital. The success of the firm greatly depends on how well they manage the working capital effectively. Working capital management is usually concerned with the administration of current assets and current liability. The study was undertaken in Vijayamohini Mills with a

view to have an insight into the working capital management of the firm. The main tools used in the study were ratio analysis, schedule of changes in working capital, trend analysis. The study throws a light on various aspects of such as the company efficiency in utilizing its overall financial position of the company. The analysis is mainly based on secondary data obtained from annual report of the company, websites, company manual etc. It is being concluded that the company is making continuous loss over the years and the company must due to necessary things to make it in profit.

### Findings

1. Working Capital of the company has been decreasing and the analysis has made it clear that the Company has attained a very Poor position in respect of working capital.
2. In the analysis of current and quick ratio of the company gives the picture that the company has a week liquidity position since it has lower current and quick ratio.
3. In the fund flow statement the changes in the working capital shows goes on decreasing every year due to the debt in the firm.
4. The demand of the product also very low in the market so it has only a less number of buyers.
5. The total debt ratio of the company was increasing which indicates that the outside external financing used by the company has been more.

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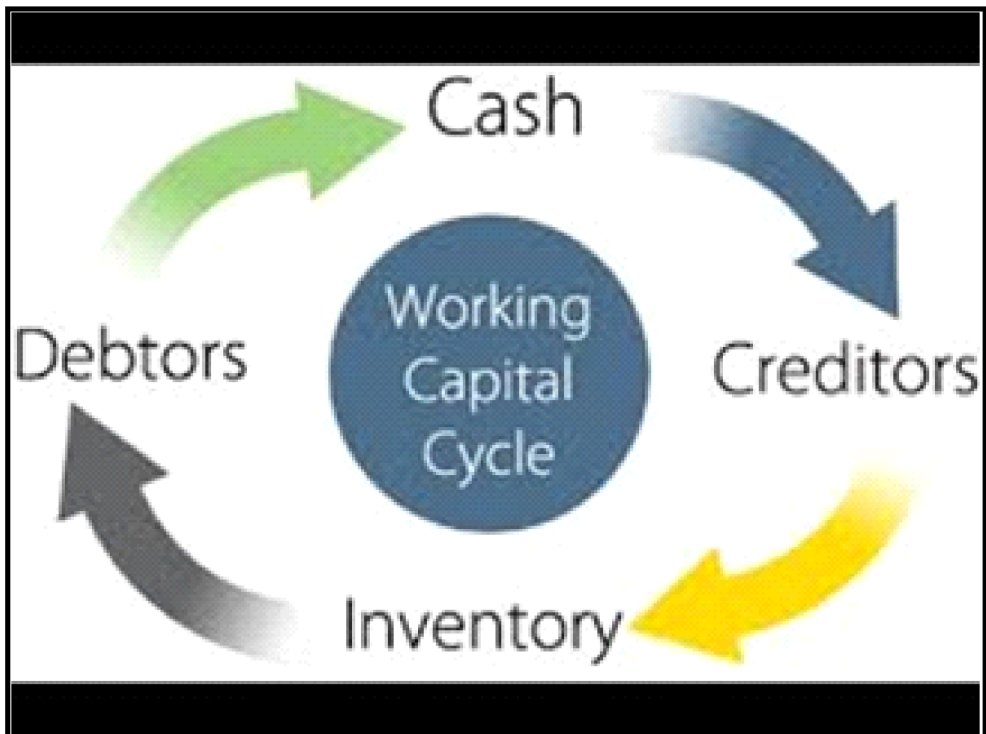
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6. The profitability position of the firm is not good since the net profit margin was significantly reduced because the cost of purchasing the raw material was high and the selling price of the finished goods low.
7. The transport charges are very high because the purchase of raw materials and the selling of the finished goods are in out of state.

### Suggestions

1. The analyzer recommends achieving a good margin for the company because the company has been continuously making loss over the years.
2. The current and quick ratios are almost at average standards requirement so we have to maintain the working capital of Vijaya mohini mills satisfactory.
3. The company should take precautionary measures for investing and collecting funds and try to reduce the bad debts.
4. To maintain the sufficient liquidity position and the efficient utilization of short term capital it would be able to increase the turnover of the company.
5. The company needs to manage the funds more efficiently for making adequate working capital.

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*Working Capital Cycle*

## BANK EMPLOYEES' BEHAVIORS TOWARDS GREEN BANKING INITIATIVES OF BANKS SECTORS: A STUDY

**\*Dr. Ratheesh G**

### Abstract

The present study is aimed to measure the attitude of the bank employees of both Public and Private sector banks in Cochin, India towards the green banking initiatives of banks sectors. The desire to engage one in environment friendly green practices has expanded to the organizations also. In the environment friendly society "Go Green" mantra has become relevant in each and every aspect of business. As a responsible financial organization of the country, with its crucial role in financing the economic and developmental activities of the country, banks have to play in addressing the above issues, both in terms of its obligations and opportunities by virtue as a responsible corporate citizen and as a financier. Hence there is a need for a study the Green Banking Initiatives of commercial banks. By the research work the opinion of bank employees of 6 Public sector banks and 4 Private sector bank branches in Cochin are studied and the results were found to be favorable to the bank regarding the green banking initiatives of their banks.

**Key words:-** Green Bank, Benefits of Green Bank, Analysis Data and Test

Green banking is like a normal bank, which considers all the social and environmental/ecological factors with an aim to protect the environment and conserve natural resources. They are controlled by the same authorities but with an additional agenda toward taking care of the Earth's

environment / habitats / resources. For banking professionals green banking involves the tenets of sustainability, ethical lending, conservation and energy efficiency. Green Banks give more weight to environmental factors; their aim is to provide good environmental and social business practice. Defining green banking

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is relatively easy. Green Banking means promoting environmental – friendly practices and reducing your carbon footprint from your banking activities.

### **Benefits of a Green Bank in India**

- A green bank is an institution that is more than the sum of its parts.
- Better financing terms means more projects, lower cost energy and lower subsidy costs.
- Green banks keep lending costs low
- Investment partnerships bring new players on board
- Green banks facilitate the scaling up of distributed clean energy resources

Green banks are tailored to the country's goals, resource endowment, market opportunities and market risks. Green banks use private-sector experience and discipline in the service of the public good. They play a transformative role because neither traditional government programs, with their limited engagement with markets, nor the private sector, with its competitive pressures and fiduciary constraints, can reliably achieve this outcome.

Domestic Indian banks typically offer higher interest rates and shorter financing terms than would be economical for clean energy projects. High-cost, short-term and variable rate debt raises the cost of renewable energy in India by 24 to 32 percent compared with similar projects in the United States. Green banks introduce lower lending rates and flexible

terms that match the terms and payback period of clean energy projects because of their green investment mandate, specialized green underwriting expertise, and public sources of capital.

Green banks help bridge the gap between the perceived risks associated with clean energy investments and the expectations of the private lenders by offering products such as subordinated debt, partial credit guarantees, insurance, or loan-loss reserves. Green banks play a leadership role that can guide commercial lenders. Since some commercial lenders are unfamiliar with clean energy technologies, higher perceived risk exists for financing clean energy projects.

Green banks lend their name, capital, and credibility to clean energy projects thus making them more attractive for private investors. Co-investment, in which the green bank lends in consortium with other commercial banks, helps bring new lenders to the clean energy markets.

Small projects like rooftop solar and off-grid solar applications in rural villages have the potential to be transformative in India. The main barrier is that financing small, nonstandard projects, individually and on a one-off basis, incurs high transaction costs and is often perceived as high risk. Green banks can establish standard terms as a requirement of receiving financing.

### **Statement of the Problem**

Due to changes in the climate and the changing nature of work, Green banking initiatives of the bank is now at the top of the agenda for bank scoters in India. It is recognized that Green banking

initiatives of the bank can lead indirectly to productive gains through increased customer retention and helps organizations to respond to customer needs more effectively. In any business and industrial activities it is of utmost importance to have well trained, well groomed and emotionally balanced workers available to take up employment challenges. This highlights the need among the Commercial banks to pay adequate attention to know the attitude of their employees towards the Green banking initiatives of the bank.

### Scope of the Study

The survey was conducted among the bank employees working in the bank branches of the six Public sector commercial banks - State bank of India, Indian Overseas Bank, Bank of India, Indian Bank, Canarabank, Punjab National Bank and four private sector commercial banks – HDFC, ICICI, AXIS, and INDUSIND Bank which are operating in cochin, kerala, India through a structured interview schedule. The study focus on the bank employees attitude towards green banking products and services offered by their bank. It also presents the problems faced by them in implementing the green banking.

### Objectives of the Study

The following are the objectives of the study-

- To study the Green Banking Initiatives taken by bank sectors in India.
- To comparative study the attitude of the bank employees about the Green Banking products and modern

banking services offered by the bank.

- To identify the various problems in making as a Green bank.

### Research Methodology

The primary data used in this study was collected from the respondents who are selected through drawing a sample from each stratum in proportion to the latter's share in the total population. So the researcher has followed the method of random sampling. There are 32 commercial banks (branches) operating in Cochin. Out of that the researcher selected top 10 banks which have large customer base. Out of 80 employees employed in the selected study units, the researcher by using random sampling technique, selected 76 employees, the collected data were analyzed with the help of the following statistical tools like Percentage analysis, Weighted Arithmetic Mean, Friedman test, Chi-Square test and ANOVA analysis.

### Demographic Profile of the Bank Employees

The table no. 1 analysis reveals that 51.26 per cent respondents are male, 57.89 percent of the respondents are fall in the age group of below 30 years, 31.58 per cent of respondents are officers, 51.32 per cent of the respondents were educated up to Undergraduate, 35.53 per cent of the respondents are earning Rs.20001 to 30000 per month, 44.74 per cent of the respondents are having below 5 years of experience.

Relationship Difference between the Demographic Profile of the Respondent and the Opinion towards Green Banking

The null hypotheses framed for analysis is "There is no significant relationship between the demographic profile of the employees and their opinion towards green banking initiatives of commercial banks operating in the study area". In this foregoing analysis, the relationship of each demographic variable and the overall opinion towards the green banking initiatives of their banks has been studied with the help of ANOVA analysis and the results are projected in the table 2.

From the table 2, it is highlighted that the calculated value for all the profile variables except designation and qualification are greater than 0.05. The hypothesis is rejected only for the profile variables designation and qualification. Hence it can be concluded that the opinion towards green banking initiatives differ with regard to their qualification and designation of the bank employees factors and no other profile variable has no influence on the attitude of the bank employees towards the green banking initiatives of commercial banks.

**Table 1**  
**DEMOGRAPHIC VARIABLE**

Factors	Number of Respondents		Percentage
<b>Gender</b>	Male	42	55.26
	Female	34	44.74
	<b>Total</b>	<b>76</b>	<b>100.00</b>
<b>Designation</b>	Clerk	16	21.05
	Officers	24	31.58
	Managers	14	18.42
	Assistant Managers	22	28.95
	<b>Total</b>	<b>76</b>	<b>100.00</b>
<b>Age</b>	Below 30 Years	44	57.89
	31-40 Years	17	22.47
	41-50 Years	10	13.16
	Above 51 Years	05	6.58
	<b>Total</b>	<b>76</b>	<b>100.00</b>
<b>Educational Qualification</b>	Undergraduate	39	51.32
	Postgraduate	28	36.84
	Professional Graduate	09	11.84
	<b>Total</b>	<b>76</b>	<b>100.00</b>
<b>Income(in ₹ )</b>	Below 20000	16	21.05
	20001-30000	27	35.53
	30001-40000	26	34.21
	Above 40001	07	9.21
	<b>Total</b>	<b>76</b>	<b>100.00</b>
<b>Expeirience(In years)</b>	Below 5 Years	34	44.74
	6 - 15 Years	25	32.89
	16-30 Years	13	17.11
	Above 31 Years	04	05.26
	<b>Total</b>	<b>76</b>	<b>100.00</b>

Source: Primary data



**Table 2**  
**Result of ANOVA - Relationship between Demographic Profile of the Respondents and Opinion of Green Banking Initiatives**

Variables		Sum of Squares	Df	Mean Squares	F	Sig	Result
Age	Between Groups	2.985	3	.995	1.767	.161	Insignificant
	Within Groups	40.541	72	.563			
	Total	43.526	75				
Place	Between Groups	2.408	2	1.204	2.137	.125	Insignificant
	Within Groups	41.118	73	.563			
	Total	43.526	75				
Designation	Between Groups	7.899	3	2.633	5.321	.002	Significant
	Within Groups	35.627	72	.495			
	Total	43.526	75				
Qualification	Between Groups	9.133	3	3.044	6.374	.001	Significant
	Within Groups	34.393	72	.478			
	Total	43.526	75				
Experience	Between Groups	3.235	3	1.078	1.927	.133	Insignificant
	Within Groups	40.291	72	.560			
	Total	43.526	75				

Source: Primary data

**Opinion on Green Banking Awareness Techniques Adopted**

The respondents were asked to record the green banking awareness techniques adopted by their bank on a scale of 1-6, with 1 being no effect and 6 being extremely tough effect. A Friedman test is then carried out to identify their opinion on green banking awareness techniques adopted. The fried man test compares the mean ranks between the related groups and indicates how the group differed.

From the Table 3, it is noted from the above Friedman test result that the bank employees have ranked the various means of green banking awareness techniques adopted by their banks. “Conducting E-Learning Programs” (Mean Score – 2.95) is most seriously

adopted technique by banks in creating awareness on green banking. It is followed by “Banks News letter” (Mean Score – 3.08) and “High level meetings” (Mean Score – 3.29). It is followed by “Weekly green news on Internet” (Mean Score – 3.42) and “Bank Websites” (Mean Score – 4.08). “Publications” (Mean Score – 4.18) is the last technique in creating awareness on green banking.

**Table 3**  
**Opinion on Green Banking Awareness Techniques Adopted by Banks Friedman Test**

S. No	Awareness	Scores	Rank
1	E-learning programs	2.95	I
2	Banks News letter	3.08	II
3	Weekly green news on Internet	3.42	IV
4	High level meetings	3.29	III
5	Publications	4.18	VI
6	Bank Websites	4.08	V

Source: Primary data

**Relationship between Paperless Banking Services of the Bank and the Performance of the Bank after Implementing Green Banking**

The null hypotheses framed for analysis states that there is no significant relationship between Paperless banking services and the performance of the bank, after the implementation of green banking initiatives in the study area of commercial banks. In this foregoing analysis, the relationship of online, mobile and ATM banking services of the bank and the performance of the bank after implementing the green banking initiatives of their banks has been studied with the help of ANOVA analysis.

From the table 4, it is highlighted that the calculated value of ATM Services is greater than 0.05. The hypothesis is accepted only for the ATM Service provided by the bank. Hence the null hypothesis is rejected and there is a significant difference between the Mobile Banking services and online banking services and these two services having a greater factor that influences the

performance of the banks after implementation of green banking initiatives.

**Impact of Green Banking Initiatives on Performance of the Bank**

Table 5 shows that the significantly influencing green banking initiatives on performance of the banks are controlled by the use of energy, use of Solar powered ATMs, high- efficiency lighting and use of mass transportation System, and since their respective regression coefficients are significant at five per cent level. The changes in the green banking initiatives explain the changes in performance of the bank to an extent of 84.18 per cent.

