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Foreword.....

It is my pleasure to place before the learned readers, the Volume 4, Number: 2 of our Institutional research journal 'ANVESHANA', containing the research articles, conceptual papers, empirical reports and book review of the renowned academicians comprising different domains and expertise. It is the plain truth that it is the collective endeavour of all the dimensions of higher education such as teaching, learning, research, publications and extension, take the higher education to the highest level, aiming at the overall progress of the mankind. With this milieu, A. J. Institute of Management is bringing out this issue with the following academic contributions:

- "Economic Significance of Retail Industry in India", contributed by Dr. Sripathi K.P.
- "SHGs a Panacea to Poverty Eradication: Evidence from Indian States", authored by Dr. Ravindra K.
- "Developing Health Accounts: Underpinning for Maharashtra State", contributed by Prof. Nayanathara, Pushpa Trivedi and D. R. Revankar.
- "Key Determinants of Infant: Empirical Findings from Rural Dakshina Kannada District in Karnataka", written by Dr. Ashalatha.
- A Study on the Assessment of Self Esteem and English language Skills among Pre-University Students in Mangalore", authored by Prof. Shobhana Manu.
- "Perception of People about Ban on Plastic Bags in Mangalore: An Empirical Study", jointly reported by Mrs. Arathi and Dr. T. Jayaprakash Rao.
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T. Jayaprakash Rao

Dr. T. Jayaprakash Rao
Editor in Chief

Economic Significance of Retail Industry in India

*** Dr. Shripathi. K.P**

Abstract

In the recent years, the retail sector in India is growing impressively and there are several reasons for the boom in this sector. Increased consumerism and increased purchasing power are the key factors for this. Economic development marked with increased production of wide range of products with multiplier effect created a favorable environment for the retail sector. Increased international and inter regional interactions makes people exposed to different cultures and way of life. Even domestically increased consumption and changed consumption pattern owning to diversity in culture, religion and the family values that encourage spending on specific occasions keeps the retail business activated. Indian retail sector is under developed in the sense that more than 94.0 per cent of the market is made up of small, indigenous styled family-run stores. Recently, there is an indication that Government is dropping it's traditionally protectionist's policy and opening up its retail market to greater foreign investment. In view of these changes taking place in the retail sector of India, it would be interesting to analyze their growth trend, opportunities and challenges in this paper. Such an attempt is made in this paper to analyze the evolution and present trend of retail sector in India

Keywords: *Retail Sector; FDI; Consumption; Mall; Hyper Market*

Introduction

In a highly populated country like India, market economy creates immense scope for the retail sector. However, in India, discussions on retail sector gained momentum recently after the Government's decision on liberalizing foreign investment in this sector. Otherwise, importance of the retail sector was less recognized as it remained informal and unorganized. Economic development in terms of GDP growth, employment, increased per capita income brought

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revolution in the consumerism and created scope for the retail industry. Further, international economic integration and technological revolutions supported promotion of retail sector.

In the recent years, the retail sector in India is growing impressively and there are several reasons for the boom in this sector. Increased consumerism and increased purchasing power are the key factors for this. Economic development marked with increased production of wide range of products with multiplier effect created a favorable environment for the retail sector. Increased international and inter regional interactions make the people exposed to different cultures and way of life. Even domestically increased consumption and ranged consumption pattern owning to diversity in culture, religion and the family values that encourage spending on specific occasions keeps the retail business activated.

True that the Indian retail sector is under developed in the sense that more than 94.0 per cent of the market is made up of small, indigenous styled family-run stores. Recently, there is a sign that the Government is dropping it's traditionally protectionist's policy and opening up its retail market to greater foreign investment.

However, it is felt that in a competitive environment it is essential to protect the livelihoods of the small shopkeepers but on the other hand, the policy makers realize that foreign investment is badly needed to provide the infrastructure - the warehousing, distribution and processing operations - that are needed to upgrade India's retail industry. Development of such infrastructures is very essential at this stage of development. This would help to preserve products, and better utilization of the produced goods in the economy. It is estimated that about 50.0 per cent of the country's fruit and vegetables rot by the roadside before they reach market and the case is not different with regard to other products also.

Within retail, the emerging sectors would be food and grocery, apparel, electronics, e-commerce, fashion and lifestyle."The upcoming areas within retail are luxury, super specialty stores/ malls, and renewed emphasis on high streets. Unfortunately, malls have become expensive affairs for most of the retailers. Therefore, a huge

investment and emphasis has been laid down on e-tailing or online stores that has wider reach and are economically viable," (Darlie Koshy)

In view of these changes taking place in the retail sector of India, it would be interesting to analyse their growth trend, opportunities and challenges in the Indian context and this would help to probe into the requirements to keep this sector up to the world standard.

With this background, in this paper an attempt is made to analyse the evolution and present trend of retail sector in India. The specific objectives of this paper are;

1. To evaluate the evolution of the retail industry of India
2. To analyse the economic significance and present status of the Indian retail industry, and
3. To probe into the future prospectus of the retail sector in India

Methodology

The paper will be descriptive in nature analysing evolution of retail sector in India and its recent trend. Economic dimensions such as consumerism, employment opportunities, and economic significance of the retail sector are analysed. Historical analysis of retail industry is attempted with secondary data. Appropriate literatures were reviewed to substantiate the discussions. Main features of Indian retail industry are identified and new opportunities and challenges were probed.

Evolution of retail industry in India

Retail sector in India was existed in an indigenous style and was not so active in the grassroots level owing to the low level of consumption. Traditionally, retailing in India can be traced to the emergence of the neighborhood Kirana stores catering to the convenience of the consumers. Later, era of Government support for rural retail was seen in the form of indigenous franchise model of store chains run by Khadi and Village Industries Commission. early1980s experienced slow change in the Indian retail sector as India began to open up the economy. Textiles sector with companies like Bombay Dyeing, Raymond's, S Kumar's and Grasim first saw the

emergence of retail chains. Later, Titan successfully created an organized retailing concept and established a series of showrooms for its premium watches.

After the new economic policy in 1991, a fresh wave of entrants with a shift from Manufactures to Pure Retailers was noticed. For example. Food World, Subhiksha and Nilgiris in food and FMCG; Planet M and Music World in music; Crossword and Fountainhead in books. Since 1995, we can see the emergence of shopping centers mainly in urban areas, with facilities like car parking. They aimed to provide a complete destination experience for all segments of society. In the recent years, emergence of hyper and super markets, trying to provide customer with variety of facilities is a land mark in the evolution of retail sector. At year end of 2000, the size of the Indian organized retail industry was estimated at Rs. 13,000 crore.

Recent trends

The retail sector in India has shown a phenomenal growth in the last decade. According to the Global Retail Development Index 2012, India ranks fifth among the top 30 emerging markets for retail. The recent announcement by the Indian Government with Foreign Direct Investment (FDI) in retail, especially allowing 100.0 per cent FDI in single and multi-brands, has created positive sentiments in the retail sector.

The India Retail Industry is the largest among all the industries, accounting for over 10.0 percent of the country's GDP and around 8.0 per cent of the employment. The Retail Industry in India has shown as one of the most dynamic and fast paced industries with several players entering the market.

The size of India's retail sector is currently estimated at around $450 billion and organised retail accounts for around 5.0 percent of the total market share. Ratings agency, Fitch had assigned a stable outlook to the retail sector for 2012 as factors like expected sales, growth-driven expansion and efficient working capital management are likely to benefit retail companies. It is estimated that the retail sector would continue to grow at 10-12 percent per annum, which is extremely encouraging when the country's economy is only projected to grow at 6.0 percent.

It is estimated that Indian consumer market is likely to grow four times by 2025. It is also noticed that India's retail market has moved up to the 39th most preferred retail destination in the world in 2009, from 44th position in the previous years. This indicates that India continues to be one among the most attractive countries for global retailers. Foreign Direct Investment (FDI) inflows as on September 2009, in single-brand retail trading, stood at approximately US$ 47.43 million, according to the Department of Industrial Policy and Promotion.

India's overall retail sector was expected to rise to US$ 833 billion by 2013 and to US$ 1.3 trillion by 2018, at a compound annual growth rate (CAGR) of 10.0 per cent. Consumer spending rose by an impressive 75.0 per cent in the past four years alone.

In the overall retail sector, food and grocery is the dominant category with 59.5 percent share, valued at Rs 792,000 crore, followed by clothing and accessories with 9.9 per cent share at Rs 131,300 crore. Interestingly, 'Out-of-Home food' (catering) services (Rs 71,300 crore) has overtaken jewellery (Rs 69,400 crore) to become the third largest retail category, with a 5.4 per cent market share – this largely reflects the massive employment opportunities to youngsters in the services sector and accompanying changes in consumer lifestyles.

Consumer durables (Rs 57,500 crore) is the fifth largest retail category followed by health and pharmaceuticals (Rs 48,800 crore), entertainment (Rs 45,600 crore), furniture, furnishings and kitchenware (Rs 45,500 crore), mobiles and accessories (Rs 27,200 crore), leisure retail (Rs 16,400 crore), footwear (Rs16,000 crore), health and beauty care services (Rs 4,600 crore) and time wear and eyewear (Rs 4,400 crore).

But in the organised retail segment, the picture is different altogether. Apparel and fashion accessories is the largest category with 38.1 per cent of the market share, valued at Rs 29,800 crore, followed by food and grocery accounting for 11.5 per cent of the organised retail market at Rs 9,000 crore , footwear with 9.9 percent of the organised retail market share at Rs 7,750 crore, consumer durables with 9.1 per cent market share at the fourth place (Rs 7,100 crore), and 'Out-of-Home food' (catering) services and furniture, furnishings and Kitchenware retail.

The main features of Indian retail sector are;

- ❖ The retail sector in India is estimated to have annual sales of $450 billion, with nearly 90.0 per cent of the market controlled by tiny family-run shops.
- ❖ India is rated the fifth most attractive emerging retail market.
- ❖ It is estimated that the annual growth of department stores is more than 24.0 per cent.
- ❖ Food and apparel retailing key drivers of growth of this industry.
- ❖ Organised retail or large chains, makes up about 10.0 per cent of the market, but is expanding at 20.0 per cent a year. This is driven by the emergence of shopping centers and malls and a middle class of close to 300 million people that is growing at nearly 2.0 per cent a year.
- ❖ Organized retailing in India has been largely an urban.
- ❖ More successful in cities in the South and Western regions.
- ❖ Rural markets emerging as a huge opportunity for retailers.
- ❖ India also allows 100 per cent FDI in cash-and-carry, or wholesale, ventures. Restrictions on foreign investment in front-end retail exist because of opposition from millions of small shopkeepers.
- ❖ India has recently allowed 100 per cent FDI in single-brand retail subject to certain sourcing restrictions but no ownership in multi-brand retail.

Transformation in the format of retail sector

As the contemporary retail sector in India is reflected in most popular shopping centers, multiplex- malls and huge complexes offering shopping, entertainment and food all under one roof, the concept of shopping has been transformed in terms of format and consumer buying behavior.

The major formats of retails sectors are Malls, Specialty Stores, Discount Stores, Department Stores Hyper marts/Supermarkets, Convenience Stores and MBOs

Malls

The largest form of organized retailing today, located mainly in metro cities, in proximity to urban outskirts with floor space ranging from 60,000 sq ft to 7,00,000 sq ft and above. They lend an ideal shopping experience with an amalgamation of product, service and entertainment, all under a common roof. Examples include Shoppers Stop, and Pantaloon. In malls everything is available under the same roof and the mall has a comfortable ambience. With the growth in the sector, retailers are looking at flexible space options through which various formats can be accommodated and malls are well placed to cater to new retail formats.

From employment perspective, shopping malls have a significant impact and could directly and indirectly employ up to 2,000 people depending on its size, from diverse backgrounds. Job opportunities range from security to housekeeping to operations to audits to senior management roles.

The retailing configuration in India is fast developing as shopping malls are increasingly becoming familiar in large cities. When it comes to development of retail space specially the malls, the Tier II cities are no longer behind in the race. The Governments of states like Delhi and National Capital Region (NCR) are very upbeat about permitting the use of land for commercial development thus increasing the availability of land for retail space; and making NCR render to 50.0 per cent of the malls in India.

Chart No 1: Predicted Mall Distribution space in India

Specialty Stores

Chains such as the Bangalore based Kids Kemp, the Mumbai books Crossword, RPG's Music World and the Times Group's music chain Planet M, are focusing on specific market segments and have established themselves strongly in their sectors.

Discount Stores

As the name suggests, discount stores or factory outlets, offer discounts on the MRP through selling in bulk, reaching economies of scale or excess stock left over at the season. The product category can range from a variety of perishable/ non-perishable goods.

Department Stores

Large stores ranging from 20000-50000 sq. ft, catering to a variety of consumer needs. Further, Department stores may be localized departments also such as clothing, toys, home appliances, groceries, etc.

Departmental Stores are expected to take over the apparel business from exclusive brand showrooms. Among these, the biggest success is K Raheja's Shoppers Stop, which started in Mumbai and now has more than seven large stores (over 30,000 sq. ft) across India and even has its own in store brand for clothes called Stop.

Hyper marts/Supermarkets

Large self-service outlets, catering to varied shopper needs are termed as Supermarkets. These are located in or near residential high streets. These stores, today contribute 30.0 per cent of all food and grocery organized retail sales. Super Markets can further be classified in to mini supermarkets typically 1,000 sq ft to 2,000 sq ft and large supermarkets ranging from of 3,500 sq ft to 5,000 sq ft. having a strong focus on food, grocery and personal sales.

Convenience Stores

These are relatively small stores 400-2,000 sq. feet located near residential areas. They stock a limited range of high-turnover convenience products and are usually open for extended periods during the day, seven days a week. Prices are slightly higher due to the convenience premium

MBO

Multi Brand outlets, offer several brands across a single product category. These usually do well in busy market places and Metros.

Prominent Indian Retail Companies

Pantaloon Retail, India's largest listed retailer and part of the Future Group run apparel and electronics stores under its lifestyle brands Central, E-Zone, Hometown. Future group also operates the Big Bazaar hypermarket chain and supermarket brand Food Bazaar. The group has over 1,300 stores across formats, and occupies a total retail space of 16.5 million square feet in India.

Second-ranked *Reliance Retail* a part of Reliance Industry, is India's largest listed group. Reliance Retail operates 1,300 stores across neighborhood stores, supermarkets, hypermarkets and lifestyle stores.

Shoppers Stop, part of the K Raheja Group which operates in real estate, has about 265 stores across brands and formats including 12 Hypercity hypermarkets. It operates 4.58 million square feet of retail space and its loss-making Hypercity is open to partnerships with foreign groups.

Trent, part of the sprawling Tata Group, operates 106 stores across formats and runs the Westside range of apparel stores, and hypermarkets under Star Bazaar. It signed a franchisee agreement with Tesco Plc under which Star Bazaar shops use the British firm's supply chains and infrastructure.

Aditya Birla Retail is the unlisted retail arm of India's telecoms-to-cement conglomerate Aditya Birla Group. The company operates around 500 supermarket and hypermarket stores under the brand 'More'. It has said that it would evaluate partnerships with global firms.

Major foreign companies

Wal-Mart Stores Inc has a cash-and-carry operation with Indian partner Bharti Enterprises, the parent of leading mobile provider Bharti Airtel,

Tesco, Britain's largest retailer has a tie-up with Trent's Star Bazaar hypermarket chain. Tesco is also planning to enter the wholesale market through the tie-up.

Germany's Metro AG operates 11 wholesale stores in India.

Carrefour has two (the world's No. 2 retailer) cash-and-carry stores in India.

Conclusion

Although Indian retail sector is considered to be the biggest, only about 5-6 percent of the Indian retail market is organized, which is meager as compared to western economies where organized retail is over 80.0 percent. Analysts forecast that this sector is likely to grow at 25.0 percent per year till 2020, which indicates the large opportunity in this sector. There has also been a huge shift in the shopping patterns of people creating scope for retail industries.

However, there are several challenges on the growth path of the retail sector

The biggest problem for India is the rapid economic growth which has only led to stunning changes in the lifestyle of the rich and the middle classes. There is still widespread poverty in the cities as well as the countryside.

Many economists argue that the present top-down economic growth will never trickle down to the poor and so the economy needs to be directed more towards them. Therefore, policies on retail industries need to keep in mind our huge village consumers as well as producers.

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SHGs - A Panacea to Poverty Eradication: Evidence from Indian States

*** Dr. Ravindra K.**

Abstract

Despite various developmental programmes announced by the Government time and again, incidence of poverty in the country still remains high. Self Help Groups (SHGs) represent a form of intervention that is a radical departure from most of the existing poverty alleviation programmes proved as an effective strategy of poverty alleviation, human development and social empowerment. The SHGs have been recognized as useful vehicles to help the poor in accessing financial resources, which were hitherto not available to them and has helped them break away from the clutches of exploitative moneylenders. Economic self-reliant people play a more active role in decision-making and are able to contribute to the economic growth. Access to financial services and the subsequent transfer of financial resources to poor people enable them become the economic agents of change. In this paper, an attempt has been made to analyze the impact of SHG in alleviation of poverty in India. The author also made an effort to show how SHGs become successful as a model of inclusive growth. It is observed that the percentage of BPL population is less in the states where there is large number of SHGs.

Keywords*: SHG, Poverty, Inclusive Growth, Empowerment, etc.*

Introduction

Poverty has been increasingly emphasized not only in academic discourses, but also in the development policy framework in India. Till the end of the Third Five Year Plan concern was on high rate of economic growth with an inbuilt supposition that economic growth would percolate down in the process of development and poverty will be eradicated. Unfortunately, however, the developmental

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programmes seldom benefited everyone uniformly. (Gadanayak 2008). While some are left behind some others are not touched by the benefits of economic growth. It is proved globally that the so-called trickledown effect does not work in all the societies and India is no exception to this.

Different policies and rural development programs from the Government and NGOs are designed to ensure the generation of employment through creation of productive assets which takes a center stage especially in rural areas. As emphasized by Amartya Sen in his writings development is more of expansions in capabilities and in both positive and negative freedoms than increasing material well-being. Assessment of economic development should not merely a measure of an aggregate of economic activity but it should be an assessment of the inclusiveness of economic growth, with emphasis not only on the distribution of gains but also on the security, vulnerability, empowerment, and sense of full participation that people may enjoy in social civic life. Access to financial resources enables the poor to exploit investment opportunities, reduces their vulnerability to shocks, and promotes economic growth. Economic development is essentially a product of collective action in the society. Individual stakes and interests can be enormously varied with not everyone gaining, or at least not gaining in the same degree. Finding ways of reducing the constraints on collective action is equally important. Villages are faced with problems related to poverty, illiteracy, lack of skills, health care, etc., which can be better solved through group efforts. The Self Help Group (SHG) concept evolved as a new banking concept, with a basic concern on extending banking services to the poor in order to stimulate their self help capacity so that they can overcome the poverty and address some of their crucial social problems.

Objectives

The focus of this paper is on the impact of Self Help Groups (SHGs) in alleviation of poverty in India. The author also has tried to show how SHG become successful as a model of inclusive growth. With the help of Reserve Bank of India (RBI) and NABARD data, an

analysis has been done to find out the impact of Self Help Groups on poverty alleviation in major states of India.

The SHG Concept

NABARD defines Self Help Group as a small homogeneous group of poor households consisting of 20 or less people from a homogenous class who are willing to come together for addressing their common problems. They make regular savings and use the pooled savings to give interest-bearing loans to their members. The process helps them imbibe the essentials of financial intermediation including prioritization of needs, setting Self-determined terms for repayment, and keeping books and records. It builds financial discipline and credit history that encourages banks to lend to them in certain multiples of their own savings and without any demand for collateral security. Self-help groups are not a new concept in development. The traditional Indian society functioned mainly on the basis of self-help and mutual aid. However, in recent years, they have been emerging as a major strategy for the promotion of informal credit to the poor. Based on local conditions and requirements, the SHGs have evolved their own methods of working. The unique feature of the SHG is its ability to inculcate among its members the sound habits of thrift, savings and banking. Due to this quality SHGs have been recognized as useful vehicles to help the poor in accessing financial resources, which were hitherto not available to them and has helped them break away from the clutches of exploitative moneylenders.

Self Help Groups and Inclusive Growth

The significance and importance of the inclusive concept has been well recognized long back. In recent time there is a growing realization that while the "trickle down" effect of economic growth no doubt works, it takes too long a time and hence there is a need to focus on inclusive growth. The Eleventh Five Year Plan Strategy is "Towards Faster and More Inclusive Growth'. Though the Approach Paper (GOI 2006) has not defined the concept of inclusive growth, (Suryanarayana 2008) the Economic Survey of 2007-2008 presents some estimates of outcome measures (without any evaluation) of inclusive growth in India between 1993-94 and 2004-05 (GOI 2008).

'Inclusive growth', is a little more than just the benefits of growth being distributed equitably and evenly; it is the participation of all sections and regions of society in the growth story and their reaping the benefits of growth (Thorat-2008).

Unless until, the quality of life of the poor is improved, it is difficult to achieve social development. This is only possible through participatory poverty alleviation where the poor have to involve themselves in identifying the poor, prioritize their needs and monitor poverty at micro level. The participatory micro level poverty alleviation is probably the stepping stone towards achieving the goal of poverty alleviation in the country. Infusion of appropriate technology, skills and easier access to credit, especially start-up capital, apart from, facilitating market development, can make the majority population living in rural areas an expanding base for self-sustaining employment and wealth generation and also foster a culture of creative and competitive industry. In C.K. Prahalad's words, "If we stop thinking of the poor as victims or as a burden, and start recognizing them as resilient and creative entrepreneurs and value conscious consumers, a whole world of opportunity will open up". (Prahlad C.K., 2005). The challenges of achieving of more inclusive growth can be met by policies that encourage easier and affordable access to financial services.

A large segment of the society in India, mainly the low-income group, has little or no access to financial services, either formal or semi-formal. As a result, many people have to necessarily depend either on their own sources or informal sources of finance. In 1992 NABARD launched the SHG Bank Linkage programme. The programme gained momentum when RBI allowed banks to open savings accounts for SHGs despite their not having any legal form. The group leaders operate the SHG accounts. SHGs facilitate collective decision making and provide 'door step' banking to the poor. The banks, as wholesalers of credit, provide the resources, while the NGOs are the agencies that organize the poor, build their capacities and facilitate the process of empowering them. The strength of the SHGs in India is its linkage with the existing banking

institutions (Yesudian 2007). It has helped the rural masses hitherto outside the mainstream economy, to come within the mainstream economy of the country. Since the existing banking infrastructure is used, the administrative cost is bound to be low. It also gave the bank the opportunity to penetrate into the rural areas and expand the banking operations in the country. Banks are generally comfortable with the credit worthiness of the SHGs. As on March 31, 2007, over 2.9 million SHGs have been linked to banks involving a total credit flow of over Rs. 180 billion. This shows the magnitude and the impact of the programme in the country. It has become a social movement across Indian villages. A major assumption on which the SHG strategy is based is that participatory institutions of the poor provide them with the space to develop skills and confidence and to mobilize resources. Good SHGs have been known to provide the impetus by which people can change the iniquitous power relations which have been keeping them both in poverty and subjugation (Karnataka Human Development Report 2005).

