

INTEGRATION AND COMPETITION CAPABILITY ON PERFORMANCE OF SUPPLY CHAIN MANAGEMENT PRACTICES, IN HLL LIFECARE LTD, TRIVANDRUM

Dr.E.V.Rigin¹, Dr.K.Sankar Ganesh²

1. *Assistant Professor, Department of Youth Welfare Studies, School of Youth Empowerment, Madurai Kamaraj University, Madurai, Tamil Nadu, India*
2. *Professor and Head, Department of Management Studies, Sri Vidya College of Engineering & Technology, Virudhunagar, Tamilnadu, India*

1. INTRODUCTION

In every organization the SCM practices the benefits, problems and impact factors influence the activities of SCM practices. The association among the benefits, problems and impacts of SCM are important to identify the effectiveness, performance of SCM practices of the organisation. This research paper analyses the relationship between benefits and impact of SCM and the relationship of cost management, customer service, quality, productivity and asset management, factors influencing demographic factors and impact of SCM and so on.

1.2. STATEMENT OF THE PROBLEM

Health care industry is one of the worlds' largest and fastest growing industries. It comprises various sectors such as medical equipment, pharmaceutical, healthcare services and so on. The health care supply chain involves the flow of many different product types and the participation of various stakeholders. The main purpose of the health care supply chain is to deliver products at the right time in order to fulfill the needs of customers.

The concept of SCM was introduced in the year 1980. It expresses the need to integrate the key business processes, from end user through original suppliers. SCM focuses on planning, forecasting, purchasing, storing, moving, product assembly and keeping track of a product. SCM is an essential element of operational efficiency. It plays a role in cultural evolution and helps to improve the quality of life. It creates jobs, decreases pollution and increases the standard of living. In health care industry, SCM practices increases the efficiency in all the functional activities of production and operations management, which use to produce quality product at right time

SCM supports to maintain good relationship with vendors and suppliers. Seamless flow of material and information is the key to supply chain. This helps in reducing the inventory, leads to low cost and increases the flexibility, improving price value offerings and so on. Information technology plays a vital role connected with SCM of HLL Life care Ltd. Hence the present study has been under taken to identify the effect of supply chain management practices, integration and competition capability on performance in HLL Lifecare Ltd, Trivandrum.

1.3. REVIEW OF LITERATURE

ChichJen Shieh (2010) in his research paper titled "SCM Organizational innovation and corporate culture: The impact of relatedness" proposed that SCM and the organizational innovation are able to help maximize Organizational value and competence in the market. The corporations practicing SCM must set up an

organizational structure with innovation to face the internal and external challenges for advancing competence. The acquirement of competence of an innovative organization relies largely on the development of creativeness of all staff. Therefore, such an organization should emphasize that each member or team must be able to set into action independently the operational strategies, take responsibility for management, and link together to form the intact value chain. Rapid changes of the environment under competition require a corporation to show its ability of quick response.

Jinesh Kumar Jain et al. (2011) they have conducted research study entitled "Evidence of SCM in Indian manufacturing firms: a survey" they have conducted survey from 98 different companies, this survey is able to provide a fairly accurate overview of the status of supply chain management in perspective of level of information sharing with customers, degree of investment in supply chain automation tools, mode of supply chain communication used, and benefits of using bar coding technology. The study depicts that supply chain strategy of most companies is focused on improving information sharing with immediate customers related to market development and delivering products on time, however competitive advantage can be obtained through use of automation tools of supply chain like electronic data exchange and using internet based communication technique and for enhancing the data security, bar coding technology is also used by the Indian manufacturing firms. The overall results are encouraging with 26 percent response rate, in Indian scenario and underline the need for more such studies of Indian firms.

Paravin Katariya and Dr. Sahebrao Chavan (2012) in their research work entitled "SCM and its emphasis on health care management" they have commanded that the customer satisfaction is the final result of effective and efficient supply chain management of any organization. With reference to this study the supply chain management is related to quality, quantity, price and service. This is required for customer satisfaction and a sound economy. Hence, supply chain management is the universal tool for attaining a sounder position in the global market during the current crisis period. Effective and efficient supply chain management represents an opportunity to add value and decrease costs in the U.S. health care system. To accomplish this end, it is necessary for top-level executives and supply chain managers to reform and transform their approach to the supply chain. Each hospital or system must determine what value can be achieved through the supply chain and the structure itself to meet its goals.

Wenjuan Wang and Darshan (2012) in their paper entitled "A framework for understanding the benefits of SCM systems" indicates the following benefits namely improved the customer satisfaction, building long term relationship with customers, fully information sharing and integration, increased productivity, capacity and quality, improved strategic and tactical focus.

