

**PERFORMANCE ANALYSIS OF HOPCOMS IN  
SHIMOGA DISRICT**

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**DEPARTMENT OF AGRICULTURAL MARKETING,  
CO-OPERATION AND BUSINESS MANAGEMENT  
UNIVERSITY OF AGRICULTURAL SCIENCES**

**BANGALORE- 560 065**

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# **PERFORMANCE ANALYSIS OF HOPCOMS IN SHIMOGA DISRICT**

**SRIKANTH, N.**

**MBA 825**

*Project Report submitted to the  
University of Agricultural Sciences, Bangalore  
in partial fulfillment of the requirements  
for the degree of*

***Master of Business Administration  
(Agri-Business Management)***

BANGALORE

JULY, 2010



*Affectionately*

*Dedicated*

*To*


*My Parents*

**DEPARTMENT OF AGRICULTURAL MARKETING,  
CO-OPERATION AND BUSINESS MANAGEMENT  
UNIVERSITY OF AGRICULTURAL SCIENCES  
GKVK, BANGALORE- 560 065**

**CERTIFICATE**

This is to certify that the Project Report entitled, "**PERFORMANCE ANALYSIS OF HOPCOMS IN SHIMOGA DISTRICT**" Submitted by **Mr. SRIKANTH, N., ID NO. MBA 825** in partial fulfillment of the requirement for the degree of **MASTER OF BUSINESS ADMINISTRATION (AGRI-BUSINESS MANAGEMENT)** to the University of Agricultural Sciences, Bangalore, is a record of bonafide research work done by him during the period of his study in this University under my guidance and supervision and the Project Report has not previously formed the basis for the award of any degree, diploma, associateship, fellowship or other similar titles.

Bangalore  
July, 2010

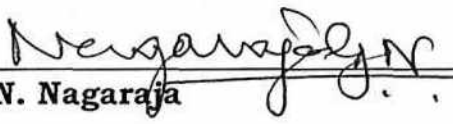
  
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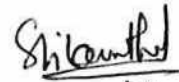
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Above all I am extremely thankful to almighty God who has enabled me, TO BE ME...

PLACE: BANGALORE

July, 2010



(SRIKANTH, N.)

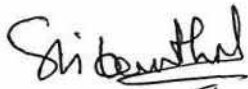
# Performance Analysis of HOPCOMS in Shimoga district

Srikanth, N.

## ABSTRACT

The Co-operatives in the state have made a reasonable progress and their role and contribution to agricultural development has been significant. This study was taken up to provide insight into the strengths and weakness of the HOPCOMS of Shimoga, which is one of the known producer's cooperative Society. The study focused to analyse the constraints in the working of the Shimoga HOPCOMS and the analysis of business performance. The financial data was collected from the audit reports and other records maintained in the organization, for the period of ten years starting from 1999 to 2009. The details regarding Supply chain management of HOPCOMS were collected by interviewing the respective heads of the departments. The Producer members were interviewed to study the perception and experience as producer members of the HOPCOMS by applying pretested schedule. The HOPCOMS is procuring fruits and vegetables through its own producer-members and also from the Shimoga whole sale market. The seasonal fruits and vegetables are procured from m Bangalore, Hassan and other major markets. The Society is marketing fruits and vegetables through its own ten retail outlets located at various places of the Shimoga town. The study shows that the society registered a reasonable annual compound growth rate of 3.14 per cent in respect of membership of producer-members and share capital of 5.72 per cent. The owned funds rose by 2.97 per cent. The business performance of Shimoga HOPCOMS was not promising due to decline in sales, inventories, fixed assets, current assets and other growth drivers. The liabilities of HOPCOMS have also shown decreasing trend, the clearly shows the dormant attitude of the management towards development and expansion. The organization has comfortable liquidity to meet short and long-term financial obligations to take any growth oriented decisions. The profit margin has marginally increased over the years and also the due attention is required to manage expenses to enhance economy in operations to increase the profitability of the HOPCOMS.

The reasons attributed for the reasonable success of the HOPCOMS are, the diversified supply chain spread and its marketing channels



Signature of the student



Dr. B. M. Ramachandra Reddy

(Major advisor)

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# *Introduction*

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# CHAPTER I

## INTRODUCTION

India is the largest producer of fruits and vegetables in the world (12 % of fruits and 13 % of vegetables). Out of 3700 lakh tons of fruit production, the share of India is about 300 lakh tons. Similarly out of 4500 lakh tons of vegetables production, the share of India is about 590 lakh tons. India is the largest producer of Mango and Banana in the world (with a share of 54 % and 27 % respectively). In respect of other fruits India has occupied fifth position in Pineapple (with a share of 7 %), sixth in Orange (with a share of 3.4 %), tenth in Apple (with a share of 2.2 %) in the world production. Among the vegetables produced in the world, India occupies first position in Cauliflower and Brinjal (with a share of 37.7 % and 67 % respectively), second in Onion (11.1 %), third in Cabbage (7.30 %) and ranks sixth in Potato (6.1 %) production.

In India horticultural crops are mostly labour intensive and provide substantial employment not only in production but also in transportation, processing and marketing (Sharma 1991). The marketing of horticultural crops is quite complex and risky due to perishability, seasonal production and bulkiness. Apart from increasing production and productivity of fruits and vegetables, it is very important to supply fruits and vegetables to consumers regularly at a reasonable price. There has been great concern in the recent years regarding the efficiency in marketing of fruits and vegetables in India. It is believed that poor linkages in the marketing channels and poor marketing infrastructure are leading to high and fluctuating consumer prices, and only a small proportion of the consumer rupee reaching the farmers. There is also substantial wastage, deterioration in quality, and frequent mis-match between demand and supply spatially and over time. One of the most

important challenges in HOPCOMS in India is poor supply chain management. This can be understood by the fact that the logistics management cost component in India is as high as 7 to 10 per cent against the global average of 4 to 5 per cent of the total retail price. Therefore, there is a need to reduce logistics cost by improving the supply chain management by HOPCOMS and also by other institutions who are involved in organized retailing of fruits and vegetables in the country.

Karnataka enjoys a prominent position on the Horticultural map of India. During the year 2008-09, the horticultural crops in Karnataka were grown in an area of about 12.23 lakh ha accounting for 10.84 per cent of cropped area with an annual production of about 77.5 lakh tons (Economic survey of Karnataka, 2008-09). The important fruit crops cultivated in the state are Mango, Banana, Guava, Grapes, and Sapota. Fruits and Vegetables marketing co-operative society is essentially an organization of fruits and vegetables growers aimed at providing the various services at reasonable cost. These societies help in reducing a long chain of intermediaries and check their questionable practices, apart from creating competition.

### **1.1 Meaning of Supply Chain Management.**

Supply chain management (SCM) is the management of a network of interconnected businesses involved in the ultimate provision of product and service packages required by end customers. Supply Chain Management spans all movement and storage of raw materials, work-in-process inventory, and finished goods from point of origin to point of consumption (supply chain).

According to the Council of Supply Chain Management Professionals (CSCMP), Supply chain management encompasses the

planning and management of all activities involved in sourcing, procurement, conversion, and logistics management. It also includes the crucial components of coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across organization.

Indian horticulture is suffering from huge post harvest losses particularly handling marketing losses which account for 35-40% of the produce due to improper post harvest management. The loss estimated at Rs 40,000 crores per year. India wastes fruits and vegetables every year equivalent to the annual consumption of the United Kingdom. This is a clear cut indication of unscientific handling and marketing practices adopted in Indian sub-continent (Directorate of Horticulture).

The other major problem encountered by the farmer is the insufficient share of consumer rupee. This is the cause for poverty in Agri-horticulture sector and discourages the farming community or producers to adapt innovative technologies and production practices.

## **1.2 Emergence of supply chain in fruits and vegetables**

India is among the largest producer of food grains, fruits and vegetables in the world. India is bestowed with varied agro-climate conditions, which is highly favorable for growing horticultural crops. At Present, horticultural crops occupy around 13 per cent of India's gross cropped area, producing 177.41 million tons during 2005-06. Fruit and vegetables production in the country is about 140 million tons which is about 24 per cent of global output. The total production of fruits has been estimated at 52.85 million tons from an area of 5.34 million hectares and the production of vegetables has been estimated at 108.20

million tons from an area of 7.05 million hectares during 2005-06. However 40 to 45 per cent of Fruits & Vegetables are wasted before it reaches the consumer (Directorate of Horticulture). Wastages in the supply chain are estimated to be about 9.8 per cent of GDP in agriculture. The wastage of fruits and vegetables in the country is higher than the entire annual consumption of UK. One of the main reasons for this is presence of many channels and the lack of adequate transportation and storage facilities. In India by improving supply chain management practices, there is a scope to reduce wastages in fruits and vegetables which in turn will benefit both the farmers as well as the consumer by means of increased returns and decrease in price respectively. Given the fragmented nature of the food supply chain, few companies have access to capital and the ability to invest in supply chain and quality control. They also set quality standards, establish warehouses, and minimize spoilage, set up cold chains to ensure reliability and maintain inventory control to reduce waste. The present trend is towards greater concentration on agricultural input and food distribution, through increasing role of information and logistics management. Agri-food systems have become highly organized and linked from producer through consumer with an increasingly dominant role being played by highly concentrated agro-industrial firms and retailers.

Successful participation in global markets requires efficient organization of agri-food system in the country. In parallel to these interrelated trends, a new type of organization and management in agri-food system - supply chain management (SCM) has emerged in developed countries. With the rapid economic growth, the increasing urbanization, and accelerated integration into the world market, the similar trends have been observed in many of developing countries like Latin America and South East Asia. The quest for a more efficient supply chain

organization has been considered by many as a driving force for the future growth of agri-food industries in developing countries. In the future, it will no longer be company competing with company, but supply chain competing against supply chain.

The supply chain management is logistics aspect of a value delivery chain. It comprises all of the parties that participate in the retail logistics process Manufacturers, Wholesalers, and Third Party Specialists like Shippers, Order Fulfillment House etc. and the Retailer. If a logistics system works well, the retail firm reduces stock outs, hold down inventories and improve customer service.

Supply Chain enables a Co-operative society to move or store products more effectively. The efficiency and effectiveness of supply chain and logistics management can also be understood by the fact that modern retail stores maintain lower inventories than traditional retail. In India, generally in the kirana stores, inventories are kept for a period of three weeks while in a Co-operative society like HOPCOMS, its nine days to less than two weeks. Hence it is beneficial for both the consumer as well as the retailer. The supply chain perspective can help the retailers to identify superior suppliers and distributors and help them improve productivity, which ultimately brings down the customers costs. At the same time, Market logistics helps in planning the infrastructure to meet demand, and implementing and controlling the physical flows of material and goods from point of origin to points of use, to meet customer requirements at the lowest cost.

### **1.3 Horticultural Producers Cooperative Marketing Processing Society Limited (HOPCOMS)**

Shimoga HOPCOMS was registered on 20-3-1967 under the Co-operative Society act, 1959 (DRS 92:66.67).

The main objective of the society is to procure the horticultural produce from the producer members of Shimoga District at reasonable price and to supply the quality horticultural produce to the consumers at reasonable price.

In Shimoga district, Coconut, Banana, Ananus, Papaya, Mango, Sapota, Watermelon, Ginger, Tomato and other vegetables and leafy vegetables were grown in sustainable quantity. Due to lack of proper market facilities to the producer, the producer were selling their produce through unscrupulous middlemen, due to which the producers used to get meager share of consumer rupee and many a times producers used to incur loss.

The Shimoga HOPCOMS was established in 1967 with a motive of serving the producers by marketing their produce directly to consumers through network of retail shops promoted by the society. In 2003, the Shimoga HOPCOMS has received "Best Co-operative Society Award."

The Shimoga HOPCOMS played a crucial role in promoting the sale of fresh produce to the consumers of Shimoga town. The society's supply chain management played an important role in meeting the twin objectives of the supply chain namely, one is the management of the supply chain of fresh produce, including the development and management of different varieties, implementation of criteria, supervision of quality, packing, transportation, storage, processing and distribution, and the other is the management of the relation and organization, including the selection of suitable logistic channels and partners, determination of contracts, allocation of added value, and maintenance of long-term partnership and smooth running of the supply chain.

The cooperative marketing of horticultural produce in Karnataka is well known and trusted format. It was clearly demonstrated through a

grape growers society established in Bangalore later converted as HOPCOMS Bangalore, the same model is replicated in many other districts of the state at present all these district HOPCOMS are coming under the umbrella of Karnataka Cooperative Horticultural Federation. Shimoga HOPCOMS is one such constituent which established in pattern of Karnataka Cooperative Horticulture Federation.

The role of Co-operatives in marketing of agricultural produce is manifold. They provide marketing cover or protection to farmers. Further the commercial purchases of marketing co-operative seek to set the trend for prices in the market.

Efficient management is a pre-requisite to the success of any organization. This is more so particular for a horticulture co-operative which handles highly perishable products like fruits and vegetables. The profit figures and quality service to its producer members are the tools to measure the quality and efficiency of management of the organization. An analysis of business performance of an enterprise would help the management to initiate corrective measures to enhance the efficiency would help the managerial effectiveness. The analysis also throws light on the various factors of business and management flaws and decision failures and the suggestions based on proper analysis will help to incorporate the best management practices to accomplish multi-dimensional efficiencies.

#### **1.4 Need for the study**

This study is undertaken with an intention to analyze the problems and constraints of Shimoga HOPCOMS and to suggest the findings based on scientific analysis. So far no scientific analysis is carried out in Shimoga HOPCOMS. This study is a modest attempt to understand

analyzes and provides the suggestions to improve managerial efficiencies of the society.

This study is intended to examine issues relating to supply chain management in HOPCOMS and to serve as a blue print to improve the efficiency in day to day operations by reducing the cost of operation and increasing the income and also to supply fruits and vegetables to consumers at a reasonable price.

### **1.5 Objectives of the study**

The present study aims at evaluating some of the aspects of co-operative marketing organization. For this purpose Horticultural Producers Co-operative Marketing Society Limited, Shimoga, which is one of the important co-operative doing useful work in the field of marketing of horticultural produce was selected for the study with the following objectives.

1. To document the growth and development of HOPCOMS in Shimoga district.
2. To analyze the Business performance of HOPCOMS.
3. To study the supply chain management of fruits and vegetables.
4. To study the perception of producer member of HOPCOMS and
5. To identify the constraints in the working of HOPCOMS and suggest appropriate strategies for improving the business performance.

### **1.6 Limitations of the Study**

The data pertaining to business performance was drawn from records made available from the HOPCOMS. The secondary data provided by the HOPCOMS was not sufficient to address the core issues of the study particularly in respect of Supply chain management. This is

one of the serious limitations in conducting this study. With respect to primary data collected from farmers and officials of HOPCOMS were restricted to Shimoga district. Hence the results drawn from the study are subject to the limited area covered under the study. The interview method of data requires respondents to recall details about crops grown, place of sale, cost incurred in transportation, mode of transportation, wastages during transportation and harvesting practices. The information provided is subjected to memory lapses of the respondents. Hence it would be difficult to draw precise generalization regarding the implications of the study. The findings in this study, interpretations and conclusions drawn could be best seen with in these limitations.

# *Review of Literature*

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## **CHAPTER II**

### **REVIEW OF LITERATURE**

The review of past research studies helps to find out the gaps of research. It also helps in identifying the principles, conceptual framework methods and techniques used in the study. This will enable the researcher to collect relevant data, analyze and interpret the same so as to draw meaningful interpretations. This chapter attempts a brief review of the relevant studies related to the present study. Keeping in view the objectives of the study, reviews are presented under the following headings.

- 2.1 Cooperative marketing of fruits and vegetables
- 2.2 Growth rates
- 2.3 Ratio analysis
- 2.4 Supply chain Management

#### **2.1 Cooperative Marketing of Fruits and Vegetables**

The Studies on marketing includes marketing channels, fruit and vegetables sold future opportunities, marketed surplus, consumer preferences, tools of promotion, etc.

Mc Million (1959) studied fruit and vegetables bargaining cooperatives in Washington and indicated that the rapid growth and development of fruit and vegetables bargaining cooperatives reflects an attempt by growers to maintain and improve their bargaining position. A bargaining cooperative's effectiveness lies in its ability to be able to negotiate for a large proportion of the total tonnage, base decisions on reliable economic and market information, obtain competent management, carryout an effective membership relations programme and develop an attitude of long run industry improvement rather than short run price movement.

Sharma *et al* (1964) investigated about the awareness of facilities available to members of industrial cooperatives and indicated the existence of high awareness regarding financial assistance as compared to low level of awareness about organizational, technical and marketing facilities. This was probably due to the fact that all were practically unanimous about giving top most priority to meet financial needs than other needs.

Tewari and George (1971) conducted an opinion survey on marketing of Agricultural produce through cooperative marketing societies in Punjab and Haryana states and investigated the factors influencing farmers choice of special agencies to dispose of the study covered producers, sellers, traders and cooperative marketing societies in the jurisdiction of 11 regulated markets. It was found that (a) private agencies had an edge over cooperative marketing societies, (b) cultivation did not sell all their produce through cooperatives, even though they were members and (c) private traders success as compared to the cooperatives was due to the additional facilities they provide such as clean loans, free storage, transport, supply of consumer goods and farm inputs on credit, personal relations and hospitality.

Bhale Rao and Viswanth (1972) studied cooperative marketing of fruits and vegetables and highlighted the weaknesses of the societies in marketing of fruits and vegetables which will have to be expeditiously removed if they have to create a significant impact on producers. An intensive membership drive will have to be launched to enroll majority of the fruits and vegetables growers as their members. They advocated state partnership by contribution to share capital as well as loans and subsidies for management, storage, transportation and processing equipments.

Boulet and Laporte (1974) studied the structure of viticultural enterprises and cooperative action and pointed out the weaknesses of the cooperative movement and the influence of the cooperatives on production structures. The two main consequences were the continuation of small scale farming and the development of part time farming.

Dave Dyer (1988) reported that advertising and promotion boost consumption of dairy products, helping both the farmers and the consumers. He cautioned that promotion shall be cost effective. Mandatory participation by all milk producers in national promotion programme, with a promotion check to know the effect of promotion would result better. He suggested one should not increase the funds for promotion unless the evidence of increase in sale due to measures are obtained.

Nagaraj *et al.* (1989) in their study on evaluation of the performance of Karnataka Agro Fruits Ltd. Bangalore noted that almost all the fruits except mango were procured through Horticultural produce Co-operative Marketing Society (HOPCOMS). The mango was purchased directly from the producer farmer.

Mattigatti *et al.* (1992) analyzed the marketing of milk in Dharwad district and found three channels of milk marketing by milk producers. The most effective channels were through cooperatives where the producer received the highest share in consumer rupee. The study also revealed that cooperative paid higher price.

Tilekar *et al.* (1992) who analyzed the marketing efficiency of vegetables cooperative marketing societies in Ahmednagar district of Maharashtra found that, the marketing efficiency index for the non-member who sold the vegetables through cooperative marketing societies

in the same market. They concluded the cooperative marketing societies operate were efficiently than other agencies in marketing the vegetables.

Ray Chaudhuri (1993) reported dairy plant was concerned with the management of transportation, processing or converting a set of inputs into a set of output. He defined the plant management in cooperative milk union as unique competencies and has control over manpower, productivity, and engineering, management of information system, accounts, market and quality control. He suggested eliminating the middlemen to satisfy both producer and consumer. He recommended to have field visits to have felt about consumers, conduct market survey, introduce new milk products, maintain crate and can accounts and aerated truck sheet for polypouch distribution.