Self Help Groups and Poverty Alleviation

As a poverty alleviation programme, the success of micro-finance is gauged from its ability to service the population below the poverty line, i.e. targeting the poor. The debate on whether SHGs can be used as tools to lift the poor out of poverty is ongoing in India. Self-help groups have been shown to have positive effects on poor. (Kay 2002). They have played valuable roles in reducing the vulnerability of the poor, through asset creation, income and consumption smoothing, provision of emergency assistance, and empowering and emboldening poor by giving them control over assets and increased self-esteem and knowledge (Zaman 2001). Several recent assessment studies have also generally reported positive impacts (Simanowitz and Walker 2002). Hulme and Mosley had compared the change in income of micro-credit target population and those who are not participating in the micro-credit programme (Yesudian 2007). Their study also differentiated the targeted population into those who are above poverty line and those who are below poverty line. The study showed substantial income increase among the borrowers - an

increase of 202 per cent as compared to the non-borrowers. The increase was 133 per cent for the BPL borrowers.

Data Analysis

In the present paper an attempt has been made to explain the relationship between the number of SHGs and poverty. The number of existing SHGs and the population below poverty line in different states is considered for this purpose. Table No. 1 shows the number and percentage of population below poverty line during 2004 -05. It indicates that in major states of southern region the percentage of population below poverty line is less in comparison with the major states of other regions in India.

Table No. 2 shows the average number of SHG and loan disbursement per person belonging to below poverty line. The findings show that in states of southern region the BPL population SHG ratio is very less than the states in other regions. In southern region there are 1214431 SHGs for 337.92 million populations. In Central region there are 267915 SHGs for 769.09 million populations. In Southern region the ratio of BPL population and SHG (Population per SHG) is 28 where as in other regions like Northern, Central, Eastern, West, North-East, the BPL population per SHG is 126, 287, 182, 198, 96 respectively. In context of whole India this ratio is 106.

In this Table, column No 2, the total amount of Bank loan disbursement through SHGs is analyzed. Accordingly the amount of Bank loan disbursed through SHGs in Southern states is estimated to be about Rs. 84676.92 million whereas in other regions like Northern, Central, Eastern, West, and North-East this is Rs. 3985.85, Rs. 8050.07, Rs. 9354.19, 5251.39, 1657.01 million respectively. The overall bank loan extended through SHGs amounts to Rs.112975.4 million. It reveals that out of the total loan disbursement, the share of southern states is around 75 percent indicating the rapid growth of SHGs in this region and their bank linkage.

Last column of the Table No. 2 shows the per capita loan. This is very high in southern region in comparison to other regions of India. The all India figure of per capita loan availability through SHGs is Rs. 474. In Andhra Pradesh where the number of SHGs is the maximum, per capita loan is Rs. 4786 which is much more compared to other states.

In Table No. 3 an analysis of the existing number of SHGs in the states of different regions and the estimated requirement of SHGs has been made. The estimation has been done on the assumption of one SHG for 15 people belonging to Below Poverty Line. In Central region the overall requirement of SHG is more in comparison of other regions. Keeping in view of one SHG for every 15 BPL populations the required number of SHG in this region is about 51,27,267. But the existing number of SHGs is only 2,67,915. It indicates that a large number of people below poverty line are excluded from the net of SHGs. In the states of southern region the growth of SHG shows the fact that here the number of existing SHG is close to the required number of SHGs. In Andhra Pradesh this number is almost equal. The overall India figure shows that against to the required number of 15877467 SHGs there exist only 2238365 SHGs showing a possibility of forming 13639102 SHGs in order to bring more and more people below poverty line under the SHG.

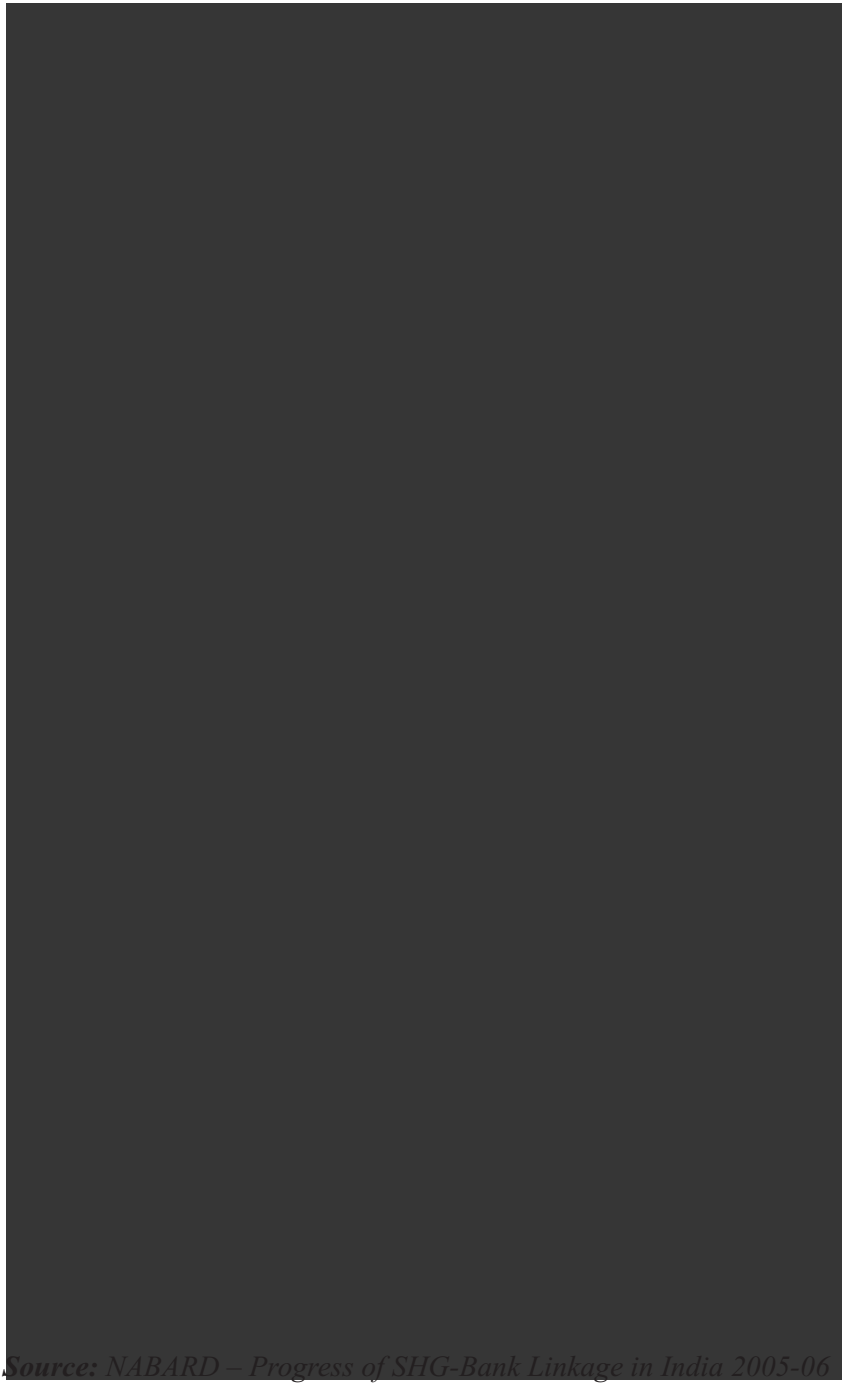
Conclusion

- The findings show that there is a close relationship between poverty alleviation and SHGs.
- SHGs can be considered as an effective model of financial inclusion since they play an important role in loan disbursement among the poor.
- It is also observed that the percentage of BPL population is less in the states where there is large number of SHGs.

Table No. 1: Number & Percentage of Population Below Poverty Line -2004-05

Source **:** Reserve Bank of India, Mumbai

Table No. 2: Average no. SHG & loan per person (BPL)



Source: *NABARD – Progress of SHG-Bank Linkage in India 2005-06 & RBI*

Table No. 3: State-wise Required Number of SHGs

Source: *Compiled from different sources*

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Developing Health Accounts: Underpinning for Maharashtra State

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Abstract

The health system of a country is one of the major indicators of human development. Though, India has achieved significant success as regards the general growth rate over the last decades, her health system is still at cross roads. Though the government has taken great initiative to improve the public health facilities, much remains to be done. The major challenge in this area for the researchers and the policy makers is the assessment of the performance of health sector. In this background the present study has been undertaken to develop methodologically robust state level health account, to contribute to the institutionalisation of health accounts and generation of health accounts and generation of health accounts metrics for Maharashtra.

Keywords: *Health accounts, Health Sector, Health System*

Introduction

Health is one of the crucial components of human development indicator. Health and other socio-economic development indicators are mutually dependent on each other and hence, it is impossible to achieve one without the other. While India has witnessed a significant momentum as regards growth rate over the last decade, her health system is still at crossroads. It may be noted that, more often than not, health systems of developed countries also are prohibitively expensive. As regards India, Government initiatives in public health have recorded some noteworthy successes over the years. However, much remains to be done, as the Indian health system was ranked 118

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among 191 WHO[1] member countries on overall health performance. Building health systems that are responsive to community needs, particularly for the poor, require politically difficult and administratively demanding choices. The targets regarding health, *inter alia*, have been announced by the United Nations as a part of Millennium Development Goals (MDGs) to be achieved by the year 2015[2]. These goals have been incorporated in the National health policy of 2002 that has been already adopted by the Indian Parliament. India has been spending its resources for the provision of public health. However, the assessment of the performance of health sector remains a major challenge for the researchers and policy makers. The major lacunae in assessing health sector performance in India are: (i) non-availability of useful data; and, (ii) the non-use of available data. These problems have not gone unnoticed by the policy makers. The National Health Policy (GoI, 2002)[3] states, "The absence of a systematic and scientific health statistics data-base is a major deficiency in the current scenario. The health statistics collected are not the product of a rigorous methodology. Statistics available from different parts of the country, in respect of major diseases, are often not obtained in a manner which makes aggregation possible or meaningful." In such a context, health sector accounting is visualized as a tool for efficient governance.

In the above background, the overall objectives of the proposed study were to develop methodologically robust state-level health account as a policy tool for better health sector governance in India; to contribute to the institutionalisation of health accounts; and generation of health accounts matrices for Maharashtra. The ultimate objective of preparation of health accounts is to address the core issues related to transparency and efficiency of the government expenditure incurred on the health sector. The approach adopted here is the 'bottoms-up approach', *i.e.*, the national health accounts should

1. http://www.who.int/whr/2000/en/whr00_en.pdf

2. (http://unstats.un.org/ unsd/mdg/Resources/Static/Products/ Progress2006/ MDGReport2006.pdf)

3.(National Health Policy -2002 declared by Ministry of Health and Family Welfare, Government of India)

be prepared after collection of data at sub-national levels. In a parallel move, the Ministry of Health and Family Welfare, (GoI 2005)[4] also initiated preparation of 'National Health Accounts'.

Health Accounts

The term 'Health Account', in simple, refers to the statement of resource flows from financing sources to agents reflected in actual expenditures made by different actors or entities in the health sector. In a health accounting system, the transactions made by different entities on various health services or health care functions are presented in the form of matrices so as to enable identification of the role of each entity in health care and the extent of inflow and outflow of resources for the provision of different services. The present exercise is one of the pioneering attempts made to present the health accounts for the state of Maharashtra for the year 2004-05. The methodology adopted for developing health accounts for Maharashtra is presented in detail below. The health accounts developed for the state of Maharashtra relate to fiscal or the financial year 2004-05 as the budgetary information i.e. the latest actual government expenditure data (during the time of our study) was available only for this year.

The mapping exercise taken up before plunging into collection of primary or secondary data helped in identifying the role of different entities in the provision of health care and health care programmes and facilities that are available to the population in Maharashtra. Based on this exercise we developed the sampling frame for undertaking survey of households, providers, NGO and firms and, collection of secondary data from government departments the details of which are provided in section three.

Classification of Health System Entities:

The emphasis in National Health Accounts (NHA) is to describe in an integrated way who pays, how much and for what, separating who from what. This helps us to understand the sources of funding in a health care system. This information is absolutely essential for

4. National Health Accounts: India 2004-05, National Health Accounts Cell, Ministry of Health and Family Welfare, GoI, New Delhi)

policymaking process. Following are the major entities, which are part of NHA.

- Entities, which act as ultimate sources of funds.
- Entities, which transfer the resources between the funding entities and the actual providers of services (also known as Financing Agents).
- Providers of services.

Sources of funds are grouped into the following major categories.

1. Public Sector – Government ministries and administrative departments.
2. Public sector – other government agencies.
3. Private Sector – firms and enterprises.
4. Private Sector – Non-governmental organizations (NGOs).
5. Households.
6. Foreign sector – Government and non-government sources.

Insurers appear as an additional category in the above classification, and are treated as financing intermediaries. Capital expenditures purchase inputs that contribute to production well beyond the period in which they are purchased. Recurrent expenditures purchase inputs for current production only, and so must 'receive' in every period. NHA counts all current period capital expenditure depending on the availability of data in a given economy. Health care goods and services provided by government and non-governmental providers at no cost to the users (non-market output) are valued at the cost of production. Those sold to the consumers are valued on the basis of price paid. In situation where health services are subsidized to the consumers, the imputed cost of production would be considered taking into account the prevailing market prices.

Methodology of Estimating National Health Accounts:

The concept of Health care used in the design of International Classification of Health Accounts as stated in the OECD methodology covers the following broad activities, which have a bearing on health status of the community.

- Promoting health and preventing disease.
- Curing illness and reducing premature mortality.
- Caring for persons affected by chronic illness who require nursing care.
- Caring for persons with health related impairment, disability and handicaps who require nursing care.
- Assisting patients to die with dignity.
- Providing and administering public health.
- Providing and administering health programmes, health insurance and other funding arrangements.

Functional Boundaries of total expenditure on Health

HC1-HC4	Personal Health Care Services.
HC5	Medical goods dispensed to out- patients
7PHE	Total Personal expenditure on Health.
HC6	Services of prevention and public health.
HC7	Health Programme administration and health insurance
TCH	Total current expenditures on Health (sum of HC1 to Hc7)
HCRI	Gross capital formation in health care industries
THE	Total expenditure on health (=TCHE+HCR1)

The OECD methodology broadly concentrates on the following components viz,

- Ø Health Financing
- Ø Health Providers
- Ø Health Care Function

In the financing component various levels of government are taken separately as well as various other private sources of financing and households. Health care providers include various providers including drug production, hospitals and others. Financing of health care include preventive, promotive, curative and rehabilitative care. Thus the OECD methodology tries to evolve the health accounts in a tri axial format. Although the data to match these requirements are not easily available for Maharashtra, an attempt is made to use the

conceptual framework of the OECD methodology and the Producers Manual for National Health Accounts developed by World Bank, WHO and USAID to suit the needs of the developing countries.

Maharashtra State: A Profile

Maharashtra state is located on the west coast adjoining the Arabian Sea. As per the Census 2001, its population is 96.8 million or 9.42 percent of the Indian population. It is the second largest State/Union Territories of India in terms of population and the third largest in terms of area. It is located in the Western Plateau and Hill Regions, one of the 15 such zones into which India is divided on the basis of the agro-climatic features. Topography of Maharashtra is diverse. It has been classified into five broad regions that have historically evolved as socio-cultural units. These are: (i) Greater Mumbai; (ii) Western Maharashtra; (iii) Marathawada; (iv)Konkan; and, (v)Vidarbha. Mumbai is of crucial importance to the national economy, being the country's prime metropolis

The extent of urbanization is much higher in Maharashtra in comparison to India. Maharashtra accounts for about 14.4 percent of India's urban population, whereas, the respective figure for rural population is just about 7.5 per cent. It accounted for about 13 percent of India's GDP in 2005-06. Industrial sector and service sectors have been the driving force for the State's economy in the recent years. The share of primary sector has been consistently declining over the years and this has been picked up by service sector rather than by the industrial sector.

As per 2001 Census, the state had about 42 and 58 percent of the population of the state residing in urban and rural areas, respectively. Mumbai (including suburban Mumbai) which accounts for about 12 percent of the state population has cent per cent urban population. Other highly urbanized districts of the state are Thane, Nagpur and Pune. Thus, the concentration on health facilities for urban population is needed in these districts, whereas, in the areas, such as, Gondiya, Ratnagiri, Sindhudurg and Gadchiroli, it is the rural areas which deserve more attention as regards health facilities.

Health Sector in Maharashtra

Maharashtra has been at the forefront of healthcare development in India. It was one of the first states to achieve the norms mandated for primary health centres, sub-centres and rural hospitals, under the Minimum Needs Programme. The State also has the largest private health sector in India whose reach is quite extensive. Although Maharashtra is one of the affluent states in India with the highest per capita income and has one of the largest industrial economies, in terms of the social infrastructure (schools, health care facilities, water supply, housing etc.) it no longer occupies the singular place of pride country. There are two areas of concern which plague Maharashtra: one is food availability (rather access) which is the cause of unacceptable levels of malnourishment, and the other, the declining sex-ratio, especially in the 0-6 year age-group, which has clear linkages with sex-selective abortions linked to sex-determination.

Health Accounts in Maharashtra: Methodology

Boundary of MHA (Maharashtra Health Accounts) and Classifications

In case of Health accounts the boundaries need to be defined clearly as one may not be in a position to include all the peripheral expenditures of health care and health care related activities into the domain of health care within a stipulated period of time. Only the expenditure that go directly to health care services are included under health care services. Since the boundaries for the three selected states are almost similar we have not explained in detail the boundaries here. The fiscal year of 2004-05 is used for the estimation of health accounts. Figure 1 depicts the boundaries of health for estimating the health accounts of Maharashtra state.

Data Sources, Surveys and Secondary sources

The study has used both primary and secondary data for the purpose of estimating the health accounts for the state of Maharashtra. Public expenditure data used in the study is based on the fiscal year from 1st April, 2004 to 31st March, 2005 at current prices collected from Civil Budget Estimates, Government of Maharashtra. Health related data were taken from various secondary sources viz. Health Monitors,

Figure No. 1:Boundaries of Health Account

		Comments
Expenditure Excluded in Health Accounting	* Health Tourism International * Noon meal programme * Water supply and Sanitation * Health enhancing drugs/product (without prescription) like Chavanapravsh, anti dandruff, pimples, vitamin tablets, etc. * Other Food security related (Public Distribution System) * Environmental Health	There are arguments that expenditure on health enhancing drugs, drinks and vitamins should be included in health related expenditure.
Expenditure Included in Health Accounting	**HEALTH RELATED EXP.** * Medical education and training (public) * Nutritional Supplementation Programme of the govt. * Medical research (public) * Health Education * School Health Programme falls under health related expenditure, but not included in Maharashtra health accounts as information on this aspect was collected	Scholarships to medical students, stipends to medical apprentice, materials and supplies, salaries and office expenses, professional and special services, diet charges Livestock (HCR4 Food, Hygiene and Drinking water)
	HEALTH EXPENDITURE * Salaries, Drugs, Equipment, Indian System of Medicine & Homeopathy, Health administration & insurance, * Disease Control programme & FW Programme, * Pathological services, Prevention and public health, * Out of pocket expenditure by households, Home Care, Day care, Non qualified practitioners * Medical benefits to employee and dependent in public/private sector * Capital expenditure in medical	Since ISM and Homoeopathy are not coded under ICHA, we have extended the codes for classifying these services under relevant heads. Expenditure made by households, firms and NGOs mainly related to current expenditure (2004-05)
	NOT SPECIFIED BY KIND	Other expenditure (grant-in-aid, other charges/ miscellaneous items) constitutes major component of government health expenditure, but is not made explicit in the budget documents.

Statistical abstracts, NFHS–1 and 2, NSSO 42nd and 52nd round, Man power Profile, Economic Surveys, Government of Maharashtra, Maharashtra Human Development Report, Sample Registration survey (S.R.S.), Directorate of Health and Family welfare Government of Maharashtra, etc.

The private expenditure data on health care services used in the study are collected from households, NGOs and corporate sector/firms, charitable trusts, private practitioners, insurance companies etc., For estimating private expenditure of health care services through a sample survey carried out during the same period keeping in view the fiscal year of 2004-05. The expenditure on health care incurred by different NGOs, was collected through a field survey.

Household Survey

Sampling Design for Maharashtra

Three stages were involved in sampling of households. In the first stage, the three districts were selected, based on the criterion of per capita real income. In order to get a representative sample, one district each from high, medium and low income strata were selected. In the second stage, from one of the districts, viz., Mumbai, 4 clusters representing urban population of the State was selected and the sample consisted from Mumbai consisted of 36 percent of the total sample size of 1500 households. The remaining two districts, viz., Nasik and Nanded were supposed to represent the rural population of the State. Hence, only rural locales were considered. Thus in the second stage of sampling, two talukas from each of these two States were randomly selected. In the third stage, four villages from each of these talukas selected. Two villages from each taluka were supposed to have high proportion of SC/ST population and the remaining two were to represent low SC/ST population.

In Mumbai, one can find the coexistence of clusters of high-rise buildings occupied by economically better-off sections of with slums in close proximity. Hence, clusters from these wards were selected keeping in view the fact that slums of the city also need to be represented. From each of these clusters, the households were randomly selected. From each of these wards 135 respondents were

selected. As mentioned earlier, the rural sample of 480 households was drawn from Nasik from Sinnar and Trimbakeshwar taluks. The two talukas selected randomly from Nanded District turned out to be Ardhapur and Dharmabad with a sample of 120 households. From each taluka, two villages had low SC/ST population and the other two had high SC/ST population. This information is provided in Table No. 28.

• ***Household's out of pocket expenditure on health***

The data on health care expenditure by financing sources, financing agents, providers by functional classification was collected from rural and urban areas in three districts of Maharashtra. In order to arrive at the total household expenditure on health for the state we adopted the following procedure.

The average expenditure on health care incurred by the households was estimated on the basis of data collected through the sample survey for the selected villages. Health expenditure for households was blown up for the state taking in to account average expenditure for the sample population and then propelling it for the sample village, sample district and finally for the state population.

• ***Expenditure on health by the NGOs***

On the basis of our sample survey we collected the expenditure incurred by the NGOs for providing health care services. We estimated the expenditure per NGO and multiplied the average expenditure by the total number of NGOs providing health care services in Maharashtra.

• ***Expenditure on Health Care by the Firms***

Following the sample survey conducted by CMDR for the firms, contribution of firms was estimated by taking the average health expenditure per employee and then multiplying it with the total number of employees in the firms in Maharashtra state.

We estimated the total health expenditure for Maharashtra state by summing up the expenditure incurred by households, NGOs, firms, and government.

Provider Survey

The sampling procedure followed for provider survey is given in Table No. 1 below. Totally we covered 50 providers of health care including 25 private and 25 public providers. We could cover 22 providers from rural areas and 28 providers from urban area. For urban Maharashtra all the samples are from Mumbai. For rural Maharashtra the sample was 12 in Nasik and 9 in Nanded.

Table No. 1: Health care Provider -Maharashtra

Public	Rural	Urban	Private	Rural	Urban

Source: Primary data

Employer Survey

Employer survey includes firms, which provide health care to their employees. We randomly selected 10 firms from the list of firms available for the state of Maharashtra. In case of the selected firm not providing any health care then we opted for the next firm in the list, which provided health care. This was the procedure followed also in the case of firms not willing to provide information.

NGO Survey

For NGO survey we followed purposive sampling by selecting those NGOs, which mentioned health care as one of their activities. We could collect information from 10 NGOs located in different parts of Maharashtra.