**Conclusion and Recommendations**

Green banking will ensure the efficient use of resources of the country which will ensure energy conscious world. Bank employees must consider green banking as a necessity rather than desirability. This will result in sustainable green economy in our country. If all parties of the world including banks act responsibly, we can

**Table 4**

**Result of ANOVA-Relationship between Opinion on Green Banking Products of the Respondents and Opinion of Green Banking**

Variables		Sum of Squares	Df	MS	F	Sig	Result
Mobile Banking Services	Between Groups	17.680	3	5.893	11.212	.000	Significant
	Within Groups	37.846	72	.526			
	Total	55.526	75				
Online Banking Services	Between Groups	21.484	3	7.161	15.146	.000	Significant
	Within Groups	34.042	72	.473			
	Total	55.526	75				
ATM Services	Between Groups	.440	1	.440	.591	.444	Insignificant
	Within Groups	55.086	74	.744			
	Total	55.526	75				

*Source: Primary data*

**Table 5**  
**Co-efficient Correlation of Green Banking Initiatives**

S. No	Green Banking Initiatives	Co-efficient Correlation	Result
1	Energy Consciousness	-1	Insignificant
2	Controlled use of energy	1	significant
3	Use Solar and wind energy for Bank and ATMs	1	Significant
4	Paperless banking	-1	Insignificant
5	Reducing Carbon Emissions	-1	Insignificant
6	Providing Green building	1	Significant
7	Use Solar and wind energy	1	Significant

*Source: Processed Data.*

make this world a better place to live for our next generation.

Now it is a right time for banks to adopt following strategies:-

- The bank employees of the selected banks are having positive attitude towards the Green Banking Initiatives of their banks. Their opinion on the implementation of Green Banking products and services by bank is also favourable to the study units. This will create sustainable growth of banks in the long run.
- Employees need to be training and orientation programme for updation in financial statement with the aid of computers to minimize the manual work.
- The banks should change their routine operations through the adoption of paperless banking, online banking, and mobile banking, and mass transportation system, green cards

made up of recycled plastic and efficient use of services.

- Bank websites should be used as a mean for advertising about the green products offered by the bank. The customers must be attracted by updated websites with new provisions for reference, retrieval of bank statements, fund transfer and so on.
- It is important to adopt environmental standards for the lending and financing principles so that borrowers could direct themselves towards reducing the carbon footprint by using the appropriate technologies.
- Bank employees should be given orientation on evaluation of Green finance projects like renewable energy projects, clean water supply projects, waste water treatment plants, solid & hazardous waste disposal plants, bio gas plants, bio-fertilizer plants etc.

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## A COMPARATIVE STUDY OF MANAGERIAL EFFECTIVENESS IN SELECTED COOPERATIVE SUGAR MILLS

\*Anil Karanjkar, \*\*Kamal Vagrecha

### Abstract

Indian sugar industry is the second agro-based processing industry after the cotton textile industry in India. Sugar industry in recent times has acquired great significance in India. The main reason for the progress is the effective administration. Effective Management helps in understanding the survival and growth of sugar Mills. Apart from this, many a times, problem arises as to how effectively the sugar mills managed to obtain the results in terms of higher return on investment. Indian sugar industry has been cash striven for decades. Low cash inflow due to pilling stocks leads to serious financial crisis and finally to closing sugar mills. It has been common observations that few Cooperative Sugar Mills in the state are lagging behind in management efficiency. This implies that the problem lies in management. This paper brings out the managerial Effectiveness of two sugar mills from Baramati Taluka of Pune District. The study has identified the status of both the sugar mills. The study compares operational performance and financial performance of two sugar mills from Baramati Taluka and presents graphically.

**Key words:-** Cooperative Sugar Mills, Managerial Effectiveness

*S*ugar Industry is second largest industry in India after textiles. Sugar Industry is always under critical audit in Social, Economic and Political forums. The performance of Sugar Industry mainly depends upon supply of sugarcane. Sugarcane cultivation requires tropical climate, good rainfall and

soil fertility. Better the rainfall better is the sugarcane crop and subsequent sugar production. If rainfall fails then sugarcane crop also fails resulting into drop in sugar production. The Sugar content in sugarcane depends on breed of sugarcane and type/ fertility of soil. The management of Sugar Industry, specially

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the cooperative sugar mills, is under scanner for their performance. While criticizing the sugar mills management, hardly any consideration is given to the constraints and the operating conditions at which these sugar mills operate. In this paper two cooperative sugar mills of the same region are examined. Being in the same area the soil topology, rainfall and other environmental factors are similar for both the cooperative sugar mills. Moreover, both the cooperative sugar mills under study have started their functioning almost simultaneously in the year 1955. Almost all operating conditions are similar for both the Sugar Mills except their management. The performances of these Cooperative Sugar Mills need entirely to depend on effectiveness of managerial decision making. The managerial performance of these Cooperative Sugar Mills is compared by graphical method.

## 2.0 Research Methodology

### 2.1 Rational of the Study

To study the effectiveness of managerial decision making vis-à-vis the performance of the Cooperative Sugar Mills; two sugar mills from Baramati Taluka of Pune District are selected. These Cooperative Sugar Mills are Malegaon Cooperative Sugar Mill Ltd., Malegaon, Tq. Baramati (MSSK) and Chhatarpati Cooperative Sugar Mill, Bhavaninagar, Tq. Baramati (CSSK). Both the Sugar Mills are registered in the year 1955 and their sugarcane crushing was commenced after 2-3 years of Registration. Both the Sugar Mills operate in the same environmental conditions with respect to climate, rainfall, temperature,

humidity, soil fertility and water table. As both the Sugar Mills belong to be same Taluk and locate within a distance of 10 to 15 kilometers one can assume that the attitude and industriness of the member and sugarcane supplier is same. This is a rare example wherein the age of the sugar mills and other operating conditions are almost identical then giving a good comparison managerial effectiveness of both the sugar mills.

### 2.2 Objectives of the Study:

The study has following objectives,

- i. Identify status of both the sugar mills as on 31<sup>st</sup> March 2015.
- ii. Compare graphically operational performance of both the Cooperative Sugar Mills
- iii. Compare graphically the financial performance of both the Cooperative Sugar Mills through selected ratio analysis.
- iv. To draw conclusion and learning from the comparison of both the sugar mills.

### 2.3 Period of the study :

The Performance both Cooperative Sugar Mills is compared for 10 years from 2004 to 2015.

### 2.4 Analytical Tools:

Comparison between the managerial effectiveness of both the selected Cooperative Sugar Mills is done by comparing various status parameters like number of members, share capital, total sugarcane crushing, recovery of sugar and production of sugar. The operating parameters like salary and wages

expenditure, interest expenditure, production and sales related expenditures, stores and repair & maintenance expenses, management expenditure and others are compared. The financial performance ratios like inventory turnover ratio, fixed asset turnover ratio, working capital turnover ratio and current asset ratio are computed and compared for both the sugar mills. The statistics like average, percentage, standard deviation, coefficient of variance are used in support of graphical comparison of the selected Cooperative sugar mills. The graphical comparisons are done using line and bar graphs.

**2.5 Limitation of the Study :**

The study has following limitations,

- i. The comparative study is limited for the period from 2004 to 2015.
- ii. In this comparison as they both Cooperative Sugar Mills locate in the same area the environmental conditions are same and hence conclusion may not be applicable, where the environmental conditions differ.

**3.0 Data Analysis and Interpretations:**

**3.1 Selected Cooperative Sugar Mills at a Glance:**

Both the Cooperative Sugar Mills were registered in the year 1955, started Sugarcane crushing thereafter within 3 / 4 years. The age of the both Sugar Mills under study is 60 years on 31<sup>st</sup> March 2015. Both the sugar mills had crushing capacity of 1250MT per day which rose to 3500MT per day for CSSK and to 4000MT per day for MSSK. MSSK has

started By-Product processing as well power generation through cogeneration plant. An overview of both the selected Cooperative Sugar Mills is placed in the Table No1.

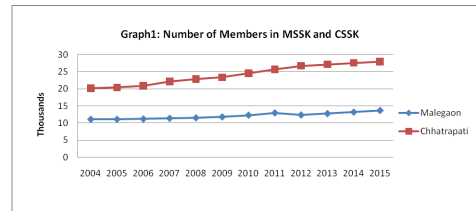
**Table 1**  
**At a Glance Malegaon and Chhatrapati SSK**

Sr. No.	PARTICULARS	MALEGAON	CHHATRAPATI
1	Year of Establishment	1955	1955/1965
2	No. of Members As on 31.03.2015	13,696	27,944
3	Share Capital as on 31.03.2015	Rs.19,79,38,087	Rs.36,61,84,763
4	Crushing Capacity		
a	At Beginning	1250 MT	1250 MT
b	As on 31.03.2015	4000 MT	3500 MT
5	By Products		
A	Distillery	√	X
B	Bio Gas	√	X
C	Press Mud	√	X
D	Co-Gen	√	x
6	No. of employees	560	461

Chhatrapatti SSK has 461 employees all together on 31<sup>st</sup> March 2015 as against 560 employees of Malegaon SSK.

**3.2 Comparison of Membership:**

The membership status of both the Cooperative Sugar Mills is given below in the graphical form.

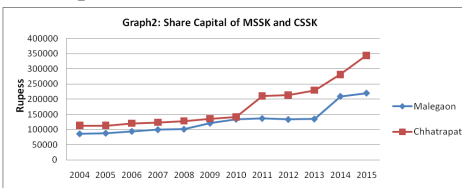


The Graph No. 1 shows the number of members in MSSK and CSSK Ltd during 2004 till 2015. It can be clearly seen from the graph that there is a huge difference in case of membership among these two Cooperative Sugar Mills in spite of the age of the Mills being similar. The membership of MSSK in 2004 was 11,110 members and CSSK was 20,115.

The two mills had a gap of 9,005 members in 2004. During the study period of 2015 the MSSK had 13696 members and CSSK had 27944 members, which had a gap of 14,248 members. The annual growth rate of membership among the two mills, MSSK has 2 per cent growth rate and CSSK has 3 per cent.

**3.2 Share Capital Comparison:**

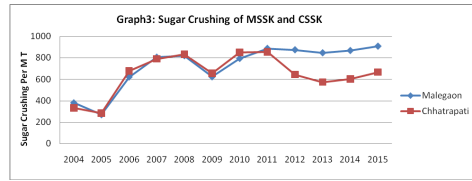
The share capital available for functioning of the Mill is an important criterion for comparison and presented in Graph No. 2 below,



The Graph No.2 shows the Share capital in Malegaon and Chhatrapati SSK Ltd since 2004. According to the graph MSSK had a share capital of Rs 85,724,482 in 2004 and CSSK had Rs 1, 12,767,896. During the study period the share capital of MSSK was Rs. 2, 20,438,087 as share capital and CSSK had Rs 345,170,163. The annual growth rate share capital of MSSK is 8 percent and 9 percent in case of CSSK.

**3.3 Sugarcane Crushing:**

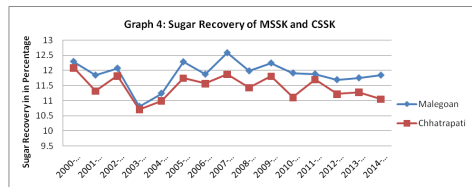
For any Sugar Mill, in private or cooperative or public sector important function is capacity utilization or crushing of sugarcane. The Graph below presents the status of sugarcane crushing by both the Cooperative Sugar Mills during the study period.



Total crushing of sugar in MSSK and CSSK is shown in Graph No.3. The total crushing of MSSK in 2004 was 3, 80,395 MT and CSSK was 3, 32,988 MT. The two mills had a difference of 47407 MT in 2004. During the study period of 2015 the total crushing was 908252 MT for MSSK and 665476 MT for CSSK. In 2015 the two mills had a variation of 242774 MT. The total crushing of MSSK has grown-up by 7 percent and CSSK by 6 percent.

**3.4 Sugar Recovery:**

The technical efficiency of a sugar mill lies in sugar recovery from the sugarcane. The Graph No.4 presents comparative sugar recovery of both the Cooperative Sugar Mills during the study period.

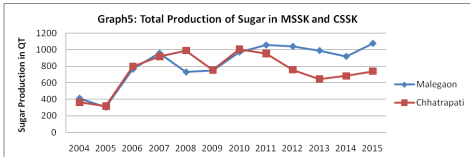


The above Graph No.4 shows the status of recovery in MSSK and CSSK. The recovery of MSSK in 2000-01 was 12.29 percent and CSSK was 12.09 percent. The Graph clearly states that MSSK has taken a leap over CSSK since 2000-01. Almost all the year since 2001 the recovery status is above than CSSK. In 2015 the recovery status of MSSK was 11.85 percent and 11.05 percent for CSSK.



**3.5 Production of Sugar:**

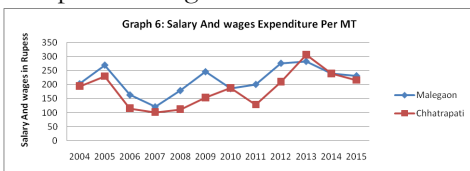
There is a link between sugar recovery and sugar production. The presentation of sugar production in the Graph No.5 supports the sugar recovery presented in the Graph No. 4 for both the Cooperative sugar Mills.



Total production of sugar has been compared between MSSK and CSSK in the above Graph No. 5. The Graph shows a steady growth in the production of sugar among the two mills in the initial years. The total sugar production of MSSK was 41,500 QTL and CSSK was 358780 QTL. MSSK had 52720 QTL more than CSSK in 2004. The annual production growth rate of MSSK was 8 percent and that of CSSK was 6 percent.

**3.6 Salary and Wages:**

The managerial effectiveness need to be compared towards expenditure side also. The Graph No. 6 presents the Salary and Wages Expenditure of the both the Cooperative Sugar Mills.

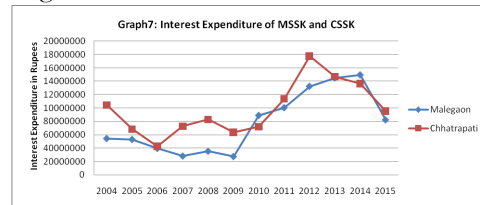


The Graph No.6 show the Salary and wages Expenses per MT in MSSK and CSSK. The salary and wages of MSSK in 2004 was Rs. 203 per MT and CSSK was Rs. 194 per MT. During 2015 the Salary and wages Expenses was Rs 231 per MT for MSSK and Rs 216 for CSSK.

In 2015 MSSK spent Rs. 15 per MT more than CSSK. The annual growth rate of Salary and wages Expenses per MT in MSSK and CSSK is 1 percent.

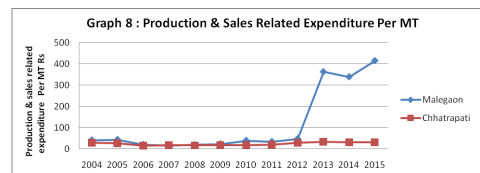
**3.7 Interest Expenditure:**

The Graph No. 7 presents the interest Expenditure of the both the Cooperative Sugar Mills.



The Graph No.7 shows the Interest Expenditure of MSSK and CSSK. The Interest Expenditure of MSSK in 2004 was Rs 54270.19 and CSSK was Rs 104421.69. During 2015 the Interest Expenditure was Rs 82089.13 for MSSK and Rs 95475.84 for CSSK. The annual growth rate of MSSK is 3 percent and CSSK by -1 percent.

**3.8 Production and Sales Expenditure:**



The Graph No.8 shows the Production and sales related expenditure of MSSK and CSSK. The Production and sales related expenditure of MSSK in 2004 was Rs 42 per MT and CSSK was Rs 28 per MT. During 2015 the Production and sales related expenditure was Rs 416 per MT for MSSK and Rs 31 per MT for CSSK. The annual growth rate of Production and Sales expenditure for MSSK is 19 percent and CSSK is 1 percent.