Subramanyam *et.al* (1993) the economics of juice preparation in HOPCOMS worked out by Subramanyam (1993) indicates that, it costs about Rs. 1.26/bottle (200ml) of juice and at Rs. 2/bottle, as in being priced, the society earns a profit of 74 paise per bottle i.e., 37 per cent. This shows that it is profitable to take up simple processing of fruits on a large scale and sell through the retail outlets.

Subramanyam *et al.* (1994) conducted a case study of horticultural produce cooperative marketing and processing society, Ltd (HOPCOMS) Bangalore during 1987-88 to 1992-93, to assess the sales performance of the society. It is observed that the progress of sales during the last six years (1987-88 to 1992-93) of the items handled by the society viz., sales of fruits and vegetables and inputs. It may be observed that fruits and vegetables accounted for over 88 per cent of the total sales and there was more than two folds increase in the sales of fruits and vegetables between 1987-88 to 1992-93 registering an annual growth rate of 22 per cent. Similarly the sales of inputs which accounted for 8-10 per cent of

the total sales was sales registered an impressive compound growth rate of 25 per cent.

## 2.2 Growth rates

Fredricks (1976) attempted to indicate the relevance of two different political regions on the co-operative development in West Malaysia. The author used linear trend equation,  $y=a+bx$  to find out the linear growth of variables such as number of societies, members share capital, etc. He also calculated  $R^2$  values to test the goodness of fit.

Verma (1980) studied the growth rate of dairy co-operative in India for the period, 1963-64 to 1975-76 using linear regression equations. The variables considered were number of dairy co-operatives, membership, paid up share capital and value of sales during the year. In order to study the comparative growth of societies, the per cent annual growth rates were also estimated.

Subbarao (1985) analyzed the growth rate of certain variables like share capital, membership, total assets in his study on business performance of the Central Arecanut Marketing and Processing Co-operative Ltd., Mangalore, Karnataka from 1973-74 to 1980-81. The growth functions of both exponential and modified exponential form as given below were fitted to a certain performance variables.

- i.  $Y=ab^t$  ----- Exponential function
- ii.  $Y=ab^tc^t$  ----- Modified exponential function.

He observed the annual rates of increase of different performance variables were not uniform. The growth of paid up share capital, membership, total assets, working capital and purchases increased steadily, while in case of sales, the growth rate was high in the initial years and declined in later years (from 1977-78).

Winfred (1985) analyzed the operational growth of land development banks by measuring the rate of growth of operations like membership resources, Government support, floating of debentures, investments, loan operations, over dues, cost of management, profit and the extent of credit disbursed to weaker sections for a period of ten years from 1969-70 to 1978-79. The compound growth rate was calculated by using formula.

$$Y_t = Y_0 (1 + r/100)^t \text{ where } Y_0 = \text{Base year value.}$$

$Y_t$  =  $t^{\text{th}}$  year value;  $t$  = number of years and  $r$  = compound growth rate. He found that banks with limited loan transactions, non-diversification of their lending programmes and mounting overdue could not make any marked impact in the field of agricultural credit.

Jithendrakumar (1990) in his study of performance of dairy co-operative on milk production, income and employment in Chitoor district, Andhra Pradesh, used the compound growth rate analysis for various physical and financial indicators of the selected milk producers co-operative societies. To estimate growth rates he employed exponential function of the following of the following type

$$Y = ab^t$$

Where,  $Y$  = indicator

$a$  = constant

$b$  = regression co-efficient

$t$  = time in years.

### 2.3 Ratio analysis

Reserve Bank of India (1969) attempted to study the working capital requirements, and the size of inventory growth in output and

sales for the India processing and manufacturing industries. The interpretation of working capital as the amount of current assets is a quantitative character as it represents the total amount of funds used for current operating purposes.

Flink and Grunewald (1969), in their study in USA, examined the solvency of a firm in terms of whether its total assets were equal to greater than or less than the obligation of the firm to its creditors, the liquidity in terms of its ability to meet its current obligation and profitability in terms of its overall efficiency of the business over and above the annuals put in to business for transactional performances.

Page *et al.* (1970) used the magnitude of current ratio as a test of liquidity to assess the financial position of agri cooperatives of the United States of America. The total liability to network ratio and the fixed assets to network ratio were employed to test of the solvency of the agricultural cooperatives and net earnings to network ratio to test the profitability of the co-operatives.

Eugene and Lerner (1971) mentioned that the ratio analysis was a widely used technique in analysis financial status the suggested that the profitability ratio measures overall operating performance of business. He recommended to use liquidity ratio and turnover various types of assets respectively in the business.

Dhankar (1971) evaluated the performance of a cooperative bank in Rajasthan in terms of owned funds, deposits, savings, loans, borrowing over dues, investments and other services facilities to its customers.

Bhatt (1972) emphasized the role of working capital for large manufacturing concerns. The employed financial ratios such as debt to

net worth, inventories to net sales, current ratios, etc., to evaluate the financial stability of the manufacturing firms.

Hopkins *et al.* (1973) were of the opinion that liquidity, solvency, profitability and efficiency ratios can be effectively used to evaluate financial progress of a business firm.

Chandrashekar (1973) studied the marketing of vegetables in Bangalore city and found that the producers share in the consumers' rupee was 53 per cent and the total marketing margin was 47 per cent.

Myer (1974) used ratio of net sales to average inventory as it was supposed to be more objective in its approach from evaluating inventory turnover.

Sridharan (1976) studied the business performance to Tudiyalur Cooperative Service society, Tamilnadu as a case study for the period from 1954-55 to 1972-73 and employed a horizontal type of financial statement analysis technique measuring the changes in financial position of the business the changes in financial position of the business. He used total liabilities to owned funds to measures the liquidity; liquid assets to assets to measure the liquidity; net profits to sales; net profit to fixed assets and net profits to owned funds to measure the profitability of the institution. This study revealed that the institution was paying equal attention to the expansion of its service as well as building of funds of its own. He opinioned that the external assistance to the institution will accelerate the growth of service activities ,only if properly administered.

Rao and Das (1977) in their study found that the current ratio was lower compare to the conventional norm of 2:1. The total liabilities of most of the firms studied exceeded their network.

Lawrence and Haley (1977) considered liquidity ratio, profitability ratios and activity ratio as leverages to measures and evaluate the overall financial position of business.

Stanley and Hirt (1978) used profitability, assets utilization, liquidity and debt utilization ratios to measure the performance, velocity of the turnover and ability to payoff short term obligations as and when they fee due and overall debt position of the firm.

Prasad (1978) reported that the producer's net share in consumers rupee of Bangalore city was 58.30 per cent for beans, 55.20 per cent for cabbage and 58.47 per cent for brinjal. The data was related to the period from October, 1976 to December, 1976.

Patvardhan (1978) employed different financial ratios to study corporate financing in India, they are 1) total borrowing as per cent of liquidity 2) net worth as per cent of total liabilities 3) debt to per cent of equity, 4) inventories as value of production 5) borrowing from others as per cent of borrowing and 6) sundry creditors as per cent on inventories.

Govardhan (1978) studied the marketing of dry chillies in selected markets of Karnataka. The study revealed that producers received 80.09 per cent and 83.16 per cent of traders' sale price when the produce was sold to the traders through commission agents and cooperative societies, respectively.

Gupta (1979) suggested several financial ratios that can be employed to evaluate the efficiency of a business. According to him, the analysis a financial statement would spotlight .the significant facts and relationships, concerning managerial performance, corporate efficiency, financial strength and weakness and credit worthiness that would have otherwise been buried in an image of details.

Natarajan et.al (1980) evaluated the working of consumers cooperative in Andhra Pradesh for the period from 1970-71 to 1976-77. They emphasize that current ratio (2:1 was ideal) quick ratio (1:1 was ideal). Inventory ratio, net profit margin, return on assets and return on share capital were the best standards of evaluation. The results revealed that debt financing in excess of equity, poor inventory turnover heavy establishment and contingent expenses in proportion to sales, huge stocks of inventory were some of the major causes of poor performance.

Anand (1981) used the profitability ratio, gross profit ratio, net profit ratio, solvency ratio, stock to working capital ratio to evaluate the financial performance of Maharashtra State Cooperative Consumers Federation for the year 1979-80, the current ratio of 7.9:1, net profit ratio of 0.002:1 and inventory turnover ratio of 1.7:1 indicated that federation financial position has sound but made very less profits due to stress on social objectives.

Rama (1984) evaluated financial management performance of farmers' service cooperative society (FSS), Singanayakanahalli, Bangalore district in terms of solvency ratio, liquidity ratio, profitability ratio and turnover for the period from 1977-82. He concluded that the FSS had maintained a sound and stable financial structure throughout the operational period (1977-82). The financial analysis revealed that the performance of FSS was found and managed its financial resources efficiently without much dependence on external sources. The profitability revealed the highest return as assets was 2.50 per cent during the year 1980.

Ananth (1984) evaluated the performance of Growers Marketing and Processing Cooperative Society, Bangalore from 1958-59 to 1980-81 by employing the ratios such as solvency ratios, liquidity ratios, profitability ratios and turnover ratios. The study revealed that the

performance of the societies was poor due to factors like accumulation of heavy stocks, very low gross profit margin and large quantity of debt. Heavy accumulation of inventory and large quantity of debt resulted in high current ratio. But he opined that in handloom sector this does not refer to the ability to the organization to meet short term obligations.

Soltani *et al.* (1987) attempted to determine the retailer's margin fixing behavior on the basis of weekly price of fruit and vegetables and same basic food items in Shiraz iron. The result indicated that most variation in retail prices of these crops were due to their wholesale prices.

## **2.4 Supply Chain Management**

Wilson (1996) in his study on supply chain of perishable products in Northern Europe found out that, the supermarket chain was more important in the retail marketing of fresh products and he suggested that increased use of supply chain management techniques could increase the margins of the innovative and competitive firms that remain in the chain. Also he found that the inherent cost of distribution networks and channels of fresh produce could be reduced substantially by using supply chain management. The fruit and vegetables supply chain has traditionally been fragmented. Some links have performed well but others have caused bottle necks.

Mohamed Zairi (1998) in his study on the best practices of supply chain management in retail sector noted that the retail sector is undergoing major changes resulting from factors such as increased competition and tighter profit margins. He found out that integrated management through the extended supply chain is the most effective means to achieve good value provision to the end consumer, which can be achieved through better product, better quality, better assortment and better in-stock service, less cost throughout the chain, accurate and timely information and committed business leaders.

Ricks (2000) in his study revealed that the appropriate combination of vertical coordination arrangements like contracts, informal agreement and joint venture can improve supply chain performance by providing adequate supplies to the shippers from packers and growers, aiding standardization and packaging of fruit products and risk sharing between the shippers, packers and growers

Fearne (2000) in his study on supply chain partners for private label products: Insight for the UK, found that power of retailer increases along with their interest on own label products. So they become increasingly dependent on fewer larger suppliers who can deliver safe products on a large scale at a competitive price. He suggested that farmers and growers should directly link with other sector of the marketing chain in order to supply the right and consistent quantity and quality of different products. The producer of raw material need to accept the fact that the financial benefit, which comes from partnership will invariably distributed in relation to value added.

Helen (2000) in his study on "Buyer-Supplier relationships in the UK fresh produce industry" found out that the relationship development in fresh produce retailing is dependent on product, service performance, levels of trust and commitment. The average life expectancy of relation measured was 8 years and one third of relationships were more than 10 years. Both the suppliers and retailers gain more profit if they attain a mature supply chain stage.

Mc.Cluskey and Desmond O'Pourke (2001) studied the relationships between produce supply firms and retailers in the food supply chain and noted that both suppliers and retailers agreed that logistical efficiency was a must in order to achieve the required results. Thus they had realigned their warehouses and distribution centre to reduce inventory and to speed up delivery.

Wermed *et al.* (2002) in their study on “Key challenges facing the cherry supply chain in the U.K” found out that irregular cropping, specification of export countries, high investments costs are the key challenges faced by the growers. Irregular cropping pattern, too many sales desks, lack of response in terms of uniform marketing strategies, lack of cooperation with the retailers and growers are the key challenges faced by marketing agents. Unreliable supply, customer pay premium are the challenges faced by the retailers and finally differences in purchase and consumption behavior are the key challenges faced by the consumers in the UK cherry supply chain.

Prasad (2001) in his study on “Growing Scenario of Retail Marketing” found that retail organizations have grown in size dramatically, especially in fruits and vegetables. They are benefited by the economies of operation and efficient scale of operations

Subha (2004) examined the “ways of managing a supply chain” and reported that the requisites to manage a supply chain were creation of a logistics vision, tackling conventional problems and developing a supply chain. The author also indicated that open communication between supply chains partners would help in better management of supply chain.

Suresh Reddy (2005) in his study on “Supply chain management” shows a way to cost minimization and value optimization all along the chain. It involves coordinated management of material, information and man power in the entire process within an organization. Supply chain management helps organizations through cost reduction and service enhancement.

# *Methodology*

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## **CHAPTER III**

### **METHODOLOGY**

The study was carried out to know the Growth and Development, Business Performance, Perception of Producer members, Supply Chain management for fruits and vegetables in HOPCOMS. This chapter presents a brief discussion on the methodology used in the study under the following headings.

3.1 General characteristics of Shimoga HOPCOMS

3.2 Description of study unit

3.3 Sampling procedure

3.4 Collection of data

3.5 Analytical techniques and tools employed

3.6 Opinion survey

#### **3.1 General characteristics of Shimoga HOPCOMS**

Shimoga HOPCOMS was registered on 20-3-1967 under the Co-operative Society act, DRS 92:66.67.

The objective of the society was to procure the horticultural produce from the producer members of Shimoga district at reasonable price and to supply the Quality horticultural produce to the consumers.

In Shimoga district, Coconut, Banana, Ananus, Papaya, Mango, Sapota, Watermelon, Ginger, Tomato and other vegetables and leafy vegetables were grown in surplus. Due to lack of proper market facilities to the Producer members, the producer members were doing business through middlemen. Hence producer members were incurring huge loses.

The Shimoga HOPCOMS was established with the intention to help and support producer members and the consumers. In 2003, the Shimoga HOPCOMS has achieved “Best Co-operative Society Award”.

### **3.1.1 Aims and Objectives of Shimoga HOPCOMS**

1. Providing a platform to the producer members to market their produce and earn a reasonable profit.
2. Performing value addition and processing activities for the Horticultural produce.
3. Producer members demand like vegetables seeds, pesticides were met by purchasing and selling the same to the producer members at reasonable process.
4. Promoting and encouraging the Producer members to learn and adapt recent changes and improved technologies in Horticulture.
5. Expanding Jurisdictions of the HOPCOMS, by setting up of more retail outlets throughout the district.

### **3.1.2 Administrative committee**

Committee consists of 13 Board members.

1. Six representatives will be elected as A-class member from every taluk other than Shimoga taluk.
2. Three representatives from Shimoga taluk will be elected as A-class members.
3. One representative from the members of association and other co-operative society will be elected.
4. One representative from financially supporting organization.
5. One representative as Deputy Manager from the District co-operative Society.

6. One representative as Deputy Director from District Horticulture, Zilla Panchayat Shimoga.

### 3.2 Description of study unit

The head office of Shimoga HOPCOMS is located at Mahatma Gandhi park of Balaraj URS Road Shimoga. The head office premise has housed two retail outlets for marketing of vegetables seeds and pesticides to its producer members.

In Shimoga HOPCOMS markets fruits and vegetables through ten retail outlets located at Shivamurthy circle, Basavanagudi, Balraj URS road, Kuvempu road, Ravindra nagar, Gandhi nagar, Gopala, MRS, Bhadravathi, and B.R.Project.

#### 3.2.1 Membership and Shareholding pattern

Particulars	Numbers	Amount (Rs.)
Members as on 30-06-2008	2,357	1,69,750
Co-operative society	25	26,000
Government stake holding		500
<b>Total</b>		1,96,250

### 3.3 Sampling procedure

The Shimoga town is witnessing a silent revolution in retail marketing of fruits and vegetables. The emergence of new retail chains like Reliance fresh, More and Big bazaars are posing serious threat to the business prospective of HOPCOMS which is operating for almost four decades.

Fig. 1: Map of Karnataka showing the Study area.



### **3.4 Collection of data**

#### **3.4.1 Primary data**

In order to study the supply chain structure and constraints for fruits and vegetables in HOPCOMS, the data was collected from 50 farmer-members and 50 non members who are supplying fruits and vegetables to HOPCOMS. The primary data collected from farmer-members of HOPCOMS, the quantity of vegetables sold to HOPCOMS, reasons for selling at HOPCOMS, suggestion for improvement by using pre-tested questionnaire. Further various aspects of procurement of fruits and vegetables, price and quality and distribution of fruits and vegetables were collected from the officials of HOPCOMS including Managing Director. The respondents were contacted individually by providing questionnaire and the objectives of the study were clearly explained to them in order to ensure their cooperation and accuracy in their responses.

#### **3.4.2 Secondary data**

The secondary data on working of Shimoga HOPCOMS was collected from the various published sources like annual reports, financial statements, and other records provided by the society. The secondary data regarding Supply chain of fruits and vegetables were collected from HOPCOMS, Shimoga.

#### **3.4.3 Period of study**

The reference year of the study was 2009-2010 and the collection of primary data was carried out during the period of March and April 2010. The total period of ten years was considered from 1999-2000 to 2008-2009 for the purpose of analysis of different activities of HOPCOMS.

### **3.5 Analytical techniques and tools employed**

The methods of analysis employed in the present study are elaborated under the following headings.

#### **3.5.1 Tabular analysis**

Conventional method of tabular analysis was used in order to study the existing supply chain management structure and procurement and distribution of fruits and vegetables to end users, etc. Tabular analysis was also used to determine the efficiency of retail outlets by analyzing the constraints, procurement costs, transportation costs, etc. The applications of different costing techniques were used to analyse the cost –return relationship of HOPCOMS.

#### **3.5.2 Ratio analysis**

The Financial Ratio analysis was used in this study to evaluate the business performance of HOPCOMS.

The purpose of the ratio analysis is to epitomize performance and to facilitate comparison overtime between different organizations of an industry. In this study the following groups of ratios were employed:

1. Structural or Solvency ratios
2. Liquidity ratios
3. Profitability ratios
4. Turnover ratios
5. Miscellaneous ratios

##### **3.5.2.1 Structural or Solvency ratios**

These are the ratios which indicate the ability of the organization to meet its medium term and long term obligations.

**a) Total liability to owned funds**

This ratio is computed by dividing total liability by owned funds. This ratio helps to compare the amount institution owes to creditors and lenders with the amount of money that is invested and retained profits of the institution. The total liability includes owned funds, current liabilities and other liabilities. Owned funds include share capital and other retained earnings like reserve funds, depreciation reserve, subsidy, etc.

The All India Rural Credit Review committee Report (1969) suggested that share capital, reserve fund, depreciation reserve, donations and subsidies received by the institutions are to be included under the owned funds.

**b) Fixed assets to owned funds**

This ratio is computed by dividing the depreciated book value of fixed assets by owned funds. Fixed assets include buildings, machineries, vehicles, tools and implements, shares at other institutions and long term investments.

**c) Debt-equity ratio**

It is the ratio of long term loans to share capital plus reserves. It measures the long term solvency of the business. Too much dependence on external funds indicates under-capitalization resulting in shortage of working capital, where as too much dependence on owned funds may lead to over-capitalization resulting in inadequate return on proprietary fund and non judicious application of capital.

**3.5.2.2 Liquidity ratios**

Liquidity provides a measure of the institution's ability to meet its current obligations. Since liquidity is basic to continuous operation, it was found necessary to examine the degree of liquidity of the

organization and to ascertain its ability in meeting the current financial obligations and avoid technical bankruptcy.

**a) Liquid assets to total assets**

This ratio was computed by dividing liquid assets with the total assets. The liquid assets consists of current assets like cash in hand, bank accounts, short term loans advanced, sundry debtors/accounts receivables, inventory, other short term recoveries and deposits of the institution in other banks which can be readily withdrawn.