Estimation Procedures

Following the ICHA classification WHO guidebook (2003), codes were assigned to sources and agents of financing and to providers and health care functions. Wherever, the agents, providers or

functions differed from ICHA or were not found in ICHA classification the codes have been extended under the same codes by putting additional numbers. Codes have been extended in the case of expenditure on traditional birth attendants, ISM & H, livestock in health care facility, stipends and scholarship in educational institutions, etc. The expenditure on health by the households, firms and NGOs was estimated on the basis of field survey. Information on public expenditure was gathered mainly from government budget and other documents.

Socio-economic and health profile of selected households

In this section we discuss in detail the socio-economic profile of households as well the health status of the sample population followed by description of the resource flows and health expenditure according to sources, agents, providers and health care functions (services). Distribution of households according to religion and social groups is presented in Table No. 2 and No. 3 below. Majority of the households belong to Hindu followed by Buddhist and Muslim. This is in contrast to other selected states where the percentage of Muslims is higher next to Hindu religion. Among the social groups the sample is represented mainly by other backward castes (41 percent) followed by general categories. One percent of the households have not responded to the query on social group.

Table No. 2: Distribution of household according religion (in percent)

District	Hindu	Muslim	Christian	Sikh	Buddhist	Jain	Others	Total

Source: *Primary data*

Table No. 3: Distribution of households according Social Group (in percent)

District	SC	ST	OBC	General	No Response	Total

Source: *Primary data*

Though Nanded is considered to be the backward district among the selected districts, the percentage of households Below Poverty Line (BPL) is very high in Nasik district as shown in Table 4 below. This could be because the percentage of ST population is higher in rural areas of Nasik district. As indicated by the figures in Table No. 4 the economic status of majority of the households in Mumbai appears to be better than the households in other districts.

Table No. 4: Distribution of households according BPL card holder (in percent)

APL: Above Poverty Line
Source : *Primary data*

Table No. 5: Age –wise and Sex-wise reporting of illness by household members [in percent]

Source : *Primary data*

Probability of sickness for the three selected districts is 0.50 and 0.52 in Nanded district, which is backward among the selected districts. The reporting of illness as presented in Table No. 5 is higher among the middle aged followed by the youth, children and aged (i.e. 60 and above) accordingly.

Reporting of communicable diseases was found to be higher in Nanded district both for male and female (see Table No. 6). Since Nanded is one of the backward districts in Maharashtra the higher reporting of communicable diseases calls for state intervention because in the private sector treatment available for such type of

Table No. 6: Sex-wise distribution of household members according to reporting of illness [in percent]

District	Male							Female							
	Common diseases	Communicationable	Non Communicationable	Accidents	Others	the reproductive	Total	Common diseases	Communicationable	Non Communicationable	Accidents	Gyneological problems	Others	HIV	Total
Nanded	5.01	82.71	11.26	0.91	0.11	0.00	100.00	3.02	89.51	6.18	0.57	0.43	0.29	0.00	100.00
Mumbai	68.99	6.47	20.44	2.04	2.04	1.53	100.00	62.02	4.50	26.51	0.47	4.50	1.86	0.16	100.00
Nasik	66.30	7.80	21.68	2.18	2.03	1.87	100.00	58.99	7.37	25.35	1.08	4.15	3.07	0.00	100.00
Total	41.48	38.68	16.99	1.61	1.24	1.00	100.00	40.41	35.14	19.03	0.70	2.96	1.71	0.05	100.00

Source : *Primary data*

diseases would be costlier as compared to treatment in public facility. Though Maharashtra state records the highest incidence of HIV in India accounting for about 50 percent of the cases in the country (Govt. of Maharashtra 2002), the reporting of HIV/AIDS was almost nil during the household survey. Only one female case (0.05 percent) was reported in Mumbai, which has highest incidence of HIV/AIDS in the state. The incidence of communicable diseases was higher in Mumbai and Nasik

Table No. 7: Persons seeking medical treatment (in percent)

Source : *Primary data*

There appears to be increasing awareness about health among the public as 97 percent of those who reported illness during the reference period (2006) have consulted doctor for treatment (Table No. 7). NSS(National Sample Survey) 52nd round results revealed that 83 percent in rural areas and 91 percent in urban areas of the country consulted medical facility for treatment of their illness during 1995-96

.**Table No. 8: Use of health care facility (in percent)**

Source : *Primary data*

Availability of public facilities appears to be lower in the backward district of Nanded (Table No. 8) as only 5 percent of the households have used public health facility. However it is encouraging to know that among those who used public facility the percentage of patients who received free medicine (see Table No. 9) is higher in Nanded (63 percent) as compared to Mumbai (31percent) and Nasik (37 percent).

Table No. 9: Availability of free medicine in public health

Source : *Primary data*

On an average 97 percent of the households required transportation facility (Table No. 10) to visit health care facility centres. But, the percentage of households depending on transport and those who travel more than 10 kms is higher in the backward district of Nanded.

Table No. 10: Use of transportation to approach health facility

Source : *Primary data*

Utilisation of health facility according to levels of health care given in Table No.11, indicates that majority of the households have used primary health facility. When both public and private facilities are taken into consideration, the preferences are in the order of primary (60 percent), secondary (24 percent) and tertiary care (16 percent), which is generally the observed pattern in the country. But, if we take only public sector facilities there is a change in the preferences. Utilisation of public facilities for tertiary care is higher (47 percent), whereas it is 42 percent for primary and 11percent for secondary care. Since tertiary care is costly in private sector, poor prefer public facility for inpatient and referral services. This is indicated by the results of 42nd and 52nd rounds of National Sample Survey (NSS) also.

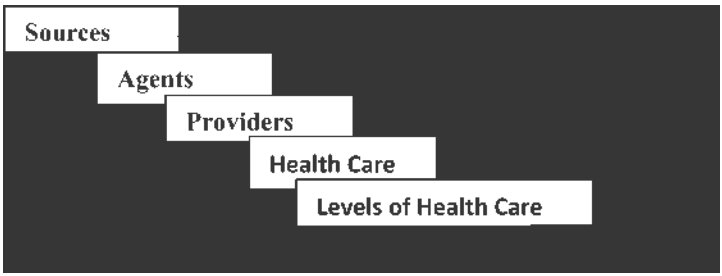
Table No. 11: Utilisation of health facility according to levels of health care

Source : *Primary data*

Description of resource flow and expenditures

Resource flow to health care and subsequent health expenditure include different entities in the provision of funds, agents who facilitate movement of funds for supply of services, providers of services and final beneficiaries who get the health care services with or without making financial transactions (free or paid service).

Figure No. 2: Description of resource flow and expenditures



In this section we present health expenditure for Maharashtra state based on household survey and budgetary expenditure taking in to account actual expenditure for 2004-05. The details of health expenditure are presented as follows.

- Total health expenditure estimated for the state (public+private)
- Household expenditure (actual for the sample)
- Household expenditure (estimated for the state)
- Public Expenditure (actual)
- Flows and expenditures according to sources and agents of finance, providers of service and health care levels and health care functions

Total Health Expenditure [THE] [Public +Private]

The overall source-wise expenditure presented in Table No. 12 for Maharashtra state indicates the significant and increasing use of private sector in health care provision. If we compare the Central Statistical Organisation's (CSO) estimates for 2001-02, there is decline in the share of public expenditure both in terms of per capita expenditure and its share in total health expenditure (see Table No. 12). The Maharashtra State Human Development Report (2002) specifies that there is decline in the share of public expenditure in the

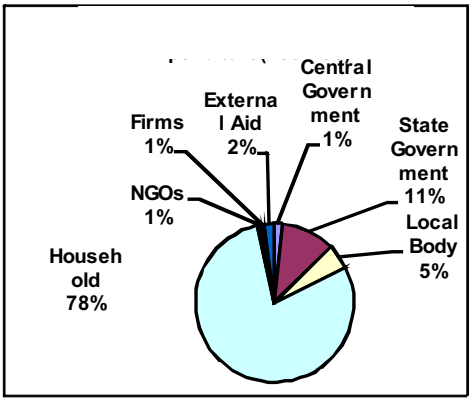
revenue expenditure during 1980 to 1999. CMDR estimates also indicate that there is a decline in the share of public expenditure in healthcare in Maharashtra.

Table No. 12: Source-wise Per capita Health Expenditure-Comparison

Source: *CSO, 2006(Compiled from NHA), 2001-02*

The total overall expenditure on health care incurred by all public and private sources in Maharashtra state is estimated to be Rs.76482.58 million during the year 2004-05 (current expenditure). Figure 3 shown below indicates that in the private sector out- of- pocket expenditure by households is the major financing source in meeting health expenditure accounting for about 79 percent. Among public sources, state government has a major role to play as around 11 percent of the expenditure is met from state government finance. The share would be higher if we consider local government financing because the Zilla Panchayats(ZPs) and municipal bodies get financial assistance from state government. But, we consider local government as a source and agent in expenditure on health care functions for which funds are routed through local government bodies. The 73rd and 74th Amendments to the Constitution have enabled transfer of many activities including health to local bodies. This is evident from the share of local government in health expenditure for Maharashtra (see matrices Table 32 (FS X FA). However, the total health expenditure as share of State Domestic Product (SDP) 2004-05 at current prices is very low at 2.06 percent. The studies of CSO (2005) and NHA (2001-02) reveal total health expenditure to be more than 4 percent of Gross Domestic Product for the country.

Figure No. 3 : Sourcewise Health Expenditure (2004-05)



The estimates developed by National Health Accounts (2001-02), National Commission on Macro Economics and Health (NCMH), and CSO in comparison to present (CMDR) study for different periods for the country and for 2004-05 for Maharashtra are provided in TableNo. 13.

Table No. 13: Total Health Expenditure of Maharashtra: Comparison with other Estimates (in percent)

Sources of Funds	NHA (2001-02) India	NCMH (2005) India	CSO (2005) India	CMDR (2004-05) Maharashtra

Source : *Compiled from different sources*

Table No. 13 shows that there is decline in public health expenditure over the years. It can be noted from the Table that the share of local government expenditure is increasing.

Household Expenditure

Table No. 14 provides average treatment expenditure per sickness episode according to religion of the reporting sick person. Average expenditure incurred by sick persons belonging to Hindu religion is very high among sample households. And among Hindus it is higher for Scheduled Castes (Scs).

Table No. 14: Expenditure per sickness episode by Religion

Religion	Expenditure per case (Rs.)

Source : Compiled from different sources

Though the share of health expenditure in total household expenditure (given in Table No. 15) for the reference period is lower in the backward district of Nanded, the expenditure per sickness episode according to social groups indicates that expenditure for SCs (household survey) is higher in Nanded as compared to other two districts. Health expenditure constitutes a major item of household expenditure in Mumbai, which is one of the metropolitan cities in India. But, the per capita health expenditure is higher in Nasik district, which has higher percentage of ST population and very high percentage of BPL households (75 percent). The per capita income and per capita expenditure is also very low in rural Nasik (see Table No. 15). The burden of health expenditure for the household can be

felt from the share of per capita health expenditure in per capita household income, which is 3 percent in Mumbai, but 5 percent in Nanded and 15 percent in Nasik.

Table No. 15: District-wise Household Health Expenditure

District	HH Health expd. as percentage to total income	HH Health expd. as percentage to total expenditure	Health Expenditure per sick case (Rs.)	Per capita HH income (Rs.)	Per capita HH Expenditure (Rs.)	Per capita HH Health Expenditure (Rs.)
Nanded	21.44	4.45	1284.92	12480.70	2587.57	582.06
Mumbai	29.47	20.34	1267.35	20650.72	14250.88	700.88
Nasik	6.56	4.43	888.31	4935.91	3337.59	752.89
Total	18.60	9.48	1183.50	12525.42	6381.87	673.53

Source : Compiled from different sources

Household Expenditure by Type of Health Care

Table No. 16 gives the details of sick cases according to the type of consultation opted by the reporting sick person. Outpatient constitutes 74 percent (59 percent +15 percent) including ISM & H, which is generally consulted for outpatient treatment. Outpatient treatment in ISM & H system is costlier compared to allopathic system. The cost of inpatient care is very high as it includes hospital rent, surgical treatment, diagnostic tests and medicines.

Table No. 16: Percentage of Sick Cases according to type of Consultation

District	Outpatient		Inpatient		Day Care		ISM & H		Total	
	percentage to total cases	Per case cost (Rs.)	percentage to total cases	Per case cost (Rs.)	percentage to total cases	Per case cost (Rs.)	percentage to total cases	Per case cost (Rs.)	percentage to total cases	Per case cost (Rs.)

Source : *Compiled from different sources*

Households incur major part of the health expenditure i.e. around 59 percent on availing medicines and ancillary services (see Table No. 17). They spend 28 percent on inpatient care and negligible amount on health insurance (0.08 percent). Though outpatients constitute 74 percent (including ISM & H) (see Table No. 16 above) of the total reported cases, the expenditure incurred for outpatient care is 11 percent of total household health expenditure because it includes mainly consultation charges, which are lower compared to inpatient treatment cost.

Table No. 17: House hold Expenditure on Health in Maharashtra 2004-05 (Rs in Million)

Health Care	Rs in Million	Percentage

Source: *Household Survey, CMDR*

Outpatient care

Expenditure on general medical services constitutes major part of outpatient expenditure (See Table No. 17). ISM&H appears to be gaining popularity in rural Maharashtra as 18 percent and 27 percent of the sick in Nasik and Nanded respectively have opted for treatment under these systems. But, the treatment is costly as 39 percent of the outpatient expenditure is incurred on these facilities. Since public referral services are generally cheaper, the expenditure on such facilities is less than 2 percent (1.9 percent) in outpatient expenditure.

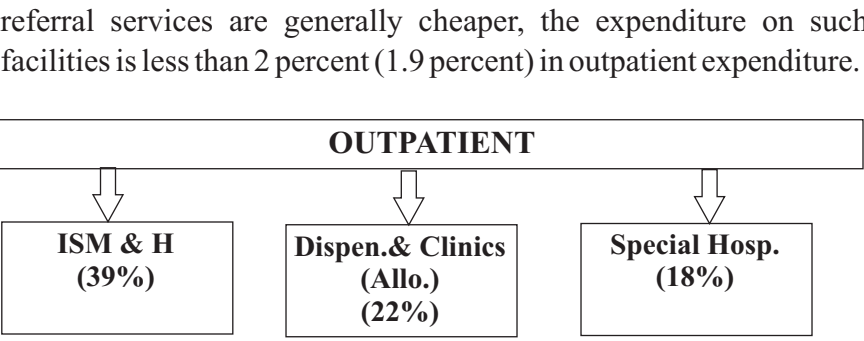


Table No. 18: Percentage of Household Out Patient Expenditure By Health Care and Health Provider

ICHA Code	Providers	HC1.3	HC1.3.2	HC1.3.4	HC1.3.5	HC6.1	HC6.1.1	HC6.4	Hcnsk	Total
		General Medical	**Dental Services**	**ENT Services**	**Eye Care Services**	**MCH Services**	**Delivery at Home**	**Immuniz ation**	**Any other**	
HP1.1.1	General hospitals (allopathic) of Central Government ministries/ Departments	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
HP1.1.2.1	PHC/PHU Rural	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83
HP1.1.2.2	PHC Urban	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
HP1.1.2.3	CHC/Taluk Hospital	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26
HP1.1.2.4	District Hospital	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
HP1.1.2.5	State Government's Department Hospital	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
HP1.1.3	General Hospital owned by Local Government	0..31	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.34
HP1.1.4	Dispensaries / Clinic / Hospitals run by Corporate sector	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.26
HP1.1.1.5	Private General Hospital (Allopathic)	16.33	0.04	0.15	0.74	0.47	0.05	0.11	0.08	17.97
HP1.1.1.7	Dispensaries / Clinic / Hospitals run by co-operatives	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01

Continued...

ICHA Code	Providers	HC1.3	HC1.3.2	HC1.3.4	HC1.3.5	HC6.1	HC6.1.1	HC6.4	Hcnsk	Total
		General Medical	Dental Services	ENT Services	Eye Care Services	MCH Services	Delivery at Home	Immunization	Any other	
HP1.3	Specialty hospitals (allopathic)	15.83	0.18	0.79	1.14	0.25	0.02	0.00	0.00	18.20
HP3.3.13	Traditional Birth Attendant	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.11
HP3.4.1	Family planning welfare centres / ANM centres	0.03	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.0.52
HP3.4.5	Dispensaries and clinic (allopathic)	19.46	0.76	0.08	0.32	0.54	0.05	0.15	0.04	21.42
HP3.4.5 (ISM)	Dispensaries and clinic (ISM & H)	38.67	0.00	0.00	0.00	0.00	0.09	0.00	0.00	38.77
HP.3.4.9	All other outpatient multi speciality centres	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
HP3.4.5.4	RMP/Quacks	0.44	0.00	0.01	0.00	0.03	0.00	0.00	0.00	0.45
HC8.2.1.5	Private Teaching Hospital	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28
Hpnsk	Not Specified by kind	0.05	0.00	0.00	0.04	0.00	0.01	0.00	0.00	0.10
	Total	92.98	1.25	1.04	2.24	1.79	0.33	0.26	0.12	100.00

Source: *CMDR Survey 2006*

Inpatient care

Major part of the expenditure on inpatient care shown in Table 19 is on surgical treatment (44 percent) followed by consultancy charges (10 percent). Dependence seems to be higher on charitable hospitals as 44 percent of the expenditure is incurred on services from these hospitals. This could be due to cheaper and quality service that is available in charitable hospitals, particularly in Mumbai.

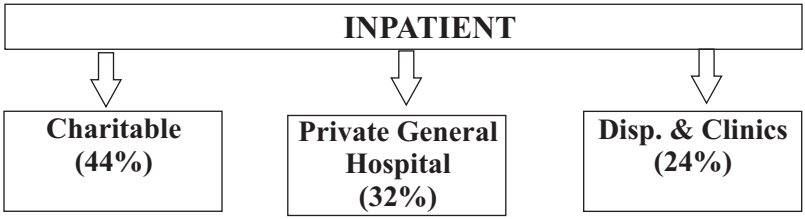


Table No. 19: Percentage of Household Inpatient Expenditure By Health Care and Health Provider

ICHA Code	Providers	HC1.1	HC1.1.1	HC6.1.1	Hcnsk	Total
		Consultancy	Surgical Treatement	Maternal Health	Any other	
HP1.1.1	General hospitals (allopathic) of Central Government ministries/ Departments	0.005	0.000	0.000	0.000	0.005
HP1.1.2.1	PHC/PHU Rural	0.001	0.000	0.000	0.000	0.001
HP1.1.2.2	PHC Urban	0.004	0.000	0.000	0.021	0.26
HP1.1.2.3	CHC/Taluk Hospital	0.005	0.079	0.000	0.060	0.144
HP1.1.2.4	District Hospital	0.003	0.000	0.000	0.005	0.008
HP1.1.2.5	State Government's Department Hospital	0.049	0.000	0.000	0.000	0.049
HP1.1.3	ESIS Hospital	0.000	0.000	0.000	0.007	0.007
HP1.1.3	General Hospital owned by Local Government	0.090	0.653	0.235	0.250	1.228
HP1.1.1.5	Private General Hospital (Allopathic)	4.945	16.911	2.124	0.000	23.980

Continued...

ICHA Code	Providers	HC1.1 Consultancy	HC1.1.1 Surgical Treatement	HC6.1.1 Maternal Health	Hcnsk Any other	Total
HP1.1.1.6	Charitable hospital	0.000	43.755	0.00	0.000	43.755
HP1.1.1.7	Dispensaries / Clinic / Hospitals run by co-operatives	3.096	0.000	1.483	0.301	4.880
HP1.3	Specialty hospitals (allopathic)	0.142	0.000	0.000	0.000	0.142
HP3.4.1	ANM centres	0.008	0.000	0.000	0.000	0.008
HP3.4.9	All other outpatient multi speciality centres	0.391	0.070	0.000	0.009	0.470
HP3.4.5	Dispensaries and clinic (allopathic)	0.791	22.550	0.000	0.880	24.220
HP3.4.5 (ISM)	Dispensaries and clinic (ISM & H)	0.000	0.070	0.000	0.014	0.083
HP3.4.5.4	RMP/Quacks	0.233	0.000	0.000	0.000	0.233
HP7.2	Providers of home health care services	0.422	0.140	0.119	0.055	0.735
H8.2.1.5	Private Teaching Hospital	0.007	0.016	0.000	0.000	0.023
Hpnsk		10.192	84.245	3.962	1.602	100.000

Source : *CMDR Survey 2006*

Ancillary services

Drugs constitute 80 percent of the cost on ancillary services (see Table No. 20) of which 70 percent of the cost is on retail purchase. Out of this expenditure households incur 10 percent on supplies made by doctors or private clinics. The increasing use of diagnostic services is indicated by its substantial share, which is 12 percent in total expenditure on ancillary services.

Table No. 20: Percentage of Household Ancillary Services Expenditure by Health Care and Health Provider

ICHA Code	Providers	Total

Source : CMDR Survey 2006

Table No. 21: Percentage of Household Day Care Expenditure By Health Care and Health Provider

ICHA Code	Providers	HC1.2	HC1.2.9	Total
		Curative care	Other treatment	

Source : *CMDR Survey 2006*

Daycare Service

Daycare services include admission of sick patients in to the hospital usually for prolonged hours of stay required on account of diagnostic tests, administration of saline, observation, etc. Household expenditure on day care is generally incurred on curative care (95 percent), while around 5 percent is spent on diet, travel, etc. (see Table No. 21). Admission to day care treatment appears to be higher in private general hospitals, private clinics and specialty hospitals as around 75 percent of the day care expenditure is spent on services provided by these hospitals.

Household Expenditure by Provider of Service

Table No. 22 shows that households spend mainly on purchase of drugs and medical goods from retailers (49 percent) and on services provided by hospitals (27 percent). The other main expenditure is on ambulatory care. Around 23 percent of the expenditure on ambulatory care indicates three possibilities. One people can afford the cost of ambulatory care. Second the use of ambulances has become common due to its reduced cost on account of competition or social service. Thirdly, it indicates the need of emergency health services for the households, which could be on account of increasing cases of cardiac failure, acute diseases of circulatory system and accidents.

Table No. 22: Household Expenditure by Provider

(Rs in Millions)

Sl No	ICHA Code	Providers	Total HH Exp	Percentage

Source : Compiled from different sources

Household Expenditure by Health Care Function

Household spending according to health care functions presented in Table No. 23 indicates that it is mainly on curative care. Expenditure on medical goods, which is 49 percent of health expenditure is also part of the curative care

Table No. 23: HH Expenditure by Health Care Functions (Rs in Million)

Sl No	ICHA CODE	Function Description	HHs	Percentage

Source : Compiled from different sources

Household Expenditure by Levels of Health Care

Excluding the cost of medicines and ancillary services, which account for more than half of the health expenditure, households spend 17 percent of the expenditure on tertiary care (see Table No. 24).

Table No. 24: HH Expenditure on Health by Level of Health Care during 2004-05

Level of Health Care	Rs in Million	Percentage

Source : Compiled from different sources

Public Expenditure

Public expenditure generally includes curative care (hospitals and dispensaries), preventive care such as control of diseases, promotive care including family welfare (maternal and child health), immunization, medical education, social security (ESIS), food and drug administration, capital expenditure on infrastructure and supplies, etc. Central, State and Local governments are the main sources of public expenditure. State government is a major source of public expenditure (see Table No. 25). But, it meets more than 70 percent of the public expenditure on health if we include its contribution in local government fund and ESIS. The share of local government expenditure in total budget, which is 27 percent, indicates that Maharashtra government is involving local government in the provision of health care services. External funding is an important source of public expenditure in Maharashtra as it accounts for more than 10 percent of total budget expenditure (see Table No. 25).