**3.9 Stores and Repairs Expenditure:**

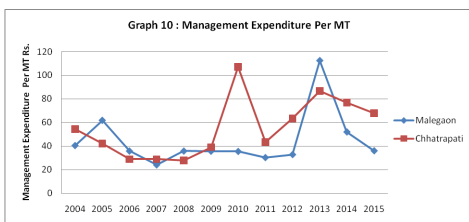
The Graph No. 9 presents the Stores and Repairs Expenditure of the both the Cooperative Sugar Mills.



The Graph No.9 shows the Stores and repairs expenditure of MSSK and CSSK. The Stores and repairs expenditure of MSSK in 2004 was Rs. 108 per MT and CSSK was Rs. 115 per MT. During 2015 the Stores and repairs expenditure was Rs. 183 per MT for MSSK and Rs 214 per MT for CSSK. The annual growth rate of Stores and repairs expenditure for MSSK is 4 percent and CSSK is 5 percent.

**3.10 Management Expenditure:**

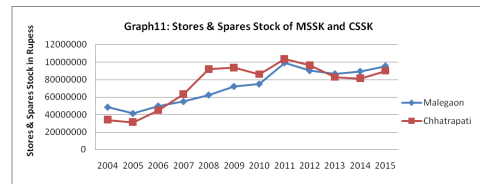
The Graph No. 10 shows the Management expenditure of MSSK and CSSK



The Graph No. 10 shows the Management expenditure of MSSK and CSSK. The Management expenditure of MSSK in 2004 was Rs. 40 per MT and CSSK was Rs. 54 per MT. During 2015 the Management expenditure was Rs. 36 per MT for MSSK and Rs. 68 for CSSK. The annual growth rate of management expenditure for MSSK is -1 percent and CSSK by 2 percent.

**3.11 Stores and Spares Stock:**

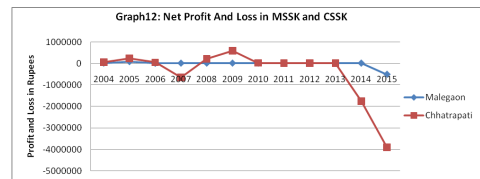
The Graph No. 11 shows the total stores and spares stock of MSSK and CSSK.



The Graph No. 11 shows the total stores and spares stock of MSSK and CSSK. The stores and spares stock of MSSK in 2004 was Rs. 48523.35 and CSSK was Rs. 34101.11. The annual growth rate of Total Stores & Spares in MSSK is 6 percent and Chhatrapati is 8 percent.

**3.12 Profit and Loss:**

The Graph No.12 shows the Profit and loss of MSSK and CSSK.

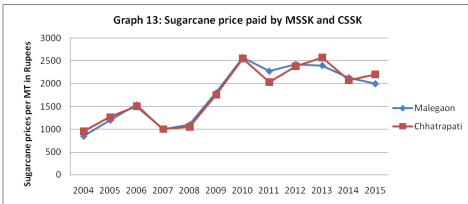


The Graph No.12 shows the Profit and loss of MSSK and CSSK. MSSK has a steady profit since 2004 till 2014. Malegaon has faced a net loss of Rs. 50,984,978 in 2015. CSSK had a profit phase since 2004 till 2007 and during 2007 the Mill had to face a loss of Rs 64949294, then during 2008 till 2013 the CSSK had a fair profit. But during 2014 and 2015 CSSK had to face a loss of Rs. 175664892 and Rs. 389723193 respectively.

**3.13 Sugarcane Price Paid:**

The Graph No.13 shows the price paid per MT of the sugarcane. Both the

Sugar Mills have paid equal price of sugarcane up to the year 2010. Thereafter there is slight variation in price paid but on an average the price paid by both SSK's are same all through the study period. The increase in price paid for sugarcane in the year 2015 for both sugar mills is 2.3 times over the price paid in the year 2004.



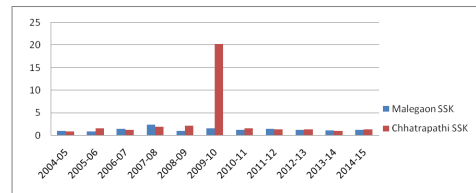
**4.0 Ratio Analysis:**

In the following sections the financial performance of both the selected sugar mills is compared by computing the working capital ratios and Inventory Ratio's. Inventory turnover ratio (ITR) establishes the relationship between the costs of goods sold with the average stock. This ration measures the velocity of conversion of stock into sales. Usually, a high inventory turnover indicates efficient management of inventory because the stocks are sold more frequently and lesser amount of money is required to finance the inventory. A low inventory turnover ratio indicates an inefficient management of inventory, over investment in inventories, dull business poor quality of goods and lower profit when compared to the total investment. A high inventory turnover may be the result of a very low level of inventory, which results in shortage of goods in relation to demand and a position of stock. The turnover may also be high due to a conservative method of valuing inventories at lower level or the policy of buying frequently in small lots.

**4.1 Analysis of inventory ratios:**

As per Graph No.14, inventory turnover ratio of both mills are in the same direction, in case of MSSK Ratio has increased from 1.08 to 2.40 times between 2004-05 to 2007-08, later after 2008 there is decrease to 1.05 and also increased to 1.22 in the year 2014-15. On the other hand, ITR of CSSK has also increased from 0.95 to 20.29 from 2004-05 to 2009-10 but rapidly decreased to 1.33 in the year 2014-15. The overall average of ITR for the study period is only 1.36 of MSSK ; And 3.19 for CSSK which shows a positive inventory controlled by MSSK and as for as ITR is concerned, both the mills have a similar position.

**Graph No.14: Inventory Turnover Ratio of MSSK and CSSK**

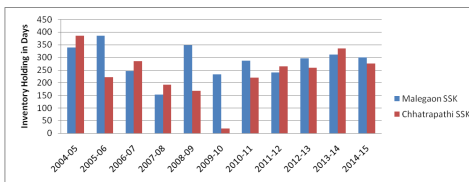


**4.1.1 Inventory Holding Ratio (IHR):**

Age of inventory indicates the duration of inventory in an organization. It shows the moving position of inventory during the year. If the age of inventory is lower, it means that the mill's activity position is satisfactory and they are able to sell their product in short period, which indicates the sound liquidity position of an organization. On the other hand, if the age of inventory is too high, it indicates the slow moving of stock due to lower demand of product or excessive production by company. This is due to the stocking policy, which directly affects

the liquidity position of a company. Inventory is one of the major items in current assets, which shows investment of working capital in stock. As per Graph No.15 ,inventory holding ratio of MSSK, has decreased from 339 days to 300 days between 2004-5 to 2014-15.On of the other hand, the same ratio of CSSK has also decreased from 385 days to 238 days with an average of 238 days for the study period i.e., from 2004-05 to 2014-15. Therefore, it is clear from the above, that MSSK Ltd and CSSK Ltd has improved its position.

**Graph No.15: Inventory Holding Period of MSSK and CSSK**

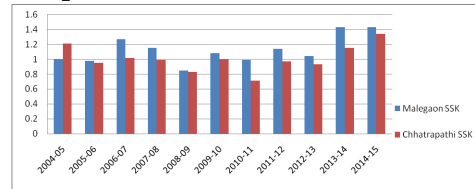


**4.1.2 Inventory with working capital ratio (IWCR):**

Inventory to working capital is one of the important ratios, which directly shows operational efficiency and working capital position in any organization. As inventory increased, working capital also increases. Normally, inventory is 50% of the current assets and working capital is current assets minus current liabilities, which means that inventory covers nearly total current liabilities and the rest of the current assets are denoted as working capital. As per Graph No.16, inventory 143% from 2004-05 to 2014-15. Average of the study period is 112%, which shows that approximately 143% of the working capital is in the form of inventory. In case of CSSK,it has increased from 121 per cent to 134 per cent from 2004-05 to

2014-15. However, the percentage of inventory is working capital MSSK is higher as compared to CSSK Ltd.

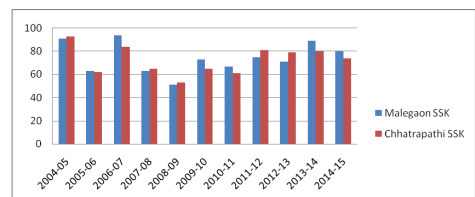
**Graph No.16: Inventory to Working Capital Ratio of MSSK and CSSK**



**4.1.3 Inventory to current Assets (ICAR):**

It is one the important ratios, which signifies the level of inventory in current assets. Normally, inventory is one of the major components in current assets, so it is better to analyze the position of inventory compared to current assets. As per Graph No.17, inventory compared to current assets in MSSK is above 50% with in overall average of 75% for the study period. On other hand, percentage of inventory to current assets of CSSK has 73% as an average for the study period.

**Graph No.17: Inventory to Current Asset in Percentage of MSSK and CSSK**



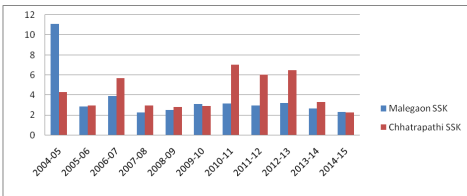
**4.2 Analysis of working capital ratios**

**4.2.1 Current ratio (CR):**

The current ratio is calculated by dividing current assets by current liabilities. Current assets are those assets, which are convertible into cash within a year. Current

liabilities includes obligation motoring within a year. The current ratio is thus, a measure of the firm’s short term solvency and it indicates the availability of current assets in rupees for every one rupee of current liability. A ratio of greater than one means that the firm has more current assets than current liabilities. The ideal current ratio is 2:1 in normal condition. As per Graph No.18, current ratio of MSSK is 3.61 as average for the study period and more than the ideal standard. Current ratio of CSSK is on an average of 4.23. This shows that the current assets of MSSK have less compared to CSSK during the study period.

**Graph No.18: Current Ratios of MSSK and CSSK**

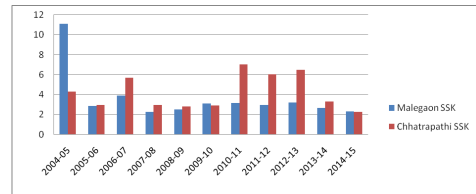


**4.2.2 Liquid ratio (or) Quick ratio (LR):**

Quick ratio, also known as acid test (or) liquid ratio is a more rigorous test for liquidity than current ratio. The term liquidity refers to the ability of a firm to pay its short term obligation as and when they become due. Quick ratio may be defined as the relationship between quick/ current assets and current or liquidity liabilities. An asset is said to be liquid if it can be converted into cash within a short period without loss of value. In that sense, cash in hand and cash in bank are liquid, the real ratio being 1:1. As per Graph No.19, in case of MSSK, Quick Ratio is always ahead of the ideal

position 1:1. Overall average of ratio during the study period is 0.66. In case of CSSK, the ratio is also as same; overall average during the study period is 0.93. Both the mills have gone in the same direction.

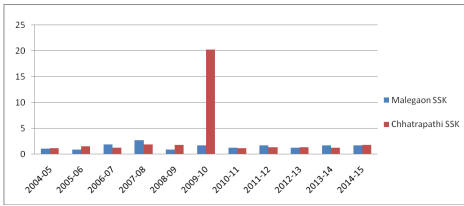
**Graph No.19: Liquid ratio (or) Quick ratio (LR) of MSSK and CSSK**



**4.2.3 Working capital Turnover Ratio (WCTO)**

The working of a business is directly related to sales. The current assets like debtors, Bills receivables, cash and stock are changed with the increase or decrease of sales. The working capital is taken as the excess of current Assets over current Liabilities. This ratio measures the efficiency with which the working capital is being used by an organization. A higher ratio indicates an efficient utilization of working capital and a low ratio indicates otherwise. However, a very high working capital turnover ratio is not a good situation for any firm and hence; care must be taken while interpreting the ratio. As per the Graph No.20, working capital turnover ratio of MSSK has increased from 1.08 to 1.74 for the period from 2004-05 to 2014 -15. On the other hand, CSSK has gone in the same direction as it increased from 1.15 to 1.78 from 2004-05 to 2014 – 15. The working capital of CSSK is higher that the MSSK during the study period. So the position of CSSK is better compared to MSSK.

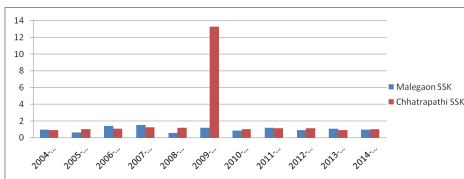
**Graph No.20: Working capital Turnover Ratio of MSSK and CSSK**



**4.2.4 Current Assets Turnover Ratio (CATO)**

Current Assets Turnover Ratio establishes the relationship between the costs of goods sold with the current assets. This ratio measures the velocity of conversion of sales into current assets. Usually this ratio is used to know the efficiency of liquidity management. The ratio of MSSK is 0.98 in 2004-05 and during 2014-15 the ratio is maintained around the same. In case of CSSK the ratio has also increased from 0.88 to 0.99 during the study period, which indicates the current assets turnover of the both concerns follow the same and accurate direction.

**Graph 21: Current Asset Turnover Ratio of MSSK and CSSK**



**4.0 Observations / Findings:**

On the basis of the graphical comparison and ratio analysis the following observations/findings are deduced.

1. In comparison to MSSK, CSSK has more number of farmer members

and growth rate of membership is also higher.

2. CSSK has slightly higher share capital than the MSSK till year 2010 and thereafter it has taken sudden jump and it increases with growth rate of 11%.
3. Though MSSK has less membership than CSSK but the sugarcane crushing under the study period is almost same for both the sugar mills till year 2011. However, after 2011 sugarcane crushing of CSSK has reduced reasonably and MSSK has relatively better growth in sugarcane crushing.
4. Recovery of sugar is almost similar for both the sugar mills under the study period.
5. The production of the sugar for both the sugar mills is almost similar up to year 2010 and thereafter MSSK has higher sugar production than CSSK.
6. The salary and wage expenditure for both the sugar mills differ slightly till the year 2010. MSSK has slightly higher salary expenditure up to that year and thereafter it has increase substantially up till the end of the study period.
7. The production and sales related expenditure has remained almost constant for the CSSK and both the sugar mills had almost equal production and sales related expenditure up to year 2012. However, this expenditure for MSSK has suddenly jumped after year 2012.

8. The stores and repairs expenses for both sugar mills are increasing during the study period and were almost similar up to year 2010. However, after 2010 MSSK has much more stores and repairs expenses over CSSK.
9. The total stock of store and spares is constantly increasing for both the sugar mills and it is observed that till 2010 CSSK had higher stores and spares stock than MSSK and after year 2010 CSSK has a slight drop of stores and spare stock over MSSK.
10. The interest expenditure of both the sugar mills is very much varying and during the study period the interest expenditure of CSSK is much higher than MSSK. The interest expenditure for both the sugar mills started dropping after year 2013.
11. The management expenditure of both the sugar mills show gradual increase during the study period. It is observed that management expenditure for CSSK suddenly jumped and was highest in the year 2010 thereafter it normalized. Similarly, management expenditure for MSSK was suddenly jumped was highest for MSSK in the year 2013 and in subsequent year it normalized.
12. It is observed that CSSK had varying profit and losses through the study period. In comparison to the CSSK, MSSK has consistently in profit all through the study period. After year 2013 CSSK suffered net loss for the

subsequent year also. Similarly, MSSK also suffered losses after the year 2014.

13. The average inventory turnover ratio of CSSK is much higher than MSSK during the study period.
14. The average inventory holding period of both the sugar mills, average inventory to working capital ratio and average inventory to current asset ratio are almost similar for both the sugar mills during the study period.
15. The average current ratio of CSSK is much more than MSSK; same is the case with liquidity ratio, work capital turnover ratio and current asset turnover ratio. All these working capital turnover ratio of CSSK is much higher than the MSSK.