The total assets include both current assets and fixed assets like land, building, machinery and equipment, vehicles, etc.

**b) Current ratio**

It is the ratio of current assets to current liabilities. In case of HOPCOMS the current assets include cash in hand, cash at bank, short term loan advanced, recoveries, inventory and net loss shown as Profit & Loss account in asset side of the balance sheet. Current liabilities include short term loan borrowed, interest provision on government loans, sundry creditors/accounts payable, outstanding and liabilities. The excess of current assets over current liabilities represent the net working capital and indicate the extent to which the claims of short term financial obligations could be met by the current assets that could be readily converted into cash in the period corresponding to the ratio better would be the margin and technical solvency of the institution. The lower current ratio of retailing organizations indicates the efficiency of working capital management.

**c) Acid test ratio**

This ratio is called Quick ratio or near money ratio. This represents the ratio between quick assets (current assets less inventory) and the current liabilities.

This ratio is an indicator of liquidity of an institution in terms of converting its assets into cash quickly.

**3.5.2.3 Profitability ratio**

The profitability ratios are meaningful measures which can be used to diagnose the financial status and the overall efficiency of a business organization. These ratios were used to compare returns over the investments made in the business.

**a) Net profits to total assets**

This ratio represents the earning capacity of the total assets of the organization. The net profit is the surplus obtained after deducting the operating expenses from gross profit.

**b) Net profit to working capital**

This ratio is used to measure the extent of net profits earned for each rupee of working capital employed. In the present study, the current assets are considered as working capital.

**c) Net profits to owned funds**

This ratio reveals the extent of profitability in relation to investment of owned funds. It is the ratio of net profits to owned investments.

**d) Net profits to total sales**

Net profits to total sales ratio is also known as net profit margin. This ratio indicates a firm's ability to earn profit margin. This ratio indicates a firm's ability to earn profits after meeting all direct and indirect costs of business and fuller utilization of the resources.

**3.5.2.4 Turnover ratios**

The turnover ratios indicate the effectiveness with which different assets were utilized in the business. Turnover means the number of times an asset flows through a firm's operation and converts into its sales during a year.

**a) Working capital-turnover ratio**

This ratio is computed by dividing total sales with total working capital. Higher the ratio greater would be the efficiency and larger will be the rate of profitability of the organization.

**b) Inventory turnover ratio**

It is the number of times the inventory is turned over in business during a particular period. This ratio is used to assess the averages of stock required to meet the day to day sales of HOPCOMS. Higher the turnover better would be the performance of the HOPCOMS. It is the ratio between the annual sales and average inventory. The average inventory is the average of opening and closing stocks.

**3.5.2.5 Miscellaneous ratios**

These ratios indicate the efficiency of institution regarding sales and investments on fixed assets and to test the sales turnover of owned funds.

**a) Sales to fixed assets**

This ratio is designed to test the utility and importance of fixed assets in the business.

**b) Sales to owned funds ratio**

This ratio was used to test the sales turnover of owned funds. It indicates the velocity of turnover of the owned funds.

**3.5.3 Compound growth rates**

The compound growth rates for various physical and financial indicators were worked out using the exponential function of the following type

$$Y=ab^t$$

Where Y= The given indicator under study

a= Constant

b= Regression coefficient

t= Time (years)

Annual average compound growth rate (r) is given by;

$$r = (b-1) \times 100$$

The annual growth rate of each variable gives the rate of change of that variable each year. The exponential function assumes a constant growth rate and it is obtained by deducting unity from the coefficient 'b'. Hence if 'b' is greater than one, the growth rate would be positive.

The indicators whose compound growth rates were attempted are as follows;

Membership, Sales, Current liability, other liability, Total liability, Current assets, Fixed assets, Total assets, Share capital, Owned funds and Inventories.

### **3.6 Opinion survey**

Opinion of producers of fruits and vegetables were collected to assess the performance of HOPCOMS in the sense that whether the Producers are benefitted by this organization in comparison with the practices of trade.

The opinion from the 50 producers-members, who sold their produce through HOPCOMS were collected on the aspects such as the reasons for selling their produce through HOPCOMS and whether they are satisfied with the performance of the institution and called for suggestions, if any, for improvement. Likewise the opinion from the 50 producers selling their produce through commission agents were also obtained in aspects like the reasons for selling fruits and vegetables through commission agents and their willingness to become members of HOPCOMS, etc.

## *Results*

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## **CHAPTER IV**

### **RESULTS**

In consonance with the objectives of the study, the data collected from different sources were analyzed and interpreted. The findings of the study presented under the following headings:

- 4.1 Basic information on HOPCOMS
- 4.2 Compound growth rate of HOPCOMS
- 4.3 Financial analysis of HOPCOMS
- 4.4 Supply chain of HOPCOMS
- 4.5 Opinion survey

#### **4.1 Basic information on HOPCOMS**

Shimoga HOPCOMS was registered on 20-3-1967 under the Co-operative Society act, 1959. Since then it started trading of fruits and vegetables. The emphasis is laid on the data from 1999-2000 onwards. The details of the physical and financial parameters of HOPCOMS are presented in Table 4.1.

The amount of share capital increased from a modest Rs. 1.50 lakhs in 1999-2000 with a membership of 1445 to Rs 2.32 lakhs in 2008-09 with a membership of 1824. This shows that HOPCOMS has undertaken a drive to increase the membership. Similarly owned funds have increased from Rs 6.44 lakhs in 1999-2000 to Rs 9.99 lakhs in 2008-09, registering a about thirty percent increase. The same is true of total liability which shot up from Rs 12.23 lakhs in 1999-2000 to Rs 12.9 lakhs in 2008-09. The Table also indicates that, profits of the HOPCOMS have increased over the years registering a peak of Rs 0.34 lakhs in 2008-09 from Rs -0.77 lakhs during 1999-2000.

**Table 4.1: Basic information on physical and financial parameters of HOPCOMS from 1999-2000 to 2008-09**

Year	Share capital (in lakh Rs)	Owned funds (in lakh Rs)	Total liability (in lakh Rs)	Membership (in numbers)	Net profit (in lakh Rs)	Total assets (in lakh Rs)	Fixed assets (in lakh Rs)	Working capital (in lakh Rs)	Total sales (in lakh Rs)	Inventory (in lakh Rs)
1999-00	1.50	6.44	12.23	1445	-0.78	8.54	8.54	13.57	66.31	2.16
2000-01	1.58	8.01	12.36	1464	4.88	20.92	6.11	14.81	65.64	2.97
2001-02	1.61	18.20	23.35	1495	-2.03	18.78	16.14	9.47	51.36	2.78
2002-03	1.82	28.80	33.78	1545	-4.43	18.94	16.14	11.43	44.12	1.98
2003-04	1.86	24.02	29.13	1584	-5.81	25.13	14.95	10.18	31.84	1.63
2004-05	1.87	20.02	24.79	1634	-3.04	16.38	8.03	10.5	24.86	0.99
2005-06	1.89	14.89	20.54	1656	-1.93	15.74	6.00	10.27	20.05	0.75
2006-07	1.93	10.26	13.93	1695	-1.76	10.58	0.53	10.05	9.509	0.17
2007-08	1.95	10.40	14.34	1712	0.16	10.90	0.53	10.37	14.01	0.20
2008-09	2.32	9.99	12.9	1824	0.34	10.25	2.01	8.25	11.36	0.18

Perusal of Table 4.1 also reveals that, HOPCOMS has made an equally good progress in terms of increasing its assets (fixed and current assets). The total assets have increased from Rs 8.54 lakhs to Rs 10.25 lakhs but fixed assets have decreased from Rs 8.54 lakhs to Rs 2.00 lakhs during 1999-2000 to 2008-09, this is due to sale of vehicles during the period. Working capital has decreased from Rs 13.56 lakhs in 1999-00 to Rs 8.24 lakhs in 2008-09. The total sales have registered a fall from Rs 66.30 lakhs in 1999-00 to Rs 11.36 lakhs in 2008-09. The inventory has decreased from 2.16 lakhs in 1999-2000 to Rs 0.18 lakhs in 2008-09.

#### **4.2 Compound growth rate of HOPCOMS**

The Compound growth rates achieved with respect to certain vital financial attributes were calculated and the results are presented in Table 4.2. It can be seen from the Table that only in the membership, share capital and owned fund the growth rate is positive, (3.14, 5.72 and 2.94 per cent respectively) whereas in respect of other financial attributes like sales, inventories, fixed assets, current assets, total assets, other liabilities, current liabilities, total liabilities the growth rate is negative, (-26.14, -32.24, -37.38, -5.84,-12.67, -30.91, -7.21 and -0.69, respectively).

#### **4.3 Financial analysis of HOPCOMS**

The business performance of HOPCOMS was evaluated using 15 financial ratios which fall under five groups, viz., structural ratios, liquidity ratios, profitability ratios, turnover ratios and miscellaneous ratios. Each group of ratios have a clear cut projections and helps in the decision making process based on the past performance of HOPCOMS.

**Table 4.2: Growth function of selected performance indicators of HOPCOMS (1999-2009)**

<b>Sl. No</b>	<b>Indicators</b>	<b>Ln A</b>	<b>Ln B</b>	<b>R<sup>2</sup></b>	<b>Compound Growth Rate (%)</b>
1.	Membership	7.21	0.03	0.89*	3.14
2.	Share capital	11.85	0.05	0.93*	5.72
3.	Owned fund	13.92	0.02	0.78*	2.97
4.	Sales	16.23	-0.30	0.85*	-26.14
5.	Inventories	14.72	-0.39	0.42*	-32.24
6.	Fixed assets	13.49	-0.47	0.77*	-37.38
7.	Current assets	14.16	-0.06	0.62*	-5.84
8.	Total assets	14.99	-0.13	0.58*	-12.67
9.	Other liabilities	12.22	-0.37	0.43*	-30.91
10.	Current liabilities	13.32	-0.07	0.66*	-7.21
11.	Total liabilities	14.40	-0.01	0.68*	-0.69

\* At 1 per cent level of significance.

### 4.3.1 Structural ratios

These ratios were used to measure the contribution of HOPCOMS share holders against the funds provided by its creditors. The ratios were used to evaluate the financial structure of the HOPCOMS and are presented in Table 4.3.

These ratios were computed to solicit information along the following lines.

- a. HOPCOMS ability to cover all its short term and long term obligations.
- b. The margin of safety offered to the creditors.
- c. The potential earnings from the use of borrowed funds.

The ratio of total liabilities to owned funds has registered a steady decline from 1.32 in 1999-2000 to 1.29 in 2008-09. This ratio indicates the extent of debt per rupee of owned funds of HOPCOMS. The decrease in this ratio over the years shows that the HOPCOMS dependence on external funds has decreased over the years (Table 4.3).

The ratio of fixed assets to owned funds was also decreased from 1.32 in the year 1999-2000 to 0.087 in the year 2008-09. This ratio shows the extent to which each rupee of owned funds of the HOPCOMS has decreased substantially over the years.

The debt-equity ratio shows the HOPCOMS dependency on borrowed funds to operate the business with the equity as capital mix. The debt-equity ratio has fluctuated over the years from zero (1999-2000) to 0.46 (2001-02), 0.40 (2002-2003), 0.45 (2003-04) and thereafter decreased to zero. This shows that over the years HOPCOMS has built up its own funds and not depending on external debt.

**Table 4.3: Solvency ratio of HOPCOMS during 1999-2009**

<b>Year</b>	<b>Total liability to owned funds</b>	<b>Fixed assets to owned funds</b>	<b>Debt-equity ratio</b>
1999-2000	1.89	1.32	0
2000-01	1.54	0.75	0
2001-02	1.28	0.88	0.46
2002-03	1.17	0.56	0.40
2003-04	1.21	0.62	0.45
2004-05	1.61	0.32	0.44
2005-06	1.72	0.26	0
2006-07	2.67	0.05	0
2007-08	1.37	0.05	0
2008-09	1.29	0.09	0

**Table 4.4: Liquidity ratio of HOPCOMS during 1999-2009**

<b>Year</b>	<b>Liquid assets to total assets</b>	<b>Current ratio</b>	<b>Acid test ratio</b>
1999-00	0.61	2.34	1.81
2000-01	0.71	3.42	2.71
2001-02	0.36	1.84	1.28
2002-03	0.41	2.29	1.87
2003-04	0.40	1.99	1.67
2004-05	0.68	2.41	2,20
2005-06	0.74	2.44	2.28
2006-07	0.94	2.73	2.68
2007-08	0.95	2.63	2.58
2008-09	0.82	2.83	3.52

**Table 4.3: Solvency ratio of HOPCOMS during 1999-2009**

<b>Year</b>	<b>Total liability to owned funds</b>	<b>Fixed assets to owned funds</b>	<b>Debt-equity ratio</b>
1999-2000	1.89	1.32	0
2000-01	1.54	0.75	0
2001-02	1.28	0.88	0.46
2002-03	1.17	0.56	0.40
2003-04	1.21	0.62	0.45
2004-05	1.61	0.32	0.44
2005-06	1.72	0.26	0
2006-07	2.67	0.05	0
2007-08	1.37	0.05	0
2008-09	1.29	0.09	0

**Table 4.4: Liquidity ratio of HOPCOMS during 1999-2009**

<b>Year</b>	<b>Liquid assets to total assets</b>	<b>Current ratio</b>	<b>Acid test ratio</b>
1999-00	0.61	2.34	1.81
2000-01	0.71	3.42	2.71
2001-02	0.36	1.84	1.28
2002-03	0.41	2.29	1.87
2003-04	0.40	1.99	1.67
2004-05	0.68	2.41	2,20
2005-06	0.74	2.44	2.28
2006-07	0.94	2.73	2.68
2007-08	0.95	2.63	2.58
2008-09	0.82	2.83	3.52

### 4.3.2 Liquidity ratios

These ratios were used to measure the ability of HOPCOMS to meet its current obligations. Since liquidity is basic to continuous operation, it was found necessary to examine the degree of liquidity of the HOPCOMS in meeting its current financial obligations. Three commonly used Liquidity ratios are:

1. Liquid assets to total assets
2. Current ratio
3. Acid test ratio or quick ratio

These ratios are presented in Table 4.4. The ratio of liquid assets to total assets shows the proportion of liquid assets in total assets. The ratio was 0.613 in 1999-2000 and it showed an increasing trend of 0.821 in 2008-09. This shows that the portion of the assets held in the form of liquid assets has increased over the years from 1999-2000 to 2008-09. During 2008-09, the HOPCOMS being the retail enterprise naturally keeps about 82 per cent of its assets in the form of liquid assets.

The ratio of current assets to current liabilities is termed as current ratio. This ratio generally showed an increasing trend from 1999-2000 barring a few years in between. This ratio showed an increase from 2.34 in 1999-2000 to 2.83 in 2008-09. This clearly indicates that the ability of the HOPCOMS to meet its short term obligation has increased over the years.

Acid test ratio or quick ratio provides a better measure of liquidity than the current ratio as inventories are deducted from current assets for calculation of this ratio. Like the current ratio, this ratio has also increased over the years from 1999-2000 to 2008-09 barring few fluctuations in between. In the initial years, the current liabilities of

HOPCOMS were more to meet its current obligations and now the values of this ratio is depicting the locking of funds in non liquid form.

### **4.3.3 Profitability ratios**

The profitability ratios provide a fairly sound method of diagnosis of the financial health of HOPCOMS. The following ratios were computed to reveal the profitability of the HOPCOMS.

1. Net profits to total assets
2. Net profits to total working capital
3. Net profits to fixed assets
4. Net profits to owned funds
5. Net profits to total sales

The ratio of net profits to total assets was -0.09 i.e., -9 per cent in 1999-2000 (Table 4.5). In later years this has shown a fluctuating trend, reaching a peak during 2000-01 with a value of 0.23 i.e., 23 per cent, then declined to -0.10, -0.23, -0.16 in 2001-02, 2002-03, 2006-07 but in 2007-08 and 2008-09 it was 0.014 and 0.033 i.e., 3.3 per cent. This indicates that profits over the assets increased from 1999-2000 to 2000-01 to decline later and increase again. The rate of return on assets was 3.3 per cent during 2008-09, indicating a good profit ratio in the cooperative sector.

The ratio of net profits to total working capital ranged from -0.057 in 1999-2000 to -0.57 in 2003-04 and reached 0.041 in 2008-09. This ratio has shown fluctuation and the values differed quite significantly over the years. This shows that the average rate of return on working capital is showing an increasing trend after reaching to lower level during 2003-04.

**Table 4.5: Profitability ratios of HOPCOMS during 1999-2009**

Year	Net profit to total assets	Net profit to working capital	Net profit to fixed assets	Net profit to owned funds	Net profit to sales
1999-2000	-0.09	-0.05	-0.09	-0.12	-0.01
2000-01	0.23	0.32	0.80	0.60	0.07
2001-02	-0.10	-0.21	-0.12	-0.11	-0.03
2002-03	-0.23	-0.38	-0.27	-0.15	-0.10
2003-04	-0.23	-0.57	-0.38	-0.24	-0.18
2004-05	-0.16	-0.28	-1.07	-0.15	-0.12
2005-06	-0.14	-0.26	-1.27	-0.14	-0.12
2006-07	-0.17	-0.17	-3.33	-0.17	-0.18
2007-08	0.02	0.02	0.30	0.01	0.02
2008-09	0.04	0.04	0.17	0.04	0.03

**Table 4.6: Turnover ratios of HOPCOMS during 1999-2009**

Year	Working capital-turnover ratio	Inventory turnover ratio
1999-2000	4.88	30.19
2000-01	4.43	24.20
2001-02	5.42	17.86
2002-03	3.86	18.54
2003-04	3.12	17.63
2004-05	2.32	44.35
2005-06	1.93	50.80
2006-07	0.94	67.70
2007-08	1.35	73.52
2008-09	1.37	59.46

The ratio of net profits to fixed assets shows the average rate of return on fixed assets over the years. The value was -0.09 in 1999-2000 and has showed fluctuations to reach a peak value of 0.79 in 2000-01 and bottom value of -3.33 in 2006-07 and then increased to 0.30 in 2007-08 and 0.16 in 2008-09. This shows that average rate of return, after decreasing upto 2006-07, is showing an increasing trend.

The ratio of net profits to owned funds indicates varies from -0.12 on 1999-2000 to 0.034 in 2008-09. This ratio has increased during 2000-2001 to 0.60 and over the years the ratios decreased upto 2006-07, later from 2007-08 the ratios increased showing positive growth. This shows that the owned funds have increased during the recent years, resulting in decreased rate of return on owned funds.

The ratio of net profits to sales shows the efficiency of the firm after considering all expenses. This is a more specific profitability ratio. This ratio was -0.011 in 1999-2000 and has shown fluctuations over the years to reach a value of 0.03 in 2008-09. The values have differed significantly over the years. The average rate of return has decreased after reaching a peak of 0.074 during 2000-01 and after 2007-08 the average rate of return has increased to 0.0299.

#### **4.3.4 Turnover ratios**

These ratios which are known as activity ratios reflect how efficiently HOPCOMS utilizing its resources. These ratios viz., working capital turnover ratio and Inventory turnover ratios are presented in Table 4.6. Working capital turnover ratio which was 4.88 in 1999-2000 increased over the years to reach a peak of 5.42 in 2001-02 and then declined to 1.37 in 2008-09. The increase of this ratio has not been uniform over years, but had shown a fluctuating trend over the years. This shows that working capital turnover ratio is decreasing over the

years, which is not a healthy trend. Inventory turnover ratio, which was 30.19 in 1999-2000, has shown an increasing trend, to decline for a few years in between, to reach a lowest in 2003-04 with a value of 17.63 but it increased to 59.46 in 2008-09. Again, increase of this ratio in later years compared to earlier years indicates a desirable trend.