Table No. 25: Source wise Budget Expenditure on Health during 2004-05

Sources	Rs in Million	Percentage

Source : Compiled from different sources

Table No. 26: Summary of Budgetary Expenditure by Major Heads 2004-05

Source : Compiled from different sources

The major budgetary heads of expenditure and their respective share in total health expenditure are presented in Table No. 26.

Medical and Public Health [2210]

Medical and public health is a major item of expenditure under state government budgetary heads. Its major component is public health constituting 59 percent of its expenditure heads (see Table No. 27). Public health includes disease control programmes covering mainly rural areas. Urban health services under allopathy receive 40 percent of the expenditure on medical and public health. Here the expenditure is mainly on hospitals and dispensaries. Since Maharashtra is an industrial state around 24 percent of the medical and public health expenditure on urban health services (i.e. Rs. 1139 millions) is spent on ESIS.

Table No. 27: Budget Expenditure on Medical and public health (2210)

Sub Heads	Description	Rs in Million	Percentage
Sub Heads	**Description**	**Rs in Million**	**Percentage**

Source : *Compiled from different sources*

Family Welfare (FW) [2211]

Major component of FW budgetary expenditure is on direction and administration accounting for 32 percent. Other major head of expenditure amounting to 22 percent is on maternal and child health (MCH) -22 percent.

Table No. 28: Budget Expenditure on Family Welfare (2211)

Sub Heads	Description	Rs in Million	Percentage

Source : *Civil Budget Estimates 2006-07 Government of Maharashtra*

Expenditure by levels of health care presented in Table No. 29 indicates that major component of government expenditure is incurred on secondary care, which includes hospitals and referral services at block level. Primary care is one-fourth of health expenditure. Prevention of diseases and family welfare are other major two components of budgetary expenditure. Expenditure on tertiary care is very low being only 5 percent of budgetary expenditure.

Table No. 29: Budget Expenditure on Health by Level of Health Care during 2004-05

Level of Health Care	Rs in Million	Percentage

Source : *Compiled from different sources*

Public hospitals are the main providers of health services (Table No. 30) receiving budgetary support accounting for about 45 percent of budgetary expenditure. Expenditure not specified by kind (NSK) is very high (27 percent) when we classify expenditure according to

provider of services. Due to gaps in accounting system of government budget public is denied of the information on who is the provider of services for expenditure amounting to Rs.3879 million, which is more than one-fourth of total budget expenditure.

Table No. 30: Provider wise Budget Expenditure on Health During 2004-05

ICHA Code	Description	Rs in Million	Percentage

Source : *Compiled from different sources*

Table No. 31: Health Care wise Budget Expenditure during 2004-05

ICHA Code	Description	Total	Percentage

Source: *Compiled from Civil Budget Estimates 2006-07 Govt of Maharashtra*

Table No. 31 indicates that not specified by kind amounts to 42 percent of total budget expenditure presented according to health care activities. Since the state budget does not provide details of these expenditures, which are classified as 'other expenditure' all such

expenditures are clubbed against not specified by kind. This expenditure includes grants given to ZPs. As the link documents for ZPs were not available for Maharashtra we could not trace final expenditure under these heads. Expenditure not specified by kind probably indicates the discretionary power given to ZPs for making health expenditure. Curative services and capital expenditure are the major items of government expenditure on health.

Health Matrices

To present the inflow and outflow of resources from source to agents, agents to providers and from providers to beneficiaries the health expenditure for Maharashtra has been presented in the form of following five matrices.

- Source of Finance and Financing Agents (FS X FA)
- Source of Finance and Provider of Service (FS X HP)
- Source of Finance and Health Care Functions (FS X HC)
- Source of Finance and Level of Health Care Functions (FSX F)
- Health Providers and Health Care Functions (HP X HC)

Matrices on source-wise resource flow to financing agents in health care given in Table No. 32 (FSXFA) bring out clearly the fact that households are the major source as well the agent in financing total health expenditure, which is routed through out-of –pocket expenditure. In the public sector, Health and Family Welfare Department (H&FW) is the major source of financing health care. Though the finances to different departments flow from Centre, State and Local government, the departments are considered as sources in the matrices (FSXFA) and in health accounting, as they are the ultimate sources of expenditures for providing different health care services. While NGOs and firms account for about 2 percent of financing source and agent, insurance including ESIS accounts for less than 1.5 percent. In an industrial state like Maharashtra the coverage of ESIS appears to be low if we consider the overall health expenditure**.** As ESIS is a social security scheme and is subsidized by the government, private contribution to ESIS is negligible. With the decentralization of governance local bodies have a significant role in

public health expenditure as indicated in Table No. 32, which shows around 8 percent (when local governments are considered as financing agent) of expenditure to be routed through local government bodies. World Bank and German Aid are the two external sources of funding accounting for about 2 percent of total expenditure in Maharashtra.

Table No. 32: Percentage of Health Expenditure by Source of Finance and Financing Agents to Total Expenditure, in Maharashtra, 2004-05 (FS X FA)

Sl No	ICHA Code	Financing Agents (FA)	Financing Source (FS)								Total
			MoHFW	H & FW Dept	ESIS	Other Departments	HHs (Rs)	NGO	Firms	External Aid	
			FS1.1.1	FS1.1.2.1	FS1.1.2.3	FS1.1.2.2	FS2.2	FS2.3	FS2.1	FS3	

Source : *Compiled from Civil Budget Estimates 2006-07 Govt of Maharashtra and Household Survey done by CMDR*

As discussed earlier households and H&FW department is the major source of expenditure on health care (see Table No. 33). Out-of-pocket expenditure incurred by households is incurred mainly on the purchase of drugs and medical goods from retail shops where they spend around 39 percent of the total expenditure. 22 percent and 18 percent respectively is spent on the provision of services from hospitals and on ambulatory care. NGOs and firms together meet around 2 percent of the health expenditure. But, we do not know who ultimately provides the services under the finance from NGOs and firms, as provider-wise information is not available for these two sources.

Table No. 33: Percentage of Health Expenditure to Total Expenditure by Source of Finance and Provider, Maharashtra 2004-05, (FS X HP)

Sl No	ICHA Code	Providers	Sources of Finance							
			Public		Total HH Exp		Total NGO	Total Firms	External Agencies	Grand Total
					Out Of Pocket	Insurance Premium				
			H & FW Dept	Other depts						
			FS1.1.2.1	FS1.1.2.2	FS2.2	FS2.2.1	FS2.3	FS2.1	FS3	
1	HP1	Hospitals	6.44	0.01	21.45				1.92	29.82
2	HP3	Providers of Ambulatory health care	1.35		18.18					19.54
3	HP4	Retail Sale and Other Providers of Medical Goods			38.78					38.79
4	HP5	Provision & Administration of Public Health Programmes	2.21						0.07	2.28
5	HP6	General Health Administration & Insurance	0.99							0.99
6	HP7	Providers of Home Health Care Services			0.05					0.05
7	HP8	Teaching Hospital	0.61	0.31	0.20					1.12
8	HPnsk	Not Specified by Kind	5.07	0.68	0.01					5.77
	Provider information not available				0.00	0.06	0.89	0.69		1.64
9	Total		16.68	1.00	78.68	0.06	0.89	0.69	1.99	100.00

Source: *Compiled from Civil Budget Estimates 2006-07 Govt of Maharashtra and Household Survey done by CMDR*

Matrices on health expenditure by financing sources and health care functions (FSXHC) given in Table No. 34 also indicates that major expenditure is by households, which is spent on medicines made available to outpatients, followed by curative services. Health expenditure not specified by kind is more than 8 percent and these functions are met through state government departments. This amounts to Rs.6796 millions and we cannot trace where ultimately the money is spent and on what services under other expenditure.

The financing sources for capital expenditure are state government and external agencies. Capital expenditure accounts for 3 percent of total expenditure. Table No. 34 shows that external agencies have financed mainly the capital expenditure, which is towards the provision of machinery and equipment and materials and supplies.

Table No. 34: Percentage of Health Expenditure by Financing Sources and Health Care Functions (FS X HC) to Total in Maharashtra during 2004-05

ICHA CODE	Function Description	Financing Source							Total
		H & FW Dept	Other Departments	HHs		NGO Sector	Corporate Sector	External Agencies	
				Out of Pocket	Insurance Premium				
		FS1.1.2.1	FS1.1.2.2	FS2.2	FS2.2.1	FS2.3	FS2.1	FS3	
HC1	Services of curative care	4.31	0.01	30.57					34.88
HC4	Ancillary services to medical care	0.21		8.00				0.01	8.21
HC5	Medical good dispensed to outpatients			38.65					38.65
HC6	Prevention and public health services	1.64						0.05	1.68
HC7	Health Administration	1.47		1.12				0.29	2.88
HC9	HC Expenditure not specified by Kind	7.36	0.68	0.35				0.49	8.89
HCR1	Capital Expenditure	1.46	0.31					1.16	2.93
HCR2	Education and Training of Health Personnel	0.10							0.10
HCR3	Research and Development in Health	0.02							0.02
HCR4	Food, hygiene and drinking water control	0.11							0.11
Function information not available					0.06	0.89	0.69		1.64
Total		16.68	1.00	78.68	0.06	0.89	0.69	1.99	100.00

Source: *Compiled from Civil Budget Estimates 2006-07 Govt of Maharashtra and Household Survey done by CMDR*

Household and budgetary health expenditures were codified according to the levels of health care on which the expenditures were made to know the flow of resources in to different levels of health care viz. primary, secondary and tertiary care. Since expenditure pattern does not reveal the utilization pattern or the extent of need for different levels of health care an attempt was made to find out utilization pattern from the household data to link it to total expenditure. The specific data on use of dispensaries, clinics, PHCs, general and specialty hospitals, private doctors and the nature of illness facilitated their coding according to levels of health care. Matrices (4.36) on health expenditure by financing sources and levels of health care indicate that public sector spending is more (6.85 percent) on secondary care, which includes hospitals and referral services. Less than 1 percent is spent on tertiary care in Maharashtra. But, the household pattern shows that the use of public facilities in tertiary care is 47 percent and the household expenditure on tertiary care is more than the expenditure on primary and secondary care.

This is obvious as the cost of tertiary care generally includes inpatient treatment, surgical cost, intensive and emergency care. But, utilization pattern indicates the preference of the public for tertiary care as well the need for it.

Table No. 35: Percentage of Health Expenditure by Financing Sources and Level of Health Care Functions (FS X F) to Total in Maharashtra during 2004-05

Function Description	Financing Source (FS)						Total
	H & FW Dept	Other Departments	HHs		NGO Sector	Corporate Sector	
			Out of Pocket	Insurance Premium			
	FS1.1.2.1	FS1.1.2.2	FS2.2	FS2.2.1	FS2.3	FS2.1	FS3
Primary	4.75		8.88				13.63
Secondary	6.85		8.04				14.89
Tertiary	0.99		13.45				14.45
Public Administration	1.02						1.02
Prevention & Control of Diseases	2.12						2.12
Family welfare	1.89		0.06				1.95
Social security and welfare	0.07						0.07
Secretariat social services	0.03						0.03
capital outlay on medical and public health	0.95						0.95
Medicines & Ancillary Services			45.00				45.00
Patient Travel Cost			3.26				3.26
Function information not available		1.00		0.06	0.89	0.69	2.64
Total	18.68	1.00	78.68	0.06	0.89	0.69	100.00

Source: *Compiled from Civil Budget Estimates 2006-07 Govt of Maharashtra and Household Survey done by CMDR*

Purchase of medicines from retailers is the major component of health expenditure (see Table No. 36). The provider and health care function-wise health care expenditure indicates that hospitals are the main providers of health services where the expenditure is incurred on curative care. 20 percent of the expenditure is made on provision of ambulatory care and around 8 percent is spent on ancillary services, which include medical equipments, diagnostics, etc.

Table No. 36: Percentage of Health Expenditure for Health Providers and Health Care Functions (HP X HC) to Total expenditure in Maharashtra during 2004-05

HP / HC	HP1	HP3	HP4	HP5	HP6	HP7	HP8	HPnsk	Other Dept.	Insurance Premium by HHs	NGO	Firm	Total
HC1	24.62	9.94	0.09			0.05	0.16	0.01					34.88
HC4	0.06	8.12		0.02									8.21
HC5			38.65										38.65
HC6	0.99	0.17	0.04	1.54			0.06						2.81
HC7	1.08	0.02		0.05	0.61								1.76
HC9	0.97	1.01		0.45	0.24		0.46	5.07					8.20
HCR1	1.99	0.28		0.21	0.14		0.01						2.62
HCR2							0.10						0.10
HCR3							0.02						0.02
HCR4	0.11												0.11
Function information not available									1.00	0.06	0.89	0.69	2.64
	29.81	19.54	38.79	2.28	0.99	0.05	0.81	5.08	1.00	0.06	0.89	0.69	100.00

Source : *Compiled from different sources*

Conclusion

Health accounts for Maharashtra compiled for the period 2004-05 reveal that households are the major sources of financing health care expenditure followed by state government. Due to Constitutional Amendments, local governments have emerged as one of the main agents financing health services. Though the share of external agencies is lower in overall expenditure (1.99 percent), there contribution in government spending is significant amounting to 11 percent. The study reveals that households spend mainly on purchase of medicines and on curative services. Government also spends major part on curative services. Household expenditure and use of facility is higher in tertiary care, while government expenditure is more on secondary care. House hold utilization of Public facilities for MCH is also higher, where as government expenditure on MCH is just 2 percent of Family Welfare Expenditure. So it can be assume that mismatch between public need and public expenditure.

The backward district of Nanded has lower utilization of public facility, higher percentage of households traveling more than 10 kms to reach health facility, higher reporting of communicable diseases,

higher probability of sickness and high per case treatment cost as compared to other sample districts. This suggests that there is uneven distribution of health care facility in Maharashtra state indicating the need for increasing public health expenditure in rural and backward districts of the states.

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Key Determinants of Infant Health: Empirical Findings from Rural Dakshina Kannada District in Karnataka

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Abstract

The health status of infants in any country is the reflection of the socio-economic development of that country. Child malnutrition is the central health problem in India and the largest human development gap that the nation faces (Shivakumar, 2006). Deaths in infancy are indicative of a poor state of maternal and child health services (Bose, 2006). The results of the recent National Health Family Survey (NFHS) show that not only the nutrition and health status of children in the country is poor, but also they are showing very slow signs of improvement. For instance, 46 percent of children under the age of three are under-weight which is an improvement of only one per cent age point compared to National Family Health Survey-2 which was carried out 8 years back. The corresponding level of child malnutrition is much lower in most other countries- 28 per cent in Sub-Sahara Africa, and 8 per cent in China (Shivakumar, 2006). In the fitness of things, 'human development' should always precede 'human resource development' in India.

The state of health of infants in the rural areas of Dakshina Kannada was surveyed and the principal determinants of infant health were assessed and the linkage between family planning and infant health was established as a possible means to provide solutions to the infant health on the basis of primary survey conducted in the region. The Dakshina Kannada district has 71 Primary Health Centres (PHC) providing infant health and family planning services at the at covering 356 villages. Using Disproportionate stratified random sampling technique 852 respondents were interviewed with a structured questionnaire to elicit necessary information. Care was taken to select the respondent having a child less than 3 years of age.

Keywords: *Infant, Child health, Human Development*

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Introduction

The health status of infants in any country is the reflection of the socio-economic development of that country. It is determined by various factors such as the level of income, standard of living, housing, sanitation, education, health consciousness, personal hygiene, availability, accessibility and use of public health distribution system. The poor health status is the product of inadequate nutrition during the early period of a child's growth. A child during the earliest period of its life is referred as 'infant' in the Oxford Dictionary. From the time of delivery up to the third year of age is considered 'infant' stage. During this stage the child begins to walk, talk and begins to consume solid food. Physical and sensual development also begins (Muthuswamy, 2000). Proper nutritional care and development during this period will lead to a healthy and productive life. Therefore, growth monitoring, health check up, identification of risk cases, treatment of minor diseases, de-worming, prophylactic measures and referral of serious cases, etc., should become the major concern of everybody. Deaths in infancy are indicative of a poor state of maternal and child health services (Bose, 2006). In the fitness of things, 'human development' should always precede 'human resource development' in India.

However, child malnutrition is the central health problem in India and the largest human development gap that the nation faces (Shivakumar, 2006). India is performing poorly by most indices of well-being of children. The results of the recent National Health Family Survey (NFHS) show that not only is the nutrition and health status of children in the country is poor, but also they are showing very slow signs of improvement. For instance, 46 per cent of children under the age of three are under-weight which is an improvement of only one per cent age point compared to National Family Health Survey-2 which was carried out 8 years back. The corresponding level of child malnutrition is much lower in most other countries- 28 per cent in Sub-Sahara Africa, and 8 per cent in China (Shivakumar, 2006). Ranked on an index that adjusts child malnutrition level to GDP, India had the second highest level of malnutrition- worse than

all of Africa, second only to Bangladesh, and closely followed by Nepal and Pakistan. A high proportion of children is nutritionally challenged even prior to birth, with as many as 25 percent of all babies born with low birth weight. This high proportion of under-nourished children cannot be a matter of pride in a food-surplus economy, where government is regularly mooting public health programmes to combat the situation. Despite its vibrant programmes like Integrated Child Development Services (ICDS), Reproductive and Child Health (RCH), National Rural Health Mission (NRHM), the malnutrition among infants continues unabated.

In the fitness of things, the state of health of infants in the rural areas of Dakshina Kannada was surveyed and the principal determinants of infant health were assessed and the impact of the interventions as a possible means to provide solutions to the issue was determined on the basis of primary survey conducted. The Dakshina Kannada district has 71 Primary Health Centres (PHC) providing infant health and family planning services at the at covering 356 villages. Using Disproportionate stratified random sampling technique 852 respondents were interviewed with a structured questionnaire to elicit necessary information. Care was taken to select the child respondent having less than 3 years of age.

Objectives of the study:

- To assess the health status of the infant.
- To assess and evaluate the linkage between family planning adoption and the health status of the infant.
- To find out the key determinants of infant health based on the study.

Maternal Care during Pregnancy

Maternal care includes care during pregnancy and begins from the early stages of pregnancy. Women can get antenatal care (ANC) either by visiting health centre or from health workers during their domiciliary visits. One of the most important components of ANC care is to offer information and advice to women about pregnancy-related complications and possible curative measures for the early detection and management of complications (Mondal, 1997). A

healthy child is a national asset. The poor health status of a child is the product of inadequate nutrition intake and improper health care of mothers during pregnancy. To explore the issues related to mother's care during pregnancy, the following enquiries were made in the study region.

Table No. 1: ANC Check-up Undertaken during Pregnancy

Binomial p<0.0001, HS.

Source: *Field Survey Data*

In only 2 percent cases, ANC check is not done by pregnant mothers (Table No. 1)**.** Binomial test shows that (p<0.0001) highly significant proportion (98 percent) of mothers sought regular health check-up during pregnancy in rural parts of the district. They were well informed about this.

Table No. 2: Intake of Nutritious Food during Pregnancy

χ^2 = 1540.2, p<0.0001, HS d.f = 2.

Source: *Field Survey Data*

Chi-square test shows that (p<0.0001) majority of the respondents (96.7 percent) were aware of the need for nutritious food during pregnancy and its impact on child's health thereafter (Table No. 2).

Table No. 3: Intake of Required Doses of Tetanus and Iron and Folic Tablets

Intake of Tetanus and Iron ad Folic Tablets	No		Yes		Total	
	No. of respondents	Percentage	No. of respondents	Percentage	No. of respondents	Percentage
Tetanus	5	0.6	847	99.4	852	100.0
Iron and folic acid tablets	6	0.7	846	99.3	852	100.0

Source: *Field Survey Data*

In the study region, almost 100 percent respondents had taken the required doses of tetanus and iron and folic acid tablets. Proper care during pregnancy was universally known to expecting mother, as exhibited in Table No. 3.

Table No. 4: Place of Delivery

Place of delivery	N=852	
	No. of respondents	Percentage
Public health centre	423	49.6
Private nursing home	463	54.3
At home	64	7.5

Total percentage will not add up to 100 due to multiple responses.
Multiple Response Rate (MRR) =1.11.

Source: *Field Survey Data*

As shown in Table No. 4**,** majority of the (54 percent) deliveries took place in private nursing homes, while 50 percent deliveries were in public health institutions, and 7.5 percent delivered at home. Above all, institutional deliveries were given prominence by the rural folk in Dakshina Kannada district.

Table No. 5: Delivery Option of Child

Delivery option	No. of respondents	Percentage
By choice (planned)	804	94.2
By chance (unplanned)	48	5.8
Total	**852**	**100**

Source: *Field Survey Data*

A little over 94 percent respondents stated that their child was by choice, while 6 percent respondents stated that their child was by chance, unplanned and unintended (Table No. 5).

Table No. 6: Health Status of Newborn Child

Health Status of Child	No. of respondents	Percentage
Healthy	653	76.6
Unhealthy	199	23.4
Total	**852**	**100**

Binomial p<0.0001, HS.

Source: *Field Survey Data*

When enquired about the health status of a newborn child, 76.6 percent reported that they had delivered a healthy child, while a little over 23 percent revealed that the child delivered was unhealthy (Table No. 6). Binomial test shows that significantly higher proportion of respondents had delivered a healthy child. But, poor health status of 23 percent cannot be undermined.

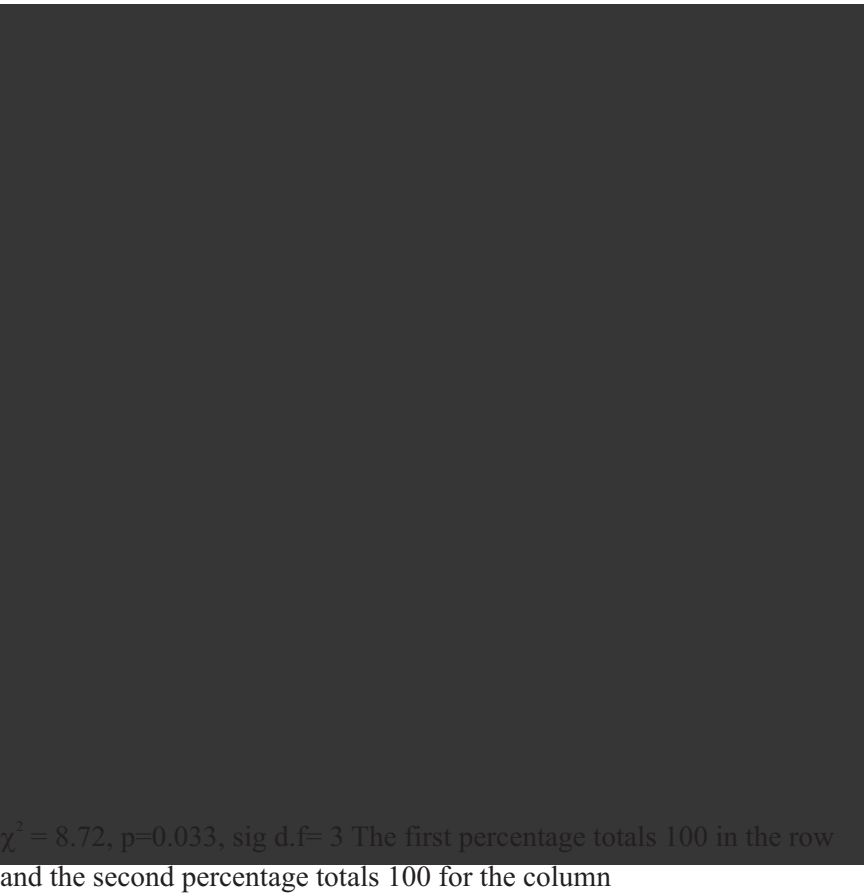
Table No. 7(a): Health Status of Infants and Annual Income of Respondents

$\chi^2 = 11.57$, p=0.009, HS, d.f = 3 The first percentage totals 100 in the row and the second percentage totals 100 for the column

Source: *Field Survey Data*

Of the children who were born unhealthy, nearly three-fourth (74.4 percent) families had income less than Rs. 12,000 and of the children who were born healthy; nearly 82 percent families had income more than Rs. 30,000. Higher the income level of respondent, higher was the health status. Thus, it was found from the Chi-square test, that (χ^2= 11.57, p=0.0009, d.f=3) there was highly significant association between income of the respondent and health status of children [Table No.7(a)].