## 6. Conclusion:

Sugar Industry is most criticized industry in India. Its performance is continuously under scanner on social, economical and political forums. In this paper, Researcher gave an attempt that having the same environmental do the performance of sugar mills differ with the managerial effectiveness. In this case both the sugar mills locating the same area and moreover their age is same. It is observed that keeping all conditions equal like soil, temperature rainfall and sugarcane recovery; from the graphical analysis followed by ratio analysis of the secondary data of the both the Cooperative Sugar Mills lead to the conclusion that the performance of the

Management of both the sugar mills under the study, during the study period is parallel. The expenditure side both the sugar mills have similar expenditure for a substantial period and thereafter MSSK

is exceeding over CSSK. Towards in the final output sides like total crushing, sugar production and profit, it observed that MSSK surpasses CSSK. This conclusion is supported by financial ratio analysis.

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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.

(Sd/-)

Prof. S. Krishnan Nair  
Publisher



## HUMAN RESOURCE PRACTICES IN THE BANKING SECTOR

**\*Sunil Das B**

### **Abstract**

Rapid changes are taking place in the business environment. A business organization should have the capacity to take up these changes at a fast rate than in the past not only to prove its competency but also to justify its existence in the dynamic business world. All organizations, irrespective of their nature and size, must ensure themselves that they have the competent people capable of accepting this challenge. An organization would have human as well as non-human resources. Of these, human resource is the most significant one since it can function only through the people. It is the human resource which actuates all the other resources such as materials, machinery, money, time etc. A wise and judicious use of these resources will help to reduce all kind of wastages thereby increasing efficiency and profitability of the organization.

**Key words:-** Bank, Human Resource Practices, HRM, Employees

*H*uman resource management is about managing the people effectively. It is aimed at achieving business objectives through the best use of an organization's human resources. Effective management of human resource is vital in all types and size of organizations. In the banking sector, the success or the failure

mainly depends on the performance of employees. The better the performance of employees the better will be the output. It is responsibility of the Human Resource department that to acquire right and sufficient number of employees required at different levels and also to develop them keeping in mind the goals of the organization. The HR department of the

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banks keeps on looking for the person whom they link is suitable for their job.

### Human Resource

Organisation that would like to survive in the global turbulent environment must anticipate change and manage it effectively. In many organisations, changes in environmental conditions have led to their improved performance, while in many others, it has destabilised and destroyed them. Today, changes such as technological change, socio-economic, political and others affect human resource performance.

In spite of all the changes that have taken place, human resource is still the most important resource in any organisation. An organization's principal asset is its people. Only man has control over how much and how well he works and over other resources. All other resources are actuated and function through human actions, interactions and reactions. Changes in employee performance can be affected by change in organization's structure, employee motivation, training and others. Employee performance influences the usage and performance of other resources. Therefore, organisational performance is a reflection of the performance of its human resource. It is the realisation of this that makes many successful executive to use a lion part of their time dealing with human resource related issues.

### Origin of Human Resource

It is understood from the literature that the term '*human resources*' was first coined during the 1960s when the value of labour relations began to gain attention

and when concepts such as motivation, organizational behaviour, and selection assessments began to take shape. Human resources is used in two different ways; one is the people who work for a company or organization and the other is the department responsible for managing resources related to employees.

### Definition of Human Resources

“The department of an organization that deals with finding new employees, keeping records about all the organization's employees, and helping them with any problems”

*-Cambridge Advanced Learner's Dictionary & Thesaurus*

### Human Resource Management (HRM)

There are different views on the concept of Human Resource Management. Many people find it to be an unclear and strange concept. Many have attributed different meanings and interpretations in different contexts over its evolution. Then one may probably ask 'what exactly is human resource management'?

Human Resource Management refers to the management and development of employees of an organization. It is the philosophy of people management based on the belief that human resources are extremely important for sustained business success. In the modern eon of extreme competition, an organization can survive only when the expertise of its human resources is utilized. In a nut shell, we can say that HRM is aimed at recruiting capable, flexible and committed people and managing and rewarding their

performance and developing key competencies.

Human Resource Management simply means managing the human resources in an organization to achieve the desired objectives. The term 'Human Resource Management' is used to describe the management of people in an organization. Human resources or people are regarded as the most precious asset in an organization in the sense that they are the only living resource which can put all other non-human resources to action. Hence they are to be systematically identified, recruited, trained, developed and maintained. A comprehensive meaning of Human Resource Management is that it is the practice of recruiting and selecting employees, giving orientation and induction, providing training and development, assessing their performance, providing compensation and benefits, motivating, ensuring employees' safety, maintaining proper relations with employees and trade unions and undertaking welfare and healthy measures in conformity with labour laws of the country.

Human Resource Management is defined in different ways by different people. Anyway, the essence of Human Resource Management is how to manage people or employees in the organization. Human resource management can be defined as a strategic and coherent approach to the management of an organization's most valued assets – the people working there who individually and collectively contribute to the achievement of its objectives. Some of the most popular definitions are:

“Planning, organizing, directing, controlling of procurement, development, compensation, integration, maintenance and separation of human resources to the end that individual, organizational and social objectives are achieved.”

*- Edwin Flippo*

“That part of management which is concerned with people at work and with their relationship within an enterprise. Its aim is to bring together and develop into an effective organization of the men and women who make up enterprise and having regard for the well – being of the individuals and of working groups, to enable them to make their best contribution to its success”.

*-The National Institute of Personal Management (NIPM) of India*

“HRM is concerned with the people dimension in management. Since every organization is made up of people, acquiring their services, developing their skills, motivating them to higher levels of performance and ensuring that they continue to maintain their commitment to the organization is essential to achieve organisational objectives. This is true, regardless of the type of organization – government, business, education, health or social action”.

*-Decenzo and Robbins*

## **Human Resource Management and Banking Sector**

A good human resource management system is required for any organisation dealing with people for its efficient working. Banking has been and will always be a ‘people business’. Efficient and effective management of the human resource in an organization turns it a successful one.

As far banking industry is concerned, the importance of Human Resource Management has grown manifold because of its nature, which is mainly service oriented. The management of the people in the organization along with handling the financial and economic risks at the wider level is the most important challenges faced by the banking industry in any given time frame. Banks are working in the midst of uncertainty and risk. Only Efficient and skilled manpower can take on this on a regular basis. It is the responsibility of the human resource department to find such talented manpower and place them in right jobs in the banks.

Customer satisfaction is the prime concern of any organisation, without which its survival is impossible. Banking sector, too, is not an exception to this. So, apart from the risks in the banking sector, the people handling the day to day affairs in the banks need to keep the customer satisfaction in mind. In today’s banking context, the people working at the front office can be described as the face of the bank and hence it is the responsibility of the HR department of the bank to make sure that there are eligible people working at the front office. So, they need to ensure

that the candidates selected in the banks go through necessary training before they begin their work, so that they are aware of the nuances of the core banking industry and customer relationship, better. The HR department need to think about the quantity and quality requirement in the banking sector and deal with the shortage in the skilled manpower supply in the sector efficiently.

The field of Human Resource in the Banking Industry is considered as one of the process of discovery and transformation. It can be described as emergent and dynamic within the cultural business aspect in a Banking Industry. The success of today’s banking business will sparsely depends on the human resources of the organization. They play a crucial role in providing the services needed.

### **Human Resource Practices**

HR practice means any practice that deals with enhancing competencies, satisfaction, commitment and culture building. The practice can take the form of a system, a process, an activity, a norm, a rule, or just a way of doing things. Good Human Resource practices do make a difference in the functioning of the organization. It creates a sincere, loyal and satisfied work force in the organization. Human resources practices are strategic in nature. They form the foundation supporting the way the organization wishes to operate its human capital. Human resources practices construct avenues through which employees will have opportunities for advancement. Generally HR practices include the following.

1. Planning
2. Recruitment
3. Selection
4. Induction
5. Performance Evaluation
6. Training and development
7. Career Management
8. Rewards & Recognition
9. Fringe Benefits
10. Welfare Activities as per Statutory Requirement
11. Safety, Health and Environment Policy
12. Compensation
13. Suggestions Scheme
14. Promotion & Transfers
15. Exit Policy
16. Work-life Balance

### **Significance of HR practices**

It is proven that an organisation can grow and sustain only through a dedicated and expert work-force. Good HR practices can improve the morale and efficiency of the human resource. It creates good human relations in the organisation. HR actors should be aware that merely implementing soft HR practices may not suffice. They should devote utmost care and attention while implementing them by taking into account individual talents, interests and expectations of employees.

A good system of HR practice makes a difference in the working efficiency of the organization. They enhance

organizational capabilities to manage current or future challenges to be faced by an organization. Good HR practices can also promote the wellbeing of the employees of the organization. The commitment and motivation developed through good Human Resource practices can lead to hard work and can have a very good influence on the workforce which ultimately leads to attainment of organizational objectives. Thus in short, a good system of HR practice can create a sustainable and lasting capability of the organization to manage itself internally and face external challenges.

### **Mechanisms/ Subsystems of Human Resource Practices**

Human Resource is the most important asset for any organization and it is the source of achieving competitive advantage. It is generally believed that managing human resources is more complex and challenging compared to managing technology or capital. Therefore, an effective Human Resource Management system is required to manage them. HRM system should be backed up by sound HRM practices. HRM practices refer to organizational activities directed at managing the pool of human resources and ensuring that the resources are employed towards the fulfillment of organizational goals

### **Conclusion**

As we know there exists cut-throat competition in the service industry. Every firm is striving to get the most talented and dynamic workforce. They largely depend on their employees for the smooth and efficient functioning of their organization. Further, it can be rightly said

that the service industry involves more contact with people than the other sectors of the economy like manufacturing. The service industry involves the day to day dealing with customers and clients alike. With the huge role the service industry

plays, it is necessary for the organisations to know how to manage people to get efficient and orderly service. Therefore, realizing the value of human asset, modern organizations have streamlined their Human Resource policies accordingly.

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*Human Resource Management*

## ASPECTS IN CAREER PROSPECTS - A STUDY OF SOFTWARE PROFESSIONALS IN BANGALORE CITY

\*Dr. Saju K. Nair, \*\*Sabu K. Nair

### Abstract

Information technology has become a potent force in transforming social, economic and political life globally. Without its incorporation into information age, there is little chance for countries or regions to develop. The study was conducted in Bangalore, popularly known as the Silicon Valley of India is considered to be a global information technology hub with the largest software exports from India. 50 employees from selected software companies in Bangalore were selected for the survey. The objective of the paper is to study the various aspects in career prospects with respect to gender. The study majorly examines the aspects like Rating of career, Chance to climb up in the profession, Aspiring for higher salaried job and Plan for Job Change. The finding of the study shows that the employees consider the profession as a high status job. Employees prefer higher salaried job and developing their skills even after entering in their job. Compared to females, male members were more keen to change their job.

**Key words:-** Software Industry, Career prospects, Career Rating, High Salary, Job Change

The IT industry in India is a key part of the country's economy. Indian IT industry leaders believe that it is possible to grow at a modestly faster clip in the next fiscal year, as the demand for digital services rises, and companies build their

capabilities. The sector is expected to see IT services exports rise by as much as 9 percent over the current fiscal. India, as a market, is expected to see tech services rise by 10 percent to 12 percent as large, listed companies in the country accelerate digital tech spending, according to

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NASSCOM. In the 2014/15 financial year alone, the IT industry in India generated an annual revenue of around 120 billion U.S. dollars, a significant increase from around 60 billion U.S. dollars in 2008/09. Of this revenue in 2015, the majority, 98.1 billion U.S. dollars, was generated in exports while domestic revenue totaled more than 20 billion U.S. dollars. IT industry in India provided direct employment to 3 million people and indirect employment to almost 10 million. Of these employees, over 275,000 worked for TCS and a further 156,700 worked at Infosys, based in Bangalore.

Today, Bangalore is known as the Silicon Platuea of India and contributes 38% of Indian IT Exports. India's second and third largest software companies are headquartered in Bangalore. Software professionals today are a highly educated group and education has become the royal road to positions of power and prestige in industry. But In IT today, there is no job security unless the employees perform. IT workers express their fears and concerns about sustaining on a long term basis with their recently acquired more affluent life style in the expensive metropolitan cities. The paper examines the various aspects in career prospects with respect to gender. The study observed the career prospect aspects like Rating of career, Chance to climb up in the profession, Aspiring for higher salaried job and Plan for Job Change .The Study depict and value add the management of IT companies to take measures to reduces employee turnover by providing increased promotional avenues, to improves employees' morale and motivation, enables organizations to man promotional

vacancies internally, thereby reducing the cost of managerial recruitment, ensures better utilization of employees' skills and provides increased work satisfaction to employees.

### Review of Literature

The emergence of software industry over last two decade has rapidly altered India's position in global scenario. Different studies employ different definitions of IT workers. The US department of commerce (1997) includes computer scientists, computer engineers, system analysts and programmers in IT workforce; whereas the Information Technology association of America or the ITAA , a trade association representing 11000 companies includes all those who perform any function related to IT(ITAA 1998).Freeman and Aspray (1999) use the term "IT enabled worker" for those who add more than half the value of work with IT.Gilleard and Gilleard(2002) observed that IT' employees expressed fear and concern about sustaining on a long-term their affluent lifestyle in an expensive city.Appadurai (1990) described IT' person moves across his/her life cycle, stepping across various physical places and social spaces, the accompanying existential states of feeling, values and attitude is described as dramatically shifting from passion and enthusiasm to pessimism and resignation. Arthur M.B and D.M.Rousseau (1996) observed that the geographical mobility of workers across borders, such as for onsite work, has financial ,social and existential implications. With the high salaries of profession and annual increments, employees are more choosy about the kind of onsite assignments they prefer as well as the



duration of stay. The observations by Illavarasan (2005); Parthasarathy and Aoyana(2006) suggests that there is increasing amount of high skilled work flowing into IT industry. Arulmani and Nag-Arulmani (2006) argues that IT job are highly desirable and are usually the first career choice for India’s educated youth. Because of high salaries, opportunity for career mobility and due to international assignments.

**1. Problem Statement**

Similar study has not been undertaken to comprehend the career prospect aspects in software industry with reference to Bangalore city.

**2. Objective of the Study**

- a) To study on various aspects in career prospects with respect to gender.
- b) To examine various aspects like Rating of career, Chance to climb up in the profession, Aspiring for higher salaried job and Plan for Job Change.

**3. Methodology**

The study is quantitative in nature and its aim is to analyze the career prospects of software professionals in Bangalore city. The design of the study is descriptive, because it tries to analyze the career prospects of software personnel. The software personnel who are married and in between the age group of 20-35 working in Bangalore city formed the population of the study. There are over 50 multinational companies in Bangalore city.5 software companies of IT park campus, Bangalore I.e., Wipro, Accenture, Intel, Infosys and Sap labs)

formed the area of study. These companies were selected by lottery method. From the entire list of software personnel 25 male and 25 female respondents were selected using stratified random sampling, which formed the sample of the study.

**4. Analysis & Interpretations**

**Table 1**  
**Rating of career**

Career Rating \ Gender	Highest status profession	Middle status profession	Total
Male	16 64%	9 36%	25 100%
Female	15 60%	10 40%	25 100%
Total	31 62%	19 38%	50 100%

$\gamma^2 = 0.682$

p value = 0.409

When 64% of males rate their profession as high status 60% of the females do so. Right from their dressing style to their salary all makes a difference in their life. They have Swipe Cards, usually hung on chains around the neck, has received training in etiquette, dress up smartly, all of which create a different ambience in the industry. This industry also stands out differently because of the money involved and travels aboard. 36% males and 40% females grade their job as a middle class profession. The concern of job security might have endorsed people to make such a comment.