1.4. OBJECTIVES OF THE STUDY

- 1) To measure the interrelationship between cost management, customer service, quality, productivity and asset management.
- 2) To measure the Operational, tactical and current programming strategies on overall performance metrics

1.5. METHODOLOGY

This study is based on both the primary and secondary data. The primary data have been collected from the executives of HLL Life care Ltd. It is an empirical study, based on survey method. Structured questionnaire is used for finding out respondents perception towards SCM practices on health care products of HLL Life care. The researcher met the respondents in person to collect primary data. The questionnaire has four sections such as personal information, elements of SCM, benefits, problems and impact of SCM and performance of SCM. The secondary data have been collected from various journals, books, magazines and reports, internet and records of HLL Life care

SAMPLE SIZE

The population is finite. Therefore the researcher has collected data from 93 executives of HLL Life care Limited with the SCM operational experience. The simple random sampling method has been used. It becomes probabilistic sampling and paves the way to use both univariate and multivariate statistical technique in both parametric and non parametric approach.

SAMPLE DESIGN

The sample of 93 executives were selected by using simple random sampling technique. The selected sample represents at various designation such as top level executive, middle level executives and operational level executives working in various department of HLL life care Limited.

2. INTERRELATIONSHIP AMONG COST MANAGEMENT, CUSTOMER SERVICE, QUALITY, PRODUCTIVITY AND ASSET MANAGEMENT- CORRELATION MATRIX

The impact of SCM is ascertained through its effectiveness over cost management, customer service, and quality of the product, productivity of the organization and asset management of the company. This effectiveness possesses proximity to sharply estimate the impact of SCM. Therefore in this juncture the researcher wants to verify the parametric relationship among the factors of SCM effectiveness. Therefore Karl Pearson's co-efficient of correlation is approximately used to establish the proximity among five effectiveness factors. The results of Karl Pearson's co-efficient of correlation are presented below.

Table : 1**Inter relationship among cost management, customer service, quality, productivity and asset management**

Variables	Cost management	Customer service	Quality	Productivity	Asset management
Cost management	1	.719(**) .000	.614(**) .000	.585(**) .000	.735(**) .000
Customer service	.719(**) .000	1	.720(**) .000	.648(**) .000	.684(**) .000
Quality	.614(**) .000	.720(**) .000	1	.641(**) .000	.680(**) .000
Productivity	.585(**) .000	.648(**) .000	.641(**) .000	1	.603(**) .000
Asset management	.735(**) .000	.684(**) .000	.680(**) .000	.603(**) .000	1

** Correlation is significant at the 0.01 level (2-tailed).

Source: Primary data

It is found that cost management is highly correlated with asset management ($r=.735$, $p=.000$) followed by the parametric relation with customer service ($r=.719$, $p=.000$), quantity of the product ($r=.614$, $p=.000$) and productivity ($r=.585$, $p=.000$). This implies that the cost management and asset management aid for successful operations of SCM.

The customer service is highly correlated with the quality of the product ($r=.720$, $p=.000$) followed by asset management ($r=.684$, $p=.000$) and productivity ($r=.648$, $p=.000$). Therefore it can be concluded that the HLL offer good quality of products through SCM to the customers.

There is a high positive correlation between quality and asset management ($r=.680$) and it is followed by its relationship with productivity ($r=.641$). It is concluded that quality production is the major effectiveness of SCM practices which leads to strategic asset management and productivity.

It is also ascertained that there is a positive correlation between productivity and asset management ($r=.603$, $p=.000$). This relationship is statistically significant at the 1 percent level and concluded that the productivity increase due to SCM practices predicted lucrative asset management.

2.1. Transportation facility and overall performance metrics - ANOVA

Transportation refers to the movement of product from one location to another as it makes it way from the beginning of a supply chain driver, because products are produced and consumed in the different location. Transportation is a significant component of the costs incurred by most supply chain. The role of transportation is more significant in global supply chain. The transport facility of HLL Life care increases the effectiveness of SCM operations. It is used to deliver the product at the right time this increase the satisfaction

of the customer. Therefore there is a possibility that the overall performance of the metrics is influence by transport facility of HLL Life care.

The null hypothesis is that transportation facilities do not influence operational, financial and social performance of the company.