Table No. 7(b): Health Status of Infants and Annual Income of Family



χ^2 = 8.72, p=0.033, sig d.f= 3 The first percentage totals 100 in the row and the second percentage totals 100 for the column

Source: *Field Survey Data*

The Table No. 7(b) and the Chi-square test show that (χ^2 =8.72, p=0.033, sig d.f= 3) there is significant association between health status of infants and annual income of family.

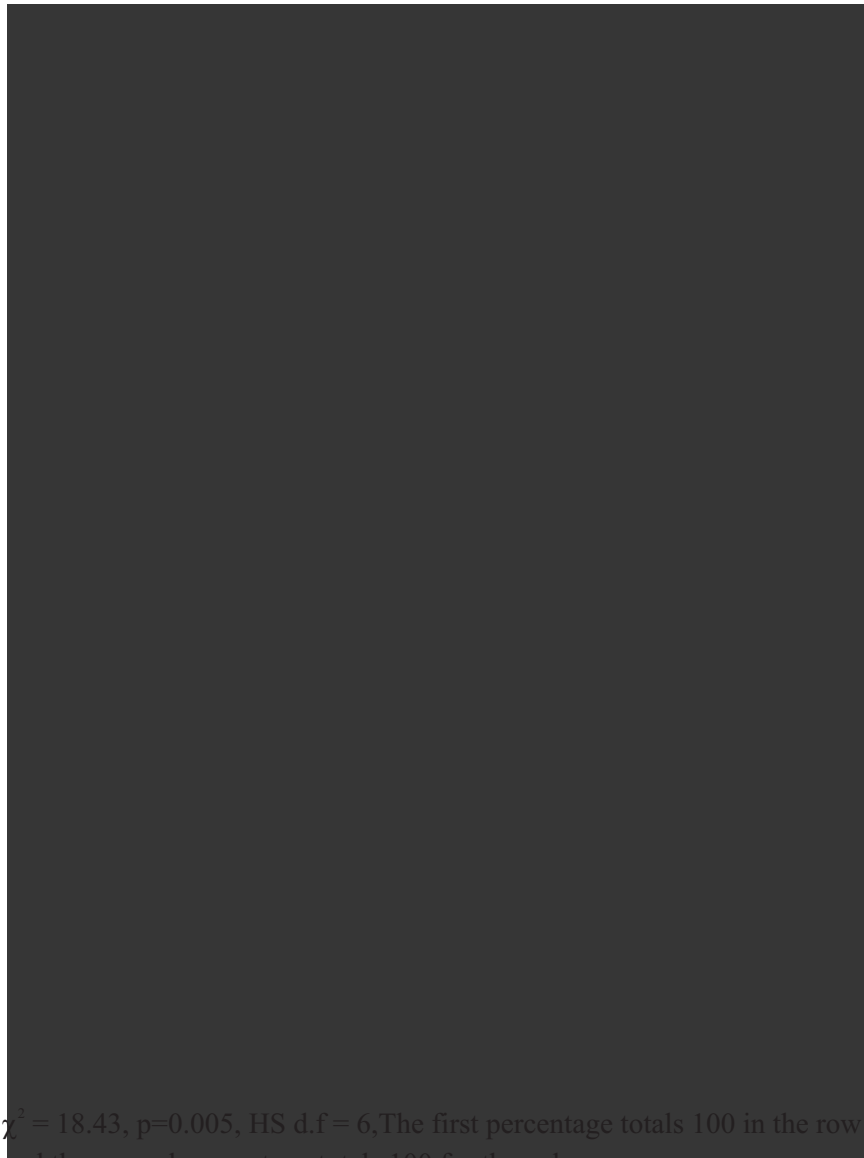
In Table No. 8(a), the state of health of the child and education status of father is presented and it showed that (χ^2=5.953, p=0.311), there was no significant correlation between health status of infant and education status of father. As the level of education increased there was no corresponding raise in health status of children as revealed in the study.

Table No. 8(a): **Health Status of Infants and Education of Father**

χ^2 = 5.953, p=0.311, NS d.f= 5 The first percentage totals 100 in the row and the second percentage totals 100 for the column.

Source: *Field Survey Data*

Table No. 8(b): Health Status of Infants and Education of Mother

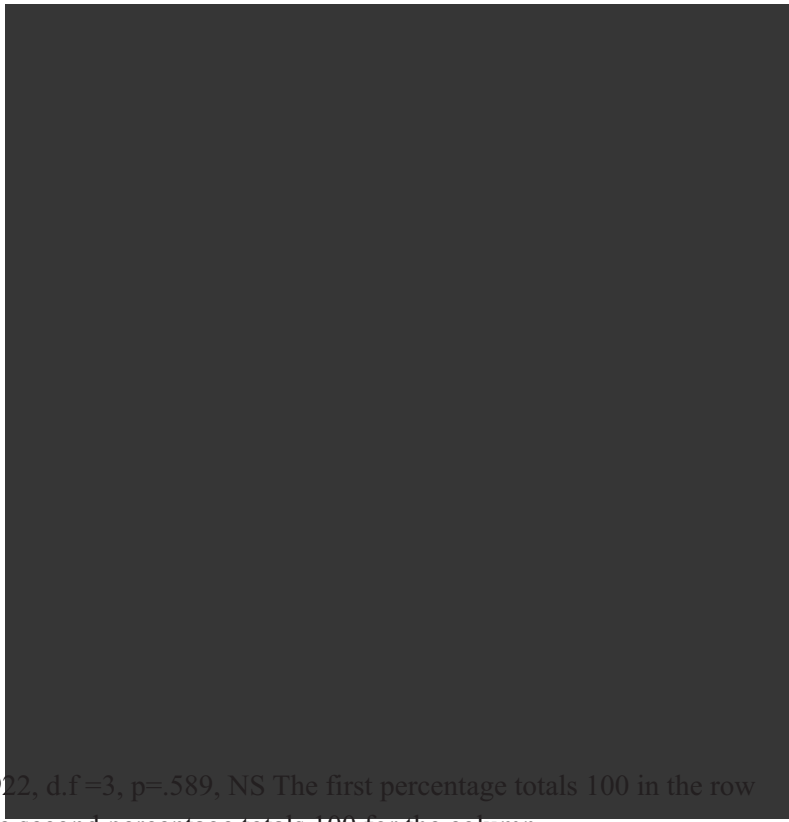


χ^2 = 18.43, p=0.005, HS d.f = 6,The first percentage totals 100 in the row and the second percentage totals 100 for the column

Source: *Field Survey Data*

When analysed the state of health of the child and education status of mother through a Chi- square test, it showed that (χ^2 = 18.43, p=0.005), **t**here was highly significant association between health status of infant and education status of mother (Table No. 8(b)).

Table No. 9: Health Status of Infants and Religion



χ^2=1.922, d.f =3, p=.589, NS The first percentage totals 100 in the row and the second percentage totals 100 for the column.

Source: *Field Survey Data.*

Thus, the Table No. 9 reveals that (χ^2=1.922, d.f=3 p=.589), the association between state of health of infants and different religious groups is not statistically significant.

Table No. 10 provides that **t**here is no significant association as far as infant health and number of children in the family is concerned. The Chi-square test conducted reveals this fact (χ^2= 1.240, p=0.871, d.f=4, NS).

Table No. 10: Health Status of Infants and Number of Children

χ^2= 1.240, p=0.871, d.f=4, NSThe first percentage in the parentheses totals 100 for the row and the second percentage in the parentheses totals 100 for the column.

Source: *Field Survey Data.*

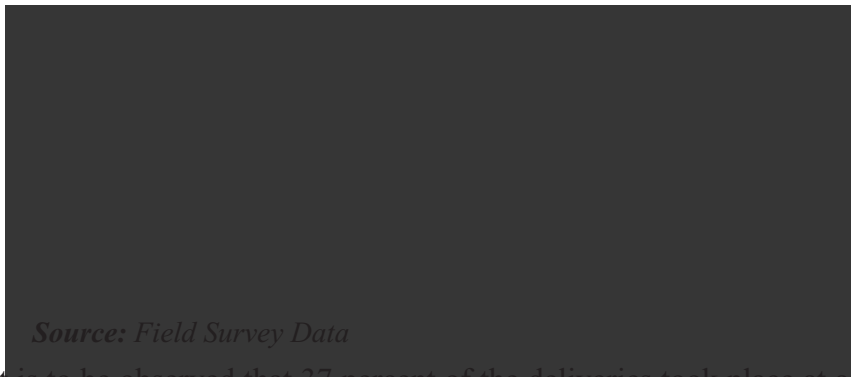
Among the adopters of family planning 81 percent of the children were healthy and 19 percent were unhealthy. While among non-adopters of family planning, 73 percent were healthy and 27 percent were unhealthy. Among the unhealthy children, 64.3 percent had not adopted family planning and 35.7 percent had adopted family planning (Table No. 11). Thus chi-square test shows that (χ^2=6.923, p=.009 d.f=1, HS), the association between health status of infants and adoption of family planning is statistically significant. Thus, if family planning is adopted for limiting the size, it can contribute to childs health. Thus, family planning adoption and infant health is closely associated.

Table No. 11: Health Status of Infants and Adoption of Family Planning

χ^2=6.923, p=.009 d.f=1, HS . The first percentage in the parentheses totals 100 for the row and the second percentage in the parentheses totals 100 for the column.

Source: *Field Survey Data*

Table No. 12: Mother's Age at First Delivery



Source: *Field Survey Data*

It is to be observed that 37 percent of the deliveries took place at a very young age even before attaining 20 years of age in Dakshina Kannada (Table No. 12).

From the Table No. 13, it is observed that, (χ^2=15.514**,** p=.001), the association between state of health of infants and mothers age at delivery was highly significant. Higher the age of mother during delivery, lower the health problem of child.

Table No. 13: Health Status of Infants and Mother's Age at Delivery

χ^2=15.514, d.f=3, p=.001, HS. The first percentage in the parentheses totals 100 for the row and the second percentage in the parentheses totals 100 for the column.

Source: *Field Survey Data.*

Infant Health Care Procedures and Practice: Regarding infant healthcare procedures and practice almost universal awareness was seen among mothers as shown in the Table No. 14.

Table 14: Awareness of Infant Health Care Procedures and Practices

Source: *Field Survey Data*

Note: n=number of respondents

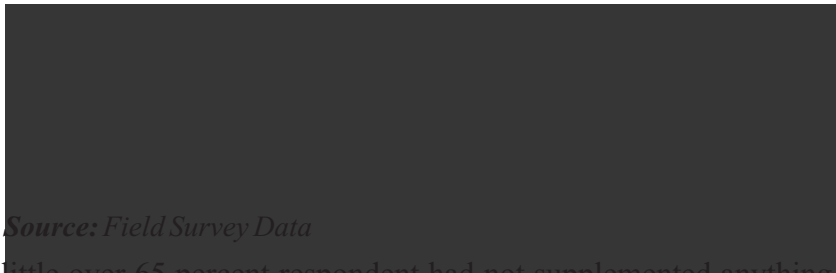
Child Feeding Practices: The link between malnutrition and infant feeding has been well established (Chowdhry, 2006). Even the scientific evidence reveals that malnutrition directly or indirectly contributes to about 50 percent to 55 percent of all deaths among children under 5 years annually, and two-third of these deaths are often associated with inappropriate feeding practices occurring during first year of life.

Table No. 15: Feeding Practices up to Six Months

Source: *Field Survey Data*

Breast milk constituted the major source of food upto six months (98.5 percent) as exhibited in Table No. 15. Respondents had sufficient knowledge about it.

Table No. 16: **Supplementary Feed Offered during the First Six Months**



Source: *Field Survey Data*

A little over 65 percent respondent had not supplemented anything more than the breast milk during the first six months of their delivery. But 34.6 percent respondents had supplemented in addition to breast milk during these days (Table No. 16).

Nearly 30 percent respondents were going for regular health check-up of their children, 33 percent - only on need and similar proportion occasionally used to visit the doctors for health check-up. Around 3 percent did not go for health check-up. Significantly larger proportions of respondents were not undertaking regular health check-up of their children (Table No.17).

Table No. 17: Frequency of Child's Health Check-up

Source: *Field Survey Data*

As shown in Table No. 18; vast majority of respondents (98.7 percent) had followed the immunisation schedule properly and have regarded it as a core function. Chi-square test shows that ($p<0.0001$) highly significant portion of the respondents (98.7 percent) followed immunisation schedule in the rural DK District.

Table No. 18: Promptness in Following Immunisation Schedule

χ^2=1638.6, p<0.0001, HS d.f = 2.
Source: *Field Survey Data*

Table No. 19: Place of Child's Immunisation Undertaken

Binomial p<0.0001, HS.
Source: *Field Survey Data*

With regard to the place of immunisation done, large majority (92.5percent) stated having done in public health institution (PHI) while only 7.5 percent had gone to private health institutions (Table No. 19). Thus, Binomial test proves that (p<0.0001) people prefer public health institution to private health institutions for immunisation.

Infant health care programmes are mooted jointly by the Central government under Family Welfare Department, Integrated Child Development Services, NRHM, RCH and the State government through its Women and Child Welfare Department and Family Welfare Departments. The aided and unaided awareness for all these programmes are given in Table No. 20. Thus, awareness for all these programmes ranged from 62 to 99 percent .

Table No. 20: Awareness on Infant Health Care Programmes

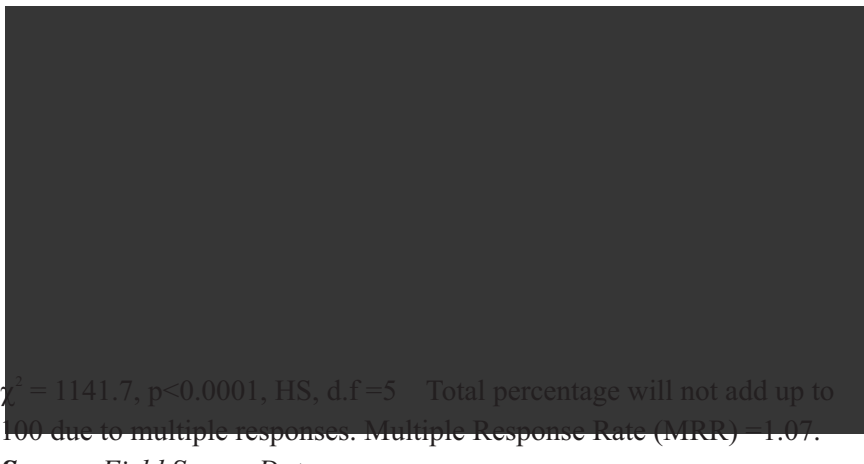
	Recall				Unaware		Total	
	Aided		Unaided					
	n	Percent	n	Percent	n	Percent	n	Percent
Supplementary nutrition provided at AWC's	4	0.5	842	98.8	6	0.7	852	100.0
Mother's meeting held every month	7	0.8	810	95.1	35	4.1	852	100.0
Janani suraksha yojane	25	2.9	724	85.0	103	12.1	852	100.0
Free immunisation programme of Govt. hospitals	1	0.1	847	99.4	4	0.5	852	100.0
Bhagyalaxmi Scheme for girl child	39	4.6	714	83.8	99	11.6	852	100.0
Baby show held once a year	20	2.3	661	77.6	171	20.1	852	100.0
Prasuti Araike yojane	43	5.0	486	57.0	323	37.9	852	100.0
Madilu yojane	60	7.0	518	60.8	274	32.2	852	100.0

Source: *Field Survey Data*

Note: n=Number of respondents

The Chi-square test shows that ($p<0.0001$), significantly greater proportion of respondents seek the medical treatment for their infants from the PHCs as shown in Table No. 21. However, similar proportions of respondents had inclination for private hospitals and local doctors.

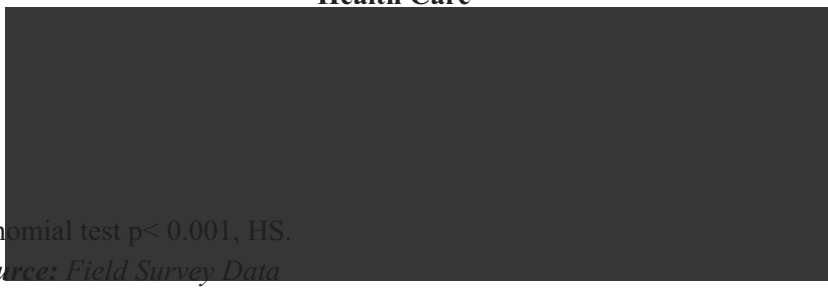
Table No. 21: Health Centre Preferred for Infant Health Care



$\chi^2 = 1141.7$, $p<0.0001$, HS, d.f =5 Total percentage will not add up to 100 due to multiple responses. Multiple Response Rate (MRR) = 1.07.

Source: *Field Survey Data*

Table No. 22: Follow-up Service after the Provision of Infant Health Care



Binomial test $p < 0.001$, HS.

Source: *Field Survey Data*

Large majority (98 percent) reported that follow-up service was provided by the Government health personnel after infant health care service was provided as shown in Table No. 22.

Table No. 23: Necessity of Public Health Institution

Source: *Field Survey Data*

Universally all have agreed that public health centres are inevitable in rural areas. As seen in Table No. 23, 99.9 percent of the respondents suggested that public health centres are absolutely necessary in the rural areas.

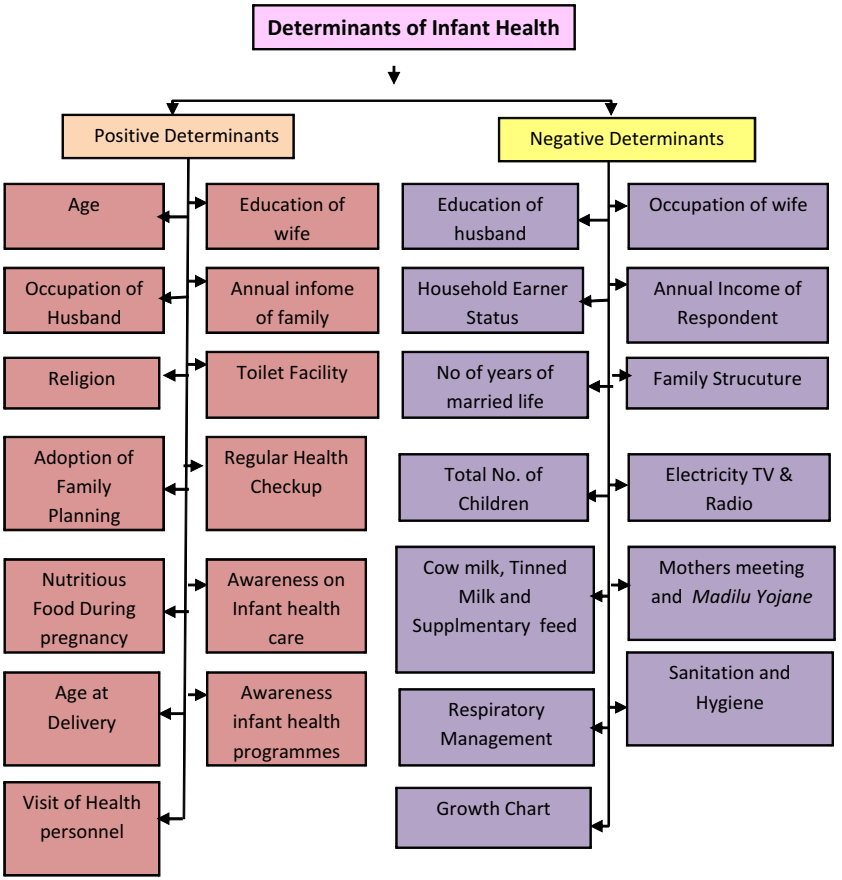
Determinants of Infant Health

Discriminate Analysis was performed to identify the influence of various factors on infant health. The parameters taken were age, education level of husband and wife, annual income, household earner status, religion, number of years of married life, family structure, facilities at home, number of children, healthcare during pregnancy, adoption of family planning, awareness on infant health care, health care programmes, supplementary feed , health check up of infants, role of service providers, and media support. These parameters/factors were taken to explore the influence on infant health.

The key determinants of the health status of infants were identified in the study region. Thus, it is understood that younger population is positively responding to health care. Education level of the mother, annual income of the family, Hindu population, nuclear families, adoption of family planning, number of children, availabilty of toilet facilities, awareness on infant health care, nutritious food intake during pregnancy, following regular immunisation,regular visits by health personnel have found to have favourable impact on infant health in the District.

Dual earning status, mass media, irregular health check-up, cow's milk, tinned milk, supplementary feed, mothers meeting, *prasuti araike* programme have negative impact on child health in the region.

Figure 1(a): Showing the Determinants of Infants Health



Conclusion

Childhood is a significant stage of life and the health care deprivation during this period can have a long term adverse impact on the well-being of children. One needs to understand the proximate determinants or intermediate causes of poor health conditions among children. If these identified determinants are addressed properly, infant health will reach the rural parts of the district. Education, empowerment, proper knowledge dissemination, creation of awareness through service providers and mass media will have a long lasting effect on infant health care.

Deficient Mother with her underweight unhealthy baby
(Farangipete in Bantwal Taluk)

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A Study on the Assessment of Self Esteem and English Language Skills among Pre University Students in Mangalore

*** Ms. Shobhana N**

Abstract

Education system in Dakshina Kannada and Mangalore being a part of it has great potential for growth of the student community. The District possesses a well developed educational system as well as a network of schools and colleges. They have been imparting knowledge for the last few decades. The educational institutions play a vital role in the life of young student in building self esteem along side the necessary knowledge, skills such as English language skills and other skills related to the field of occupation. With this background, the present research has been undertaken to assess the level of self-esteem and English Knowledge as well as computer skills acquired by the student studying in the PU colleges in Mangalore city.

Keywords: *Self Esteem, English language skill, Computer skill, PU students*

Introduction

Every institution must work for the long term benefit of the primary stake holders, namely the students. Higher education today has taken upon itself the great task of propelling the student community to meet the challenges of a growth oriented economy the nation and the world. This calls for understanding the academic needs of the students at the entry level and bridging any deficit for capacity building during the undergraduate programme for employment or higher education.

The Department of English felt the need to study the English Language skill possessed by the students from pre-university to be better equipped to meet the need when the students enrolled for the under-graduate programme. The study also intends to test if the lack of skills such as English Language affected their self esteem.