As per Table 2, only 24% of males and 16% of females felt that there was chance to climb up in the profession. Performance appraisal were periodical. But the process of promotion is almost

time bound. Performance appraisals are for name sake just to find out whether the employee is working or not. All software engineers are promoted to the next level after gaining a certain number of years of experience in their current level. By then, most of them would have moved to another company. But there is no distinction on the basis of sex. IT industry is knowledge based and therefore enables women to compete equally with men. Hence the industry offers gender equality to climb up the promotion ladder. About 56% and 67% female preferred to move to other companies or under take off shore assignments in order to climb up the profession.

**Table 2**

**Chance to climb up in the profession**

Profession Gender	Yes	No	Total
Male	6 24%	19 76%	25 100%
Female	4 16%	21 84%	25 100%
Total	10 20%	40 80%	50 100%

$\chi^2 = 5.472$  p value = 0.019

**Table 3**

**Aspiring for higher salaried job**

High Salaried Job Gender	Yes	No	Total
Male	23 91%	2 10%	25 100%
Female	24 97%	1 3%	25 100%
Total	47 94%	3 6%	50 100%

$\chi^2 = 9.507$  p value = 0.002

97% of females and 91% of males aspired for a higher salaried job. Salary in the IT sector are the best in the city. Starting salary is around Rs 15,000 per month. Even though the industry has many drawback as lack of job security and increasing health problems among the employees it is the huge salary that they receive at the end of every month which prevents them from leaving the job. But these young people have got used to the new way of life that they aspire for a better salary and promotion in their job.

Exposure denotes the process of enhancing social skills and cultural knowledge through new opportunities, experience, social contacts and sources of information. Exposure inside and outside the work place primarily enables people to improve the career prospects and also their overall life chances and also those of their family members.

**Table 4**

**Plan for Job Change**

Changing Job Sex	Yes	No	Total
Male	13 52%	12 48.0%	25 100%
Female	10 40%	15 60.0%	25 100%
Total	23 46%	27 54%	50 100%

$\chi^2 = 4.348$  p value = 0.037

Compared to the female the male members were more keen on changing their job. When 52% of the male members were keen on job hoping only 40% of the female members felt so. The volatile nature of the industry, increasingly temporally and flexible nature of

employment contracts, the demise of job security, the intense work schedule, the surveillance nature of the IT companies and the introduction of the new policies disrupt the smooth working and mobility of an employee in an IT industry. Hence they try for other jobs in other firms. The female members however require a safe job along with their spouse which prevents them from job hopping. Unlike men and women put responsibilities towards the family, especially their children well ahead of their work and career and hence they have less aspiration when compared to the male.

## 5. Conclusion

The study concluded that the male members were found dominating the industry compared to the female counterparts. Educationally the

professionals are highly qualified and on an average receiving a reasonable pay of INR 30,000 - 40000 per month. Most of them hailed from nuclear family. The new generation of software professional has a higher income and a changed life style. This is majorly due to more demanding families. They consider this profession as a high status profession. But only very few thought that the profession held chance for better prospects in career. Most of the professionals preferred high salaried job and developing their skills even after they enter into their job. Most of them request for offshore assignments while some develop latest expertise through self study and undergoing short term course. The volatile nature of the industry, Hence the professionals are always under the fear of losing the job. Compared to female members, the male members were more keen to change their job.

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## A STUDY ON THE LABOUR PRODUCTIVITY OF EMPLOYEES IN MALAPPURAM CO-OPERATIVE SPINNING MILLS LIMITED

**\*Anil P.M**

### **Abstract**

In India we actually experience an absolute lack of commitment to work, lethargy and low productivity adversely affecting the growth our economy and our nation in industries business houses on in service sector we see incapacity to work hard, The management employees relation in every sector is not smooth. The well accepted 'give and take' policy has now been replaced by the 'take and give' policy. Malappuram co-operative spinning mills Ltd. is one among the eight co-operative spinning mills in kerala. The poor performance of the Malappuram co-operative spinning mills Ltd may be due to the bad work culture prevailing in the organization. This study tries to explore the factors influencing the productivity through the work culture of employees of the Malappuram co-operative spinning mill Ltd. The relevance of this study is understanding whether improvement in the performance of business enterprises in Kerala is possible through the effective utilization of human resources.

**Key words:-** MCSM, ESI, ICMF, NTC.TEXFED

The prime concern of the managers today is how to motivate employees to get better productivity and achieve the goal of the industry. It is only in recent years that these two concepts of work culture and productivity have started appearing as twins. The link between these involves a set of highly complex notions about the

work culture of employees and what motivates them to better job performance leading to greater productivity. The changing concepts about the management of industrial organization thus require a new look at the concept of productivity as well. In past, productivity was defined in terms of rise in the level of output of services with the same or reduced level

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of input as a result of better work methods and improved technology. It is however through the employees that the ultimate increase in production is achieved. Employees performance is more important than equipment and raw materials .If they are not motivated to work harder, better, with sincerity, initiative and co-operation, no amount of sophisticated technology or improved work method is going to help. Therefore job performance need to be redefined in terms of work culture. Every employees satisfactory performance is vital to the proper functioning of machinery and equipment in industry and productivity is more locally to be determined by what the employees rather than machines do.

Co-operation between managers and workers, between workers union and between themselves is the pre-requisite of stable working of organizations. Unfortunately what we find is the tendency to pull down each other, mudslinging and working in opposite directions. Many of our organization are organized in such a way as to create and encourage conflict. The above resulted in low productivity and negative work culture in India. Recent changes in the economic policies of the country has threatened the professionals of redesign the jobs of enrich the qualities of work life. Globalisation of the economy compels the trade and industry to excel in work at par with its counterparts of multinational corporations. It will require more sensitivity towards quality to remain in the competition. Therefore redesigning of work system become inevitable.

New Era of economic renaissance will call upon technological up gradation.

The sophisticated technology of the west require high degree of specialized skills . The Indian technology is to be adjusted to the prevailing socio-cultural framework of the country. There is possibility of class conflict among the workers as they will form different groups on the ground of knowledge, skills, wage structure etc. It will weaken the existing weak union movement. The challenge before the professionals is to resolve the conflict among workers themselves. To avoid ego stratification, the standardization of the work and the work organization is needed. Since each organization works with its own socio-technical realities, a readymade formula cannot be advocated to improve the work culture and productivity. The presence of two cultures western and industrial organization and Indian at home give rise to contradictions.

The situation in Kerala is more or less similar to go in par with the national standard. The productivity of the employees is low compared to the other states like Tamil Nadu, Karnataka and Andhra Pradesh, where the literacy rate is much low. In this context it is appropriate to evaluate the productivity and work related problems in the business undertakings in Kerala.

### **Objectives of the Study**

1. To assess the productivity of the workers of the company and analyse the factors influencing the productivity.
2. To study the recruitment policy. Promotion policy, safety measures and training facilities of the employees in the “Malappuram Co-operative Spinning Mills limited.”

3. To examine the employees' opinion about the level of industrial Relation in the company.
4. To make necessary suggestions and recommendations on the basis of the findings of the study.

### **Methodology**

For the purpose of collection information, an exhaustive interview schedule was prepared covering all aspects of the study. The interview schedule was applied on the selected sample by the investigator himself by personal interview method secondary data has been collected from published record of MCSM ,TEXFED and journals like economic and political weekly.

### **Measurement of Productivity**

Measurement of productivity of employees is a difficult task. Regarding this we have to answer two important questions viz. (1) How to measure productivity of workers and (2) who is the best judge in this respect.

The first question relates to the criteria for measurement. It is true there is no single criteria which can be used to measure productivity in all situation. Many measure both subjective and objective are suggested by industrial psychologists for measurement of productivity. The validity of each one of these measurement often depends upon the specific set of circumstances under which a particular measure has been evolved and used. The traditional industrial psychologists emphasis on a uni- dimensional criteria for measuring productivity while modern authorities advocate for the adoption of the multidimensional criteria. Among the

former category out put per worker is considered as the most appropriate method of productivity. This measure is objective in nature and simple to operate. However , this cannot be used to measure the productivity of indirect workers who are not directly involved in the production of final output but aid the final production process in varying degree. Due to these drawbacks the present day industrial psychologists advocate for adoption of a multi- dimensional criteria. In this study this multi- dimensional criteria is followed.

Regarding the second question, that is, the choice of the writer, there are several alternatives available from the immediate supervisor to the chief executives individually or jointly on one side and self- rating and rating by colleagues on the other side. But majority of the industrial psychologists are of the opinion that the immediate manager is the best judge as he is the correct person to know the employee and his work. Therefore, in this study also the rating by the immediate supervisor is used.

### **Index of Productivity**

For the purpose of measuring productivity of employees an index was prepared by taking most commonly used eight variables namely, quality of work, punctuality, attitude towards supervisor, ability to undertake responsibility, attitude towards discipline, absenteeism and ability to grasp new idea. All these variables were rated on a two- point scale. Thus the maximum productivity index of a worker will be 16 and minimum 8. On the basis of the score obtained, workers were classified into three levels of productivity, namely, High, Medium and Low. Those

who obtained a score of 16 were classified as High productive workers. Those who obtained a score in between 12 and 15 were classified as Medium productive workers and those who obtained a score in between 8 and 11 were classified as low productive workers.

The collected data were classified and analysed by using simple mathematical techniques such as average, Percentage, ratio etc. Chi-square test is also used to find out the statistical significance of the relationship between productivity and various socioeconomic antecedents of the employees. The addition to this coefficient of contingency is also used to rank the related variable.

### **Analysis**

The Malappuram Co-operative spinning Mill was registered on 28th October 1985 under the Kerala Co-operative Societies Act 1969. The mill started commercial production during 1980 with an installed capacity of 5104 spindles. The unit became commercially viable during December 1984 when the installation of 25,054 spindles was completed. The performance of the unit was not as envisaged and was continuously incurring heavy losses resulting in erosion of capital right at the early years. This resulted in huge accumulated losses and non-payment of instalment of loans and interest there on to financial institutions resulting in heavy penal interest and liquidated damage. On account of heavy cash loss year after year the working capital loan with SBT become irregular. Considering the situation a study was conducted by financial institution including bankers during 1987. And the

study revealed that the mill can not be viable unless concrete steps are taken to resolve some perennial problems mill was confronted with right from the inception. The irregularity in bank accounts forced SBT to stop operation of account of the mill from 15th May 1988, and this ultimately resulted in the closure of the mill from 19th May 1988. The mill was re-opened on 16th July 1990 after a lot of deliberations with financial institutions, bankers, trade union leaders, etc. The condition for re-opening was to implement work load as per SITRA standards and to maximise utilisation of capacity by installation of generator sets to overcome the voltage drop problems. Government also declared the unit as a sick textile unit and declares moratorium on all dues (except that of financial institutions). The management of the unit was also entrusted to Kerala State Textile Corporation Ltd., initially for a period of two years. However, the government subsequently appointed a committee of administrator to manage the affairs. Even though the mill was re-opened on 16th July 1990, production was started only by the last week August 1990 as a lot of cleaning and maintenance work were to be carried out. Before the closer of the mill in the 1988 the capacity utilisation of the mill was below 60%. The main reason for the lowest capacity utilisation was frequent voltage drops in the area. Therefore, an important agreement in the re-opening of the mill was establishment of generators to solve the voltage problems. It is envisaged that by establishing the generators the company can able to achieve 85% capacity utilisation. The mill purchased and established 3

generator sets of 590K.V in the year 1993. The total cost for a generator amounts to Rs. 70 lakhs. After the establishment of generators the company has been utilising more than 70% of its installed capacity .

But for the last 6 years the performance of the company was also

not satisfactory, by making huge losses every year. Table I reveals it.

Cost of production details of MCSM reveals that the cost of raw materials and labour cost is very high and the company did not get reasonable price for it's finished product, it shown in TABLE II.

**TABLE-I**

**Physical & Financial Performance of Malappuram Co-operative Spinning Mill**

Particulars	Year	MCSM
<b>SPINDLE CAPACITY Utilisation %</b>		25000
	2012-13	70
	2013-14	67.2
	2014-15	65.3
	2015-16	60.7
	2016-17	60.58
	2017-18	68.86
<b>AVERAGE</b>		65.44
<b>Value of production Rs . in Lakhs</b>	2012-13	2170
	2013-14	2166
	2014-15	1963
	2015-16	1617
	2016-17	2075
	2017-18	2508
<b>AVERAGE/ YEAR</b>		2083.16
<b>HOK</b>	2012-13	30.39
	2013-14	30.18
	2014-15	28.76
	2015-16	26.72
	2016-17	31.18
	2017-18	30.36
<b>Average</b>		29.59
<b>Operating Profit (PBIT ) Rs in Lakhs</b>	2012-13	-116
	2013-14	-339.3
	2014-15	-386.1
	2015-16	-488.6
	2016-17	-283.15
	2017-18	-234.39
<b>Average</b>		-307.92



**TABLE-II****Cost of Production Details of MSCM for the last 5(five ) Years**

Particulars	2013-14 (in lakhs)	2014-15 (in lakhs)	2015-16 (in lakhs)	2016-17 (in lakhs)	2017-18 (in lakhs)	Average (in lakhs)
<b>I. Sales (without tax and duties)</b>	2143.8	1972.8	1652.5	2015.82	2466.62	2050.3
<b>II.Variable expenses</b>						
(a) Raw material cost	1460.8	1216.4	965.32	1168.85	1436.02	1249.47
(b) Power and Fuel	335.9	331.5	348.83	366.92	436.03	363.83
( c) All other variable cost	31.7	22.8	27.34	29.93	26.41	27.63
<b>III-Fixed expenses</b>						
(a) Employee cost	597.5	677.3	680.6	715.16	773.11	688.73
(b) All other Fixed Expenses	75.5	75.2	84.33	77.39	71.04	76.69
<b>IV-Financial charges on</b>						
(a)Long term loans	92.16	180.4	190.69	263.28	263.17	197.94
(b) Working Capital loan	51.1	27.2	30.39	28.4	25.83	35.58
<b>V-Other incomes</b>						
(a) Cash profit	-426.4	-573.2	-703.9	-567.5	-515.97	-557.39
(b) Depreciation	85.9	86.3	91.5	91.56	91.56	89.36

In the analysis it's seen that out of six variables studied in relation to labour productivity, significant relationship exists for three variables namely, wage satisfaction, work satisfaction and job satisfaction. Now the question arises as to which as to which variable is more related and which one is less related. In other words, what is the magnitude of their association with labour productivity? For providing an answer to this question, statistical technique namely, **Co-efficient of Contingency** is employed and the result is presented in TABLE-III.

**TABLE-III****Ranking Variable on the basis of Co- efficient of Contingency of MSCM**

SL NO	Variable	Co-efficient Value	Rank
1	Wage satisfaction	0.4179	1
2	Job Satisfaction	0.3994	2
3	Work Satisfaction	0.3467	3

From the above table, it can be observed that the magnitude of association of labour productivity is maximum for wage satisfaction (0.4179) and next to follow is job satisfaction (0.3994) and the third to follow is work satisfaction (0.3467).

### **Conclusion**

The aggregate level of productivity of the workers in the company is very low. Of the total 60 workers studied the productivity of 51% are low, 22% are medium. Only 27% workers are high productive. Regarding the inter-relationship between labour productivity and selected socio-economic factors, statistically significant relationship exists only for wage satisfaction, job satisfaction and work satisfaction. Factors such as education, involvement in decision-making and the nature of work are independent of productivity. Among the

three factors which have a direct positive relation with productivity, the magnitude of relationship is maximum for wage satisfaction and minimum for work satisfaction.