#### **4.3.5 Miscellaneous ratios**

These ratios were used to measure the overall efficiency of HOPCOMS regarding sales and investments on fixed assets and owner's equity. The ratios that are presented in Table 4.7 are (a) sales to fixed assets and (b) sales to owned funds.

The ratio of sales to fixed assets has shown an increasing trend in the earlier years it was 7.76 in 1999-2000, later it fluctuated over the year's upto 2005-06 to reach 14.71 but in 2006-07 and 2007-08 it peaked to 17.94 and 26.44 but again in 2008-09, declined to reach 5.67.

The ratio of sales to owned funds has fluctuated over the years from the value of 10.28 in 1999-2000 to reach 0.92 in 2006-07, but later it recovered to reach 1.13 in 2008-09. This fluctuation is mainly due to modest increase in owned funds during the respective years. An increasing trend compared to earlier years is again a desirable sign.

#### **4.4 Supply chain of HOPCOMS**

Supply chain management encompasses the planning and management of all activities involved in sourcing, procurement, conversion, and logistics management. It also includes the crucial components of coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies.

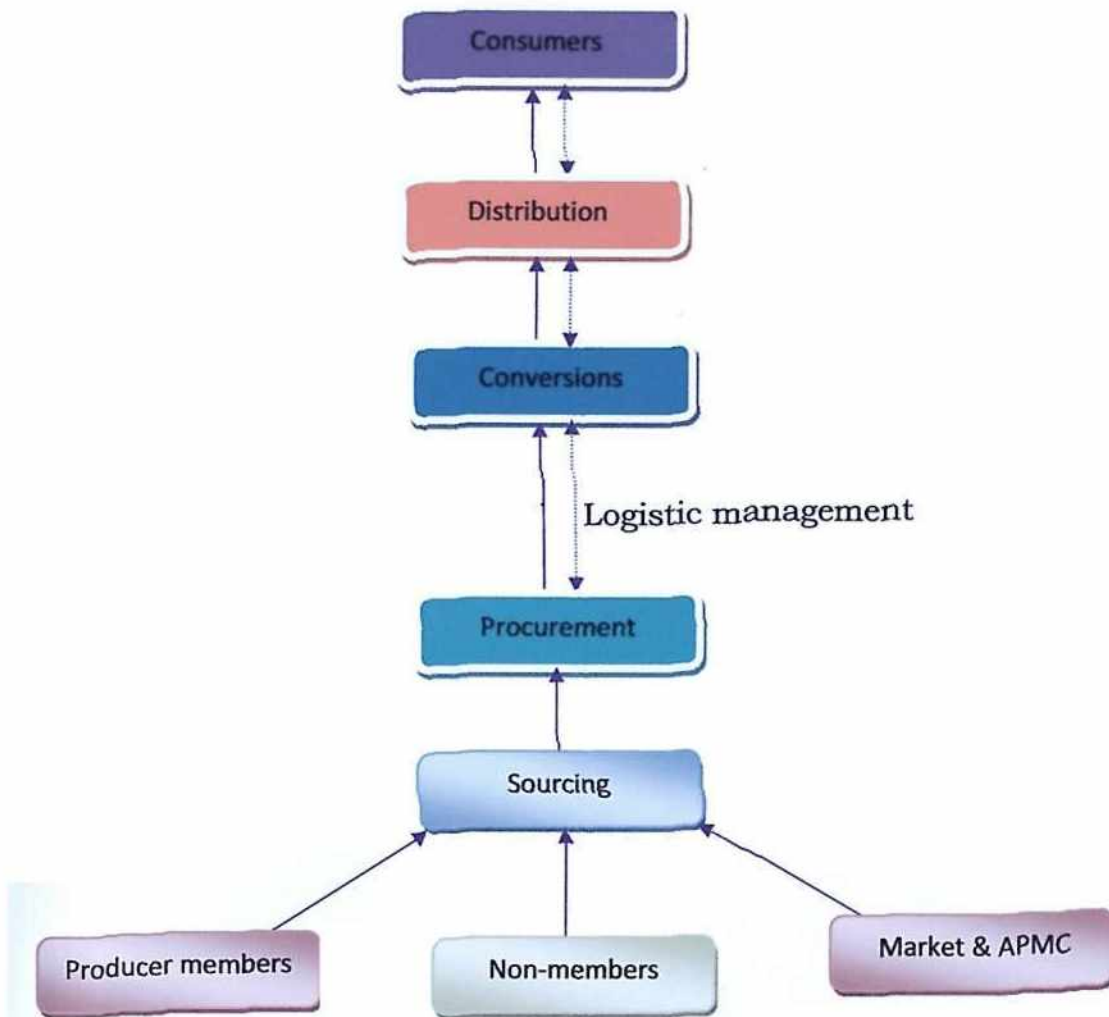
**Table 4.7: Miscellaneous Ratios of HOPCOMS during 1999-2009**

<b>Year</b>	<b>Sales to fixed assets</b>	<b>Sales to owned fund</b>
1999-2000	7.76	10.28
2000-01	10.74	8.16
2001-02	3.18	2.82
2002-03	2.73	1.53
2003-04	2.13	1.32
2004-05	12.31	1.28
2005-06	14.71	1.22
2006-07	17.94	0.92
2007-08	26.44	1.34
2008-09	5.67	1.13

**Table 4.8: Membership pattern of HOPCOMS during 1999-2009**

<b>Particulars</b>	<b>Numbers</b>	<b>Amount (Rs.)</b>
Members as on 30-06-2008 [A-class]	2,357	1,69,750
Co-operative society [B-class]	25	26,000
Government stakeholding [C-class]		500
<b>Total</b>		1,96,250

**Fig. 2: Supply chain structure of HOPCOMS, Shimoga.**



Supply chain management of HOPCOMS is dealt under following headings. (Presented in figure 2)

- a. Sourcing
- b. Procurement
- c. Conversions
- d. Logistics management

#### **4.4.1 Sourcing**

##### **4.4.1.1 Profile of membership**

The shareholders of HOPCOMS are its members, who come under different categories. The membership of the HOPCOMS consists of three categories viz., 'A' class members, 'B' class members, 'C' class members (Table 4.8). The society is managed by the board of directors consisting of 13 members of whom 9 are elected, from the 'A' class members and 3 members are nominated by the Department of Cooperation and one member is nominated by the Government of Karnataka.

Any farmer who is residing in the area of operation of HOPCOMS can become 'A' class member on payment of Rs 100/- towards one share in the HOPCOMS. The member's contribution to share capital stands at over Rs 1.69 lakhs which is 86.49 per cent of the total share holding.

The second category of members, 'B' Class members is mainly for institutions like NHBs, NGOs and others, who also hold a stake in the society. The contribution of 'B' class members to share capital of HOPCOMS is Rs 26 thousand, which is 13.25 per cent of the shareholding whereas the government shareholding is Rs 500 which is less than one per cent of the total shareholding as on 30.06.2008

#### **4.4.1.2 Membership pattern**

The membership pattern of farmers for past ten years is presented in Table 4.8. During the year 1999-2000 the total membership of HOPCOMS was 1445, which increased to 2100 during the year 2009-10 with an average growth rate of 3.14 per cent. Similarly HOPCOMS share capital and owned funds increased during the same period.

#### **4.4.1.3 General profile of producers**

The profile of producers including age, crops grown, place of sale and of relation with HOPCOMS are discussed under following sub-headings.

##### **4.4.1.3.1 Socio-economic profile of producer-members of HOPCOMS**

The primary data was collected from producer-members of HOPCOMS, non-members who are supplying vegetables to HOPCOMS. Total 50 producer-members and 50 non-members were interviewed. The producer-member was chosen randomly from important production regions in and around Shimoga district and the 50 non-members were chosen purposively from the same regions.

The socioeconomic profile of producer-members is presented in Table 4.9. It is clear from the Table 4.9 that the producer-members from the age group of 41-60 years constituted 52 per cent of the total respondents.

##### **4.4.1.3.2 Crops cultivated by producer members and non-members**

Both producer members and non-members grow varieties of vegetables are shown in Table 4.10. For producer-members it is advantageous to grow all types of vegetables since there is an assured market by HOPCOMS.

**Table 4.9: Age Group of Producers Selling Vegetables through HOPCOMS**

Sl. No	Age group (years)	Producers selling through HOPCOMS	
		Number	Percentage to total
1.	21-40	16	32
2.	41-60	26	52
3.	61-80	8	16
<b>Total</b>		<b>50</b>	<b>100</b>

**Table 4.10: Crops cultivated by producer members and non-members**

Farmer-members	Non Farmer-members
Brinjal, Ginger, Capsicum, Cucumber, Musk Melon, Pumpkin, Ridge Gourd, Bottle Gourd, Cabbage, Carrot, Cauliflower, Beans, Chillies, Little Gourd, Potato, Coconut.	Leafy vegetables, Bottle gourd, Cabbage, Carrot, Cauliflower, Double beans, Green Chillies, Little gourd, Coconut.
Banana, Sapota, Mango, Pineapple, Lemon, Guava.	Banana, Sapota, Mango, Pineapple, Lemon, Guava.

#### **4.4.1.3.3 Duration of the relationship of the Farmer-members with HOPCOMS**

The Table 4.11 indicates that majority of respondents (58 %) are members of HOPCOMS for more than 10 years, followed by (26 %) with ten years and the remaining 16 per cent with six years.

#### **4.4.1.3.4 Place of sale of fruits and vegetables by Farmer-members**

Among the members nearly 32 per cent of members are selling fruits and vegetables at HOPCOMS. Members who are selling both at HOPCOMS, wholesaler, Commission agent, Weekly market and Farm gate constituted 30 per cent. Sixteen per cent of members are selling at Weekly market as well as HOPCOMS. Further nearly 22 per cent respectively of members are also selling at HOPCOMS as well as at the farm gate (Table 4.12). Hence it is clear from the Table 4.12 that the members are not only selling at HOPCOMS but also through other channels.

### **4.4.2 Procurement**

#### **4.4.2.1 Crop calendar**

The availability of fruits and vegetables and procurement of fruits and vegetables is presented in Table 4.13 and Table 4.14 gives a clear idea of peak and lean season for fruits and vegetables. The peak season indicates availability of surplus quantity of fruits and vegetables whereas the lean season indicates lack of sufficient quantity fruits and vegetables.

##### **4.4.2.1.1 Crop calendar for vegetables**

Locally available vegetables are Tomato, Knolkhol, Carrot, Beetroot, Raddish, Brinjal, Chilli, Ginger, Cabbage, Cauliflower, Beans, and leafy vegetables (Table 4.13).

**Table 4.11: Duration of the relationship of the farmer-members with HOPCOMS**

Sl. No	Duration of relationship	No. of farmers	Percentage to total
1.	Six years	8	16
2.	Ten years	13	26
3.	More than 10 years	29	58
<b>Total</b>		<b>50</b>	<b>100</b>

**Table 4.12: Place of sale of fruits and vegetables by Producer-members**

Sl. No.	Particulars	No of respondents	Percent
1.	HOPCOMS	16	32
2.	HOPCOMS+ Wholesaler	15	30
3.	HOPCOMS+ Weekly market	8	16
4.	HOPCOMS+ Farm gate sale	11	22
<b>Total</b>		<b>50</b>	<b>100</b>

For example in case of Tomato the peak season is from the May to July and the lean season will be remaining months of the year but tomato made available throughout the season. Potato is grown in two season, rainy season (June to August) in parts of Hassan district and Rabi season (September to December) in all other production areas so the potato to the HOPCOMS comes from Hassan market. The leafy vegetables are grown throughout the year due to high demand in market and also due to suitability of climate, Cole crops like Cabbage, Cauliflower, Carrot, Beet root are grown during the month of October to December. The remaining crops like Pumpkin, Radish, Capsicum, Bhendi, Gourds are also grown in large quantity during the month of May to August/September.

#### **4.4.2.1.2 Crop calendar for Fruits**

Out of total fruits, Mango, Sapota, Banana, Papaya, Pine apple is available locally (Table 4.14).

In case of fruits the availability is restricted to few months. Further only few are grown in the state. Hence many fruits are procured from other states. The fruits like Papaya are available during the month of January to April and October to December, Sapota during the month of March to May, November to December, Pineapple during the month of Jan to December, Grapes during the month of March to May, Guava during the month of August to October, Banana during the month of January to December, Watermelon and Muskmelon during the month of March to June. All these fruits are available locally within state where as fruits like Apple is from Shimla available during the months of September to December. The Orange and Musambi from Nagpur are available during the months of March to June, Mango during the month of April to July, Pomegranate during the month of June to October. Based on the season and availability of fruits and vegetables the

**Table 4.13: Crop calendar for vegetables**

Crops	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Tomato	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Peak	Lean	Lean	Lean	Lean
Potato	Lean	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Peak	Peak	Peak	Peak
Chilli	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak
Brinjal	Lean	Lean	Lean	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak
Leafy vegetable	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak
Cabbage	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Peak	Peak	Peak
Cauliflower	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Peak
Carrot	Lean	Lean	Lean	Lean	Peak	Peak	Lean	Lean	Lean	Lean	Lean	Lean
Beetroot	Lean	Lean	Peak	Peak	Lean	Lean	Lean	Lean	Lean	Peak	Peak	Peak
Pumpkin	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Peak	Peak	Lean	Lean	Lean
Raddish	Lean	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Peak	Lean	Lean	Lean
Knolkhol	Lean	Lean	Lean	Peak	Peak	Peak	Peak	Peak	Peak	Lean	Lean	Lean
Beans	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Peak	Peak	Lean	Lean	Lean
Bhendi	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Peak	Lean	Lean	Lean	Lean
Tuber	Lean	Lean	Peak	Peak	Peak	Lean	Lean	Lean	Lean	Lean	Lean	Lean
Bitter gourd	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Peak	Lean	Lean	Lean	Lean
Bottle gourd	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Peak	Lean	Lean	Lean	Lean
Coconut	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak
Ridge gourd	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Peak	Lean	Lean	Lean	Lean



Lean season



Peak season

Source: HOPCOMS procurement centre (2009)

**Table 4.14: Crop calendar for fruits**

Crops	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Papaya	Peak	Peak	Peak	Peak	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Lean
Apple	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Peak
Pomegranate	Lean	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Peak	Peak	Lean	Lean
Grapes	Lean	Lean	Peak	Peak	Peak	Lean	Lean	Lean	Lean	Lean	Lean	Lean
Guava	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Lean	Lean
Sapota	Peak	Peak	Peak	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Lean
Musambi	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Lean	Peak	Peak	Peak	Peak
Orange	Lean	Lean	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Lean	Lean
Mango	Lean	Lean	Lean	Peak	Peak	Peak	Peak	Lean	Lean	Lean	Lean	Lean
Banana	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak
Pine apple	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak	Peak
Watermelon	Lean	Lean	Peak	Peak	Peak	Peak	Lean	Lean	Lean	Lean	Lean	Lean



Lean season



Peak season

Source: HOPCOMS procurement centre (2009)

procurement of fruits and vegetables are planned in order to meet demand of the customers.

#### **4.4.2.2 Types of fruits and vegetables procured from members by HOPCOMS**

The fruits and vegetables procured from the farmers by HOPCOMS are presented in Table 4.15. The fruits and vegetables are also procured from open market due to non availability of fruits and vegetables during certain periods. Some of the seasonal fruits like Apple from Shimla, Oranges from Nagpur and Grapes from Nasik etc are directly procured from farmers of respective areas. The fruits and vegetables procured from farmers on requirement basis.

The growers bring their produce at designated centre. The produce procured from farmer members is moved to godowns from where it is supplied to the retail outlets and to the institutions. At present HOPCOMS, Shimoga has only one procurement centre. This procurement centre collect nearly one ton of fruits and vegetables per day, from there fruits and vegetables are transported to all retail outlets. Sometimes if there is a shortage of fruits and vegetables, HOPCOMS also procures from open markets to fill the demand from consumers.

#### **4.4.2.3 Process of the Procurement and Sale of Produce**

One of the first conditions in HOPCOMS for a farmer to sell his produce is to become member. Secondly HOPCOMS issues indents giving the quantity of particular vegetables to be purchased from members. On receiving the indent order for the required quantity, the member has to bring the produce directly to HOPCOMS. The produce is checked with regards to its quality.

**Table 4.15: Types of Fruits and Vegetable procured from the farmer-members by HOPCOMS**

<b>Vegetables</b>	<b>Fruits</b>
Tomato	Apple
Brinjal	Banana
Chilli	Mango
Cabbage	Orange
Cauliflower	Pineapple
Carrot	Sapota
Beans	Watermelon
Bhendi	Muskmelon
Leafy Vegetables	Musambi
Bitter gourd	Ber
Bottle gourd	Pear
Ridge gourd	Grapes
Pumpkin	Guava
Drumstick	Amla
Cucumber	Clustard apple
Coriander	
Onion	
Raddish	
Knolkhol	
Coconut	

*Source: HOPCOMS (2009)*

Further the produce is graded and a receipt for the same is given to the farmer member. The farmer presents the receipt to commercial bank operating within HOPCOMS, thus enabling farmers to take cash immediately (fig 3). At present the HOPCOMS is handling about 30-35 MT of fruits and vegetables out of which 75 per cent is sold through retail outlets and 25 per cent through the institutions like Hostels, Government hospitals, Clubs and major factories. It also undertakes bulk supplies to the marriages and other social functions.

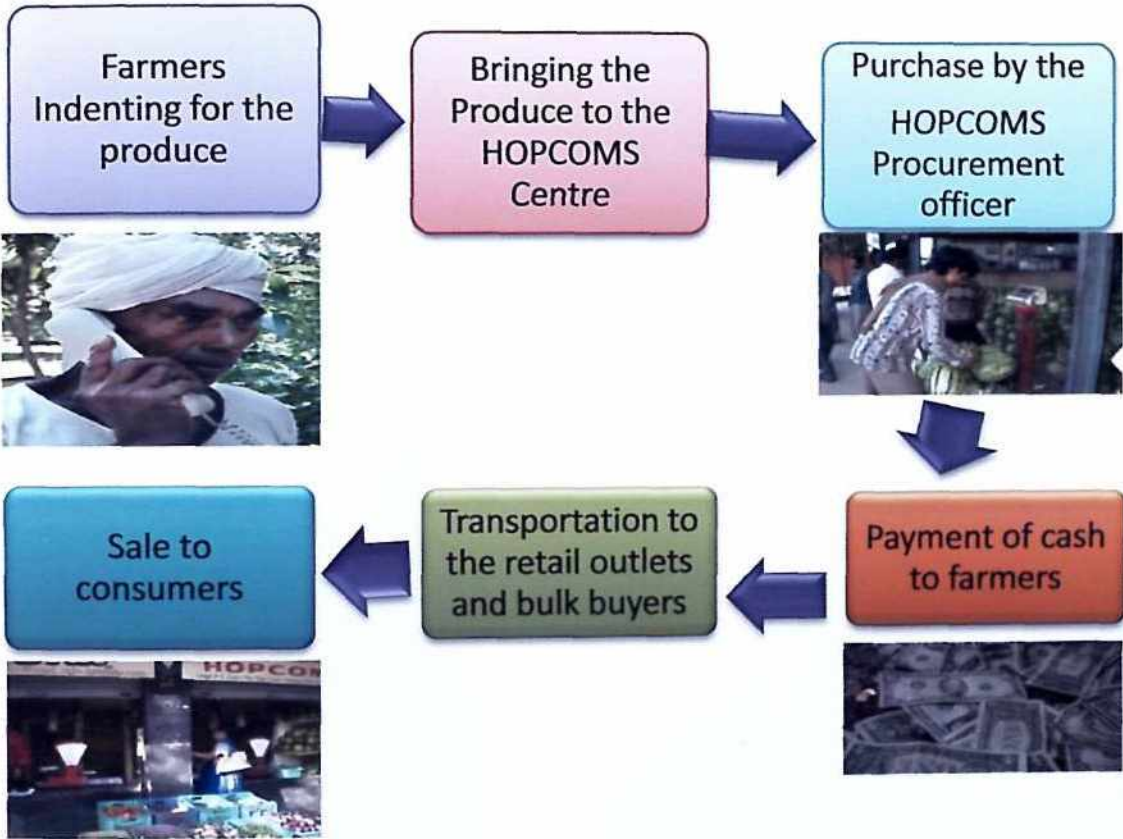
The present system ensures that farmers who bring their produce to HOPCOMS for a reasonable price and get cash on the same day. This system of selling and realization of cash on the same day is better than farmers selling it to wholesale traders.