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The world is shrinking rapidly today. Advances have been made in all spheres; Science, technology and especially the communication and information technology. The audiovisual mediums have transformed this sprawling earth into a global village. People of different cultures and nationalities now are in contact, meet interact, trade on a regular basis. There is constant exchange of information, knowledge, Skill and communication across the globe.

Globalisation and its impact is a reality and it touches every individual on this earth in one or the other way. In this situation there is a call for a universal, efficient, and accessible code of communication and Knowledge exchange which is common to all. While, the Electronic medium, namely the computer, with its multi faceted applications and use is one way; the English Language, which can act as a 'link language' is the other.

A community that is propelled towards growth in all its spheres needs to be prepared with all the necessary equipments to meet the demands of the growth process. Inevitably and invariably, the skills section needs to be attended to and the foremost being in the area of communication. There is a call to equip the individuals who are to work in the growth sectors where communication system through which information and knowledge transference takes place. Thus, education today, in order to be relevant, needs to provide the skills necessary for self and the nation and it will not be wrong to say, the world. What every educated individual needs to possess are Computer skills and English Language skills.

Language has been defined by Brook (1968) as **"**a purely human and non instinctive method of communicating ideas, emotions and desires by means of a system of voluntarily produced symbols". One feature of language that is emphasised in this definition is that it must be deliberate. It may be noted that language may communicate ideas, emotions, and desires in an indirect way. The differences between spoken and written language are not confined to the representation of individual words or to syntax. One of the most important processes in the building up of language is known as analogy. Analogy may operate in any of the divisions of language like spelling, phonology,

morphology, syntax and semantics. Language learning involves the reproduction by the learner of the sounds and patterns used by other human beings around him. In the learning of a second language, however, the habits already acquired in connection with one's first language (mother tongue) stand in one's way. Each language has a different system, and in foreign language learning one tends to hear and speak on the basis of the system of one's own language. One has therefore, to resist the pull of the mother tongue and reorganise one's habits of hearing and speech. The use of the language was by and large either a way of keeping with the trend of the time or for using.

Language carries a load of meanings; and we do not perceive the words, either in the spoken or the written symbols as words, but only as meanings. It is only when there is some ambiguity or misunderstanding or doubt that we become aware of the language symbols conveying meanings. But when we are at first using a language, we cannot avoid being aware of language symbols, and of attending to words, sentence patterns and grammatical forms, instead of meaning. Thus, using the mother tongue is a somewhat different linguistic process from first making use of English.

The mother tongue for students from vernacular medium is so deeply embedded in their mental lives and inner consciousness that learning English language requires at first a different reaction to language. It requires a re-orientation and in parts a re-organisation of consciousness. Hence, in enhancing self esteem and skills in pre University Students, their attitudes and interests need to be taken into consideration. Further more students from vernacular medium come from learning experience and atmosphere different either because of their social, economical or geographic location to those who are from English medium schools. Hence, the input and the use of skills of English language and computer even if available in the curriculum are not developed as there is no use except as a subject. Thus there exists an unreal situation for the vernacular medium students as the skills developed are not proportional to the skills required at a later stage. This adds to the stress if the individual does not possess a strong self esteem which will provide the much needed coping strategies to the new situation and challenge in from of the individual.

History and Origin of English Language

The English language in the earlier days was spoken by educated class and as such was a language that those who had access to enjoyed learning and it as a tool to propagate nationalism. The native language was the mode of communication and there were different languages and all was well. Today the global scenario has shifted both the place of the vernacular and that of English. Today the position is topsy- turvy, this may sound exaggerated but with only the vernacular medium as a communicative and technical tool an individual can go far in his choice of career . Even if he/she gets one he cannot climb high in his career without some amount of working knowledge of the English language.

English has linguistic resemblances of German, Dutch, and Scandinavian languages. We find that all these languages have certain common features, they represent the various forms into which a parent language has been differentiated by divergent development. No text written in this parent language known as common Germanic have survived but it is possible by comparing the languages, composing the group, to reconstruct forms which must have occurred in the parent language. Romans languages such as French, Spanish, and Italian can be shown to go back to a common source which was a form of Latin, although it was not identical with classical Latin. Indo-European is only one of several large language groups which have not so far been shown to have any relation with one another. The inhabitants of Brittan at the time of the Roman invasion spoke a Celtic language of which no literary text remained. The history of English language in England begins with the settlement of Angles, Saxons and Jews in Brittan. The settlement attained significant proportions by the middle of the fifth century though it may have begun before them. It is possible to derive the history of English language as spoken in England is divided into three period, known respectively as old English middle English and modern English. Modern English period extends from the end of the fifteen century until the present day. English language would not have continued to exist for so long if its uses had been unable to devise ways of

overcoming and counter acting degeneration when it attained serious proportions. Katzner (1977) traces that the history of English language begun with the arrival of the three Germanic tribes about the middle of the Fifth century, Angles, Saxons and Jews crossed the North Sea from what is present day Denmark and the coast of North West Germany.

More than four hundred million (this figure is rising in millions now) across the globe. Some people such as the English, Americans, Canadians, and Australians see it as their mother tongue, some like Indians, Africans, Chinese, and Europeans, Japanese and South Americans use it as their second language influenced by their colonial experience, and there are yet others who learn it a foreign language. Every fourth person on this globe can be reached through English and need for this language as news papers, scientific treatises and journals as well as Audio visual media which are in English compel the learning environment of the English language upon if not every at least most individuals on this earth.

English System of Education in India

"English system of education was introduced in India in 1835 by the British" says Shankar (2003) in 'Teaching of English'. He points out that this was a need created by the British for administrative and political purposes. The British taught English as a compulsory subject. After Independence various changes occurred in the education system and education commissions made an attempt to switch over to the vernacular or the mother tongue as a medium of instruction. However, at every point the place of English was not one to be discarded or neglected. At every point in time after Independence the position of English language in the curriculum was there either as a medium of instruction as in the English medium schools, and as a second language in the schools where the medium of instruction was in the vernacular/mother tongue. Thus English continued to be taught as a subject in schools. Some schools began to teach English as a subject after the VII standard. Various states have designed their own educational policies, and either assigning to the English language the position as the Second language or as a foreign

language, but continues to be taught at various levels all over the country. The Kothari Commission has recommended that the study of English as a co-language should be compulsory up to Class X. Thus English is compulsory at the school level and optional thereafter.

Importance of Language

Baugh (1968) views that the relation between the people and the language is so intimate. The language is important because the people who speak it are important politically economically, commercially, socially, and culturally. English French and German are great and important languages because they are the languages of great and important peoples. English is the language not only of England that of the extensive dominion and colonies associated in the Britsh Empire. And it is the language of the United States spoken by over 260 million people. It is in the number who speak it the largest of the accidental languages.

English Language and its Importance

Advantages of learning English language and Communication is an endless list, creating possibilities each day to connect with people worldwide. With command over English language one can get jobs easily and can participate in interviews and discuss with people in a group about any particular important topic or aspect. English communication gains one's wisdom and one can also gain lots and lots of knowledge by reading newspapers, story books, essays, online sites and journals and any of the greatest and famous writing written in English by poets, authors or leaders. Apart from being most important, widely used and useful, English is considered to be one of the easiest languages to learn and speak. With daily practice, one can communicate-well with others and improve one's skills, show-off or expose your skills before others to impress and motivate them to come up with their English language communications skills. Hence, English even-though being a foreign language to many is, now most commonly used language worldwide especially in British dominion later became Independent republican countries like India and Pakistan.

English has a special status in India. Apart from having a place in the public institutions of the country, in Parliament, the law courts, broadcasting, the press, and the educational system, English has spread in our daily life. India ranks third in the world after USA and the UK to use English as spoken language. After Hindi English is the most commonly spoken language in India. Language remains potentially a communicative medium capable of expressing ideas and concepts as well as moods, feelings and attitudes. Language is learnt through use, through practice. As we know the more one is exposed to the use of language, the better one learns'. English is a means not only for international commerce; but it has also become increasingly essential for inter-state commerce and communication. In India, people going from North to South for education or business mostly communicate in English, which has become a link language. Keeping this in mind, the Parliament has also recognized English as an official language in addition to Hindi. All the facts of history and developments in present day India underline the continued importance of learning English. We must make the best use of English to develop ourselves culturally and materially so that we can compete with the best in the world of mind and matter. English language is our window to the world. Properly used, technology will help students acquire the skills they need to survive in a complex, highly technological knowledge-based economy world. Thus, English has become a major international language for worldwide communication. Proficiency in English is a mandatory requirement for any professional working in a global business environment.

Akmajian et.al (1996) states that the capacity for language is a species, specific, biologically innate trait of human beings. The question then naturally arises how this capacity may have originated and evolved in the species. Unfortunately, we have little, if any, solid evidence to indicate when language may have originated, why it might have developed in our particular species, and how it evolved from its earlier stages. One idea concerning the origin of human language is that humans began to mimic the sounds of nature and used these sounds as referents for the sources of the sound. According

to another speculation, vocal language gradually evolved from spontaneous cries of pain, pleasure, or other emotions. To this day all humans and other animals as well, use response cries; and what is left unexplained is why humans developed language as well. It has also been suggested that a gestural language –that is, a system of hand gestures and signals- may have preceded vocal language.

Gurrey (1954) says that language is especially necessary for our growth and development; and that our language habits affect, and are affected by, our normal mental and physical habits and behaviour, such as observation, perception, feeling, emotion, imagining. Unfortunately we find that language habits, just like other habits, may become stereotyped or almost automatic, and therefore not amendable to processes and influences that might bring about increased skill and ability.

Chomsky(2000) opines that language is one of the oldest branches of systematic enquiry tracing back to classical India and Greece and it is quiet young. The faculty of language can reasonably be regarded as a "Language organ" in the sense in which scientist speaks of the visual system or immune system, or circulated system as organs of the body. Understood in this way, an organ is not something that can be removed from the body, leaving the rest intact. It is the sub system of a more complex structure. One of the structures is Grammar. Generative grammar arose in the context of what is often called "the cognitive revolution" of the 1950s, and was an important factor in its development.

Communication is very important to all aspects of life. It is an important skill but certainly not imperative to life. Not only is it a very common language; it is probably the most universal language in the world. Therefore being able to communicate in English would mean you are more likely to be able to communicate with a higher number of people in general. Communication affects every aspect of our life, from work and education to society and leisure. There is very little we can do without communication, in fact almost nothing at all. Communication does not just mean talking to one another; it can include body language, writing letters, texting, writing emails, sign

language and any other method of conversing. "Communication skills were considered more important than either technical knowledge...or computer skills." In any industry almost no exception is made in any job category about the need for good communication skills. The importance of communication skills has spread through the society not as a requirement, but as a necessity. Bates et. al (1999) states that language is the primary medium through which culture is passed from generation to generation. To a large extent the ability to speak determined the direction our species took in its physical evolution. English is a language which is important, useful and helpful for every citizen in today's world. By learning English, one can develop four important skills like: Listening, Speaking, Reading, and Writing. Knowledge of English is important as one can get to know how to frame sentences, how to use words in dialogues while speaking to others. As every word has a particular context where it fits right, using words in such a manner in English is an art that can only be mastered by practice. And with such command, we can easily communicate with others on any level. Mostly, listening and speaking improves our command on English language. Daily listening to English speakers and trying speaking in English, helps one to know how to use the language, where to use each word and when to use it in a correct manner. Concentration on learning English communication skills in this new millennium is a tremendous move towards speaking and writing fluently in English. Also one's way of pronunciation of different words will be improved if one learns good communication. One can make conversation, practice dialogues, and give presentations if one learns English communication language skills. Communicating with people in English on a daily basis also improves one's pitch & voice/tone of one's speech.

Bernice (2008) discovers that the significance of English as second language can only be understood in the larger and in the historical perspective. It is to be noted that English in India is a symbol of linguistic centralism where as the numerous Indian languages, are seen to represent linguistic regionalism. From Maculary to Mulaysm Singh, we have seen now in India the movement from one to the

other. Following the withdrawal of the British from India, the language question naturally came to the force, in which the central issue was the role and status of English vis-à-vis Indian languages, both vernacular and classical. The vested interest of the English knowing ruling class demanded the perpetuation of English so that the vast majority of the people would continue to remain outside the privileged power structure. To achieve this, a whole conceptual structure was developed and manipulated. This conceptual structure has three parts: modernization, internationalism where invoked and English became the language of both modernization and internationalism, and by implication the Indian languages became associated with tradition which by definition was assumed to be anti modern and backward looking. Once this was taken to be true, the next step in the argument was to define the role and relationship of English vis-à-vis the Indian languages. This need gave birth to language planning which was in fact the linguistic analogue of a particular politics. 'Language planning operated with a whole set of lexical weaponry that gradually related a new mythology. Major Indian languages become in this discipline, regional languages; notice that regional is in opposition to national; even Hindi is a regional language which has been accorded the status of an official language, and state official language in certain states. English, the other official language did not suffer from this disability. Its major strength is argued to be the fact that it cannot be identified with any one region and therefore, English is one 'Pan-Indian' language that would promote national integration as no other language would. So, by this logic while the Indian languages, as regional languages, promote the divisiveness and fissiparous tendencies, English, a foreign language, promotes unity and integration. This argument for linguistic centralism had an inherent appeal for the intellectuals at a time when an impatient unitary centralism was the dominant political ideology it has since began to break down as an inappropriate model. Harish (2008) views that the British needed to introduce English study here in India. We were forced to study English as a superior literature and superior culture.

Meaning and Concept of Skills

An ability and capacity acquired through deliberate, systematic, and sustained effort to smoothly and adaptively carryout complex activities or job functions involving ideas (cognitive skills), things (technical skills), and/or people (interpersonal skills).

Significance of Skills

Kokate (1997) who is convinced of role of physical education in total development of human person views that a skilful teacher contribute to the overall of an individual. In physical growth, in motor skill, in emotional maturity, and in social adjustment, different forms of physical education contribute to different phases of development in varying degrees. That is why acquiring various professional skills is essential like skills in computer and in language. The large amount of time in business spent communicating with other people. Asking a messenger to deliver a parcel, selling a multi-million etc.

The skill development of adolescents often involves interdisciplinary collaborations. For example, researchers in neuroscience or bio-behavioral health might focus on pubertal changes in brain structure and its effects on cognition or social relations. Sociologists interested in adolescence might focus on the acquisition of social roles (e.g., worker or romantic partner) and how this varies across cultures or social conditions. Developmental psychologists might focus on changes in relations with parents and peers as a function of school structure and pubertal status.

Methodology

The methodology gives a systematic plan of how the research has been conducted with emphasis on the logic behind the methods used in the context of the study. Education system in Dakshina Kannada, Mangalore being a part of it, has great potential for growth of the student community. It is a part of the state of Karnataka, which possesses a well-developed educational system and network of schools as well as colleges. They have been imparting knowledge since the last few decades. The scenario of education system at Mangalore can be analysed from its good literacy rate as well as the

growing potential in the educational arena. With this background the research has been conducted to probe into the crucial concern of the adolescents who are enrolled in PU Colleges of the said city.

Aim of the Study

To assess the self esteem level and the level of skills acquired in the sphere of English Language skills of the Pre University (P.U) students studying in Mangalore.

Specific Objectives

1. To study the profile of the respondents.
2. To measure the self-esteem level of the P.U students.
3. To assess the knowledge of the respondents in English.
4. To draw strategies to increase the potential in language and to enhance the self esteem of the respondents.

Field of Study

The study was conducted in Mangalore both in government and private Colleges which are situated in Mangalore. The students selected for the study are from Karnataka Secondary Education Examination Board, as the sample is of students from Vernacular medium (Kannada).

Research Problem

Every institution must work for the long term benefit of the primary stake holders, namely the students. Earlier, this issue was taken into consideration by the university at large and the ideologies transferred and percolated to the institution. Higher education today has taken upon itself the great task of propelling the student community to meet the challenges of a growth oriented economy the nation and the world.

The school of social work has the responsibility of framing the syllabus for the undergraduates as it is an autonomous college as well as an institution which enjoys the status of College with Potential for Excellence, conferred by UGC. This calls for understanding the academic needs of the students well in advance so to prepare a curriculum which is relevant and appropriate. It is vital that the

lacuna which exists in the various skills necessary and which for various reasons may not have been addressed at the Pre-degree stage of education is overcome; What ever be the shortcoming at the skill and knowledge level they must be bridged at the earliest so as to make Undergraduate programme at our institution meaningful. The action plan is the building up of skills and competencies necessary for their future in life be it in their present undergraduate for which they will enrol in the institution, a career or higher education.

There is a wide gap in the English language skill in general between students who join the institution for their course in B.A or B.S.W programme, from the vernacular medium and the students coming from English medium. At the undergraduate level, one requires English language competency as the medium of instruction is in English. From experience the facilitators are of the opinion that the lack of competencies results in demoralising the students which in turn lowers their self esteem as well their academic performance.

The globalised scenario calls for skills such as efficient communication in English, a working knowledge of computers and grounding in soft skills helps in better emotional competencies. Thus the stress is on overall development both of him/her and the required skills. Thus the three aspects (English Language, Computer Skills, and Self Esteem) for consideration evolved in the research. The aim is to study the developmental position of the three competencies in the Pre-university students, which the research team felt was a vital component for an individual in the given scenario. Hence, Self Esteem important for interpersonal personality development for the progression of the individual, "English Language Skills" as it is a global language, for effective communication and information transference.

Problems of learning English for Indian students from Vernacular Medium:

- The purpose of learning English is not clear and not felt by the students in the early stage.
- English is not taught at a the same level in all schools hence the level of language competencies varies resulting in faulty

exchange of skill level which does not meet the need of individual students as this varies from student to student.

- Poorly designed text books and inefficient facilitators contribute to poor quality of English language skill at the Secondary School level.
- Students can not relate to this language in their real life as English is not used nor is in necessary in their day to day activities. Hence the language learning in school does not have a far reaching and internalisation of the English language by the individual does not accompany the learning process.
- Mother tongue interference in the language learning process of the Second Language, namely English.

The researcher has to keep in mind all these factors and try to assess the level at which the respondent is. The most important of them being, the mother tongue interference.

The mother tongue is a block and "impedes the learning of the new language because it is very firmly seated as the first language- a part of our mental lives and of our unreflecting consciousness, as well our automatic responses to experience is that, usually we are not aware of language when we speak or listen or write". Gurrey (1964)- in his- 'Teaching English as a foreign language' that we are conscious then of only, what we have in mind, what we want to say or know; and so our minds concentrate on meaning, not on words as symbols.

The research proposes to understand the position of the English language in the language experience of the respondents through the study of his/her profile. The profile takes into account age, gender, level of competencies (English, computer), and the level of self esteem of the target group which has completed their SSLC in the vernacular medium.

The assumption is that the students from the vernacular medium hail from economically underprivileged section or are placed demographically where access to English medium schools is not easily available. There is no need for these skills to develop as the

societal needs requires a different set of skills and competencies for which neither English language nor computer skill is necessary. The study intends to understand if the call for these skills at the academic level which have not been garnered or used in their environment earlier will cause any stress on the individuals when they reach an important milestone in their academic career, Vis a Vis the undergraduate programme. This has brought the self esteem module also into the study

The intention of the study is to evolve a Bridge Course or a training module which will help in bridging and enhancing the skills and provide the necessary personality development before the actual curriculum starts as well to integrate into the curriculum to provide ample opportunities for the development of the said skills.

The vision is to evolve a self motivated student community which is empowered to take on their future course of action independently. The process both of study and future plan of action should be an ongoing process with the co-operation of the pre-university colleges. This action plan will go a long way in improving the quality of education and the level of student competencies and thus make the employable or worthy of academic advancement.

Research design

The research design of this study is descriptive which is focussed on the level of self esteem and English language as well as computer skills acquired by pre university colleges in Mangalore of students from Kannada medium. The study intends to assess the level of self esteem present in the teenagers and the skills they have in English and computer.

Sampling Design

A sample design is a plan for obtaining data from the given population. It refers to the technique or the procedure that researcher would adopt in selecting items for the sample. This research has applied probability sampling which is also known as random sampling or chance sampling.

The recent development that has been witnessed in the educational

structure of Mangalore is the emphasis on computer literacy. Both schools and colleges in Mangalore have introduced compulsory training in computer and IT related courses so as to achieve the goal of spreading computer literacy among all.

These days various other means of imparting knowledge have been introduced in the educational system of Mangalore. They are vocational training, distance education, online education, etc. With all these developments, it is sure that **Mangalore education** has got a very prospective future. Mangalore being an education hub attracts students from different countries, states, cities and even the rural areas.

The research is aimed at having hundred respondents who are currently studying in Pre-university Colleges of Mangalore University. Since some of the colleges were not willing to permit the researchers for data collection, the convenient sampling has been an appropriate one for the success of this endeavour and so the study has been conducted in the following PU Colleges which are situated in Mangalore: St. Mary's Girls Composite Junior College, Victoria Girls Composite P.U College, Capitanio Composite P. U. College, Ganapathy PU College, Shree Gokarnatheshwara First Degree College, Padua PU College**,** Kittel Memorial PU College, Rosario PU College, St. Sebastin College. These colleges were chosen at random ensuring the coverage of rural as well as urban area of Mangalore. Since the permission was not granted from the authority data collection could not be done in some of the colleges. Thus the sampling size was hundred.

Operational definition

Self esteem is the assessment of oneself in terms of Self respect (sense of pride, respect, sense of worth, being useful), Positive attitude and content with self. Language skill assesses one's ability to communicate through speaking, reading and writing. Computer skill assesses their knowledge and operation.

Tool Development

The department of English, while framing the instrument for administration for the present research intends to study the level of English language skill in the students from vernacular medium in their secondary school education (until tenth standard) to keep several aspects in mind. Firstly, the respondents were learning a Foreign Language, Secondly that the learning environment otherwise is the vernacular medium. Finally, and most importantly the Foreign Language, English, has no place in their day to day life at the level of language acquisition as the environment and situations demanded only the vernacular or their mother-tongue as the case may be. Thus the English language learner has no platform either to receive or to send language codes in English other than in the class room situation. Here, the interaction with English is through the text at hand and more often than not an English text which tells them/ teaches through an alien world they neither relate to nor understand. Every language is rooted in its culture and thus we learn a language through its literature, which in turn is about its people and their way of life through different forms of literature- poetry, prose, novel, drama, essay as the case may be.

At the level of testing, the first and the obvious place to start is the manner in which the language is spoken, namely the grammatical proficiency. In our interaction with the language teaching process and the feedback from the students we have isolated some areas that challenge them in their language learning experience, they are: Articles, be-type verbs, tense and number. We have in the tool used, tried to test all these aspects to see if our understanding and assumption is right as well as to see if these are indicators of the language skills. To clarify further the tool used to study the English skill, here is a detailed analysis of each of the section of the instrument. The tool has been designed with multiple choice options to enable the student to experience the language and respond and does not rely on his learning ability or his memory; this is to ensure reliability of the result.

The test instrument designed was to study the language level with the

intention to understand if a training process will help bridge the gap. The institution has already in place a language lab and with the help of it as well as the autonomous status of the college, to evolve a language learning process which takes technology and language technique along with studying. The assumption is that, with the input of Skills will help in better personality traits which will bring about self esteem and better emotional quotient and promote a healthy learning opportunity.

Sources of data

The sources of data for the study undertaken are primary and secondary. The primary sources are teenagers of Pre- University. The secondary sources are books, journals and internet.