Since wage satisfaction, job satisfaction and work satisfaction are inter-related to productivity, the management should take necessary steps to give timely increments to the wage of the workers and place them in appropriate works to seek a better productivity from them. The current financial of the company and its accumulated loss cannot be regarded as a result of poor performance of the workers above. Several other factors may be responsible for this state of affair. Therefore, we can say that if the concerned authorities take notice of the growth of MCSM to solve the above mentioned problems, the firm can generate a reasonable profit for its effective functioning.

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*Labour Productivity*

## A STUDY ON INVESTORS BEHAVIOR TOWARDS POSTAL SMALL SAVINGS SCHEME IN KANYAKUMARI DISTRICT

\*R. Sreedevi ,\*\*Dr. Murugan

### Abstract

Savings play a vital role in building up the household economy as well as the national economy. Savings provide the financial security to savers. The postal savings schemes help the investors to obtain higher return with low risk. The objective of postal savings scheme to provide mean to small and medium investors. India has the largest number of post offices in the world. At present 1,54,551 post offices functioning in India, including 1,39,149 post offices in rural areas. This study highlights the attitudes of investors towards the postal small savings schemes in Kanyakumari. This study is also exploring the awareness of the Postal small savings schemes in Kanyakumarii. The present study is an empirical one based on survey method. Data were collected from both primary and secondary sources. The primary data were collected from customers through interview schedule. Secondary data were collected from various published sources like books, journals, magazine, research dissertations and websites. The researcher adopted convenience sampling method. The researcher identified 150 samples respondents.

**Key words:-** Household Economy, Financial Security, Postal Savings Scheme, Arthasastra

*S*avings play a vital role in building up the household economy as well as the national economy. Savings provide the financial security to savers. Financial security is considered as very essential because every man faces a potential loss of earning

power and unexpected expenses as a result of death, age, disability or loss of employment. In order to mobilize savings, the financial institution and Government of India is issuing shares, debentures, various saving certificates, government bonds and securities carrying high rate of

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interest. Among the available options, postal small savings scheme are playing a significant role in mobilizing the funds from the people. The objective of postal savings scheme to provide mean to small and medium investors. The postal savings schemes help the investors to obtain higher return with low risk.

### **Postal Department:**

Department of postal has the largest postal network in the world. It has reached in all the corners of the country up to small villages, hilly regions and tribal areas. This widespread network helps them to cover and contact all people in the country. The history of postal system in India organized at the time of Chandra Gupta Maurya (321 – 297 B.C) and it based on reference about postal system in Arthasasthra.

India has the largest number of post offices in the world. There were only 701 post offices in British rural regime when the first postage stamp was released in 1854. At the time of the independence there were 23,444 post offices in the country largely confined to the urban areas and selected villages. This network has now grown to 1,54,551 post offices as on 31.03.2017 including 1,38,149 post offices in rural areas. On an average a post office services an area of 21.26 sq.km. and a population of 5462.

### **Statement of the problem:**

Postal small savings schemes are the trust of lakhs of Indian investors. Post offices are offering different types of saving schemes. Each saving schemes are attracting the customers with its specific features. The success of the post office

savings schemes depend upon the interest rate offered by the post office and extent of awareness about the post office saving schemes.

At present the government had changed the interest rate on its small saving schemes. The Public feels that the government has taken the remedial measures to attract the investors by increasing the rate of interests. The study has been undertaken to analyze the awareness among the investors about the various postal small savings schemes and factors influencing the investors to select the particular postal savings schemes.

### **Scope of the Study:**

This Study highlights the attitude of investors towards the Postal small savings schemes in Kanyakumari. This Study is also exploring the awareness of the postal small savings schemes in Kanyakumari. Hence this study has been attempted from the stand point of the post offices operating the small saving schemes and investors.

### **Geographical Area Coverage:**

The researcher analyse the attitude of investors towards Postal small savings schemes in Kanyakumari area.

### **Objectives of the study:**

The Study was launched with the following objectives

1. To trace out the investors preference of the post offices saving schemes.
2. To analyze the attitude of investors towards the Postal small savings schemes in Kanyakumari.

3. To Study the factors influencing the attitude of investors towards the Postal small saving schemes in Kanyakumari.
4. To find out the problems faced by the investors and offer valuable suggestions for improving the number of investors in Postal small savings schemes.

**Hypotheses:**

The Study has been made with the following hypotheses and they have been tested and there.

1. There is no significant a relationship between education and attitude of respondent.
2. There is no significant a relationship between income and attitude of respondents.

**Methodology:**

The Present study is an empirical one based on survey method. Data were collected from both primary and secondary sources. The Primary data were collected from customers through interview schedule. Secondary data were collected from various published sources like books, journals, magazines, research dissertations and websites.

**Sampling design:**

The Sampling design for the study had been decided after careful analysis. After careful consideration convenience sampling method was adopted. The Researcher identified 150 samples respondents. The Researcher interviewed the sampling respondents with the help of well constructed interview schedule.

By following the convenience sampling, the researcher has selected sampling of 150 investors in kanyakumari. In order to get equal representation, the sample was selected from all kinds of investors such as Employees of Transport Corporation, Bank, Employees, Primary School Teachers, College Teachers, Public works Departments ,Postal and Telecommunication Employees, Private employees, house wife etc.

**Tools used:**

To analyze and interpret the data Collected from diverse sources have been put through various rigorous analyses using the Percentage, Standard deviation ,Co-efficient of variances ,Chi-square test, Garret’s ranking.

**Analyze and Interpretation of Data:**

**1. Investor a Preference of Postal Saving Scheme**

Indian Postal department offer various range of savings schemes with attractive features designed to promote savings of different segments of population. The following table describes the respondents view on different types of savings schemes.

**Table 1**

**PREFERENCE OF POSTAL SMALL SAVINGS SCHEMES**

S. No	Schemes	Number of Respondents	Percentage
1	Kisan Vikas Patra	33	22
2	National Savings certificate	7	4.67
3	Recurring deposit	23	15.33
4	Monthly income scheme	25	16.67
5	Public provident fund	8	5.33
6	Post office time deposit	13	8.67
7	Post Office saving Account	5	3.33
8	Post Office fixed deposit	16	10.67
9	Post Office Insurance	20	13.33
	Total	150	100

*Source: Primary data*

The above gives an idea the number of respondents investing money in various schemes. It is evident from the table that more number of investors is investing Kisan vikas patra.

**2. Attitude of Investors towards Postal Saving**

Postal small savings schemes renders many services to the investors and the level of attitude will indicate the efficient services of the Postal small savings scheme rendered to the investors. The level of attitude varies from one investor to another and from time to time. A comprehensive study has been made to highlight the level of attitude, the variation in the levels of attitude and their relative importance of each component identified for measuring the level of attitude. The various components and their score are given in table 2

**Table 2**

S. No	Components	Number of Respondents					Total Scores
		SA	A	N	D	SD	
1	Post office savings are safe	73	49	18	10	-	635
2	Postal small savings schemes offer more liquidity	23	57	26	29	15	494
3	Savings in post office are profitable then other fixed deposit schemes of commercial bank	18	32	30	39	31	417
4	Interest rate is reasonable	63	39	13	23	12	568
5	Postal small savings schemes reduces tax liability	42	58	21	18	11	552
6	Nomination procedure is easy in postal mail savings schemes	13	19	99	14	09	459
7	Loan procedure is through Postal mail savings schemes	7	19	31	56	37	353
8	Customer service id good in post offices	8	17	28	54	43	343
9	After maturity of the savings schemes, enhancement procedure is easy service is attractive	9	8	92	23	18	417
10	Service of agent is good	17	110	13	04	06	578
11	Advertisement is more appealing	14	19	15	93	09	386
12	Post offices are situated near to residence	99	32	9	7	3	386
13	Response to inquire are good in post offices	34	41	17	38	20	481
14	Postal saving certificates are issued quickly	21	47	18	43	21	454
15	On maturity , account is settled quickly	13	19	28	78	12	393

As could be seen from Table 2, the component post office are safe has secured a total scores of 635, followed by 578 scores for agents service are good and so on.

**3. Extent of attitude**

**Table 3**

**Level of attitude of Investors**

S. No	Category	Number of Investors	Percentage
1	Medium	106	70.67
2	High	44	29.33
	Total	150	100

Source : Primary data

On the basis of scores allotted the respondents have been classified into three group namely and high. When the scale has been applied to the sample, it has been

found out that 106 respondents belong to medium level of attitude group. Table 3.18 shows the level of attitude of 150 investors under the study.

The table 4 reveals 106 (70.67 %) investors belong to medium level attitude group and 44 (29.33 %) investors belong to high level attitude group. The investors have been satisfied with the services of postal small saving scheme to some extent, because there are no investors belonging to the low level attitude group.

**4. Factors Influencing in Selecting a Particular Small Savings Scheme**

The reasons for selecting a particular small savings schemes and the ranks assigned to them by the respondents are given in table 4

**Table 4**

**Reasons for selecting small Savings Schemes**

S. No	Reasons	Number of respondents (rank)						Total
		I	II	III	IV	V	VI	
1	Safety	65	46	26	6	4	3	150
2	Bonus at the date of Maturity	31	37	32	20	16	14	150
3	Capital Appreciation	14	15	22	49	26	24	150
4	Agents decision	14	18	13	26	39	40	150
5	Tax benefit	12	13	15	26	51	33	150
6	Liquidity	24	25	38	28	19	16	150

**Garrets technique**

Garrets technique is adopted to rank the reasons for preferring a particular Small Schemes. The ranking technique pointed out that the safety is the first reason for selecting a particular small savings Schemes. Bonus at the date of maturity is the second reason given by the respondents. Liquidity is the third reason. Capital appreciation is the fourth reason for selecting particular schemes. Agent

decision is the next reason for preferring a particular small savings scheme. Tax benefit is the last reason.

The ranks assigned are given in table 4.1

**Table 4.1**  
**Garrets' Ranking Results**

S. No	Reasons	Total Score	Average Score	Rank
1	Safety	9872	65.81	I
2	Bonus at the date of Maturity	8349	55.66	II
3	Capital Appreciation	7016	47.17	IV
4	Agents decision	6504	43.36	V
5	Tax benefit	5683	37.89	VI
6	Liquidity	7896	52.64	III

*Source: Primary Data*

**Testing of Hypothesis:**

To assess the respondent opinion regarding investor's attitude towards Postal Saving Schemes 2 statements, namely hypotheses are framed and tested by applying Chi-square test. The Chi-square test represents useful method of comparing experimentally obtained data with those expected theoretically.

**5. Income Level and Attitude of the Investors**

**Table 5**

**Income of Investors and level of Attitude**

S. No	Attitude Level	Medium	High	Total
1	Up to Rs.9000	83	26	109
2	Above Rs.9000	23	18	41
	Total	106	44	150

*Source: Primary Data*

Generally income is the main criterion which decides many matters. Income varies from one investor to another.



Table 5 reveals that 106 investors come under the category of medium level attitude and 44 investors fall under the category of high level of attitude.

**Hypotheses:**

There is no significant a relationship between income and attitude of respondents.

In order to see whether there is any relationship between income and the level of attitude, Chi-square test has been applied. Table 5.1 clearly shows the Calculation of chi-square test.

**Table 5.1**

**Income of Investors and the level of attitude Chi-square test**

Cell	O	E	(O-E)	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
R1Co1	83	77.03	5.97	35.64	0.462
R2Co1	23	28.97	-5.97	35.64	1.230
R1Co2	26	31.97	-5.97	35.64	1.114
R2Co2	18	12.03	5.97	35.64	1.980
					4.786

Table value at 5 percent level =3.841 where as the calculated value is 4.786.The Calculated value is more than table value and hence the hypotheses is rejected.

Thus there is a relationship between the Income of investors and the attitude of investors towards Postal small savings schemes.

**6. Educational Qualification of Investors**

The educated Persons are able to understand the importance of Schemes when compared to the Uneducated. Education widens the knowledge and understanding Therefore, Educational qualification is identified as one of the factors influencing the attitude of

investors towards Postal small savings schemes.

**Table 6**

**Education Qualification of Investors and level of Attitude**

Age/Attitude level	Medium	High	Total
Up to Graduates level	88	29	117
Post Graduate and Professionals	18	15	33
Total	106	44	150

*Source: Primary Data*

Table 6 reveals that the investors having high level of satisfaction is more in up to Graduates level.

**Hypotheses**

There is no significant a relationship between education and attitude of respondent.

With a view to verify whether that is any relationship between the educational qualification and the attitude level, chi-square test has been applied. Table 6.1 shows the computation of the chi-square test.

**Table 6.1**

**Education qualification of Investors and the Level of attitude Chi-square test**

Cell	O	E	(O-E)	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
R1Co1	88	82.68	5.32	28.30	0.342
R2Co1	18	23.32	-5.32	28.30	0.213
R1Co2	29	34.32	-5.32	28.30	0.824
R2Co2	15	9.68	5.32	28.30	2.923
					5.302

Table value at 5 per cent level=3.841 the calculated value is 5.302.The calculated value is more than the table value and hence the hypothesis is rejected.

Thus there is a relationship between the Educational qualification of investors and the attitude of investors towards Postal small savings schemes.

### Suggestions

Suggestions for the Improvement of the working of the Postal small savings schemes are given below

1. The post office savings bank reduces the waiting time for receiving the services.
2. The post office savings bank must simplify the procedure and eliminate the unnecessary procedures insisted in the Postal small savings schemes.
3. The Post office saving bank employees must co-operate with the investors at the time of withdrawing the amount and at the time of closing the account.
4. The saving bank employees must check the identification of the investors in order to prevent the fraud in the withdrawal of the amount.
5. The post office savings bank must permit the investors to close the account prior to the date of maturity.
6. The government of India must take extra effort to increase the

mobilization of savings through the advertisement on the wall posters, board, and issue of notices, newspaper, radio and television.

7. The savings bank must arrange the quick repayment of money from the savings account to the investors.
8. The post master makes an arrangement to receive the information about the changes in Postal small savings schemes by the investors.

### Conclusion

In the climate of falling interest rate and uncertainty in the capital market, postal small savings schemes are welcome relief to the investors to park their surplus funds and earn a decent return. Investors service is the corner stone in postal small savings. It is very important that they should retain its existing investors and attract new investors. In this respect, the growth and profitability of postal service schemes to a large extent depends on the investors service rendered by them.

The success of any saving depends upon its ability to meet the requirements of the investors. Moreover this study may be a basis for further research attempts of similar nature.

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## DETERMINANTS OF CUSTOMER SATISFACTION IN CATERING SECTOR

\*Sajitha V, \*\*Dr. Vinod A.S

### Abstract

Catering service face a tough competition in Kerala. The survival of a catering units is mainly depends on customer satisfaction. So an in depth knowledge about the determinants of customer satisfaction is an inevitable pre requisite of every catering services. This study explore the determinants of satisfaction of 130 customers selected at random from Thiruvananthapuram district of state of Kerala. The customer satisfaction can be measured in 5 point scale. The opinion of customers about the quality of catering service facility available in the unit was taken to represent the determinants of customer satisfaction. Multiple regression analysis was conducted to identify the significant determinants of customer satisfaction. The results are adapted to MCA table for identifying the absolute effect of determinates on customer satisfaction.

**Key words:-** Catering service sector, Determinants of customer satisfaction, Level of satisfaction

*I*n this modern world services are widely used by people in all aspects of life. The American Marketing Association<sup>3</sup> defines services as "activities, benefits, or satisfactions which are offered for sale or are provided in connection with the sale of goods." There is a growing market for

services and increasing dominance of service in economics worldwide. This tremendous growth and economic contributions of the service sector have drawn increasing attention to the issues and challenges of service sector industries worldwide.