The process ensures that farmers who bring good quality produce to the procurement centre can sell this at good prices and get cash the same day. When compared to open market transactions, where they sale to wholesale traders, they get the money late, as they usually have accounts with these traders and settle them only once a fortnight or once a month.

#### **4.4.2.4 Quantity and Value of fruits and vegetables procured by HOPCOMS**

The Table 4.16 clearly shows that decreasing trend in procurement of fruits and vegetables by HOPCOMS. Procurement of fruits and vegetables has decreased. Similarly prices were high during the month of April to June due to less production of vegetables during summer. However during kharif season prices tend to fall due to high production of vegetables.

**Fig. 3: Process for the Procurement and Sale of Produce**



**Table 4.16: Quantity and Value of fruits and vegetables procured by HOPCOMS**

Month	Quantity (in tons)	Value (in Lakh Rs.)
April	35	1.201
May	32	1.083
June	36	1.403
July	30	0.94
August	29	0.91
September	30	0.95
October	30	0.95
November	28	0.92
December	29	0.91

*Source: HOPCOMS (2009)*

**Table 4.17: Farmers and Market share in total quantity procured by HOPCOMS**

Month	Farmer (tons)	Market (tons)
April	21.0	14.0
May	19.2	12.8
June	21.6	14.4
July	18.0	12.0
August	17.4	11.6
September	18.0	12.0
October	18.0	12.0
November	16.8	11.2
December	17.4	11.6

*Source: HOPCOMS (2009)*

#### **4.4.2.5 Share of quantity procured from farmers and Market**

The Table 4.17 clearly shows that HOPCOMS procure large quantity of fruits and vegetables from farmer-members which accounts to nearly 60-70 per cent and the remaining 30 to 40 per cent is procured from markets depending on the availability of produce from the farmers. However the quantity procured from farmers is decreasing over the months. On the other hand the quantity procured from the market is increasing during the months of April to December.

#### **4.4.3 Conversions**

##### **4.4.3.1 Grading of fruits and Vegetables followed by HOPCOMS**

The eye sight grading method is followed in HOPCOMS for grading of various fruits and vegetables. The grades of major types of fruits and vegetables in HOPCOMS, Shimoga is presented in Table 4.18. HOPCOMS at present is not using standard specifications for grading of fruits and vegetables. For example in case of 'Apple' the highest quality was graded as 'A' grade (big size, medium size and small size having red colour) and 'B' grade (having big size, medium size and small size slightly). In case of Coconut, 3 grades have been followed. They are 'A' grade, 'B' grade, 'C' grade Coconut. 'A' grade having big size and 'B' grade Coconut having medium size, Grade 'C' Coconut having small size.

In Banana 2 main grades are followed. They are 'A' grade and B grade Bananas. The 'A' grade banana has big size greenish white colour with no wrinkles. The grades 'B' Banana have small and medium size, green in colour.

In Papaya 2 main grades have been traded. They are 'A' grade and 'B' grade Papaya. The 'A' grade Papaya has big size, fruits having yellow colour. The 'B' grade Papaya has medium size to small size, greenish yellow patches on the fruits.

**Table 4.18: Grading of fruits and vegetables in HOPCOMS**

Items	Name of Commodities	Quality grades	Special Characteristics
1.	<b>Fruits</b>		
a.	Apple	A	Size-Big, medium, small, colour-red
		B	Size-Big, medium, small, colour-dull red
b.	Mango	A	Size-Big, colour-Yellowish, Variety-Alpanso, Ratnagiri, Kalmi, Size(min-max), 280-338 gms weight
		B	Size-Big, colour-Yellowish, Variety-Alpanso, Ratnagiri, Kalmi, Size(min-max), 220-280 gms weight
		C	Size-Big & medium, slightly damaged both side, shaded colour
c.	Banana	A	Size-Big, greenish, no wrinkles, colour-shining white
		B	Size-Big & medium, colour-green, immature & improper development of fruits were rejected, Variety-Cavendish, Yellaki, Rasbale.
d.	Papaya	A	Size-small, big, medium colour-yellow patches, improper colour rejected
		B	Size-small, big, medium colour-greenish yellow patches improper development of fruits
2.	<b>Vegetables</b>		
a.	Ridge guard	A	Size-normal , straight length, colour-greenish dark green, rejecting damaged fruit, tip will not cut on top portion
		B	Size-abnormal, slightly aged light wrinkle shape local variety
b.	Brinjal	A	Medium size, colour-shining white strips, tip on top must be green
		B	Size-abnormal, colour-same but whitish , tip-greenish, rejecting damaged fruit, variety-red, white, green long
c.	Cluster bean	A	Size-medium, colour-greenish yellow, tip on top & dots must be rejected
		B	Size-small, colour-greenish yellow colour, rejecting beans with leaves variety-Belgaum local, hybrid
d.	Chilli	A	Variety-dwarf size colour green and dark
		B	Variety-same size also same colour-light green colour, tip black after harvesting on day
e.	Cucumber	A	Size-medium, colour-green yellow strips

Source: HOPCOMS (2009)

In HOPCOMS eye sight grading was followed for vegetables. For Ridge guard there are 2 grades. They are 'A' grade having straight length, normal size and greenish to dark green colour. The 'B' grade Ridge guard will be slightly matured, light wrinkle shape.

For Brinjal with 2 grades have been followed, 'A' grade Brinjal having medium size, shining white strips colour with green colour. 'B' grade Brinjal will be abnormal in size with shining white strips colour, but whitish strips, tip greenish.

For Cluster beans there are 2 grades namely 'A' grade with Cluster bean having medium size, greenish yellow colour, tip on top. The 'B' grade Cluster bean will have small size, greenish yellow colour.

In case of Chilli, 2 grades are followed. The 'A' grade Chilli having dwarf size (Chameli variety) and long size (in Jwala variety) with dark green colour. The 'B' grade variety will have light green colour with same size. The Cucumber has 2 grades, 'A' grade having medium size, greenish yellow strip colour and 'B' grade having big size, green yellow strips colour.

#### **4.4.3.2 Pricing policy of HOPCOMS**

The HOPCOMS buys the produce from the farmers based on the wholesale market rates and prices announced by department of agricultural marketing. The department collects maximum, minimum and model prices for the various commodities sold in the previous day of major APMC markets like Shimoga APMC market, Shivappanayaka market and the same is published in the news paper in the next day. Based on these rates, HOPCOMS fixes the procurement price for the fruits and vegetables. Later HOPCOMS adds 25 per cent commission to the wholesale market price for the commodity and sells it to the consumers. In that 25 per cent commission added to the wholesale

market price, 13 per cent commission is given to commission agents and the remaining 12 per cent commission is kept by the HOPCOMS. Thirteen per cent commission is extended and at the same time the commission agent has to take care of the wastages of fruits and vegetables, it means the commission agent is responsible for the wastages that occur during transportation and at the retail outlets, HOPCOMS held no responsibility for that wastage. For example, wholesale market price for Banana in June month is Rs 18 per kilo gram, in other mandis the price of Banana is Rs 25 whereas in HOPCOMS the price is Rs 24 i.e., the price of Banana is one rupee less compared to other Banana mandis.

#### **4.4.4 Logistics management**

##### **4.4.4.1 Operational aspect of Go-downs**

There are 2 godowns for storing fruits and vegetables in HOPCOMS (Table 4.19). In every godown store keeper will record the arrivals and dispatch it to retail outlets. Fruits and vegetables procured will be shifted to the godowns as per the indent received by the procurement officer. Once the fresh fruits and vegetables is dispatched from the godowns HOPCOMS is not responsible for the wastage, the commission agent has to bear the wastage.

##### **4.4.4.2 Retail outlets**

HOPCOMS has opened 10 retail outlets in its area of operation Shimoga, which provide fresh fruits and vegetables supplies to the consumers in the city. The retail outlets are being managed by the sales agent on temporary basis who are not the employees of HOPCOMS. As part of its marketing strategy, HOPCOMS has established majority of retail outlets near to city circles, railway stations, bus stands and parks. The retail outlets in Shimoga district are divided into 4 zones like North,

**Table 4.19: Godown operation**

Sl. No.	Godown	Numbers
1.	All vegetables (Onion, Potato, Ginger, Garlic, Coconut)	1
2.	Banana (Ripening chamber)	1

Source: HOPCOMS reports (2009)

**Table 4.20: Classification of retail outlets in Shimoga district**

Sl. No.	Particulars	Number	Percentage to total
1.	North [Ravindra nagara, Gandhi nagara, Basavanagudi]	3	30.00
2.	South [BRP, MRS, Bhadravathi]	3	30.00
3.	East [Balraj URS road]	1	10.00
4.	West [Gopala, Kuvempu road]	2	20.00
5.	Center [Shivmurthy circle]	1	10.00
	<b>Total</b>	<b>10</b>	<b>100</b>

Source: HOPCOMS (2009)

South, East and West as shown in Table 4.20. As per the Table 4.20 the retail outlets in Shimoga are concentrated in North and South Shimoga (3 and 3 number respectively) followed by East Shimoga (one), West Shimoga two and at the center of the city one.

#### **4.4.4.3 Wastages**

From the Table 4.21, it is clear that wastages were high during the month of April to June due to high temperature and less wastage during October to December. The Table clearly indicates that on an average 5 to 15 per cent of fruits and vegetables procured are wasted during distribution process.

#### **4.4.4.4 Storage life of fruits and vegetables**

The fruits and vegetables can keep long period in cool chamber compare to room temperature accordingly the losses also were high in room temperature compared to cool chamber (Table 4.22). The Shimoga HOPCOMS stores fruits and vegetables under room temperature so as expected the wastages will be more.

#### **4.4.4.5 Transportation arrangements**

HOPCOMS has only one wing for transportation of fruits and vegetables from procurement center to retail outlets since the farmers directly bring their produce to main center on their own. The wing is operated by HOPCOMS itself with its hired vehicles. The details of transportation arrangements are presented in Table 4.23. In HOPCOMS, the wing is used to carry the fruits and vegetables from HOPCOMS to retail outlets. These outlets are located in and around Shimoga within radius of 30 Km. Vehicles are allotted everyday to these routes as per the requirements, within the time frame. At morning 7.30 AM vehicle will departure from godown by loading the fruits and vegetables to the allotted outlets to dispatch fruits and vegetables to the respective outlets.

**Table 4.21: Quantity of fruits and vegetables wastages**

<b>Month</b>	<b>Quantity (in tons)</b>
April	0.09
May	0.10
June	0.15
July	0.15
August	0.14
September	0.12
October	0.07
November	0.08
December	0.06

*Source: HOPCOMS (2009)*

**Table 4.22: Storage life of fruits and vegetables**

Crops	Month	Cool chamber		Room Temp	
		Days	Weight loss (%)	Days	Weight loss (%)
Mango	Jun-Jul	9	5.04	6	14.90
Banana	Oct-Nov	20	2.50	14	4.80
Lime	Jan-Feb	25	6.00	11	25.00
Potato	Mar-May	90	7.67	46	19.08
Spinach	Feb-Mar	8	7.03	3	16.00
Amaranth	May-Jun	3	10.98	1	49.80
Methi	Feb-Mar	10	10.80	3	18.00
Okra	May-Jul	6	5.00	1	14.00
Carrot	Feb-Mar	12	9.00	5	29.00
Tomato	Apr-May	15	4.42	7	18.62

Source: HOPCOMS report (2009)

**Table 4.23: Transport arrangements**

<b>Routes of operation</b>			
<b>Route</b>	<b>Go down (7.30AM)</b>	<b>Retail outlets (8.30 AM)</b>	<b>Godown (10.00AM)</b>
<b>Route I</b>			
N-Shimoga	From godown	Basavanagudi	Back to go down
		Gandhi nagara	
		Ravindra nagara	
<b>Route II</b>			
W-Shimoga	From godown	Gopala	Back to go down
		Kuvempu road	
<b>Route III</b>			
S-Shimoga	From go down	BRP	Back to go down
		MRS	
		Bhadravathi	
<b>Route IV</b>			
E-Shimoga	From go down	Balraj URS road	Back to go down

Source: HOPCOMS (2009)

Further the vehicles reach at 8.30 AM. In general every day the same routine operations are followed. The vehicles will dispatch the fruits and vegetables to the respective outlets and bring back the empty trays to the godown.

#### **4.4.4.6 Marketing channels**

The marketing channels available to farmers for selling fruits and vegetables are presented in figure 4. The figure clearly shows competitor channel-1 (private channel) indicates that there were many more intermediaries for the sale of fruits and vegetables but in society channel-2 and channel-3 intermediaries were less as compared to channel-1. Where major share was going to the producers in the sale of fruits and vegetables, but in channel-1 producers will get less benefit.

#### **4.4.4.7 Expenditure for hired vehicles (third party logistics)**

In respect of hired vehicle HOPCOMS had fixed the transportation rate ranging from Rs. 15-20 (for min 2-3 Km), for 4-10 Km (Rs. 40) and above 11-30 Km (Rs. >40) charged based on the area and distance (Table 4.24). The hired vehicles work on daily basis with in their respective routes as fixed by HOPCOMS.

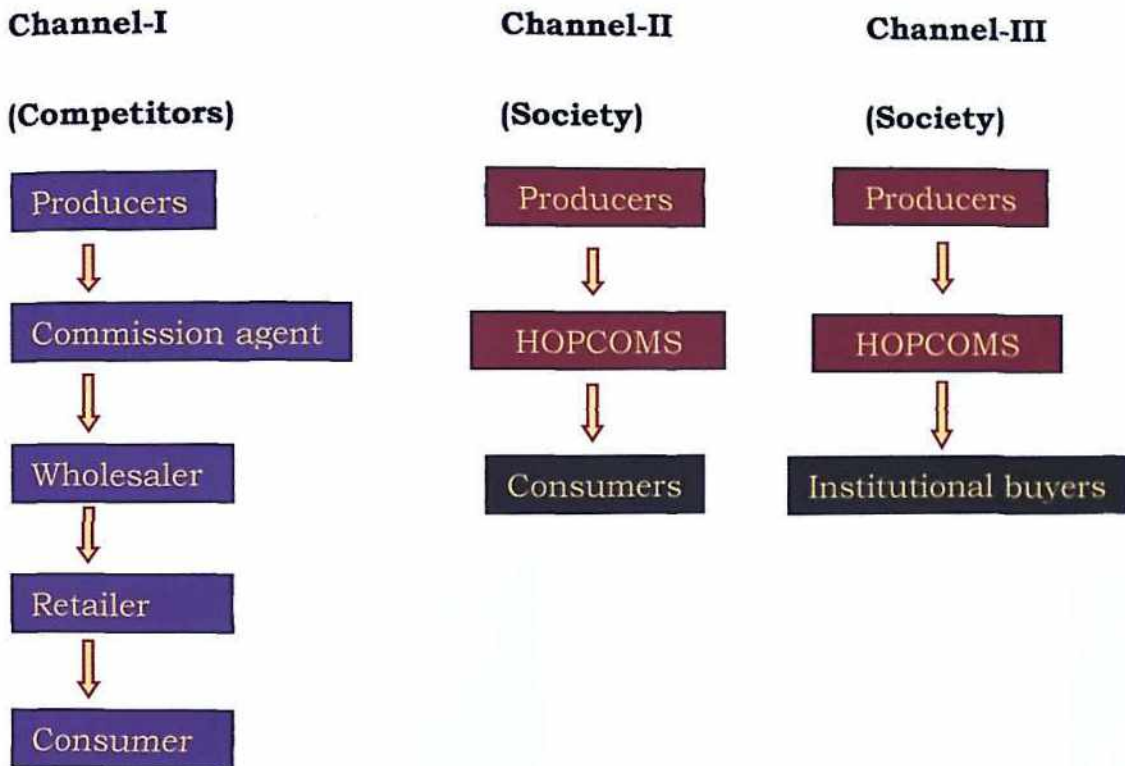
### **4.5 Opinion survey**

Opinion survey of producer members of HOPCOMS was carried out with the main objective of assessing the performance of HOPCOMS in achieving its set goals.

#### **4.5.1 Opinion of producer members on HOPCOMS**

The opinion of producers selling their produce (fruits and vegetables) to HOPCOMS was documented to gain an insight into the reasons for preferring the respective channels. This opinion helps to evaluate the performance of HOPCOMS.

**Fig. 4: Marketing channels of fruits and vegetables followed through competitors and HOPCOMS.**



*Source: HOPCOMS (2009)*

**Table 4.24: Hired vehicle charges**

<b>Sl. No.</b>	<b>Kilometer</b>	<b>Amount (in Rs.)</b>
1.	Min 2 to 3	15-20
2.	4 to 10	40
3.	11 to 30	Morethan 40

Source: HOPCOMS (2009)

**Table 4.25: Hired vehicles expenditure per month**

<b>Month</b>	<b>Amount (in Rs.)</b>	<b>Trips</b>
April	12,880	92
May	12,600	90
June	13,160	94
July	12,320	88
August	12,040	86
September	12,320	88
October	12,320	88
November	11,900	85
December	12,040	86

Source: HOPCOMS (2009)

The distribution of producer respondents, by age group, selling their produce through HOPCOMS and through commission agents is presented in Table 4.26. The Table indicates that 52 per cent of producers selling through HOPCOMS were in age group of 41-60 years. While those falling into this category was 56 per cent in case of producers selling through commission agents. Thirty two per cent of producers selling through HOPCOMS were of age group of 21-40 years, while it was 32 per cent for the other channel. Only 16 per cent and 12 per cent of the producers in the age group of 61-80 years were patronizing HOPCOMS and commission agents, respectively. Table 4.27 indicates the reasons given by the fruits and vegetables producers for not becoming members of HOPCOMS. The major reasons given by them were that they are not facing marketing problems (16 per cent), personal relationship with the commission agents built over the years (16 per cent), Pre-harvest contract problem avoids all problems (12 per cent), the entire quantity cannot be sold through HOPCOMS (18 per cent), No credit facilities (18 per cent) and only the best quality vegetables are accepted for sale (20 per cent) of the producer respondents were willing to become members of HOPCOMS.

The reasons given by respondents for marketing fruits and vegetables through HOPCOMS are presented in Table 4.28. The important reasons given by the producers for preferring to market their producer through HOPCOMS were the remunerative price paid (54 per cent) and correct weighment (24 per cent). The other reasons given were immediate cash payment (18 per cent), better treatment (4 per cent) and provision of transport facilities (zero per cent) because HOPCOMS is not providing the transport facilities. The remunerative price was cited as the reason for marketing fruits and vegetables through HOPCOMS.