Method of data collection

The sampled out responding schools were contacted and those responded positively were included for the study. Their potentials respondents are the students of Pre University College were provided with the questionnaire and they have filled up the tool. Since the researcher was present at the time of filling up the questionnaire clarification was provided wherever needed.

Data analysis

The collected questionnaire data was processed and analysed in SPSS software.

Outcomes

- The study would increase the respondents Awareness about oneself.
- Module will be developed to promote the self esteem level of the Pre University and undergraduates.
- This study also gave an insight for the researcher about the level of English language skill and computer skills of Kannada medium students.

Major Findings and Suggestions

The major findings of the study on the Assessment of Self Esteem, English Language and Computer Skills among Pre University

Students in Mangalore can be presented as under: Each of the variables is analysed and interpreted extensively.

Profile of the Respondents

In this study all the respondents are students of II P.U.C, who have completed their SSLC (X standard), in Kannada medium. The assumption and experience is that students from vernacular medium schools (from pre-primary to standard X) come from remote areas or economically needy family, where access and input of skill development such as English language skill and computer skill is insufficient or lacking.

Table No. 1: Table showing the responses of the respondents

Source : *Field survey*

Table No. 2: English test

English test	Frequency	Percent
Low	29	29.0
Moderate	64	64.0
High	7	7.0
Total	100	100.0

Source: *Field survey*

Chart No. 1

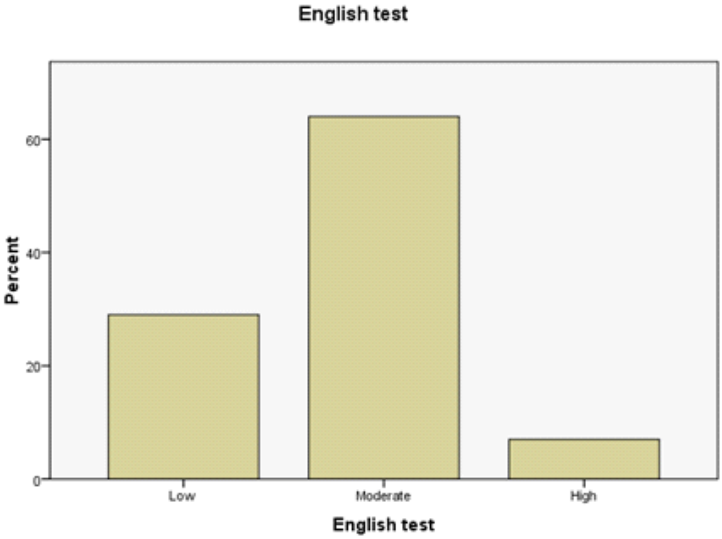

Table No. 2 shows the result of the English that was conducted to the respondents. More than half (67 percent) of them have moderately done well, one fourth (29 percent) of them have performed low and only (7 percent) of them done very well in the English test.

Major findings

Majority (53 percent) of the respondents strongly agree with their s**ense of worth on an equal basis with others**. Other (37 percent) of the respondents just agree and some (8 percent) of them disagree and very few (2 percent) of them strongly disagree.

Half (51 percent) of the respondents agree that they have **good qualities** and more than one third (43 percent) of them strongly agree and very few (5 percent) of them disagree and only one (1 percent) strongly disagree of having good qualities in them.

The **feeling of failure in the respondents:** Nearly half (46 percent) of the respondents disagree that they don't have any feeling of failure and almost one third (36 percent) of them strongly disagree and one tenth (15 percent) of them agree and only (3 percent) of them strongly

agree of having the feeling of failure in their lives.

The **sense of pride in the respondents about themselves**, nearly half (42 percent) of the respondents disagree to the sense of pride about self and one fourth (28 percent) of the respondents agree and one tenth (16 percent) of the respondents strongly disagree and few (14 percent) of the respondents strongly agree of having sense of pride about self.

The respondent's **sense of positive feeling about self**, here half (54 percent) of the respondents agree of having positive feling about self and one fourth (28 percent) of them strongly agree and one tenth (15 percent) of them disagree and only (2 percent) of respondents strongly disagree and One (1 percent) respondent has not responded to this.

One third (36 percent) of the respondents agree of having **satisfaction about their self** and again almost one third (33 percent) of the respondents strongly agree and one tenth (18 percent) of them disagree and few (12 percent) of them strongly disagree and one (1 percent) respondent has not responded to the quiery.

More than half (61 percent) of the respondents strongly agree of having the **desire to have self respect** and one third (32 percent) of them agree and very few (3 percent) of them disagree and again only (3 percent) of them strongly disagree and one (1 percent) respondent has not responded to the query.

The **respondent's feeling of uselessness about self**, nearly half (47 percent) of the respondents agree to have the feeling of uselessness about self. More than one fourth (28 percent) of them disagree and more than one tenth (15 percent) them strongly disagree and few (9 percent) of them strongly agree and only one (1 percent) respondent has not responded to the query.

Nearly half (47 percent) of them agree of **feeling the sense of worthlessness**. One third (32 percent) of them disagree, one tenth (10 percent) strongly disagree and again (10 percent) of them strongly agree and only one (1 percent) respondent has not responded to the query.

More than half (65 percent) of the respondents agree that they are **able to speak English**. One fourth (25 percent) of them are very fluent and hence they strongly agree that they can speak the language. Some (5 percent) of them disagree that they cannot speak the language and the other very few (4 percent) of them strongly disagree that they can neither follow nor respond in English and only one (1 percent) respondent has not given any answer to the query.

More than half (54 percent) of them agree that they can **write in English** and one third (38 percent) of them are very confident of writing in English and hence they strongly agree and some (4 percent) of them strongly disagree that they cannot write in English and few of them agree that they cannot write in English and only (1 percent) respondent has not answer the query.

The **importance of communication in English for the respondents**: Here more than half (64 percent) of the respondents strongly feel that English is important for communication, almost (29 percent) of the respondents agree and some (4 percent) of the respondents disagree and few (2 percent) of the respondents strongly disagree and only (1 percent) respondent did not respond to the query.

The **respondent's view of job opportunities for good English communicator**: Here more than half (56 percent) of the respondents strongly agree that that they need to have good communication skills in English in for good job opportunities. One third (32 percent) of the respondents agree and some (7 percent) of the respondents disagree and few (4 percent) of the respondents strongly disagree. Only (1 percent) respondent has not responded to the query.

More than half (53 percent) of the respondents have the **desire to learn English if they were given an opportunity** to learn English, one third (36 percent) of the respondents agree to learn English and some (7 percent) respondents disagree to have the desire to learn English and few (3 percent) respondents strongly disagree to have the desire to learn English and finally one (1 percent) respondent is not willing to respond to the query.

The **result of the English test that was conducted to the respondents:** More than half (67 percent) of them have performed

moderately well, one fourth (29 percent) of them have performed low and only (7 percent) of them have performed very well in the English test.

Suggestion

The research has thrown light on the action plan necessary for betterment of education imparted by the institution in the sectors addressed in the research project. Unless the findings are made use of and methods adopted for change, there is no purpose to a research of whatever proportion it may be. Hence the department concerned has decided to take the following suggestions to be understood and addressed with the concurrence of all the stake holders in the education system.

It is important that the Language Lab be better equipped with necessary infrastructure, and software facilities in place. Some students hail from distant places and find it difficult to spend extra time other than their required time in the college due to problems of transport and time factor. Keeping this in mind, with the help of the Management and Board of Studies, the proposal is to extend the Language Lab facilities to all the students in the first two semesters as part of their English language paper.

To motivate those students who are from vernacular medium, the idea is to offer a bridge course both in English language initially while they join the college as special classes allocated within the timetable. To ensure holistic development and to create a better adjusted student community, it is suggested to offer courses in development of interpersonal skill and self esteem. The institution's concern is not just for those who come within our gambit of work and experience but to the whole community at large. A natural outcome of this research is the idea of offering skill development programmes to the community as part of its extension services to ensure that more adolescents avail the facilities.

Conclusion

The research has been a very enriching experience for the departments concerned. It has brought the faculty members to work

together for a common goal. It has also brought to light the need for inter-disciplinary approach for better knowledge transference. It has fostered a research oriented mindset in the humanities faculty which otherwise is only class room oriented. The shift for learning experience throws light on field based study for the dissipation of the skills earlier restricted to class room alone.

The interaction with the Pre-university teachers, students and Principals has thrown the lack of connectivity in the education process and lack of continuity in the education from primary to secondary and secondary to pre-degree and there onwards to the under graduate programme and the accompanying problems and stresses faced by the primary stake holders namely the students in the whole process of education. The responsibility of the undergraduate programme to plug the lacuna so as to make the final outcome a fruitful and progressive one so as to make the community at large aware and equipped with all the necessary components for the future.

The possibility to introduce and reinvent a new methodology and teaching process has constantly to be kept in mind. The research has been an invigorating a revitalising factor and the idea of future such programmes makes the professional graph achieve an interesting dimension.

The results have not been too far from the assumption and hence future action has already started with an initial group of twenty six volunteers and the results therein are encouraging and suggest that we are on the right track.

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Perception of People about Ban on Plastic Bags in Mangalore : An Empirical Study

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Abstract

The usage of plastic bags has both convenience and inconvenience in our daily life. They cause environmental hazards as most plastic bags are not bio-degradable. Hygiene and wastage issue are also being alarmed as plastic bags can be seen littered all across the town. Usage of plastic bags for hot edible items not only causes such inconveniences but it may also cause health hazards to the consumer. Stakeholders such as the consumers play a pivotal role in the environmental and health consciousness. Therefore, this study is being conducted in order to understand the consumer perception of Eco impact and Ban of plastic bags. So that recommendations can be made to raise public awareness and minimize the usage of plastic bags ultimately. Consumers' perceptions and usage behaviors in connection with respective government's policies and implementation of recycling systems could be highly decisive in reducing the eco-impact of plastic shopping bags. The results reveal that mere knowledge does not help until measures are taken at policy level for its usage implementing strict measures to drive behavioral practices.

Keywords : *Plastic bags, Perception, Waste management, Environmental hazards*

Introduction

Plastic waste is a major environmental and public health problem in India, particularly in the urban areas. Plastic shopping or carry bags are one of the main sources of plastic waste in our country. Plastic

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bags of all sizes and colours dot the city's landscape due to the problems of misuse and overuse and littering in India. Besides this visual pollution, plastic bag wastes contribute to blockage of drains and gutters. Also they are threat to aquatic life when they find their way to water bodies, and can cause livestock deaths when the livestock consume them. Furthermore, when filled with rainwater, plastic bags become breeding grounds for mosquitoes, which cause malaria. In addition, plastics take many years (20-1000) to degrade and hence pose a disposal challenge.

There are two types of plastic shopping bags - one, the lighter, filmy bags you get from supermarkets food outlets etc., and the other, heavier bags you get from other retail outlets, like clothing stores. HDPE or High Density Polyethylene bags are stiff, thin and not transparent or opaque. HDPE (Ethylene Polymer with densities ranging from 0.941 to 0.965 grams per cubic centimetre) is normally used in grocery or T-shirt bags. LDPE (0.916 to 0.925 grams per cubic centimetre) or low density polyethylene bags are thick and soft and can be transparent and glossy in appearance. LDPE is used in shopping bags usually with attached handles. Like HDPE bags, LDPEs cannot be recycled.

We are so accustomed to the ubiquitous presence of plastic that it is difficult to envision life when woods and metals were the primary materials used for consumer products. Plastic has become prevalent because it is inexpensive and can be engineered with a wide range of properties. Plastics are strong but lightweight, resistant when degraded by chemicals, sunlight, and bacteria, and are thermally and electrically insulating. Plastics have become a critical material in the modern economy. Bags taken home are reused as bin liners or waste bags, lunch bags and general carry bags. Bags that are reused as bin liners end up in landfill, and it is likely that bags reused for other purposes also end in landfill.

It is estimated that somewhere between 500 billion and one trillion plastic bags are consumed throughout the world each year. In 1977, supermarkets began to offer plastic grocery bags as an alternative to paper bags. By 1996, four out of every five-grocery bags used were

plastic. There is a growing international movement to ban or discourage the use of plastic bags because of their environmental effects.

Research has adequately established the public costs of plastic bag usage. They are environmentally unfriendly in the extreme, take hundreds of years to degrade, and fill up Landfills. Plastic litter can also lead to clogged drains resulting in sanitation and sewage problems. Plastic waste may also cause soil degradation, which hampers the growth of trees. In addition, animals have been known to often ingest plastic bags while its indiscriminate incineration pollutes the air and releases toxic substances (Dikang and Visser, 2010). The Mumbai floods in India in which about a thousand people died were partly the result of plastic bags clogging the drains (The Economist, 2009). In 2002, Bangladesh banned the use of plastic shopping bags for the same reasons (Spivey, 2003). Plastic bags are also responsible for using up oil, a scarce natural resource.

These concerns have caused governments across the world, including many states in India, to introduce legislation to limit the use of plastic bags. They have used a variety of regulatory instruments for this purpose. These measures include the mandatory pricing of plastic bags, explicit levies on each bag, taxes at manufacturing level, discounts on use of own bags, awareness campaigns, command and control approaches and, in some cases, a total ban on the use of plastic bags.

Modernization and progress has had its share of disadvantages and one of the main aspects of concern is the pollution it is causing to the earth – be it land, air, and water. With increase in the global population and the rising demand for food and other essentials, there has been a rise in the amount of waste generated daily by each household. This waste is ultimately thrown using plastic bags into Municipal waste collection centers from where it is collected by the local municipalities for further disposal into the landfills and dumps. However, either due to resource crunch or inefficient infrastructure, not all of this waste gets collected and transported to the final dumpsites. Added to this if the management and disposal is improperly done, it can cause serious health impacts.

Literature Review

A study by Fullerton and Kinnaman (1996) used original data gathered from individual households to estimate responses to the implementation of a price per bag of garbage in Virginia. They found the incremental benefit of unit pricing to be small because, although the number of bags from the households decreased, there was no reduction in the actual weight of their garbage. It is also possible that while households increased the amount of recycling, they might have resorted to illegal dumping. Thus the reduction in the weight of garbage was only 10 percent.

The discussion above shows the wide array of measures adopted by countries around. In a study on early Mater-Bi material composed of thermoplastic starch and polycaprolactone, McClure (1996) concluded that starch-based plastics are likely to be a lower risk to marine animals than conventional high density polyethylene (HDPE) plastics. Houvten and Morris (1999) examine the implications of a unit pricing demonstration project in Georgia for the year 1994, which required residents to pay by the unit for waste disposal services. Rather than pay a fixed monthly fee for collection, half of the residents in the project opted to pay a fee per reusable trash can while the other half paid for each non-reusable trash bag collected. Data from the sample of households covered indicated that the programs significantly reduced waste set-outs. The bag program caused larger reductions (36 percent) than the subscription can program (14 percent). Rough estimates for the program indicate savings for the residents as well as social welfare increases.

ExcelPlas Australia (2004) conducted an LCA (Life cycle Assessment) focusing on disposable and reusable bags as well as degradable plastic bags. The study found that GHG (Green House Gas) emissions for all bag types are dominated by carbon dioxide through electricity and transport consumption, by methane through the degradation of materials in anaerobic conditions, and nitrous oxide emissions in fertilizer applications on crops. Their results indicated that the degradable polymers with starch content have higher impacts upon GHG emissions because of methane emissions

during landfill degradation and nitrous oxide emissions from fertilizing crops

Further, the study revealed that material density is more important than degradability in determining the risk of harmful impacts to marine wildlife. Biodegradable plastic bags may have a similar impact, because they biodegrade at a relatively faster rate when in a composting facility in the presence of microorganisms. In oceans they can take more than five months to partially decompose, leaving a substantial time period during which they may affect marine life.

The Boustead Associates (2007) study is United States-based and, based on EPA (Environmental protection Agency). The study assumed that 5 percent of plastic bags are recycled, 14 percent are sent for combustion, and 81 percent are land filled. These end-of-life assumptions more closely reflect the real world than the assumptions of no recycling for plastic bags.

Further, the Boustead Consulting Study (2007) compared paper, HDPE plastic, and compostable plastic bags, assuming that one paper bag can carry the same quantity of groceries as 1.5 plastic bags. Study results indicate that paper bag production, use, and disposal result in twice the GHG emissions of conventional PE bags. Compostable plastic bag manufacture, use, and disposal, however, result in 4.5 times the GHG emissions of plastic bags.

Recently, Herrera et al (2008) conducted a review of previous LCAs (Life cycle Assessment) and concluded that in almost all cases a switch over to reusable bags would result in the most environmental benefits. Most of the reviewed studies also showed that paper bags had a greater impact on the environment than single-use plastic bags, due to a larger resource requirement for production and transport.

The plastic bag industry has contended that although reusable bags present the best environmental impact throughout their life cycle, these bags may pose potential health hazards. They assert that these single-use bags are usually disposed of after their first use and they do not accumulate bacteria and other pathogens. A concern with regard to reusable bags, is that, their reuse could create unhygienic environments and promote food-borne illnesses, unless they are

laundered regularly. This may be a minor concern, because reusable bags do not require special washing care and would likely be washed on a regular basis .

It is apparent from the study that partially degraded smaller pieces of plastic are less likely to be consumed by large marine animals. It is still uncertain whether or not these smaller pieces pose a significant risk, as they may continue to degrade in the smaller animals digestive tracts.

The Herrera study suggests that all the three regulatory options would result in significant environmental benefits. A ban on plastic would result in more than 60 percent reductions of impacts to litter aesthetics and marine diversity, and significantly reduce environmental impacts from non-renewable energy, GHG emissions, resource depletion, and shopping bag waste. However, eutrophication would increase slightly. A fee placed on plastic or plastic and paper bags would result in a 50 percent reduction in impacts of litter aesthetics and marine diversity. Although both scenarios would result in other significant environmental benefits, the fee on both plastic and paper would lead to greater than 50 percent reductions in non-renewable energy, GHG Emissions, resource depletion, eutrophication, and shopping bag waste generation. The Herrera study also evaluated the economic impact of these options. A fee on plastic bags would result in costs to consumers and the region, while the City and retailers would experience gains.

The Finnish Environment Institute (SYKE 2009) conducted a study on paper, cotton, and recycled plastic biodegradable bags. The authors determined that biodegradable bags are the worst alternative from the point of view of GHG emissions because they contain substances of fossil origin that increase bag durability, These bags are, therefore, only viable from a GHG emission standpoint if they are burned in a waste-to-energy facility or used in biogas production.

Problem Statement

Plastic bag is a serious problem all around the world for destroying environment. It creates wastages problem, harms the environment and causes health hazards if misused. However, people are still using

it due to easy availability, small storage place, weight convenience and cost effectiveness. As city being swarmed with plastic bag menace which causes flood, environmental and even health hazards, actions are being taken in many countries to minimize the usage of plastic bags. Some countries have imposed strict law and regulation to overcome the problem.

Background of the Study

With regard to 'Plastic bag ban' the environmental consciousness of the public has been increasing due to emergence of campaigns through media and public education during the century. However, even though bigger organizations have started to take notice and participate in green concept, one must not ignore the smaller business owner. In Mangalore, small businesses can be seen all around the street – the most prominent being grocery sellers, the street vendors, the supermarkets, hawker who sells foods and drinks in coffee shop or even at roadside. The most common packaging materials that these people use for their business is normally plastic bag. It's even used to pack boiling hot food or drinks. This raises the concern for some individuals and even the authorities since this practice not only affects the environment, but might cause health issues as well. For example, misuse of plastic bag in direct contact with high temperature food or drink might cause chemical migration between the food and plastic.

It is noted that stakeholders such as government, consumer and business owners are very important for a successful implementation of plastic bag reduction. This study will concentrate on one of the most important stakeholders which is the consumer. Consumer plays a very important role as their opinion affects other stakeholders such as the organization government etc., which reacts on the issue in order to maintain the good reputation in public eyes. In this case – the small business owner is the stakeholder who might be affected if the consumer has the opinion regarding the packaging material of their products. Therefore, in order to reduce the usage of plastic bags, the perception and practice of the consumer should be studied. This enables to understand the influencing factors so that strategy can be planned to moderately reduce the usage of plastic bags in Mangalore. The research paper is aiming at answering questions with regard to ban of Plastic bags in Mangalore. However the specific Objectives are

Objectives

1. To identify the parameters of the plastic bags ban on which the consumers have a favorable and unfavorable opinion.
2. To assess the respondents opinion on ban of plastic bags
3. To examine the views of consumers with respect to Income, Gender, Age and occupation regarding Plastic bag use.
4. To assess the extent of plastic use among people in Mangalore.
5. To raise major implications in the light of findings of the research study and to suggest the opportunities existing for further improvement

Hypothesis

1. Ban on plastic is well accepted by people of Mangalore
2. There is a significant difference on the views of the male and the female respondents regarding ban on plastic bags
3. Re-usage of Plastic bags and gender are independent variables
4. There is a significant difference on the level of income and ban on plastic bags

Study Design

In the current research paper, Mangalore City has been selected for collection of primary data related to the opinion of people on ban of plastic bags. A survey was conducted among students, home makers, employed professionals in various professions of different age groups, who are the users of Plastic bags and who have the knowledge on the usage and disposal. This survey was mainly aimed at understanding consumers' perceptions on ban of plastics

We have solicited anonymous response to a questionnaire given to the people around Mangalore city. by concentrating on areas such as Lady Hill, Urwastore, Chilimbi and Kottara. The questionnaire contained three sections. The first section is used to collect the personal profile of the respondents and opinion about plastic as a major pollutant, the second section was used to elicit information regarding some good things and bad things about plastic bags and the third section was used to solicit information regarding their views and perceptions on various dimensions regarding ban on plastic bags. The questionnaire was hand delivered to selected households by a

group of students who collected the response personally. The respondents were requested to respond fairly, with a lot of care as well as responsibilities

Sampling Framework

Table No. 1: Sampling Framework

Sampling Unit	Households
Sampling Area	Lady hill, Urwastore ,Chilimbi & Kottara of Mangalore Taluk
Sampling Method	Non-Probability Sampling Method: Convinience Sampling Technique
Sampling Size	100

The above Table indicates the Sampling framework adopted for the purpose of research study.

Results and Discussion

Demographic Profile of the Respondents

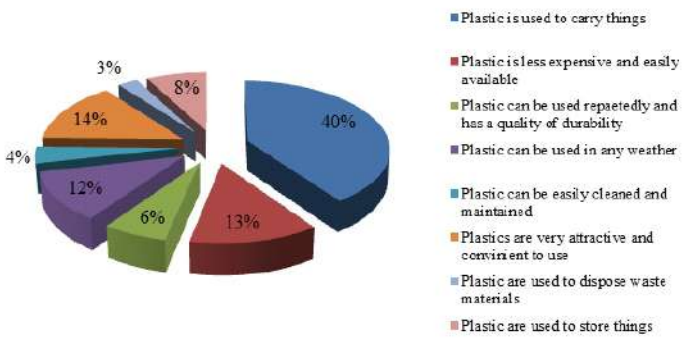
Table No. 2: Demographic Profile of the Respondents

Source: *Compiled from primary data*

The responses regarding good and bad things about plastics were obtained from the respondents though an open ended questions. After a thorough study, the following responses were elicited which is depicted in chart no. 1 and 2 given below.