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Service Sector in India today accounts for more than half of India's GDP. According to data for the financial year 2006-2007, the share of services, industry, and agriculture in India's GDP is 55.1 per cent, 26.4 per cent, and 18.5 per cent respectively. The fact that the service sector now accounts for more than half of the 13 GDP marks a watershed in the evolution of the Indian economy and takes it closer to the fundamentals of a developed economy.

The members of the Indian families usually took care of different arrangements during a social gathering or an event. This trend is fast being replaced by the people's interest in hiring catering services. This often results in better arrangements and opportunity for everyone in the family to enjoy the function. This leads to the catering services industry is one of the fastest growing sectors of the Indian economy. Though the progressives of catering sectors in India shows through the tremendous growth percent of tourism and hospitality industry. The growth rate of hospitality sector is in 2016 are 14% annually.

The survival of the catering industry depends on the customer satisfaction of services available by hotels and other catering establishments. Generally the factors influencing the customers at the time of gathering services are environmental conditions of the eating out, taste of food, standard presentation, service quality and personal attention of every individual. In this sense the service offering can be measured through the comparison of customers' perceptions and expected services from catering establishments. Although this is associated

with the benefit of more frequent sales of products. It is generally found that satisfied customers of services are willing to pay more.

### **Review of literature**

Determinants of customer satisfaction in catering service sector mainly depend to the needs, demands and expectations of the customers that influence many factors regarding catering services of the hoteliers. It has been mentioned in the literature by several writers and researchers. Firstly, it is literary the means of catering (Vijay Dhawan, 2006) is to meet the basic need of food, drink and accommodation and catering service sector exists to provide hospitality and catering services in a manner similar to commercial sector. The classification of services are table service, counter service and cafeteria services which are preferable by customers on their convenience at the time of eat out (Parminder, 2009). A card which provides the various food items that are offered along with prices is called menu, it helps to determine the profile of the customers and also profitability and competitors of the catering establishments (Bhatnagar, 2009). It is the back born of catering operations so it determines the catering policies. Always the customers attract the price of food and their standard presentation. Tariff is the pricing terminology of hotels and other catering establishments. Thus the fixation of tariff is major one in catering sector. Meanwhile its payment modes also affect the satisfaction on customers. More over service quality is inevitable in catering sector which involves the perspectives of customers and the service delivery. Service

quality refers to the result of attending to the needs, demands and expectations of customers through service delivery or customer care. The important aspect of service quality are competence, courtesy, credibility, security, access, communication, knowing the customer, tangibles, reliability and responsiveness (Jha, 1998).

## Methods

Multiple regression analysis was mainly used to find out the determinants of Customer Satisfaction in Catering Sector. In order to identify the significant determinants, the backward selection method of regression analysis was employed. The result was adapted to multiple classification table for evaluating the absolute effect significant predictors on customer satisfaction.

## Results

Table 1 shows the demographic profile of the respondents. It can be seen from this table 1 that more female respondents (56.15%) are participated in the survey than male respondents (43.85%). Furthermore sample population (33.08%) in the age group of 26-35 years formed the majority. The next large category comprised the respondents from 21-25 years of age (28.46%). The next large category was made up of those who are above 35 years (25.38%) and (13.08%) of respondents falling less than 20 years of age.

As far as education level is concerned, this table depicts that 43.85% of respondents are graduate and diploma, followed by post graduate and professionals 36.92%. The next largest

group are plus two (15.38%) and school level (3.85%) respectively. As far as, respondents occupation is concerned, this table explains that a majority of the respondents belong to private employees (46.92%), followed by quasi government employees (26.15%), government employees (23.85%) and 3.08% of respondents are business person.

**Table 1**

### Distribution of sample by their characteristics

Characteristics		n	%
Gender	Male	57	43.85
	Female	73	56.15
Age	Up to 20	17	13.08
	21-25	37	28.46
	26-35	43	33.08
	Above 35	33	25.38
Education	School	5	3.85
	Plus 2	20	15.38
	Degree/Diploma	57	43.85
	PG/Prof	48	36.92
Occupation	Business person	4	3.08
	Govt. employee	31	23.85
	Quasi-Govt.employee	34	26.15
	Pvt. employee	61	46.92
Total Sample		130	100.00

**Physical appearance:** Physical appearance is the most inevitable factor for the determinants of customer satisfaction on service sector. It is the material things to be visible for customers will help to take decisions for getting cuisine. Generally customers are always wants to getting more something than others. This variable denotes mainly the visually appealing physical features including welcoming atmosphere of the hotel, modern looking environment, hotel

tariff, decoration, convenient space for customers and hygienic environment

**Table 2**

**Perception score of customers on physical appearance**

Component	Mean	SD
ensure variety cuisine	3.99	0.73
traditional food habit	3.83	0.75
food and beverage visual effect	3.87	0.75
presentation of food and beverage	4.11	0.92
convenient hotel tariff	3.63	0.89
attractive Food decoration	3.83	0.91
convenient food display	3.90	0.90
hygienic food and beverage	3.94	0.93
good drinking water	4.13	0.79
Preference of natural resource	4.12	0.78
	3.93	0.53

This table shows the mean and standard deviation of the variable physical appearance. The factors affecting physical appearance of the hotel are variety cuisine, traditional food habit, presentation of food and beverage, hotel tariff, Food decoration, food display, hygienic food and beverage, drinking water and natural resource..Based on the table the highest mean score and standard deviation is 4.11 and 0.92 respectively in the factor food and beverage presentation. The high standard deviation indicated that the data points spread out over a wide range of values. And lowest mean score is 3.63; lowest SD is 0.89 in the factor convenient hotel tariff. Thus the hotel tariff is tending to be close to the average mean score.

**Suppliers**

In this study supplier is the person who serving food and beverages to the customers. The better quality of catering services depends not only the quality of food but also the quality of the suppliers

of the hotels. So the quality suppliers should ensure proper management in catering services and sustain the customer satisfaction.

**Table 3**

**Perception score of customers on Suppliers**

Component	Mean	SD
Caterers willingness to help	3.99	0.77
Caterers behavior	3.85	0.72
Caterers' knowledge have to answer your questions	3.76	0.79
Hotel service are satisfied	3.92	0.84
ensure excellent staff	3.77	0.80
Good performance e of catering staff	3.85	0.83
Hygiene hotel caterers	3.85	0.85
Management in catering services	3.72	0.77
Comfort ability in catering services	3.75	0.75
Allocation of skilled staff	3.58	0.87
	3.82	0.63

This table depicts the various factors influencing the food supply. Among these factors the average mean is 3.82 and standard deviation is 0.63. it is clear that very low variance to the expected value. Furthermore an effective population mean is 3.85 is shared by the factors caterers behaviour , performance of caterers and their hygienic. And also the low mean score is 3.58 that is allocation of skilled staff in the hotel for proving catering services

**Food:** A food is generally defined as a substance taken into the body to maintain life. The food quality is based on appearance and quality of food. Thus food is look good, to taste good and no direct harm. Moreover, food quality has relating to cultural, environmental and ethical values and also highlights biological, sensual and nutritional factors.

This table shows the average mean of respondents regarding the food related

factors. The average mean is 3.80 and standard deviation is 0.50.

**Table 4**  
**Perception score of customers on physical facilities**

Component	Mean	SD
Suitable food preparation methods	4.04	0.76
Good equipment used for food preparation	3.88	0.84
provide quality food	3.94	0.78
prepare tasty food	3.88	0.83
Consider hygienic factors food preparation	3.88	0.94
Adequate quantity should be provided	3.88	0.80
Freshness of ingredients	3.99	0.80
visually effect food	4.17	4.58
the hotels should consider variety of taste of customers	3.52	0.94
hygienic storage system is used	3.73	0.74
	3.80	0.50

**Service quality:** Service quality is the result of attending to the need, demand and expectations of customers through service delivery and customer care. Service quality of catering is evaluated through the physical facilities, behavior of caterers and quality of catering services. Service quality is measuring through tangibles, reliability, responsiveness, assurance and empathy.

**Table 5**  
**Perception score of customers on service quality**

Component	Mean	SD
When you have a problem at time of serving food, the hotel shows a sincere interest in solving it.	3.98	0.85
The hotel has operating hours convenient to all its customers	3.67	0.89
The catering service providers of the hotel fulfill your specific needs	3.91	0.90
The service facilities available in this hotels are good	3.93	0.90
The hotels should provide accurate service to the customers	3.85	0.84
Always hoteliers willing to help customers	3.90	0.92
The hotels should provide credible food to the customers	3.81	0.98
The hotels should always careful about the security on the customers	3.83	0.84
The hoteliers are always keep empathy	3.70	0.88
The services is prompt	3.62	1.07
	3.89	0.77

This table revealed the service quality of catering service providers. The mean score of problem solving interest of caterers is 3.98 and the lowest mean score is 3.62.

**Catering service attractions:** Catering service attractions are to pull towards the customers on variety of cuisine, quality products and prompt services. Thus hoteliers are always careful about making arouse interest on serving food and its good look and taste. This leads to the pleasure of home away from home.

**Table 6**  
**Perception score of customers on catering service attractions**

Component	Mean	SD
Hygienic Product	4.03	0.89
Variety of Cuisine	3.68	0.85
Taste	4.12	0.76
Behavior of catering service providers	3.95	0.74
Quality products	3.93	0.86
Product at reasonable price	3.76	0.87
Cleanliness and tidiness of the restaurant	3.99	0.77
Belongings security	3.62	0.95
Provide prompt service	3.92	0.78
Courtesy of the caterer	3.78	0.78
	3.88	0.56

This table shows the highest mean score is 4.12 in the component taste and lowest mean score is 3.62 in the component of security belongingness’.

**Physical facilities**

Physical facilities mean that the material things to make easy for selecting the destination of service providence of food. In this study physical facility denote the natural appearance, welcoming atmosphere, decoration, noise, privacy,

space, reception comfortable feeling, good ambience and standard presentation.

**Table 7**  
**Perception score of customers on physical facilities**

Component	Mean	SD
Natural appearance	4.10	0.70
Welcoming atmosphere	3.98	0.69
Decoration	3.85	0.81
Noise	3.58	0.88
Privacy	3.86	0.92
Space	3.89	0.84
Reception	3.88	0.86
Comfortable feeling	3.90	0.88
Good Ambience	3.90	0.84
Standard presentation	3.93	0.72
	3.89	0.55

This table shows the physical facilities provided by catering service providers. The highest mean is 4.10 vested in the natural appearances of the hotel. And lowest mean is 3.58 vested in the noise at the place of the hotel.

**Service facilities.**

**Table 8**  
**Perception score of customers on physical facilities**

G - Service facilities	Mean	SD
Uniform for suppliers	3.79	1.05
Gender of suppliers	3.75	0.84
Availability of food	4.05	0.72
Time lag to supply of food	3.55	0.93
Nature of serving food	3.80	0.78
Nature of presentation	3.90	0.66
Comfortable feeling	3.80	0.72
The behavior of staff is pleasant	3.85	0.77
The hotels should always careful about the security on the customers	3.62	0.89
The communication to the customers are effective and friendly	3.82	0.84
	3.80	0.53

The influencing factors of serving employment that help to easy discharge of their duties. Wherever the service facilities are available that will make confidence for eating out.

**Customer satisfaction**

Customer satisfaction is the degree to which the needs demand and expectations of customers are met in service delivery. The good relation of customers and suppliers helps to create customer satisfaction on catering services provided by hotelier. This table shows the factors affecting customer satisfaction. The highest mean score 4.11 for taste of food and low mean is 3.58 in offers of hotels to the customers.

**Table 9**  
**Perception score of customers on physical facilities**

Component	Mean	SD
Environment	4.10	0.71
Types of services	3.97	0.70
Menu	4.07	0.76
Food presentation	3.92	0.90
Taste of food	4.11	0.74
Price	3.79	0.95
Mode of payment	3.91	0.88
Better quality of services	3.98	0.78
Offers	3.58	0.97
personal attention on customers	3.69	0.89
	3.91	0.56

In order to find out important determinants of customer satisfaction, multiple regression analysis was conducted. Level of satisfaction of customers measured in five-point scale was taken as continuous dependent variable. The composite variable representing the perception of customers about physical appearance, suppliers,



service quality, food, catering service attraction, physical facilities and service facilities were taken as continuous independent variables. The characteristics of customers such as gender, age, education and occupation are taken as independent dummy variables. Multiple regression analysis with backward selection method was used to find out the significant predictors of customer satisfaction. Table 10 presents the coefficient of initial regression model of customer satisfaction.

From the table10, it can be seen that out of 17 independent variables 5 of them are having significant relation with customer satisfaction. The backward selection method eliminated 8 insignificant

independent variables from the regression analysis and at the ninth step the final regression model was computed. Table 2 the coefficient of final regression model of customer satisfaction.

From table 11, it can be seen that 9 independent variable have significant effect on the customer satisfaction. Customers perception about suppliers, food and service facilities are found to have positive effect on their satisfaction level. The unstandardized coefficient of the variable related to customers' perception about suppliers is 0.183. it means that one-unit increase in the perception of customers create 0.183-unit increase in their level of satisfaction. Similarly, the increase in the level of

**Table 10**  
**Coefficient of initial regression model of customer satisfaction**

Variables		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
(Constant)		-0.479	0.318		-1.508	0.135
Physical appearance		0.057	0.098	0.056	0.584	0.561
Suppliers		0.106	0.104	0.097	1.016	0.313
Service quality		0.000	0.048	0.000	-0.002	0.999
Food		0.117	0.103	0.132	1.137	0.259
Catering service attractions		0.186	0.122	0.190	1.515	0.134
Physical facilities		0.077	0.091	0.076	0.847	0.400
Service facilities		0.509	0.097	0.479	5.235	0.000
Gender	G: 1 if Male, 0 Otherwise	0.065	0.068	0.056	0.951	0.344
Age	A1: 1 if Up to 20, 0 Otherwise	-0.083	0.161	-0.047	-0.518	0.606
	A2: 1 if 21-25, 0 Otherwise	0.189	0.117	0.150	1.607	0.112
	A3: 1 if 26-35, 0 Otherwise	0.106	0.103	0.085	1.023	0.309
Education	E1: 1 if School, 0 Otherwise	0.875	0.200	0.299	4.372	0.000
	E2: 1 if Plus 2, 0 Otherwise	0.343	0.134	0.187	2.558	0.012
	E3: 1 if Deg./Dip., 0 Otherwise	0.137	0.085	0.118	1.604	0.113
Occupation	O1: 1 if Business, 0 Otherwise	0.958	0.217	0.285	4.416	0.000
	O2: 1 if Govt.Employee, 0 Otherwise	0.291	0.110	0.212	2.646	0.010
	O3: 1 if Quasi-Govt. Emp., 0 Otherwise	0.115	0.085	0.094	1.350	0.181

**Table 11**

**Coefficient of final regression model of customer satisfaction**

Variables		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
(Constant)		-0.108	0.281		-0.384	0.702
Suppliers		0.183	0.086	0.168	2.129	0.036
Food		0.228	0.076	0.257	3.001	0.004
Service facilities		0.582	0.086	0.547	6.769	0.000
Age	A2: 1 if 21-25, 0 Otherwise	0.168	0.075	0.133	2.237	0.028
Education	E1: 1 if School, 0 Otherwise	0.765	0.182	0.261	4.194	0.000
	E2: 1 if Plus 2, 0 Otherwise	0.217	0.111	0.118	1.961	0.053
Occupation	O1: 1 if Business, 0 Otherwise	0.970	0.202	0.288	4.802	0.000
	O2: 1 if Govt.Employee, 0 Otherwise	0.273	0.095	0.200	2.868	0.005
	O3: 1 if Quasi-Govt. Emp., 0 Otherwise	0.189	0.080	0.154	2.364	0.020

satisfaction of the customers due to their perception on food and service facilities are 0.228 and 0.582 respectively. From the result it is evident that among the catering service of the hotels, the most important one is service facility which is followed by quality of food and behavior of supplier.