**Table 4.26: Age group of producers selling fruits and vegetables through HOPCOMS and through commission agents**

Age group (years)	Producers selling through HOPCOMS		Commission agents	
	Number	Percentage to total	Number	Percentage to total
21-40	16	32	16	32
41-60	26	52	28	56
61-80	8	16	6	12
<b>Total</b>	<b>50</b>	<b>100</b>	<b>50</b>	<b>100</b>

**Table 4.27: Reasons for not marketing of fruits and vegetables through HOPCOMS**

Sl. No.	Reasons	Number of producers	Percentage to total
1.	Not facing marketing problems	8	16
2.	Pre-harvest contract avoids all problems	6	12
3.	Full quantity cannot be sold	9	18
4.	No credit facilities	9	18
5.	Personal relationship with the commission agents build over the years	8	16
6.	Only best quality vegetables are accepted for sale	10	20
<b>Total</b>		<b>50</b>	<b>100</b>

**Table 4.28: Reasons for marketing of fruits and vegetables through HOPCOMS**

<b>Sl. No.</b>	<b>Reasons</b>	<b>Number</b>	<b>Percentage to total</b>
1.	Correct weightment	12	24
2.	Remunerative price	27	54
3.	Better treatment	2	4
4.	Immediate cash payment	9	18
<b>Total</b>		<b>50</b>	<b>100</b>

**Table 4.29: Opinion on the performance and suggestions for the improvement of HOPCOMS**

Sl. No	Opinion/suggestion	Number	Percentage to total*
1	<b>Performance of the society</b>		
	Satisfactory	31	62
	Not satisfactory	19	38
2	<b>If not satisfied, reasons</b>		
	HOPCOMS is not procuring the full quantity	20	40
	Transportation is not provided	30	60
3	<b>Suggestions for improvement</b>		
	Increase storage facilities	1	2
	Better price for produce	5	10
	Better cordiality	4	8
	To extend credit facilities	5	10
	Increase procurement centre	8	16
	Quick transport facilities	8	16
	Extend operations throughout the Shimoga taluk	6	12
	To have tie ups outside the state	3	6
	To provide lodging facilities	3	6
	Provision to purchase 'b' quality fruits	8	16
	*the total sample was 50 producers		

Table 4.29 depicts the opinion of producers selling through HOPCOMS and their suggestions for improvement in the functioning of HOPCOMS. Sixty two per cent of the producers were satisfied with the performance of HOPCOMS, while 38 per cent were not satisfied and the major reason put forth by them was that HOPCOMS was not procuring their entire quantity of produce. The important suggestions given for improvement of HOPCOMS were provision of transport facilities (60 per cent), increase procurement centres (16 per cent), extend operations throughout the Shimoga district (12 per cent), provide credit facilities (10 per cent) and provisions to purchase 'B' quality fruits and vegetables even at a lower rate (16 per cent). It was also revealed during the opinion survey that 40 per cent of producers could not market the entire quantity produced, through HOPCOMS.

## *Discussion*

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## **CHAPTER V**

### **DISCUSSION**

The overall objective of the study was to evaluate the business performance and growth of the Shimoga HOPCOMS. An emphasis was also given to study the supply chain practices of the HOPCOMS and perception of the farmers about the HOPCOMS.

The discussion of the result on these aspects, are organized into following four parts:

5.1 Compound growth rate

5.2 Ratio analysis

5.3 Supply chain studies

5.4 Opinion survey.

5.5 Working constraints of Shimoga HOPCOMS and suggestions to improve the performance.

#### **5.1 Compound growth rate**

The compound growth rates were worked out in order to find out the annual growth of 11 performance variables of the institution namely paid up share capital, membership, sales, inventories, fixed assets, current assets, total assets, other liabilities, current liabilities, total liabilities and owned funds, for the period from 1999-00 to 2008-09.

Share capital of a cooperative institution is one of the important variables to be examined in the long run to analyse the growth (Verma, 1980, Bhale Rao and others, 1981). The paid up share capital of HOPCOMS has registered a growth rate of 5.72 per cent against a growth rate of 3.14 per cent for membership. This is mainly because higher contribution to share capital by the Producer members. The growth rates

in both membership and paidup share capital reflected the interest of growers in the organization (Subbarao, 1985). This trend of increasing share capital and membership numbers shows the involvement of producer members in the progress of Shimoga HOPCOMS.

Sales have registered a down trend recording negative figure of -26.14 per cent. The declining sale is clear demonstration of failure of organizational strategies of retail enterprise, such a low growth rate is a low manifestation of the credibility and goodwill that the cooperative had established in the consumer market (Subbarao, 1985). But the decline of inventories to the tune -32.24 per cent indicates poor management of inventory, it establishes the organizational failure to maintain adequate inventory to sell this is not a healthy sign of retail enterprise. The annual growth trend of fixed assets (-37.38 per cent) is less than that of current assets (-5.84 per cent). It shows that the Shimoga HOPCOMS is not building up its long term infrastructure to enhance the sales; this is a major reason for insufficient inventory and low turnover. This reason was further emphasized by decrease in turnover during the later years of the study. It is necessary to have a optimum level of fixed assets to enhance the business prospects, therefore, the Shimoga HOPCOMS should give due importance to address this strategic failure.

The declining trend of total liabilities (-0.61 per cent) is less than that of the declining trend of total assets (-12.67 per cent). It indicates that the HOPCOMS is not showing interest in building up of assets by applying appropriate capital mix to increase the sales. The deceleration of current assets was -5.84 per cent which was more than that of current liability (-7.21 per cent) and this indicates the reduction in net working capital, which ultimately leads to dependence on external funds to meet day to day financial obligations.

The foregoing discussion reveals that the period of operation considered for the study exhibited the poor growth in the business. The growth rate is observed only in share capital. In total assets and sales indicates the decreased spectrum of activities of HOPCOMS. Only owned funds show a moderate increase, but current assets reflects decreasing trend, indicates the unenthusiastic managerial attitude of the cooperative in the business. A fairly diminishing trend of fixed assets reveals the low expansion of business activities of the organization.

The foregoing discussion reveals that the whole period of operation considered for the study might be regarded as a stage of continuous unenthusiastic growth and poor managerial strategies to develop the business.

## **5.2 Ratio analysis**

The financial statement of HOPCOMS for the study period showed, except membership and share capital all other indicators have decreased gradually over the years. The financial components viz., total assets and sales also decreased over the years. The recent figure indicates that HOPCOMS has been continuously making loss for the last ten years with fluctuating rate. The total assets are decreasing faster in recent years. The liabilities were increasing at a slower pace during the recent years. The membership has shown an uptrend, even though it was at low pace it is noteworthy. The performance indicators clearly indicated that the HOPCOMS management failed in all the business fronts to make inroads to encash retail boom and encash the opportunity to take a share of additional income of rural sector. The initial tempo of development was last, hence it is suggested that, the HOPCOMS should reorient its business activities to establish sound financial base to firm up its presence as fresh retailer with socio-economic commitment.

Financial ratio analysis carried out applying solvency ratios, liquidity ratios, profitability ratios, turnover ratios and miscellaneous ratios. The results were discussed as follows.

### 5.2.1 Solvency ratios

The total liabilities to owned funds indicate the extent of debts (in rupees) per rupee of owned funds. The computed ratios show that this ratio has declined from 1.89 in 1999-00 to 1.29 in 2008-09 (Table 4.3). This shows that the liabilities have decreased over the years and also that there is a substantial rise in owned fund. This decrease further reveals that HOPCOMS is increasingly relying on own funds, which is desirable. A value over a unity of this ratio for a non-banking institution indicates poor financial structure (Page *et al* 1970). In the present analysis, declining trend in the values of ratios indicates the right approach of the organization towards attaining a sound financial structure.

The fixed assets of HOPCOMS in relation to its owned funds have steeply declined over years and this is reflected in a decline of this ratio from 1.32 in 1999-00 to 0.085 in 2008-09. This is mainly because of sale of fixed assets (vehicles) of the society. But still there is a lot of scope to acquire more fixed assets to increase its activities. Page *et al* (1970) indicated that a higher ratio is associated with problems of liquidation because the claims of the owner have to be met by sale of fixed assets which are in non-liquid form. However, Sridharan (1976) observed the gradual rise in the value of this ratio as a clear indication of the manifold expansion of the services provided by the institution. The future success of the Shimoga HOPCOMS clearly depends on its acquisition of fixed assets, more particularly infrastructure related assets to expand its business operation.

The debt-equity ratio which reached a level of 0.46 during 2001 - 02 has decreased to 0.00 by 2008-09, which is a sign of good management but bad practice and poor vision to have optimum capital mix. The present trend shows that, the society is not interested in expansion and failed in its objective to provide good market facility to its grower members. The present phenomenon is also shows disrespect to the valuable and patron consumers. The debt-equity ratio is less than standard of 3:1, which signifies financial soundness of the organization. However it also indicates lack of dynamism of the organization with naturally near zero debt and a high degree of own funds position should explore and encourage HOPCOMS to expand its business activities and diversification through processing and value addition, as it has immense scope to encash subsidies and raise term loans for expansion.

The debt equity ratio and the ratio of total liabilities to owned funds exhibits, that debt are well within manageable limits, which is a healthy sign. The position of HOPCOMS was for from satisfactory during initial stages, as the organization was forced to borrow heavily to meet the financial requirements of inceptional and expansion activities but in later years despite of additional owned funds the society has not initiated appropriate business plans to expand its activities. The declining ratio of fixed assets to owned funds clearly indicates there is a scope for increasing infrastructure facilities, which act as a spring board for increasing business activities of any organization.

### **5.2.2 Liquidity ratios**

The concept of high degree of liquidity has more relevance in banking institutions than in commercial and cooperative institutions. The present trend in the retail sector is to maintain bear minimum liquidity, since it operates on daily sales collections. These ratios

measure the ability of any organization to cover its short term obligation out of its short-term resources.

The ratio of liquid assets to total assets has increased from 0.62 in 1999-00 to 0.82 in 2008-09. The increase in liquid assets in proportion to total assets is a healthy sign, as any trading organization has to have more working capital for its expansion (Table 4.4).

The current ratio showed a general increasing trend over the years from 2.34 to 2.84. This ratio indicates that ability of HOPCOMS to meet its short-term obligation has increased over the years. The standard norm of this ratio varies from sector to sector and also on the basis of capital, technology and labour intensiveness involved in the business. It may be pointed out that in respect of joint stock companies; generally a standard ratio of 2 is preferred. The organization should make efforts to have its own current assets, though no standard form is prescribed for cooperative institutions. Natarajan et al (1980) considered that a current ratio of 2 is ideal. Flink and Grunewald (1969) observed that value above unity indicates a firm's ability to meet current obligation. Thus it can be concluded that HOPCOMS has maintained a reasonable liquidity position.

The acid test ratio (ratio of current assets less inventories to current liabilities) also shows an increasing trend over the years. This ratio was 1.81 in 1999-00 which increased to 3.52 in 2008-09. This ratio has crossed the standard norm of unity. The increase of this ratio over the years was due to the maintenance of adequate cash balance to meet its daily activities and the relative decline of current liabilities. The value of this ratio is above the standard norm of unity as indicated by Natarajan et al (1980).

On the whole, the liquidity ratios clearly indicate that the HOPCOMS has made considerable progress in achieving the standard norms, further the enterprise being the retail player can operate on minimum ratio to reduce its interest burden.

### **5.2.3 Profitability ratios**

The profitability ratios are used to study the overall efficiency of any business organization. Though service occupies a prime place in any cooperative set-up, the importance of profits cannot be ignored, as profit is a measure of efficiency of any organization and is important for survival and expansion of the organization. The ratios of net profits to total assets, working capital, fixed capital, owned funds and total sales were computed.

The net profits to total assets ratio has shown a fluctuating trend over the years in comparison to 0.033 in 2008-09. But even this rate of return on assets of 3.3 per cent indicates a marginal profit. Further, the results indicates that profit level has been marginally increasing in relation to total assets from 2007-08 onwards. Hence more efforts should be made to increase profits by decreasing expenditure and taking up of expansion activities, as sales have been increasing considerably over the years. Return on assets is one of the best standards of the evaluation and heavy establishment and contingent expenses as a proportion to sales were some of the causes of poor performance. Natarajan et al (1980) observed similar phenomena for consumer co-operative in Andhra Pradesh for the period from 1970-71 to 1976-77.

The ratio of net profits to working capital has shown wide fluctuation over the years to reach a peak of 0.33 during 2000-01 from - 0.057 in 1999-00 which came down to 0.042 in 2008-09. This decrease is mainly due to the lower profits as the overall expenditure in relation to

total turnover has increased during the recent years bringing down the profit levels. A value of 0.05 and less reveals an unsatisfactory performance (Rama, 1984), therefore it clearly indicates that profits of the organization have not increased in proportion to its working capital and working on below 5 per cent return on investment, this may discourage the shareholders and will affect the morale of the stakeholders.

The ratio of net profit to fixed assets shows the average rate of return on fixed assets over the years. This ratio which was -0.09 in 1999-00, again fluctuated to reach a peak of 0.79 in 2000-01 but declined to -3.33 in 2006-07. Though fixed assets have less importance in a trading organizations than in manufacturing concerns, its role in increasing trading activities has to be given due recognition. This decline is due to lower profits made during the last couple of years in relation to fixed assets i.e., profits have not increased in proportion to the growth in fixed assets.

The ratio of net profits to owned funds which was -0.12 in 1999-00 showed a fluctuating trend over the years to reach 0.60 in 2000-01 but declined to -0.17 in 2006-07. This decrease is mainly due to increase in owned funds during recent years with higher equity participation by producer members, again in 2008-09 the ratio reached to 0.034 thus profits have increased proportionately. Though this ratio is a reliable measure of the performance of a business organization as put forth by page et al (1970), it is considered only as a supplementary measures in case of cooperative institutions because of their stress in social objectives (Anand, 1981 and Rama,1984).

The ratio of net profits to sales is declining in the recent years. This was -0.011 in 1990-00 but later showed a fluctuating trend to attain a value of 0.029 in 2008-09. The figures show that though sales have

decreased substantially over the years, net profits has slightly increased in recent years, because of lower expenditure incurred for effecting sales. The lower profits to sales ratio serves as a warning signal for the decline in sales and in turn indicates a decline in profits (Flink and Grunewald, 1969). A similar trend was noticed by Rama (1984) in his study on the Farmers Service Co-operative Society Limited, Singanayakanahalli and Bangalore District.

Though the profitability ratios do not necessarily reflect a sound performance of a co-operative organization, the reason for the same should be viewed in the context of the pricing policy of HOPCOMS which directly reflects the level of profits. Since HOPCOMS aims at providing remunerative prices to consumers, its main emphasis should be directed at providing efficient services and increasing the turnover. Hence the extent to which the HOPCOMS is able to meet its social obligations is important. Initial losses were wiped out and profits recorded in later years. The declining profits in the recent years could be due to the decrease in the operation and expansion of HOPCOMS. But there is no room for complacency on the part of the management. Efforts are called for by the management to have a appropriate capital mix and expansion and diversification activities keep the organization to increase its base and firm footage in the developing Shimoga district. However, a functional relationship should be created with KHF constituents to expand its sales throughout the state will lead to increase profitability of the organization.

#### **5.2.4 Turnover ratios**

The turnover ratios namely working capital turnover ratio and inventory turnover ratio reflect how efficiently the society is maintaining its resources in the key areas of sales, working capital and inventory management. Working capital turnover ratio measures the efficiency of

employment of the working capital. The principle of high turnover plays a key role in enhancing profits without additional fixed costs. Higher the turnover, greater the efficiency and higher the rate of profits. This ratio had a value of 4.88 in 1999-00 and has dropped to figure of 1.37 in 2008-09 (Table 4.6). This is clear indication of in efficient management of working capital by HOPCOMS, which is not in conformity with the findings of Stanely and Hirt (1978) and Natarajan et al (1980).

Inventory- turnover of HOPCOMS which was 30.19 during 1999-00 has attained a figure of 59.46 in 2008-09 and reached a peak of 73.52 during 2007-08. The progress made in this direction, as compared to 1999-00 figures is laudable and makes us to rethink on its underperformance and under utilization of infrastructure and poor management strategies. It is a clear example of smaller amount of capital tied up in inventory, up coarse it is the strategy of fresh retailing. But decline of this ratio from 2007-08 shows that inventory levels have increased in recent years. Thanulingom and Gurumoorthy (1987) indicated that financial performance of the handloom cooperative societies in Tamilnadu state was poor because of accumulation of stocks. Higher inventory-turnover ratio is desirable (Natarajan et al 1980).

### **5.2.5 Miscellaneous ratios**

The other ratios viz., sales to fixed assets and sales to owned funds portray the efficiency of net earnings.

The ratio of sales to fixed assets has decreased from its value of 7.76 in 1999-00 to 5.67 in 2008-09 (Table 4.7). This decrease in the ratio was mainly due to proportionately lower in sales turn over compared to fixed assets. This ratio reached a lowest of 2.13 in 2003-04 but after reaching peak of 26.44 in 2007-08 it once again decreased to 5.67 in 2008-09. Thus shows a fluctuating trend mainly because of sale of

vehicles and closing down processing unit. Unfortunately, the HOPCOMS had not shown any interest in adding additional retail outlets during the recent years. However, the quantum of sales is the result of many factors like ability and efficiency of the management, demand creation, etc (Myer, 1974). However, lower value of this ratio is an indication of faulty management strategy, inadequate fixed assets will not augur the growth of any enterprise, and in this case it reflected true. Therefore immediate steps should be taken to address this crucial business issue.

The ratio of sales to owned fund have shown declining values over years. The value was 10.28 in 1999-00 and it attained a value of 1.14 in 2008-09. This shows that the sales have decreased at a higher proportion than that of owned funds. Hence HOPCOMS should strive to expand its activities to increase the turnover. The ratio of sales to owned funds is an indicator of the velocity of turnover of owned funds (Krishnarao, 1963).

### **5.3 Supply chain management of HOPCOMS**

Supply chain management of Shimoga HOPCOMS were discussed under the following headings.

#### **5.3.1 Sourcing**

##### **5.3.1.1 Profile of Membership**

The shareholders of HOPCOMS are its members, who come under different categories. The membership of the HOPCOMS consists of three categories viz., 'A' class members, 'B' class members and 'C' class members (Table 4.8). The society is managed by the board of directors consisting of 13 members of whom 9 are elected from the 'A' class members and 3 members are nominated by the department of cooperation and one member is nominated by the Government of Karnataka.

Any farmer who is residing in the area of operation of HOPCOMS can become 'A' class member on payment of Rs. 100/- towards one share in the HOPCOMS. The member's contribution to share capital stands at over Rs.1.69 lakhs which is 86.49 per cent of the total share holding.

The second category of members, 'B' Class members is mainly for institutions like NHBs and NGOs others etc who also hold a stake in the society. The contribution of 'B' class members to share capital of HOPCOMS is Rs 26 thousand, which is 13.25 per cent of the shareholding whereas the government shareholding is Rs 500 which is less than one per cent of the total shareholding as on 30.06.2008.

### **5.3.1.2 Membership pattern**

The initial membership of the society was 270, which increased to 2100 during the year 2008-09 with a growth rate of 12.85 per cent (Table 4.8). Similarly HOPCOMS share capital and owned funds also increased substantially during the same period. The phenomenal increase in membership of HOPCOMS was mainly due to availability of market for fruits and vegetables produced by farmers through HOPCOMS. Further the facilities provided by HOPCOMS also encouraged large number of HOPCOMS to grow fruits and vegetables and in the process joined as members of HOPCOMS to market their produce.

### **5.3.1.3 General profile of producers**

The general profile of producer-members includes age, crops grown, place of sale and duration of relation with HOPCOMS was discussed below.

### **Socio-economic profile of producer-members selling at HOPCOMS**

The details on the socio-economic profile of the sample farmers provided in Table 4.9. Among fruits and vegetables suppliers to

HOPCOMS majority are farmer-members and only few are non members. Out of the total respondents surveyed majority of respondents are in the age group of 41-60 years. All these farmers are selling their major share of fruits and vegetables in HOPCOMS based on indent given. Majority of HOPCOMS members are small and medium farmers having less than 5 acres of land holdings. Further majority of respondents are literates.