Table: 2
Transportation facility and overall performance metrics-ANOVA

Performance factors	Source of variation	Sum of Squares	df	Mean Square	F	Sig.
Cost Management	Between Groups	2.851	1	2.851	10.996	.001
	Within Groups	23.596	91	.259		
	Total	26.447	92			
Customer Service	Between Groups	.334	1	.334	1.674	.199
	Within Groups	18.142	91	.199		
	Total	18.475	92			
Quality	Between Groups	.593	1	.593	2.531	.115
	Within Groups	21.327	91	.234		
	Total	21.921	92			
Productivity	Between Groups	.852	1	.852	4.030	.048
	Within Groups	19.246	91	.211		
	Total	20.098	92			
Asset Management	Between Groups	2.274	1	2.274	7.711	.007
	Within Groups	26.843	91	.295		
	Total	29.117	92			

Source: Primary data

Table 2 shows that the performance measurement factors such as cost management ($F=10.996$, $p=.001$), productivity ($F=4.030$, $p=.048$) and asset management ($F=7.711$, $p=.007$) are statistically significant at 5 percent level. This leads to mean wise comparison that is (Mean =4.43) strongly agree with the transportation cost management factors. The productivity means wise comparison (Mean=4.45) and asset management (Mean =4.49) are strongly agree with the respondents. Therefore the null hypothesis is rejected. This indicates that there is an influence of transportation facility to measure the operational, financial and social performance of the company. The transport facility reduces the delay in process, reduce the cycle time and so on.

10. Operational, tactical and current programming strategies on overall performance metrics - ANOVA

The current growth of the organization has three major activities such as operational, tactical and current programming strategies. These three strategies improves the operational, financial and social performance of the company. Therefore there is a need to verify their significance level to improve the SCM operations in HLL Life care.

The null hypothesis is that operational, tactical and current programming strategies do not influence overall performance metrics.

Table: 3
Operational, tactical and current programming strategies and overall performance metrics- ANOVA

Performance metrics	Source of variation	Sum of Squares	df	Mean Square	F	P - value
Cost Management	Between Groups	3.591	2	1.795	7.070	.001
	Within Groups	22.856	90	.254		
	Total	26.447	92			
Customer Service	Between Groups	1.945	2	.972	5.295	.007
	Within Groups	16.530	90	.184		
	Total	18.475	92			
Quality	Between Groups	3.850	2	1.925	9.586	.000
	Within Groups	18.071	90	.201		
	Total	21.921	92			

Productivity	Between Groups	.878	2	.439	2.055	.134
	Within Groups	19.220	90	.214		
	Total	20.098	92			
Asset Management	Between Groups	2.796	2	1.398	4.781	.011
	Within Groups	26.321	90	.292		
	Total	29.117	92			

Source: Primary data

Table 3 reveals that the overall performance like cost management ($F=7.070$, $p=.001$), customer service ($F=5.295$, $p=.007$), quality ($F=9.586$, $P=.000$) and asset management ($F=4.781$, $P=.011$) are statistically significant at the 5 percent level with respect to operational, tactical and current programming strategies. Therefore, this leads to mean wise comparison. This indicates that cost management (Mean=4.53) is strongly influenced by tactical activities. Similarly customer service (Mean=4.44) is strongly influenced by current programming strategies and moderately influence by tactical activities. The mean wise comparison for quality (Mean=4.51) is strongly influence by current programming activities and moderate influence by tactical activities. The mean wise comparison indicates for asset management (Mean=4.50) is strongly influences by tactical activities and moderately influenced by current programming activities. Therefore the null hypothesis is rejected. This means that the operational activities, tactical activities and current programming strategies are influenced on cost management, customer service, quality and asset management metrics to measure the overall performance of the company.

11. CONCLUSION

SCM seeks to enhance competitive performance by closely integrating the internal functions within a company and effectively linking them with the external operations of suppliers and channel members. The correlation matrix indicates the overall performance metric are interrelated to increase the performance of the SCM. The effective transportation support to increase the quality of service and increase the performance of the company.

12. REFERENCES

1. ChichJen Shieh (2010) in his research paper titled " Supply chain management, organizational innovation and corporate culture: The impact of relatedness", *African Journal of Business Management*, Vol. 4, No.9, pp. 1736-1744
2. Jinesh Kumar Jain, GovindSharanDangayach , GopalAgarwal, "Evidence of Supply Chain Management in Indian manufacturing firms: a survey ", *International Journal of Management Science and Engineering Management*, Vol.6, No.3, 2011, pp. 198-209
3. ParavinKatariya and Dr. SahebraoChavan, " Supply chain Management and its emphasis on health care management", *Global economic research*, Vol. I, Issue : II, ,2012, pp.16-23
4. Wenjuan Wang,Darshana S edera, " A frame work for understanding the benefits of supply chian management systems", *European Business Review* ,Vol.19,2012, pp 332 - 348.
5. Uma V. Sridharan, W. Royce Caines and Cheryl C. Patterson " Implementation of supply chain management and its impact on the value of firms" ,*Supply Chain Management: An International Journal*, Vol.10, No.4, 2005, pp. 313-318