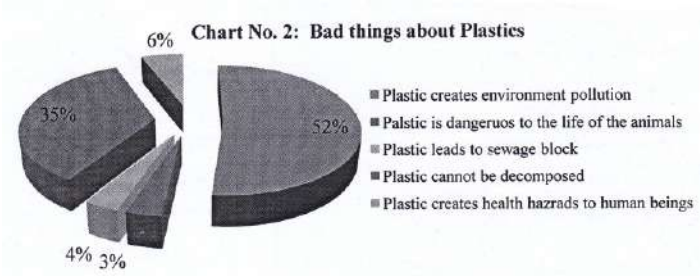
Good things about plastics

Chart No. 1: Good Things about Plastics



Interpretation: An open ended question was asked to the respondents to mention good things about plastics and accordingly 40 percent of the respondents opined that plastics are used to carry things, 14 percent of the respondents expressed their view that the plastics are very attractive and convenient to use,13 percent of the respondents stated that plastics are less expensive compared to other substitutes and easily available, 12 percent of the respondents mentioned that the plastics can be used in any weather especially in rainy season so the things carried in plastics do not get wet. Out of the total, 8 percent of the respondents conveyed that plastics are used to store things, 6 percent of the respondents' states that plastic bags can be used repeatedly and are durable than paper bags, 4 percent of the respondents mentioned that plastic bags can be easily cleaned and maintained, 3 percent of the respondents opined that the plastics bags are much used to dispose waste materials. Thus we can state that the plastic bags being water proof material are convenient, user friendly and can be used for several purposes.

Bad things about plastics



Interpretation: An open ended question was asked to the respondents to mention bad things about plastics and accordingly 52 percent of the respondents opined that plastics creates environment pollution, 35 percent of the respondents expressed their view that plastics cannot be decomposed, 6 percent stated that the plastics create health hazards to human beings, 4 percent of the respondents stated that plastics lead to sewage block and 3 percent believed that plastic is dangerous to the life of the animals. Thus it can be inferred that respondents are aware about the negative effects of the plastic bags as plastic bags prove to be a major threat to environment as well as to the life.

Respondents' opinion regarding Plastic bags on various dimensions

Table No. 3: Opinion regarding Plastic bags on various dimensions

Dimensions	Yes		No		Total	
	No. of Respondent	Percent	No. of Respondent	Percent	No. of Respondent	Percent
Respondents opinion regarding the preference for Plastics bags for purchases at Markets	47	47	53	53.0	100	100
Re-usage of plastic bags by the Respondents	56	56	44	44.0	100	100
Belief of Respondent of plastic bags as major pollutant	88	88.9	11	11.1	99	100

Source : *Filed survey*

Note: n indicates number of respondents

Interpretation: From the above Table we can infer that 53 percent of the respondents not at all preferred plastic bag for market purchases while 47 percent of respondents preferred plastic bags for market purchases.56 percent of the respondents favored the re-usage of plastic bags while 44 percent unfavoured re-usage of plastic bags.88.9 percent of the respondents opined that the plastic bags as the major pollutant while 11.1 percent disagreed the fact that plastic bags are major pollutant.

Frequency of purchases

Table No. 4: Frequency of household purchases

Purchase Frequency	Yes		No		Total	
	No. of Respondent	Percent	No. of Respondent	Percent	No. of Respondent	Percent
Purchases done on weekly basis	23	23	77	77	100	100
Purchases done on fortnightly basis	6	06	94	94	100	100
Purchases done on monthly basis	22	22	78	78	100	100
carrying bags other than plastics for purchases	62	62	38	38	100	100

Source : *Filed survey*

Interpretation: From the above Table we can see that 23 percent of the respondents make purchases on weekly basis, 22 percent make purchases on monthly basis 6 percent make purchases on fortnightly basis. Further it was interesting to note that 62 percent of the respondents carry bags other than plastics for purchases.

Change in the flavour of food when the food is stored for a long time in plastic bags

From the Table given below, we can infer that 61 percent of the respondents opine that when food is stored for a long time in plastics bags it does change the flavor of food and 39 percent of respondents opine that it does not change the flavor of food.

Table No. 5: Change in the flavor of food when kept in plastic

Parameter	Yes		No		Total	
	No. of Respondent	Percent	No. of Respondent	Percent	No. of Respondent	Percent
Respondents opinion regarding changes in flavor of food when food is stored for a long time in plastic bags	61	61	39	39	100	100

Source : *Filed survey*

Respondents' degree of agreement to various parameters regarding Plastics

Table No. 6: Respondents' degree of agreement

Parameters	Strongly disagree	Moderately disagree	Neither Agree nor Disagree	Moderately Agree	Strongly Agree	Statistic	
	Percent	Percent	Percent	Percent	Percent	Mean	S.D
Plastic bag is must when buying groceries/vegetables	24	8	10	17	41	3.43	1.64
Plastic bags are harmful for the environment	8	2	3	18	69	4.38	1.17
Respondents wish of not quitting plastic bags	14	5	24	26	31	3.55	1.35
Respondents opinion to the statement "I try to avoid plastic bags as much as I can"	4	6	10	28	52	4.18	1.09
Paper bag is not a useful substitute for plastic bags	13	10	10	34	33	3.64	1.37
Plastic bags are easy to clean	13	6	11	24	46	3.84	1.40

Source : *Filed survey*

Interpretation: The mean values of all the parameters mentioned are above the average level of 3. Hence we conclude that all the criteria mentioned above are favored by the respondents. The statement 'plastic bags are harmful for the environment' has lower

standard deviation (1.17) followed by the willingness to avoid plastic bags with standard Deviation (1.09)

Respondents' opinion about enforcement of plastic bag ban

Table No. 7: Opinion about enforcement of plastic bag ban

Source : *Filed survey*

Interpretation: From the above Table it is clear that 73 percent of the respondents are favoring the enforcement of plastic bag ban which is significantly higher and 27 percent of the respondents are not favoring plastic bag ban enforcement. So ban on plastic bags is well accepted.

Association between age of the respondent and enforcement of plastic bag ban

Table No. 8: Association between Age and enforcement of ban on plastic bags

Source : *Filed survey*

Null hypothesis- There is no association between age of the respondents and enforcement of ban on plastic bags

Alternative Hypothesis- There is association between age of the respondents and enforcement of ban on plastic bags

Interpretation: Since the P Value is 0.334 is more than 0.05, the Null Hypothesis is accepted at 5 percent level of significance. Hence we conclude that there is no association between age of the respondent and enforcement of ban on plastic bags. Both the variables (Age and ban enforcement) are treated as independent variable. But based on the percentages, we can understand that all the respondents falling under different Age brackets are exhibiting supportive attitude towards ban on plastic bags.

Association between Gender and enforcement of ban on plastic bags

Null Hypothesis- There is No Association between gender and enforcement of ban on plastic bags

Alternative Hypothesis- - There is Association between gender and enforcement of ban on plastic bags

Table No. 9: Association between Gender and enforcement of ban on plastic bags

Gender	Respondents opinion about enforcement of plastic bag ban				Total	Total Percent
	Yes	Percent	No	Percent		
Male	31	75.6	10	24.4	41	100
Female	42	71.2	17	28.8	59	100
Total	73	73	27	27	100	100
$\chi 2 = 0.240$, d.f = 1, p =.624, NS						

Source : *Filed survey*

Interpretation: Based on the percentages, we can understand that both male and female respondents with 75.6 percent and 71.2 percent respectively are supporting the enforcement of ban on plastic bags. Further from the results it is apparent that the p value of .0624 is

greater than 0.05, Null hypothesis is accepted at 5 percent level of significance. Hence we conclude that there is no association between gender and enforcement of ban on plastic bags

Association between level of education and enforcement and ban on plastic bags

Table No. 10: Association between level of education & enforcement ban on plastic bags

Source : *Filed survey*

Null Hypothesis- There is no association between level of education and enforcement and ban on plastic bags

Alternative Hypothesis –There is association between level of education and enforcement and ban on plastic bags

Interpretation: In the above Table, the 'p' value of 0.208 is greater than 0.05. Hence Null hypothesis is accepted at 5 percent level of significance. Therefore we conclude that there is no association between level of education and enforcement of ban on plastic bags .Based on percentages we can understand that respondents with different levels of education are favoring ban ranging from 62.5 percent to 77.8 percent, averaging 73 percent.

Association between annual income and plastic ban enforcement

Null Hypothesis- Income and plastic ban enforcement are independent.

Alternative Hypothesis-Income and plastic ban enforcement are related

Table No. 11: Association between annual income and plastic ban enforcement

Source : Filed survey

Interpretation: The calculated p value 0.370 is greater than the assumed p value of 0.05. So the Null hypothesis is accepted. Hence we conclude that Income and plastic ban enforcement are independent. Based on percentages we can understand that respondents falling under different income brackets do support the enforcement of plastic bag ban.

Association between the levels of degree of agreement for the statement 'The plastic bags are harmful for the environment and enforcement of plastic bag ban'

Null Hypothesis- There is no association between the levels of degree of agreement for the statement 'plastic bags are harmful for the environment' and enforcement of plastic bag ban

Alternative Hypothesis- There is association between the levels of degree of agreement for the statement ' plastic bags are harmful for the environment' and enforcement of plastic bag ban.

Table No. 12: Association between the levels of degree of agreement for the statement 'The plastic bags are harmful for the environment and enforcement of plastic bag ban'

Source : *Filed survey*

Interpretation: Since p value 0.027 is less than 0.05 Null hypothesis is rejected at 5 percent level of significance. Hence we conclude that there is association between the levels of degree of agreement for the statement 'plastic bags are harmful for the environment' and plastic bag ban enforcement. Based on percentages we can notice that about 74.0 percent of the respondents enforcing ban on plastic bag, strongly agree that plastic bags are harmful for the environment.

Association between the levels of degree of agreement for the statement 'wish of not quitting plastic bags' and enforcement of plastic bag ban

Null Hypothesis – There is no association between degree of agreement to the wish of not quitting plastic bags and enforcement of ban on plastic bags.

Alternate Hypothesis – There is association between degree of agreement to the wish of not quitting plastic bags and enforcement of ban on plastic bags.

Table No. 13: Association between the levels of degree of agreement for the statement 'wish of not quitting plastic bags' and enforcement of plastic bag ban

Source : *Filed survey*

Association between enforcement of ban on plastic bag and the paper bag as not a useful substitute for plastic bag

Null hypothesis-There is no association between enforcement of ban on plastic bag and the paper bag as not a useful substitute for plastic bag

Alternative hypothesis- There is association between enforcement of ban on plastic bag and the paper bag as not a useful substitute for plastic bag

Table No. 14: Association between enforcement of ban on plastic bag and the paper bag as not a useful substitute for plastic bag

Source : *Filed survey*

Interpretation: Since p value 0.590 is greater than 0.05, the Null hypothesis is accepted hence we conclude that there is no association between enforcement of ban on plastic bag and the paper bag as not useful substitute for plastic bags.

Based on percentage we can infer that 73 percent respondents favor enforcement of plastic bag ban, they also agree to the fact that paper bag is not a useful substitute. Thus it is evident that respondents though support the ban would need an innovative substitute so for plastic bag which can withstand weight.

Association between enforcement of ban on plastic bag and the degree of agreement towards avoiding the use of plastic bags

Null hypothesis-There is no association between enforcement of ban

on plastic bag and the degree of agreement towards avoiding the use of plastic bags

Alternate hypothesis -There is association between enforcement of ban on plastic bag and the degree of agreement towards avoiding the use of plastic bags.

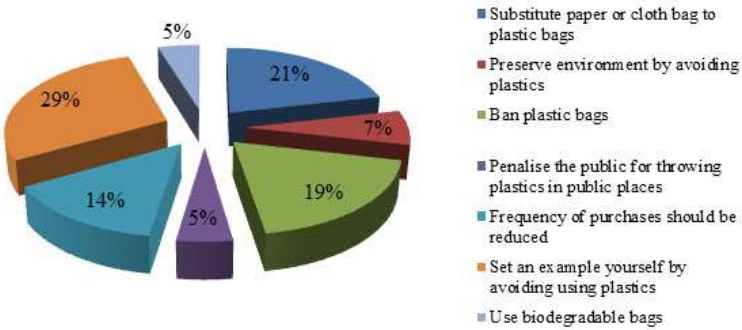
Table No. 15: Association between enforcement of ban on plastic bag and the degree of agreement towards avoiding the use of plastic bags

Source : *Filed survey*

Interpretation: Since p value 0.300 is greater than 0.05, the Null hypothesis is accepted. Hence we conclude that there is no association between enforcement of ban on plastic bag and the degree of agreement towards avoiding the use of plastic bags. Based on percentages, we can understand that the respondents agreeing to avoid plastic bags (moderately 28 percent, strongly 52 percent) are against the enforcement of plastic bag ban (moderately 14.8 percent, strongly 59.3 percent)

Respondent's contribution to the mission "say no to plastic bags"

Chart No.3: Respondents' contribution to the mission "say no to plastic bags"



Interpretation: From the open ended questions related to the contribution to the mission "say no to plastics bags" 29 percent of the respondents opine that they have to set an example by avoiding use of plastics, 21 percent of the respondents contribute to the mission by substituting paper/cloth bag to plastic bags, 19 percent of the respondents support the enforcement of plastic bag ban, 14 percent of the respondents contribute to the mission by reducing the frequency of purchases, 7 percent of the respondents contribute to preserve environment by avoiding plastics, 5 percent of the respondents contribute to the mission by stating to penalize the public for throwing plastics in public places, and to use biodegradable bags.

Findings

- The study reveals that majority of the respondents believe that plastic bag is a major environment pollution causing health hazards to human beings as well as animals. It is non degradable and cannot be disposed of easily.
- Findings relating to the contribution to the mission "say no to plastics bags" majority of the respondents opined that the plastic bag ban should be revised, giving prominent importance to the reduction in plastic bags by using appropriate substitutes such as cloth bags and biodegradable bags depending on the need.
- The study reveals certain good things about plastic bags. For example, the plastic bags are water proof, the material is convenient, user friendly and can be used for several purposes.
- The findings regarding bad things about Plastic bags are, that they create pollution, cannot be decomposed, and create health hazards, sewage blockage and a threat to the life of animals Thus it can be inferred that respondents are aware about the negative effects of the plastic bags as plastic bags prove to be a major threat to environment as well as to the life..
- We can infer that 53 percent of the respondents favored re-usage of plastic bags. About 88.9 percent of the respondents opined that the plastic bags are the major pollutant.
- With regard to the frequency of purchases, we can see that 23 percent of the respondents make purchases on weekly basis, 22 percent on monthly basis and 6 percent make purchases on fortnightly basis. Further 62 percent of the respondents carry bags other than plastics for purchases.
- From the study it is found that 61 percent of the respondents opine that when food is stored for a long time in plastic bags it does change the flavor of food and 39 percent of respondents opine that it does not change the flavor of food.
- The study reveals that 73 percent of the respondents are favoring the enforcement of plastic bag ban which is significantly higher and 27 percent of the respondents are not favoring plastic bag ban

enforcement. So ban on plastic bags is well accepted.

- The study reveals that there is no association between age of the respondent and enforcement of ban on plastic bags. Both the variables (Age and ban enforcement) are treated as independent variables. But based on the percentages, we can understand that all the respondents falling under different Age brackets are exhibiting supportive attitude towards ban on plastic bags.
- From the findings relating to gender, we can understand that both male and female respondents with 75.6 percent and 71.2 percent respectively are supporting the enforcement of ban on plastic bag. Hence, we conclude that there is no association between gender and enforcement of ban on plastic bags.
- The study reveals that there is no association between the level of education and enforcement of ban on plastic bags.
- We can conclude from the study that Income and plastic ban enforcement are independent. We can understand that respondents falling under different income brackets do support the enforcement of plastic ban.
- The study reveals that there is association between the levels of degree of agreement for the statement; the plastic bags are harmful for the environment and plastic bag ban enforcement.
- There is no association between degree of agreement as to the wish of not quitting plastic bags and enforcement of plastic bags ban. Based on the percentage it is evident that respondents who are supporting ban enforcement are exhibiting the wish of not quitting plastic bags. Hence it states that the plastic bags have dual impact.
- The various suggestions that were given by the respondents to the Mission "say no to plastics bags" were that we have to set an example by avoiding using plastics, and substituting paper/cloth bag to plastic bags, supporting the enforcement of plastic bag ban, by reducing the frequency of purchases, by asking the authorities to penalize the public for throwing plastics in public places, and to use biodegradable bags.

- We conclude that there is no association between enforcement of ban on plastic bag and the paper bag as the latter is not a proper substitute for plastic bags.
- It is evident from the study that respondents though support the ban, would need an innovative substitute for plastic bag which can withstand weight.
- Alternative bags are more likely to be used on shopping trips that are planned in advance, and for occasions on which a number of items are likely to be purchased. Consumers are less likely to have them when purchasing on impulse. On these occasions, retailers are obliged to provide bags for consumer convenience, and this is an opportunity to consider the most appropriate type of bag.

Suggestions

- An analysis of the study on approaches to mitigating the problem of plastic bags indicates that it is appropriate to reduce the amount of plastic bags used in the first place, with initiatives aimed at consumers and using initiatives to improve plastic bag collection and recycling facilities.
- The Government has to develop legislative options, including a possible plastic bag levy and ban on plastic bags; retailers to develop and implement a strong National Code of Practice for the Management of Plastic Retail Carry Bags
- The city corporation can convince the supermarkets to charge for plastic bags or ban them altogether.
- Offering customers easily accessible recycling stations in major supermarkets and Shopping centers.
- Litter education is an important supporting element of other initiatives that may be undertaken to reduce plastic bags and their impacts
- The retailers can provide reused boxes for customers or for small purchases no bags; Banning outright the use of plastic bags is another option, and this has been undertaken in several Asian

countries

- A total ban on plastic bags would be seen as excessive and inappropriate, but a limited ban on high litter potential bags, implemented with other measures, could be considered.
- Develop a proposal for a coordinated national customer and retailer awareness program and encourage continued participation in current litter programs such as the Clean Up.
- Additives can be used to enhance a plastic's ability to degrade, and they can be used in combination with degradation inducers such as ultraviolet radiation, composting and thermal degradation. These combinations can greatly increase the rate of degradation of plastic, but the costs must be taken into account.
- The pay-as-you-throw program is currently one of the better methods as far as increasing awareness and decreasing excessive use of garbage bags. The municipalities that have adopted this program have seen a significant decrease in the amount of garbage generated, and the program also has the benefit of increasing revenue to the town. This revenue can be used to improve waste services, so the program has more than one benefit.

In general, the biodegradable bags have sufficient mechanical properties, but these properties are more sensitive environmental elements such as heat and humidity

Conclusion

The conclusion needs to be drawn on how to reduce the environmental impacts of plastic bags. One of the possible ways to decipher this is by means of finding ways to reduce, reuse and recycle them. Many retail stores have started utilizing this philosophy of reducing, recycling and reusing the grocery bags. Building up public awareness and motivation to reduce, reuse and recycle both these bags will definitely help to resolve the environmental problems to a greater magnitude. By Charging extra money for plastic bags by the businessmen has also encouraged people to carry bags while shopping with them and thus contribute to less consumption of plastic bags.

Increasing public awareness, and legislating policies require

alternative arrangements. This will involve the work of many people and could take years to finalize. There are many things that can be done in the short-term to cut back on unnecessary bag use. This begins with public awareness – making the people understand that PE bags may be reused and recycled. Retailers can place sign boards throughout their stores reminding people of the environmental impacts of plastic bags and to reuse their bags instead of letting them go to landfills or litter.

Research may be undertaken on the areas like: changes in current bag usages and future material options. As manufacturing processes are refined and costs lowered, new materials may be introduced into the mainstream, possibly replacing polyethylene bags.

Any long-term changes such as what types of bags are used at the checkout, will not come about soon. In order to make an impact on plastic bag usage reduction, policies must be described which must be adopted everywhere. It will require the cooperation and co-ordination among governments, corporations, and the people. This will be a long-term change, and will take time to achieve.

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A Review on
'Rules of the Game'
Author : Sumit Chowdhery
Publications: Bloomabuey
Price : □ 210

*** Mrs. Rachitha Poornima Cabral**

"One must learn Mr. Rahul to unlearn; in order to learn some more". Rules of the Game helps one realise that one is the Creator, Keeper and Beneficiary of one's own success.

A multi-faceted Business and Technical Leader, a Marathon runner, a Musician, a motivational Speaker and an exhibited abstract artist – Dr. Sumit Chowdhury - the author- debuts as a writer sharing his personal and professional excellence and experience through his Book 'Rules of the Game.'

In his introduction to the Book, Chowdhury mirrors three methods of Confucius that by three methods we may learn wisdom "First, by Reflection which is noblest, Second, by Imitation, which is easiest and Third by Experience, which is the bitterest."

Through this book, a set of ideas have been gathered from the bitter-sweet experiences of many successful persons and imitated by many others. One fundamental concept of this book is that it is not the uniqueness of the idea that matters, but rather, the uniqueness of one's ability to implement it.

It is not a book of definitive answers; rather, it is a book of questions and ideas. One Formula definitely does not fit all but each individual has to play his game well by applying the right rules and regulations.

The Book also helps address the untaught beliefs that determine early career success. These lessons are learnt through the word-of- mouth of friends, well-wishers, mentors who see you taking your steps on the ladder of success. The compilation of the experiences of others makes it easy for everyone to have the courage, the determination and the will to become the people they want to be.

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Discover, Learn, Invent the art of speeding up your Career is what the title states. The belief is that knowledge that can help you rise to positions of leadership and impact are often not taught in most schools. Rules of the Game aims to help by offering a framework for greater self-reflection and professional success.

We do not need magic to change the World. We carry all the power we need inside ourselves already. The motivational sayings and phrases in the Book provides you with the confidence and the boost that one requires to face today's competitive world. Developing self confidence and the attitude of a winner, the power that lies in team work, investing in yourself – these are some of the concepts that the Author familiarises you with.

For the Corporate World, communication and selling are to be made a habit and talkers have always ruled. So, forget the myth that people are born Speakers. Like any other skill, the skill of communicating is not innate, it can be learnt. It is like playing a sport or going to the gym or learning how to dance. If you are willing to work at it, you can improve the overall quality of your life. Chowdhury gives simple ideas to enhance communication skills. He states taht if you ever get a chance to take a course on Stand-up comedy, always take it.

Learning to listen to oneself consciously, and knowing that its not what you say but how you say it that really matters and learning what and when not to say things play a significant role in communicating rightly. Habits, the Book says, are formed from repeating both, good and bad forms of Communication.

To quote William Temple an English Educator and Logician "The First ingredient in conversation is truth, the next good sense, the third good humour, and the fourth is wit. To rise above the masses, adding humour and wit to your conversation is very essential.

The book also covers seeking feedback and self correcting. The easiest thing to give to others is 'Advice' and the most difficult to take from others is Advice. Welcoming change and learning from one's failure is a key takeaway.

The Book also contains interviews of eminent personalities like Subroto Bagchi, the Chairman of Mind Tree, Ranganathan Iyer, the

CIO of JBM Group and many other top nuggets of the Corporate World giving their gyaan on their struggles, their journey of life and the bitter-sweet lessons that they have learnt in life. A must read for fresh graduates, a must read for young working people, this book is a sure fire way of boosting one's self-awareness. It helps to understand oneself entrepreneurially and helps in the transition process that takes place from an academic to a corporate life.

How do you succeed in creating a fast tracked career? How do you make it an enjoyable journey? How do you mould yourself into a better human being and be fulfilled both personally and professionally?

'Rules of the Game' strives to provide answers to all these underlying questions, without you having to trudge through life fearing change, failures, politics and uncertainty.