#### **5.3.1.3.2 Crops cultivated by members and non members**

Based on the availability of resources farmers grow all most all vegetables which is having demand in market. Since majority of farmers are small and medium HOPCOMS provide inputs at subsidized rate to take up fruits and vegetables cultivation and also to supply vegetables to HOPCOMS (Table 4.10).

#### **5.3.1.3.3 Duration of the relationship of the Farmer-members with HOPCOMS**

HOPCOMS is the unique cooperative organization for procuring and selling of fruits and vegetables. It is a farmer's organization wherein producer-members can sell directly to consumers through HOPCOMS retail outlets. Among the respondents many of them having long term relationship with the HOPCOMS for more than 15 years (Table 4.11). This shows that awareness among farmers about HOPCOMS is good and also has good opinion about the organization.

#### **5.3.1.3.4 Place of sale of fruits and vegetables by Producer-members**

Among the producer-members majority are selling fruits and vegetables at HOPCOMS (Table 4.12), mainly due to realization of higher returns, correct weighment and immediate cash after selling. As a result farmer-members are selling fruits and vegetables to HOPCOMS.

## **5.3.2 Procurement**

### **5.3.2.1 Procurement centre**

Procurement centre are located at Shimoga HOPCOMS, which procures fruits and vegetables in and around 30 Km radius of Shimoga. The growers bring their produce directly to designated place. The produce is procured from farmer members are transported to central godown from where it is distributed to the retail outlets and to the institutions. Daily requirement of HOPCOMS is one ton, Procurement centre collect nearly 0.6-0.7 tons of fruits and vegetables per day from the farmer-members and also the remaining required quantity is procured directly from the wholesale market for supplying it to retail outlets.

### **5.3.2.2 Process for the Procurement and Sale of Produce**

The farmers who wish to sell fruits and vegetables to HOPCOMS have to be a member. Secondly while procuring fruits and vegetables from farmer members HOPCOMS follows indenting system. The indent system is based on the demand for fruits and vegetables by the consumers. On receiving the indent order for the required quantity, the farmer-members have to bring the produce to the procurement centre, or to HOPCOMS main centre at Shimoga. The produce is checked with regards to its quality. Further the produce is graded and a receipt for the same is given to the farmer member to encash money from Bank branch. Thus enabling farmers to take cash immediately (figure 3). At present the HOPCOMS handling about 30-35 MT of fruits and vegetables out of which about 75 per cent is distributed through retail outlets and 25 per cent is distributed to the institutions like Hostels, Government hospitals, Clubs and to industrial establishments. It also undertakes bulk supply of fruits and vegetables on bulk basis to the marriages and other social functions. The present system ensures that farmers who bring their

produce to the procurement centre can sell it to HOPCOMS for a reasonable price and get cash on the same day. This system of selling and realization of cash on the same day is better than other channels particularly compared to farmers selling their produces to local traders, commission agents and wholesalers.

### **5.3.2.3 Quantity and Value of fruits and vegetables procured by HOPCOMS**

The Table 4.16 clearly shows that decreasing trend in procurement of fruits and vegetables over the months by HOPCOMS. During the months of April to June the quantity of fruits and Vegetables procured is high. During this period HOPCOMS procure large quantity of Grapes and Mangoes directly from farmers in various production areas like Grapes from Bijapur, Bangalore and from local Shimoga to supply to consumers at reasonable rate. Subsequently procurement of fruits and vegetables reduced due to lean season. Similarly prices were high during the month of April to June due to less production of vegetables during summer followed by prices falls to low due to high production of vegetables during kharif and consequently low prices to fruits and vegetables.

### **5.3.2.4 Share of quantity procured from farmer-members and market**

HOPCOMS procure fruits and vegetables from farmers as well as market (Table 4.17). HOPCOMS procure large quantity of fruit and vegetables from farmer member which accounts to nearly 60-70 per cent and remaining 30 to 40 per cent is procured from market depending on availability of produce from farmers. Hence procuring from farmers is more advantageous compared to market because HOPCOMS can get fresh good quality of fruits and vegetables. However the quantity procured from farmers is decreased over the months on other hand quantity procured is increased from market over the month from April to

December. This is mainly scarcity of water in some vegetables producing areas as farmers stopped cultivation of vegetables. Only in few areas where assured irrigation is available farmers take up production of vegetables.

### **5.3.3 Conversions**

#### **5.3.3.1 Grading of various fruits and Vegetables followed by HOPCOMS**

HOPCOMS at present follows eye sight grading for grading various fruits and vegetables (Table 4.18). HOPCOMS at present is not using any specifications for grading of fruits and vegetables. For example highest quality of 'Apple' was graded as 'A' grade apple ('A' grade apple with big size, medium size and small size having red colour) followed by 'B' grade apple ('B' grade stands next having big size, medium size and small size slightly dull red colour).

In case of Coconut 3 grades are followed. They are A grade, B grade, C grade. The A grade (having big size), B grade (having medium size) and Grade 'C' (small size).

In Banana 2 grades are followed. They are 'A' grade and 'B' grade Banana. The 'A' grade Banana having big size greenish white colour with no wrinkles. The grade 'B' Banana having small and medium size, green colour.

In Papaya 2 main grades are followed. They are 'A' grade and 'B' grade. The 'A' grade Papaya has big size, with bright yellow patches. The 'B' grade Papaya having medium size and small size.

In HOPCOMS, eye sight grading was followed for vegetables. For Ridge guard there are 2 grades followed, they are 'A' grade Ridge guard

having straight length, normal size, greenish to dark green colour. 'B' grade Ridge guard having slightly aged, light wrinkle shape.

For Brinjal, 2 grades followed. 'A' grade Brinjal having medium size, shining white strips colour and on top must be green. 'B' grade Brinjal having abnormal size, shining white strips colour, but whitish strips, tip greenish.

For cluster bean there are 2 grades namely 'A' grade cluster bean having medium size, greenish yellow colour and tip on top. 'B' grade cluster bean having small size, greenish yellow colour.

In case of Chilli, 2 main grades were followed. 'A' grade chilli having dwarf size is Chameli variety and long size in Jwala variety colour must be green and dark green. 'B' grade variety size is also same, with light green colour.

### **5.3.3.2 Pricing policy of HOPCOMS**

The regulated markets play a major role in setting market trends and in determination of prices of fruits and vegetables. The regulated markets are established by the Department of Agricultural Marketing. The price at which HOPCOMS buys the produce from the farmer-members is based on the rates and prices indicated by Department of Agricultural Marketing. The department collects the maximum, minimum and model prices for the various commodities sold in the previous day at APMC markets Shimoga APMC market, Shivappanayaka market and the same is published in the news paper in the next day. Based on the rates released by the department, HOPCOMS fixes the procurement and sale price for fruits and vegetables.

Later HOPCOMS adds 25 per cent commission to the wholesale market price for the commodity and sells it to the consumers. In that 25

per cent commission added to the wholesale market price, 13 per cent commission is given to commission agents and the remaining 12 per cent commission is kept by the HOPCOMS. Thirteen per cent commission is extended and at the same time the commission agent has to take care of the wastages of fruits and vegetables, it means the commission agent is responsible for the wastages that occur during transportation and at the retail outlets, HOPCOMS held no responsible for that wastage. For example, wholesale market price for Banana in June month is Rs 18 per kilo gram, in other mandis the price of Banana is Rs 25 whereas in HOPCOMS the price is Rs 24 i.e., the price of Banana is one rupee less compared to other Banana mandis.

Hence these rates form the basis of the price offered by HOPCOMS to its members. Further the officials of HOPCOMS meet every morning at HOPCOMS and arrive at a price based on the prevailing prices in the market at APMCs. In general the prices fixed by HOPCOMS to members produce are less than the prevailing market price. In general the prices offered by HOPCOMS to its members are almost equal to or less than the prevailing market price. As a result HOPCOMS is able to supply fruits and vegetables to consumers at a reasonable price which is normally on par with the competitors or less than the market price.

### **5.3.4 Logistics management**

#### **5.3.4.1 Go downs operation**

The procurement centre purchase vegetables from farmer-member based on the indent received from HOPCOMS main office. The vegetables procured by procurement centre are shifted to HOPCOMS godown on the next day. In the godown there are compartments (Table 4.19) to store fruits and vegetables separately. In each compartment godown store keeper record the quantity of arrivals from procurement centre. The

fruits and vegetables stored in compartment are graded and the same is distributed to retail unit through hired vehicles.

#### **5.3.4.2 Distribution of fruits and vegetables**

HOPCOMS procures on an average 30-35 tons of fruits and vegetables daily both from farmer-members and at open market depending on demand from customers and supply from farmers. Nearly 60-70 per cent of its requirement has been procured from farmers and the remaining quantity is procured from open market. Out of its total procurement 75 per cent of fruits and vegetables have been sold in its retail outlets which are located in different areas of Shimoga city, and the remaining 25 per cent is distributed to institutions like College canteens, company canteens, hospital canteens and hostels on contract basis. Further HOPCOMS also sell bulk quantity of fruits and vegetables to like marriages and religious ceremonies based on request.

#### **5.3.4.3 Retail outlets**

HOPCOMS has opened 10 retail outlets in Shimoga city to supply fresh fruits and vegetables to the consumers. For the opening of retail outlets, the sites have been provided by the respective corporations / municipalities / development authorities on lease basis at nominal charges. The retail outlets are being managed by the salesmen who are recruited as commission agents. As part of its marketing strategy, HOPCOMS has established majority of retail outlets near to city circles, railway stations, bus stands, parks. The retail outlets operate between 8.30 AM and 8 PM with a break of one hour in the afternoon and are managed by one people. In many retail stores only one agent is managing the store. HOPCOMS has made no provision for wastages at the retail level commission agent is wholly responsible for the wastage.

HOPCOMS is completely dependent on the hired vehicles for the distribution of fresh fruits and vegetables to the retail outlets. The retail outlets in Shimoga are classified into 4 divisions like North, South, East and West (Table 4.20). As the data indicates most of the retail outlets in Shimoga are concentrated in North and South Shimoga (3 & 3 respectively) followed by West Shimoga (2). However the number of HOPCOMS retail outlets in East Shimoga is low with just one.

#### **5.3.4.4 Wastages**

Fruits and vegetables are highly perishable in nature. During summer months (April to June) the wastages are about 25 to 30 per cent. During the months of July to December the wastage are about 15 per cent due to cool temperature (Table 4.21). However the losses can be kept to minimum by keeping in cooling chamber during the month of April to June. The fruits and vegetables procured from farmers daily reaches to the consumer. Since the distances are very near to the HOPCOMS 15-20 Km they are transported and distributed in open air condition without cooling facilities. As a result nearly one-third of vegetables are wasted before reaches to the consumers. Further climatic variation also affects the quality of the fruits and vegetables.

#### **5.3.4.5 Transportation arrangements**

HOPCOMS logistics has one wing for transportation of fruits and vegetables from procurement center to retail outlets. The wing is operated by HOPCOMS itself with hired vehicles. The HOPCOMS restricted transportation facilities to a Shimoga limit of 30 Km. The details of transportation arrangements are presented in Table 4.23. The commission agents inform the procurement center about the required quantity of fruits and vegetables for the next day based on that indent is set. Based on the indent daily specified quantity of fruits and vegetables is transported to the retail outlets. They select the fruits and vegetables

required for the day. The selected fruits and vegetables are loaded to vehicle at 7 AM and the Vehicles unload the fruits and vegetables at all retail units in the Shimoga city and bring back the empty trays to the godown. This process is continued regularly on every day. Since hired vehicles are used for transportation of fresh fruits and vegetables the working hours are not restricted whenever there is a requirement they can use the hired vehicles and drivers problem is not there and the operations can be easily performed even during the holidays.

#### **5.3.4.6 Marketing Channel**

At present HOPCOMS follows channel-2 and channel-3 for marketing of fruits and vegetables (fig 4). Nearly 75 to 80 per cent of fruits and vegetables procured from farmer-members are sold through HOPCOMS retail outlets and the remaining 25 to 20 per cent of fruits and vegetables are sold to various institutions (like company's, hostels, and hospitals canteens). Further no intermediaries are involved in this channel thereby major share of consumer rupee goes to farmer-members. In contrast to this the competitors follows channel-1 for marketing of fruits and vegetables which involves intermediaries who take major share of consumer rupee and as a result the producer member gets a very small share.

#### **5.3.4.7 Expenditure per month**

HOPCOMS handles small quantity of fruits and vegetables in this respect hired vehicle are used for the transportation of fresh fruits and vegetables to retail units. Hired vehicles charges are minimum of Rs 15 for 3 Km and based on the distance and also based on the area, rate is fixed by the hired vehicles owner. The HOPCOMS provides transportation facilities to Shimoga limit of less than 30 Km (Table 4.25). Atleast 90 trips for one month (30 trips for each side like North, South, and West) approximately 140-150 Rs per trip were considered. Based on that for

Shimoga HOPCOMS it costs Rs 2.71 to transport per Kg of fruits and vegetables.

For example in majority of the cases sales persons often carry small quantity of fruits and vegetables ranging between 80-100 Kg. As a result if one worked out the transportation cost with the sale of fruits and vegetables in a retail unit it worked out to be costly proposition for HOPCOMS. This clearly indicates that only in few retail units where procurement and sale of fruits and vegetables exceeds 200-300 Kg, the transportation costs are cheaper but in the vast majority of cases the transportation cost are proportionately high.

#### **5.4 Opinion survey to study the perception of producer members of HOPCOMS**

The opinion of producers selling their produce through HOPCOMS indicates that remunerative price for their produce and the correct weightment were the major reasons for selling the produce to HOPCOMS. However, 48 per cent of producers were not satisfied with the performance of HOPCOMS, mainly because their entire produce was not procured by HOPCOMS. Hence, there is a vast scope for HOPCOMS to increase their business turnover by extending their operations. The suggestions made by producer respondents like providing quick transport facilities, lodging facilities and opening of a bank branch in HOPCOMS premises would be of immense help to the producers. In essence, the producers were of the opinion that HOPCOMS should increase their scale of operation to help the farming community. In contrast, the results given by the producers, selling through commission agents, like not facing marketing problems, personal relationship built over the years with commission agents and being able to sell full quantity calls for greater effort on the part of HOPCOMS to increase its turnover

through increased procurements, opening of procuring centre, arranging quick transportation facilities and also taking up membership drive.

### **5.5 Constraints in the working of Shimoga HOPCOMS and Suggestions to improve the performance**

Shimoga HOPCOMS being a producers cooperative processing and marketing society which was established in the year 1967, has a long standing presence in processing and marketing of fresh fruits and vegetables in Shimoga city. The society is managed by the elected representatives of the members who are also the share holders, sometimes the officials of department of horticulture and cooperation steer the administration of the HOPCOMS.

The elected representatives are not well versed with the business potentialities to encash the ever growing demand for fresh fruits and vegetables at Shimoga city which has a population of over five lakhs. The present turnover of HOPCOMS is reported at on an average of one ton per day which is almost negligible per capita share of consumption of fruits and vegetables. It is unfortunate that the management has not taken any initiatives to promote this valuable farmers marketing society to fulfill the aspirations of the producing members as well as consuming patterns. The dormant attitude of the Shimoga HOPCOMS is an example of strategic management failure. The financial performance clearly shows the scope of adding assets, right dose of liabilities and the turnovers of the assets. It is a high time that the management should take initiatives to expand the activities of the society and expansion of the retail outlets at the new extensions.

The constraints faced by the society are managerial constraint rather than the financial constraints. The elected representatives should take a lead role to recast the organizational chart to infuse business

sense and ultimate goal of the society and the road map for reaching the goal.

The constraints of Shimoga HOPCOMS are divided into organizational management constraint, marketing and supply chain constraints.

The study presumes

1. Lack of proper coordination between the elected representatives and management of HOPCOMS.
2. Poor participation and involvement of members in the affairs of the HOPCOMS.
3. The government participation in capital contribution is almost nil. The government should give one time grant to establish additional infrastructure facilities for both handling and marketing of fresh fruits and vegetables to enhance the sales at Shimoga and also at upcountry markets.
4. Lack of professional management to carry out the business and faulty organizational structure with unspecified functional relationships. It is suggested to explore the possibilities of establishing retail outlets at other taluka head quarters and big towns of the district.
5. There is no proper planning and well designed objectives and also goals to achieve in the fixed time frame.
6. The society is unable to handle the bulk procurement from members and also it is not established any relationship with the other district HOPCOMS in supply chain and bulk handling aspects.

7. There is no proper infrastructure to handle the excess supplies and also the buildings are age old. It is high time to facelift the existing buildings and to build the additional infrastructure to take up expansion activities.

The marketing and supply chain constraints are humpty in number. The inefficiencies in this line are one of the major causes for low or no margins of profit in Shimoga HOPCOMS. A proper supply chain chart should be drawn and implemented either by Shimoga HOPCOMS or through outsourcing mode to handle both backward and forward integrations. The primary processing and value addition is other dimension of any fresh market business. The society should give attention for primary processing and value addition to encash the better consumer rupee. The emergence of private players namely, More and Reliance fresh shows the scope of business at Shimoga.

#### SWOT Analysis of Shimoga HOPCOMS.

##### Strengths

1. HOPCOMS is a producer's cooperative society.
2. Long standing experience of the Shimoga HOPCOMS in the market.
3. Captive producers.
4. All financial parameters are well within the norms.

##### Weakness

1. Member's participation in the society.
2. Lack of business accumine and poor infrastructure.
3. Limited coordination between management and elected representatives.

4. Age old building, poor and insufficient display of materials in retail outlets.
5. No existence of appropriate supply chain practices.

#### Opportunities

1. Shimoga being a developing city with a population of over five lakhs there is ample space to expand the business.
2. The satellite taluks also growing at a rapid pace and paves way for establishment of retail outlets.
3. The producer members are competent enough to produce required quantities to meet the expansion programs.
4. It is a member of federated body of KHF there is a scope to establish functional relationships to handle bulk supplies and also to procure the short supplies.

#### Threats

1. Big retail outlets are emerging in Shimoga city.
2. There is a chance of shifting hinterland from periphery of Shimoga to other distant places, as the land being utilized for other development activities.

## *Summary*

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## **CHAPTER VI**

### **SUMMARY AND CONCLUSIONS**

India is the largest producer of fruits and vegetables in the world but in India horticultural crops are labour intensive and provide substantial employment not only in production but also in transportation, processing and marketing. Karnataka enjoys a prominent position on the horticultural map of India. HOPCOMS is essentially an organization of fruits and vegetables growers aimed at providing the various services at reasonable cost. These societies help in reducing a long chain intermediaries and check their questionable practices, apart from creating competition, reduces huge post harvest losses through proper supply chain management. Shimoga HOPCOMS is one such organization which is working for the society.

The present study was undertaken with the objective of evaluating the Performance of Horticultural Producers Cooperative Marketing and Processing Society Limited (HOPCOMS) in Shimoga district.

The growth and development of the organization was evaluated by considering important variables like share capital, membership, total assets, total liabilities, expenditure, etc. Ratio analysis was used to evaluate the financial performance of HOPCOMS. Supply chain management plays a critical role in both front end and back end operations. Since fruits and vegetables are highly perishable in nature procuring fruits and vegetables from producers and supplying to consumers requires efficient supply chain management. So the supply chain of HOPCOMS was studied. The opinion of producer members selling through HOPCOMS was collected with a view to find the reasons for the patronage to the respective channel. This help to get the understanding on the working of the society.

The results of the above study are summarized along with their implications in this section.