The table 11 also shows that age, education and occupation of the customers are also important determinants of their satisfaction on catering service. The coefficient of dummy variable representing age 21-25 is 0.168. The results indicate that customers in the age group 21-25 have significantly higher level of satisfaction on the catering service compared to other age group of customers. The satisfaction level customers with the school education is significantly higher (0.765) than that of other customers. Similarly, customers with plus two educations significantly higher level of satisfaction on catering service (0.217).

As far as occupation of the customers is concerned, it was evident from the result that the business people have the highest level of satisfaction (0.970) followed by government employees (0.273) and quasi-government employees (0.189).

In order to find out the absolute effect significant predictors on customer satisfaction multiple classification analysis was conducted. Table 12 present the MCA Table for effect of predictors on the satisfaction of customers.

From Table 12, it can be seen that the difference between unadjusted and adjusted R values is highest in service facility. The result indicates that the perception of customers about service facility is highly inter related with other exogenous variable such as age, education, occupation and dealings of suppliers, quality of food. The unadjusted value of satisfaction for low level of service facility is found to be 3.33 but its adjusted

**Table 12****MCA Table for effect of predictors on the satisfaction of customers**

Variables	Predicted Mean			
	Unadjusted		Adjusted	
	Mean	R	Mean	R
Suppliers		0.388		0.261
Low	3.48		3.56	
Medium	3.82		3.75	
High	4.20		4.09	
Food		0.344		0.268
Medium	3.17		3.28	
High	3.77		3.75	
Service facilities		0.573		0.388
Low	3.33		3.45	
Medium	4.00		3.88	
High	3.98		3.99	
Age		0.138		0.144
21-25	3.81		3.82	
Others age groups	3.64		3.64	
Education		0.233		0.377
School	4.18		4.40	
Plus 2	3.61		3.86	
Higher	3.67		3.59	
Occupation		0.355		0.397
Others	3.67		3.49	
Business person	4.67		4.51	
Govt. employee	3.67		3.86	
Quasi-Govt. employee	3.60		3.73	
	0.776			

value has increased to 3.45 but the satisfaction level of customers with high level perception about service quality is almost same. The total fluctuation in the satisfaction level and its range reduces as the effects of other exogenous variables controlled. The second highest difference in the R values is found in the case of

available representing suppliers. But at the same time the difference in the R values found in the age of the customers, their occupation and quality of food. From the result it is evident that the characteristics and perception of customers about the quality of food, service facility and suppliers are not independent. The

**Table 13**  
**Result of ANOVA of Hierarchical Method**

		Sum of Squares	df	Mean Square	F	Sig.
Main Effects	(Combined)	14.494	11	1.318	8.277	0.000
	Suppliers	3.617	2	1.808	11.359	0.000
	Food	1.182	1	1.182	7.426	0.008
	Service facilities	4.928	2	2.464	15.478	0.000
	Age	0.026	1	0.026	0.162	0.688
	Education	2.167	2	1.084	6.807	0.002
	Occupation	2.574	3	0.858	5.39	0.002
Model		14.494	11	1.318	8.277	0.000
Residual		9.552	60	0.159		
Total		24.047	71	0.339		

unadjusted score of satisfaction presents the variation in the satisfaction of customers due to the absolute effect of exogenous variables selected for the analysis.

Table 13 present the result of ANOVA of Hierarchical Method for the variation of level of satisfaction of customers with respect to the absolute effect of exogenous variables. The customer satisfaction is found to vary with respect to the absolute effects of all variable except age of the customers as the significance levels of F values are less than 0.05.

From the above analysis it can be concluded that the customers satisfaction is mainly depends on the education and occupation of the customers. Customers with medium level education are found to have higher satisfaction compared to others. Business persons and Government employees are comparatively higher satisfied with the present catering services. The most important factors related to the hotels which have significant effect on customer satisfaction are service facilities, food and supplies. The highly dynamic determinants of customer satisfaction are the service facilities available in the hotels and the behavior of the suppliers.

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## Glossary

### **Casino Capitalism**

The term "casino capitalism" was coined by Susan Strange who used it as a title of her book *Casino Capitalism* published in 1986. She was one of the first who realized that the roots of the world's economic disorder are monetary and financial ; and the disorder has not come about by accident, but has in fact been nurtured and encouraged by a series of government decisions. According to Susan Strange transformation of industrial capitalism into neoliberal capitalism ("casino capitalism") involved five trends. All of them increased the systemic instability of the system and the level of political corruption. They are Innovations in the way in which financial markets work due to introduction of computers; the sheer size of markets; Commercial banks turned into investment banks; the emergence of Asian nations as large players; and the shift to self-regulation by banks

### **Economy of Permanence**

This is a Gandhian Concept professed and practiced by J.C. Kariappa . One of his books was titled as *Economy of Permanence*. A bird may eat the fruit of a plant and pass out the seed, perhaps miles away. It does this coordinating work as a part of its own existence and not as an obligation to anybody. It eats to satisfy its own hunger. While performing its own primary function it fulfills its role in the cycle of life. In this manner nature enlists and ensures the co-operation of all its units, each working for itself and in the process helping other units to get along their own too-the mobile helping the immobile, and the sentient the insentient. Thus all nature is dovetailed together in a common cause. Nothing exists for itself. When this works out harmoniously and violence does not break the chain, we have an economy of permanence.

### **Buddhist Economics**

It is a spiritual and philosophical approach to the study of economics. It examines the

psychology of the human mind and the emotions that direct economic activity, in particular concepts such as anxiety, aspirations and self-actualization principles. In the view of its proponents, Buddhist economics aims to clear the confusion about what is harmful and what is beneficial in the range of human activities involving the production and consumption of goods and services, ultimately trying to make human beings ethically mature. The ideology's stated purpose is to "find a middle way between a purely mundane society and an immobile, conventional society."

### **Autarky**

Autarky or self reliant economy as an ideal or method has been embraced by a wide range of political ideologies and movements, especially left-wing creeds like mutualism, Council Communism, Syndicalism, Democratic Confederalism, and Populism. It has also been used in limited ways by conservative and nationalist movements, such as the American system, the Meiji Restoration, Juche, and traditionalist conservatism. Fascist and far-right movements occasionally claimed to strive for autarky in platform or propaganda, but in practice crushed existing movements towards self-sufficiency and maintained extensive capital connections in efforts to ready for war and genocide while allying with business elites.

### **Gross National Happiness (GNH)**

Gross National Happiness (GNH) is a philosophy that guides the government of Bhutan. It includes an index which is used to measure the collective happiness and well-being of a population. Gross National Happiness is instituted as the goal of the government of Bhutan in the Constitution of Bhutan, enacted on 18 July 2008. The term Gross National Happiness was coined in 1972 by the then king of Bhutan, Jigme Singye Wangchuck. The Gross National Happiness is more important than Gross National Product." In 2011, The UN General Assembly passed Resolution

"Happiness: towards a holistic approach to development" urging member nations to follow the example of Bhutan and measure happiness and well-being and calling happiness a "fundamental human goal."

### **Gross Domestic Product (GDP)**

Gross Domestic Product (GDP) is a monetary measure of the market value of all final goods and services produced in a period (quarterly or yearly) of time. Nominal GDP estimates are commonly used to determine the economic performance of a whole country or region, and to make international comparisons. The OECD defines GDP as "an aggregate measure of production equal to the sum of the gross values added of all resident and institutional units engaged in production (plus any taxes, and minus any subsidies, on products not included in the value of their outputs)." An IMF publication states that "GDP measures the monetary value of final goods and services—that are bought by the final user—produced in a country in a given period of time (say a quarter or a year)." Total GDP can also be broken down into the contribution of each industry or sector of the economy. GDP is considered the "world's most powerful statistical indicator of national development and progress".

### **Appropriate Technology**

Appropriate technology is a movement (and its manifestations) encompassing technological choice and application that is small-scale, decentralized, labor-intensive, energy-efficient, environmentally sound, and locally autonomous. It was originally articulated as intermediate technology by the economist Dr. Ernst Friedrich "Fritz" Schumacher in his works *Small is beautiful*. Both Schumacher and many modern-day proponents of appropriate technology also emphasize the technology as people-centered. Appropriate technology has been used to address issues in a wide range of fields. Today appropriate technology is often developed using open source principles, which have led to open-source appropriate technology (OSAT) and thus many of the plans of the technology can be freely found on the Internet.

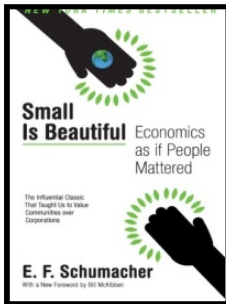
### **Sustainable Development**

Sustainable development is the organizing principle for meeting human development goals while at the same time sustaining the ability of natural systems to provide the natural resources and ecosystem services upon which the economy and society depend. The desired result is a state of society where living conditions and resource use continue to meet human needs without undermining the integrity and stability of the natural system. Sustainable development can be classified as development that meets the needs of the present without compromising the ability of future generations. The modern concept of sustainable development is derived mostly from the 1987 Brundtland Report. It refers to the holistic approach and temporal processes that lead us to the end point of sustainability". The modern economies are endeavoring to reconcile ambitious economic development and obligations of preserving the natural resources and ecosystem, the two are traditionally seen as of conflicting nature.

### **Human Development**

Human development is the science that seeks to understand how and why people of all ages and circumstances change or remain the same over time. It is an alternative approach to a single focus on economic growth, and focused more on social justice, as a way of understanding progress. The term human development may be defined as an expansion of human capabilities, a widening of choices, 'an enhancement of freedom, and a fulfillment of human rights. This also simply means developing mentally, socially through growing and experiencing things in your life and learning new things. The United Nations Development Programme defines human development as "the process of enlarging people's choices," said choices allowing them to "lead a long and healthy life, to be educated, to enjoy a decent standard of living," as well as "political freedom, other guaranteed human rights and various ingredients of self-respect."

## Book Review



# SMALL IS BEAUTIFUL

## E.F. SCHUMACHER

This book passes the test of the time in its own way and the readers still appreciate the timely thinking pre-globalization on matters of the environment and sustainability over the destiny of capitalism. It contains a strong argument for appropriate technology and sustainability. This book was written almost fifty years ago addresses the post liberalized problems in an economy. It tells the new generation that not everything in life needs to be bigger and better, especially when we sacrifice people and our environment.

The ideas expressed in this book inspired the King Bhumibol of Thailand who used its lessons to try to restructure the economic system of his country and improve the lives of those who live in the rural areas. This book will help everyone who is interested to learn about the sustainable economy, sustainable housing and all small things, smaller and less wasteful. This book belongs in the annals along with Wealth of Nations of Adam Smith, Das Capital of Carl Marx & Hind Swaraj of Mahatma Gandhi as an integral book in the school of economic thought. Hailed as an "Eco-Bible" by Time Magazine E.F. Schumacher's riveting, richly researched statement of sustainability has become more relevant and vital with each year since its ground breaking publication during the 1973 energy crisis. A landmark statement against bigger is better industrialism, Schumacher's small is beautiful paved the way for 21st century book on environmentalism and green economics. Jaffrey Sach's "The End of Poverty", Paul Hawken's "Natural Capitalism", Mohammad Yunus's "Banker to the Poor" & Bill Mc Kibben's "Deep Economy" all reflects the idea of small is beautiful.

The End of Poverty portrays the landmark exploration of economic prosperity

and how the world can escape from abject poverty for the world's poorest citizens, from one of the world's most renowned economists. It distills more than thirty years of experience to offer a uniquely informed vision of the steps that can transform impoverished countries into prosperous ones. On the other hand Paul Hawken's groundbreaking book "Natural Capitalism" reveals how today's global businesses can be both environmentally responsible and highly profitable. Banker to the Poor is an astonishing story of how a man with a vision, strong values and tremendous patience could change the status quo and how he established a completely new and revolutionary institution of Micro Credit in the form of his Grameen Bank. In his new book, Deep Economy: the Wealth of communities and the Durable future, Mc Kibben is most concerned about our sense of self in a hyper individualized world, in which we have been conditioned to de-prioritize personal connections with other human beings in the pursuit of individual success, monetary or otherwise. Money does not bring always happiness.

This book of international standing is the classic work of E.F. Schumacher who calls for the end of excessive consumption. He inspired such movements as 'Buy Locally', and 'Fair Trade', while voicing strong opposition to "Casino Capitalism" and wasteful corporate behemoths. This classic book has named as one of the Times Literary Supplement's 100 most influential books since World War II. Small is Beautiful presents eminently logical arguments for building our economies around the needs of the communities and common people, and not for corporate.



## Creative Thinkers

# E.F. Schumacher

(1911-1977)

E. F. Schumacher and his classic work "*Small is Beautiful*" has become a wave during the seventies across the world. Ernst Friedrich "Fritz" Schumacher (16 August 1911 - 4 September 1977) was an internationally reputed thinker, statistician and economist in Britain, serving as Chief Economic Advisor to the UK National Coal Board for two decades. His ideas became popular in much of the English-speaking world during the 1970s. He is best known for his critique of western economies and his proposals for human-scale, decentralized and appropriate technologies. According to The Times Literary Supplement, his 1973 book "*Small Is Beautiful: A Study of Economics as if People Mattered*" is among the 100 most influential books published since World War II.

His 1973 classic *Small Is Beautiful* was considered as an "eco-bible". This path breaking work has been translated into many languages, bringing him international fame. Schumacher's basic development theories have been summed up in the catch-phrases *Intermediate Size and Intermediate Technology*. In 1977 he published 'A Guide for the Perplexed' as a critique of materialist scientism and as an exploration of the nature and organization of knowledge. Together with long-time friends and associates like Professor Mansur Hoda, Schumacher founded the Intermediate Technology Development Group (now Practical Action) in 1966.

In 1955 Schumacher travelled to Burma as an economic consultant. While there, he developed the set of principles he called "Buddhist Economics", based on the belief that individuals need good work for proper human development. According to

Schumacher the term human development is an expansion of human capabilities, a widening of choices, an enhancement of freedom and a fulfillment of human rights. This also simply means developing mentally, socially through growing and experiencing things in your life and learning new things. He also proclaimed that "production from local resources for local needs is the most rational way of economic life."

He travelled across different countries, encouraging local governments to create self-reliant economies. Schumacher's experience led him to become a pioneer of what is now called appropriate technology that is ecologically and economically sustainable. Both Schumacher and many modern-day proponents of *Appropriate Technology* also emphasize the technology as people-centered. Appropriate Technology has been used to address issues in a wide range of fields.

E. F. Schumacher was greatly influenced by Mahatma Gandhi and J. C. Kumarappa. Mahatma Gandhi's concepts of "Economy of Permanence", sustainable development and appropriate technology were very much in sync with Schumacher's idea of development. While delivering the Gandhi Memorial Lecture at the Gandhian Institute of Studies at Varanasi (India) in 1973, Schumacher described Gandhi as the greatest 'People's Economist' whose economic thinking was compatible with spirituality as opposed to materialism. Gandhian ideology of Gram Swaraj, Antyodaya and sustainable development etc find a prominent place in the writings of Schumacher. Both Mahatma Gandhi and Schumacher had mutual respect in their mindset and action plans.



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