The financial structure of the institution as revealed by the ratios of total liabilities to owned funds was sound during the study period. Though the value of this ratio was greater than unity, the value was declining over the years, which calls for the attention of management to the objectives of self reliance. The ratio of fixed assets to owned funds declined over the years, mainly because of phenomenal decrease in fixed assets. The buildup of owned funds helps to strengthen the financial position of any organization. The debt-equity ratio also declined over the years from an unhealthy level in the initial levels, which is a sign of good management.

The cooperative depicted a considerable financial liquidity over the evaluation period as revealed by different financial ratios. The maintenance of high proportion of total assets is a healthy sign. The current ratio and quick ratio showed a general increasing trend over the years and this indicated the ability of HOPCOMS to meet its short-term obligation has increased over the years.

The profitability ratios revealed that HOPCOMS earned a marginal profit. Though the organization is making profits in recent years, the profit level has been decreasing in relation to total assets, working capital, fixed assets, owned funds and sales. Though the profit is very low, it has agreement with non-profit and service motto of the cooperative, the importance of profit as a measure of efficiency cannot be ignored. However, HOPCOMS can lays emphasis on increasing turnover and reducing the expenditure, which will result in increased profits.

The turnover of the inventory was reflected by the low ratio of the inventory. This calls for a better inventory management on the part of the

management. However the turnover in relation to working capital has registered a decrease, which is an indication of bad management of working capital.

The ratio of sales to fixed assets has decreased over the years indicating the improper utilization of fixed assets in the business. But the owned funds velocity in the business has registered a marginal increase during the evaluation period. This is a clear indication that HOPCOMS should expand its activities to increase its turnover.

The evaluation of financial solvency, liquidity, profitability and other components of performance revealed that the cooperative has performed satisfactorily during the recent years. However, attention needs to be given to increasing sales and decreasing expenditure per unit of sale.

The period of share capital and membership have registered an increasing growth rate. This reflects the interest of the growers in the organization. Sales have registered a declining growth rate, which is an improper manifestation of credibility of the cooperative. The growth rate of total liabilities is more than total assets and hence it can be concluded that the organization is not maintaining its financial position soundly. But decreased growth rates of variables like inventory are good for the organization.

The supply chain management showed the activities of HOPCOMS since from sourcing of produce to till it reaches the consumer. The Supply chain management is very essential for the organization to perform better, so in this direction the HOPCOMS has to think and should take up the proper strategies to develop and excel further in its operations.

The opinion survey of producers selling their produce through HOPCOMS revealed that remunerative price, immediate cash payment and correct weightment were the major reason for selling their produce through HOPCOMS. The producers selling through commission agents indicated the results like not facing marketing problems, only best quality vegetables are accepted for sale, personal relationship built with commission agents for marketing their produce through them and also full quantity cannot be sold. Hence HOPCOMS on its part should make efforts to increase its turnover.

Finally it could be inferred that the HOPCOMS performance has shown a remarkable progress during the last decade but the organization should focus its keen attention on increasing sales and membership of producer members.

### **Policy implications**

1. Strengthening backward integration and improving the forward integration.
2. Transportation facilities have to be provided to the farmers to improve the efficiency of supply chain management.
3. There is a need on the part of HOPCOMS to use refrigerated vans, for procurement of fruits and vegetables from production centres which helps in reducing the losses during transportation and storage. Further HOPCOMS has to make a provision for cold storage facility in their godown and also at retail outlets so as to maintain the quality of fruits and vegetables.
4. HOPCOMS need to explore selling of fruits and vegetables to Government hostels, Government hospitals etc. This helps to stabilize the financial condition of the HOPCOMS Shimoga.

5. HOPCOMS need to develop and implement scientific grading method for procurement of fruits and vegetables. Further HOPCOMS needs to follow grade based pricing and accept all types of produce brought by the producer member.
6. The society should initiate establishment of procurement centres at the villages which in turn will help the farmers to sell their commodity at these centres.
7. The network of branches developed for improving the performance of the society should not only serve as outlets for the head quarters but acts as two way channel by procuring the produce from the local member growers and sending the same to head quarters so as to realise better price.
8. As credit is one of the important pre-requisites for production and marketing of fruits and vegetables. HOPCOMS Shimoga should resume this policy again by following the principle of linking of credit with marketing.
9. The society has to take steps in publishing journal, bulletins which will make the farming community to grow particular commodities which are free from insect, pest attack.
10. The motivational level of employees is very low hence training to upgrade their skills may be thought of by HOPCOMS.
11. HOPCOMS may explore appointment of professional managers at all the operations for efficient performance of HOPCOMS.

## *References*

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## CHAPTER VII

### REFERENCES

- ALAN L. MONTGOMERY, 1997, Creating Micro- Marketing pricing strategies using supermarket scanner data. *Marketing Science*, **16**(4): 315- 337
- ANANTH, G.S., 1984, Performance and appraisal of Bangalore grape growers and Marketing and processing co-operative society ltd. Lalbagh, Bangalore, Karnataka, A case study. *M.Sc.(Agri) Thesis*, University of Agricultural Sciences, Bangalore.
- ANAND, S.K., 1981, The ratio analysis aspects of a State Co-operative Consumers Federation. *Indian Cooperative Review*, **18**(3): 263-267.
- BHALE RAO, M.M. AND SRINIVASAN, D.P., 1966, Service cooperatives in Ballia, U.P. *Indian Co-op. Review*, **3**: 1158-70.
- BHALE RAO, M.M. AND VISHWANATH, 1972, Cooperative Marketing of fruits and Vegetables. *Khadigramodyog*, **18**(6): 365-69.
- BHATT, V.V., 1972, Working Capital Finance: Criteria for appraisal. *Economic and Political Weekly*, **7**(17): 842-44.
- BOULET AND LAPORTE, 1974, Cooperative Marketing of fruits and vegetables. *Khadigramodyog*, **18**(12): 642-69.
- CHAMPION, S. AND FEARNE, A., 2002, Alternative marketing systems for the Apparel wool textile supply chain: Filling the communication vacuum. *International Food and Agribusinesses Management Review*, **4**:237-256.

- CHANDRASHEKAR, G.S., 1973, Marketing of vegetables in Bangalore city-A case study. *M.Sc.(Ag) thesis (Unpublished)*, University of Agricultural Sciences, Bangalore.
- DAVE DYER, 1988, can dairy products compete? *Canadian Journal of Agricultural Economics*, **36**(4): 601-611.
- DHANKAR, B.L., 1971, A Cooperative Primary Bank- Promise and Performance. *Indian Cooperative Review*, **9**(1): 61-80.
- DIRECTORATE OF HORTICULTURE, 2009, *Area under horticultural crops in Karnataka*. Economic survey of Karnataka, **14**.
- ECONOMIC SURVEY OF KARNATAKA, 2008-09, *Area under horticultural crops in Karnataka*, **15**.
- EUGENE, M. AND LERNER., 1971, *Managerial Finance*. Harcourt Brace, Jovanovich, Inc., New York.
- FEARNE, A. AND HUGHES, D., 2000, Success factors in the fresh produce supply chain: Insights from the UK. *International Journal of Supply Chain Management*, **4**(3): 120-129
- FLINK, J.S. AND GRUNEWALD, B., 1969, *Managerial Finance*. John Wiley and Sons, Inc., New York and London, 75-111.
- FREDERICKS, L.J., 1976, A Trend Analysis of the Structure of the Cooperative Movement in West Malaysia (1922-1967). *Cooperative information*, **52**(1): 13-44.
- GOVARDHAN, H.L., 1978, Changes in Structure of Marketing of Dry Chillies in Karnataka- A Case Study. *M.Sc.(Agri) thesis (Unpublished)*, University of Agricultural Sciences, Bangalore.

- MOHAMED ZAIRI., 1998, Best practices in Supply chain management: The experience of the Retail sector. *European Journal of Innovation Management*, **1**(2): 59-66.
- MYER, J.N., 1974, *Financial Statement Analysis*. Prentice Hall inc., New York.
- NATARAJAN, R., GANSHYAM DAS, O. AND KRISHNA REDDY, K., 1980, Working of Consumers Cooperatives in Andhra Pradesh- A case study. *Indian Cooperative Review*, **18**(1): 7-20.
- NAGARAJ, N., LALITH ACHOTH and VENKATARAM, J.V., 1989, Econometric analysis of fruit processing in Karnataka-A case of Karnataka agro fruits ltd. *Mysore journal of Agricultural Sciences*, **24**: 124-130.
- PAGE, R.E., (GUS), SCHERMERHORN, R.W. AND ROMINE, B.D., 1970, Financial Analysis of Grain and Supply Cooperative in Oklahoma State University, Oklahoma.
- PATAVARDHAN, V.S., 1978, Trends in Corporate Financing in India. *Artha Vignana*, **20**(1): 1-30.
- PRASAD, B.G.R., 1978, An Analysis of Problems of Marketing a Few Fresh Vegetables in Bangalore city. *M.Sc.(Agri) thesis (Unpublished)*, University of Agricultural Sciences, Bangalore.
- PRASAD., 2001, Growing Scenario of retail marketing. *Indian journal of marketing*, **6** (4): 11-13.

- RAMA, B.R., 1984, Evaluation of the Performance of Farmer's Service Cooperative Society (FSS), Singanayakanahalli, Bangalore North Taluk, Karnataka. *M.Sc. (Agri) thesis (unpublished)*, University of Agricultural Sciences, Bangalore.
- RAMAMOHAN RAO, T.V.S. AND ARUN, K. DAS., 1977, Ratio Analysis of Firm Level Working Capital Decisions. *Southern Economist*, **15**: 15-18.
- RAY CHAUDHURI, A.K., 1993, Milk Marketing. *Indian Dairymen*, **45**(11): 491-500.
- RAYUDU, C.S., 1985, Ratio Analysis and Financial Performance. *Indian Cooperative Review*, **23**(1): 54-70.
- RESERVE BANK OF INDIA., 1969, Working Capital Requirements and Availability of Bank Credit. *Reserve Bank of India Bulletin*, **23**(10): 35-53.
- RICKS, DONALD, TIMOTHY WOODS and JAMES STERN., 1999, Supply Chain Management Improving Vertical Coordination in Fruit Industries. *Journal of Food Distribution Research*. **30**(3): 44-53.
- RICKS, 2000, Supply chain management and marketing performance in fruit industry. *Acta Hort*: 661-668.
- SHAKEEL, A.A., 1997, Management of Gulbarga Cooperative Milk Producers Societies Union Ltd. *MABM Thesis*, University of Agricultural Sciences, Dharwad.

- SHANKARAMURTHY, H.G., 1986, Performance of the Karnataka State Cooperative Federation Ltd and its Impact on Farm Market: An Economic Analysis. *Ph.D. thesis (Unpublished)*, Andhra Pradesh. Agricultural University, Hyderabad.
- SHARMA, I.S., SINGH, J.B. and CHATERJEE, B.B., 1965, Awareness of facilities available to members of cooperatives-A case study. *Indian Cooperative Review*, **2**: 353-362
- SHARMA, I.S., 1991, Awareness of facilities available to member of cooperatives- A case study. *Indian Co-operative Review*, **2**: 353-362.
- SOLTANI, G.R., TORKAMANI, J. AND ZARNAGAR, D., 1987, Determination of Retail Margins in the Marketing of Fruits, Vegetables and Some Basic Fruits in Shiraz. *Iranian journal of Agricultural Sciences*, **17**(13): 1-16.
- SRIDHARAN, K., VENKATA RAM, J.V. AND RAMANNA, R., 1976, Economic Factors Contributing to the Business Success of Rural Credit Cooperative Societies. *Indian Coop Review*, **13**(2): 147-153.
- SRIKANTHAMURTHY, P.S., 1986, Resource Productivity in Agriculture in Bangalore District, Karnataka. *M.Sc.(Agri) thesis (Unpublished)*, University of Agricultural Sciences, Bangalore.
- STANLEY, B. AND HIRT, G. A., 1978, *Foundations of Financial Management*. Richard D. Irwin, Inc., U.S.A.
- STOLLSTEIMER, T.F., 1963, A working model for plant number and location. *Journal of Farm Economics*, **33**(2): 631-645.

- SUBBARAO, A.R., 1985, An Analysis of Business Performance of the Central Arecanut Marketing and Processing Cooperative Ltd., Mangalore, Karnataka. *M.Sc.(Agri) thesis (Unpublished)*, University of Agricultural Sciences, Bangalore.
- SUBHA, V., 2004, Managing supply chain. *Indian Journal of marketing*, **34**(1): 14-15.
- SUBRAMANYAM, K.V., GAJANANA, T.M. and SUDHA, M., 1993, Cooperative marketing of fruit and marketing policies performance- A case study of HOPCOMS, Bangalore. *Indian Journal of Agricultural Marketing*, **8**: 171-182
- SUBRAMANYAM, K.V., GAJANANA, T.M. and SUDHA, M., 1994, Co-operative Marketing of fruits and Vegetables: policies and performance-A case study of HOPCOMS. Bangalore, *Indian Journal of Agricultural Marketing*, **8**: 186-193.
- SURESH REDDY, 2005, Gaining competitive advantage through supply chain management. *Indian Journal of Marketing*, **12**(5): 32-34.
- TEWARI, R.G., 1978, Cooperative marketing of Cooperative Credit with marketing in Mysore State. *Indian Co-op. Review*, **9**: 101-117.
- THANULINGOM, N. AND GURUMOORTHY, T.R., 1987, Financial Performance of Handloom Cooperative Societies- A Case Study. *Indian Cooperative Review*, **25**(2): 132-142.
- TILEKAR, S.N. and BILONIKAR, K.V., 1992, marketing efficiencies of vegetables cooperative marketing societies in Ahmednagar district of Maharashtra. *Indian Co-operative Review*, **30**: 402-406.

- TRYCHNIEWICS, E.W. and TOSERNAL, R., 1973, A model for rationalizing the Canadian grain transportation and handling system on a regional basis. *American Journal of Agricultural Economics*, **23**(7): 112-115.
- VERMA, N.K., 1980, Growth of Dairy Cooperatives in India. *Indian Cooperative Review*, **18**(1): 45-49.
- WERMED, U., FEARNE, A. and HORNIBOOK, S.A., 2002, Opportunities in the UK cherry market: A supply chain audit. *Farm Management Journal*, **11**(5): 15-18.
- WILSON, N., 1996, The supply chain of perishable products in Northern Europe. *British Food Journal*, **98**(6): 9-1.
- WINFRED, A.J., 1985, Operational growth of Land Development Banks- An Analysis. *Land Bank Journal*, **23**(3): 21-30.



**UNIVERSITY OF AGRICULTURAL SCIENCES, BANGALORE**  
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**PERFORMANCE ANALYSIS OF HOPCOMS IN SHIMOGA DISTRICT**  
**(FARMERS)**

Area: \_\_\_\_\_

1. Name: \_\_\_\_\_
2. Age : \_\_\_\_\_ years
3. Since how long
4. Participating in HOPCOMS activity..... Active member / passive member
5. Land holding a) Dry b) Irrigated
6. What percentage of materials selling to HOPCOMS & Name F & V and quantity
7. To which shop/market do you regularly sell fruits/vegetables?  
(a) HOPCOMS (b) More (c) Others

Reason for preference \_\_\_\_\_

What needs to be improved?

8. Are You Aware Of HOPCOMS? (Only if not to HOPCOMS in Q7)

If so, what are the sources of your awareness: (a) Friends (b) Relatives (c) mass media (d) observation.

9. How long you have been selling to this HOPCOMS?
10. Frequency of Selling to this store:
  - (a) Daily (b) Once in two days (c) Twice a week (d) Once in a week (e) occasionally
11. What do you suggest to change these lacunae?
12. Rate the HOPCOMS on the following factors. a) Reasonable Price b) Accurate billing c) Accuracy in weightment d) Timely procurement e) Special sales events like mango mela/festival sales/others f) Timely Payment g) Input Supply i) Others
13. Not supplying to HOPCOMS due to following reasons
14. Any other constraints
15. Like to continue with the HOPCOMS If yes Reasons a) Co-operative organization belongs to members b) Takes care of the welfare of the members c) Inputs, Transportation, Farmgate & prompt in payment

**PERFORMANCE ANALYSIS OF HOPCOMS IN SHIMOGA DISTRICT**  
(HOPCOMS)

1. Name: \_\_\_\_\_
2. Designation: \_\_\_\_\_
3. A) Since how long are you serving in these organization \_\_\_years.  
B) Do you know the prices/arrivals of vegetables prevailing in other Markets? Yes /No  
C) On what basis do you form the procurement /sale price? a) Based on grade b) visual observation c) Based on supply d) Based on demand e) competitor's price f) wholesale market price  
D) Do you grade vegetables? Yes/ No
4. What facilities do you provide to the producer who brings produce for sale? i) storage ii) accommodation iii) transportation iv) boarding
5. Do you provide any credit facilities to the farmer who brings produce to your Organization? Yes/ No. If yes,
  - (i) To how many farmers: \_\_\_\_\_
  - (ii) The maximum duration for which the amount is advanced: \_\_\_\_\_
  - (iii) Average Amount advanced (iv) Conditions for advancing loans (v) Mode of recovery followed (vi) Interest rate charged (vii) Total amount advanced.
6. Do you provide any inputs to farmers? Yes/No, If yes, a) Fertilizer b) seeds c) insecticides d) any other

7. Extent of knowledge about different qualities or grade of vegetables  
 a) Knowledge of different quantities/grading/standards of different Vegetables.
8. Working capital investment i) Stationary charges b) commission charges c) any other (specify).
9. Transportation cost.

Vegetables	Mode of transportation	Distance traveled	Total quantity transported	Transport charges	Total cost

10. Performance Of the HOPCOMS (a) Satisfactory(b) Not satisfactory
11. Suggestions For Improvement of HOPCOMS Service a) Open more stalls b) Open the store all through the week c) Supply good quality product d) Quick service e) Better treatment f) Increase working hours g) Selection to be allowed
12. From where you procure the produce. a) Directly from farmers b) From APMC/Wholesale market c) From other intermediaries
13. The produce that you procure is grown in which place
14. What factors decide in choosing the source of procurement? a) Availability b) Regularity in supply c) Quantity of produce d) Any other, Please specify
15. How the produce reach the HOPCOMS a) Own transportation b) Outsourced transportation c) Grower delivers d) Any other means

16. Reasons for the dependence on a particular source of transportation. a) Cost effectiveness b) Regularity c) Dependability d) Flexibility e) Any other
17. Problems faced during transportation a) Bad Roads b) Weather conditions c) Lack of vehicles in good condition d) Any other
18. Under what situations & conditions growers fail to deliver produce as per terms & conditions agreed upon a) When prices raise b) When competitors offer terms & conditions c) Any other
19. What facilities you give the growers for efficient harvesting
20. Do you think unregulated small retailers are big hurdles for growth of organized retailing? Yes/No
21. What technologies have been used in supply chain by you?
22. What benefits that the grower would get by supplying his produce to you. a) Better price b) Regular procurement c) Ready cash d) Payment on time e) Trustability f) Any other
23. What percentage of the price consumer pays to fruits & vegetables reaches the farmer
24. At what intervals you replenish the stock a) Everyday b) Once in 2 days c) Once in 3-5 days d) Once in 5-10 days e) Above 10 days
25. What measures you suggest to improve the HOPCOMS supply chain
26. What you think is your strength over your competitors in the market
27. In what way your supply chain is different from others in the market?

28. On what basis you withdraw products from the shelf? a) External appearance b) Food safety c) Expiry of stipulated time d) Arrival of the new stock e) Any other reason
29. How do you co-ordinate with the different stakeholders like Consumers, Growers, Transporters, Intermediaries and Others?
30. What are the major complaints you receive from consumers?
31. Do you supply products to institutional buyers like Hotels, Hostels and others
32. Suggestions