



Study of Importance of Supplier Partnership And Customer Relationship As Logistics And Supply Chain Parameters on the Overall Performance of The Hospitals in Nagpur Region

KEYWORDS

Supply chain management, logistics, Organizational performance.

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ABSTRACT Supply chain is the flow of material and information forward and reverse in a manufacturing firm or a service firm. Logistics is a science of planning, organizing, and managing activities affecting the production and services. Hospitals are one such service providers that are highly influenced by the SCM and logistics practices. This paper attempts to gain understanding of the importance of supply chain and logistics practices in the hospitals in Nagpur region. Research was conducted to also understand different parameter that contributes to the Supply Chain practices. The parameters thus identified were supplier partnership, customer relationship, IT adoption and Information sharing and quality of information. The focus area of the paper was the supplier partnership and customer relationship. The findings of the paper are that supplier partnership and customer relationship have positive impact on the overall performance of the organization. Though the impact of Supply chain practices is not dominating the organizational performance but are definite contributors of the organizational performance.

Logistics and SCM practices may be defined as a set of activities undertaken to promote effective and efficient management of supply chains. Different operations undertaken under Supply Chain and logistics are Procurement of raw material, total quality management, inventory management, production, warehousing, Just in time, lean supply chain etc. And the determinants of SCM include supplier partnership, physical movement of goods, meeting customer demands and information sharing throughout the supply chain.

care establishments/corporate hospitals. The healthcare industry already has a substantial presence in the city; the numerous medical colleges would ensure an easy supply of trained manpower to the industry. The presence of an international airport in the vicinity can ensure easy access to the facilities to patients from all over the world. Nagpur can potentially attract medical tourists if not from all over the world but certainly from countries in the South Asia and the Middle East.

Considering the potential health care facilities and the upcoming MIHAN project in Nagpur, it is of great significance to study the impact of logistics on the health care system of Nagpur.

Objectives of research:

- To identify the supply chain parameters that affect the organisational performance of hospitals.
- To analyse the importance of Supplier partnership in organisational performance of hospitals.
- To analyse the importance of Customer relationship in organisational performance of hospitals.

Research Design :

The population for the study was the hospitals of the Nagpur region. Only private hospitals were taken in the study as information collection was directly possible from them. \

Sampling unit and Sample size :

Sampling unit for the study was the prevailing hospitals of Nagpur region. The sample size was 15 hospitals.

Sampling Method

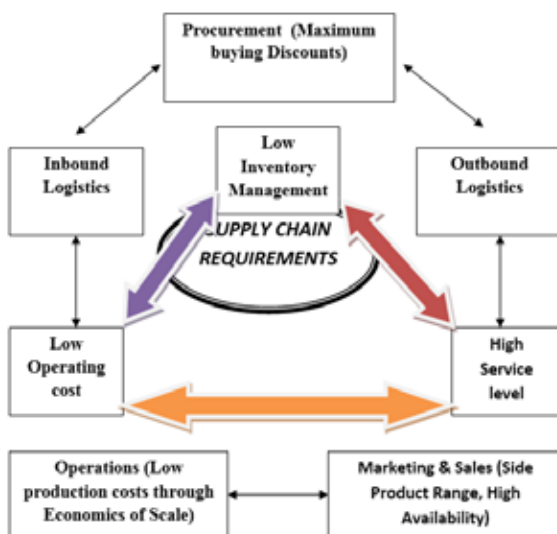
Convenient sampling was used to identify the respondents of the study.

Method of Data Collection

Data collection was done through as structured questionnaire.

In this phase of data collection, data was collected from the hospitals of the Nagpur region. Data was collected through

CURRENT PRACTICES IN SCM



Current practices Trade-offs Within Supply Chain HEALTH CARE IN NAGPUR REGION

Nagpur city's health care facilities presently cater to the needs of the three-crore strong population of Vidarbha and adjoining districts of MP and Chhattisgarh. Since there is no other city in a 300 km radius with good medical facilities, the city offers an excellent opportunity for health

the questionnaire which comprised of 52 statements.

The item scales are five-point Likert type scales with 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5=strongly agree, 6=not applicable.

Variables under Study:

Strategic supplier partnership:

Is defined as the long-term relationship between the organization and its suppliers. It is designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant ongoing benefits. A strategic partnership emphasizes direct, long-term association and encourages mutual planning and problem solving efforts. Such strategic partnerships are entered into to promote shared benefits among the parties and on-going participation in one or more key strategic areas such as technology, products, and markets. Strategic partnerships with suppliers enable organizations to work more effectively with a few important suppliers who are willing to share responsibility for the success of the products. Suppliers participating early in the product-design process can offer more cost effective design choices, help select the best components and technologies, and help in design assessment. Strategically aligned organizations can work closely together and eliminate wasteful time and effort. An effective supplier partnership can be a critical component of a leading edge supply chain.

Customer relationship:

It comprises the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction. Committed relationships are the most sustainable advantage because of their inherent barriers to competition. The growth of mass customization and personalized service is leading to an era in which relationship management with customers is becoming crucial for corporate survival. Good relationships with supply chain members, including customers, are needed for successful implementation of SCM programs.

Organizational performance

It comprises the actual output or results of an organization as measured against its intended outputs (or goals and objectives). Organizational performance encompasses three specific areas of firm outcomes: (a) financial performance (profits, return on assets, return on investment, etc.); (b) product market performance (sales, market share, etc.); and (c) shareholder return (total shareholder return, economic value added, etc.).

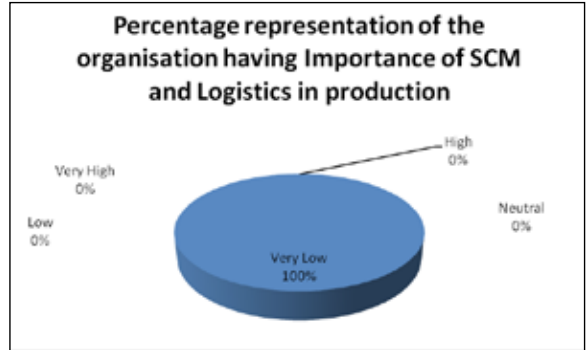
HYPOTHESES:

H1: Firms with high level of supplier partnership practice will have high level of organizational performance.

H2: Firms with high level of customer relationship practice will have high level of organizational performance.

DATA ANALYSIS FOR HOSPITALS

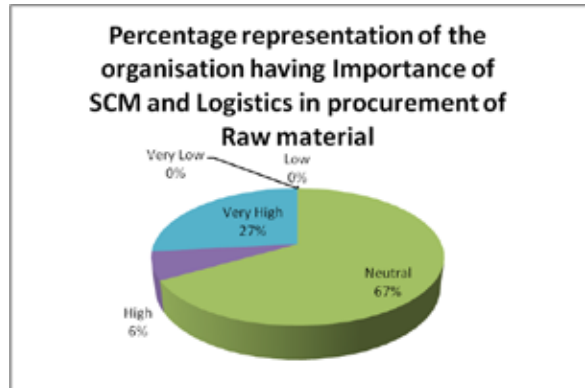
Importance of SCM and Logistics in the internal operation of the organisation:



Production

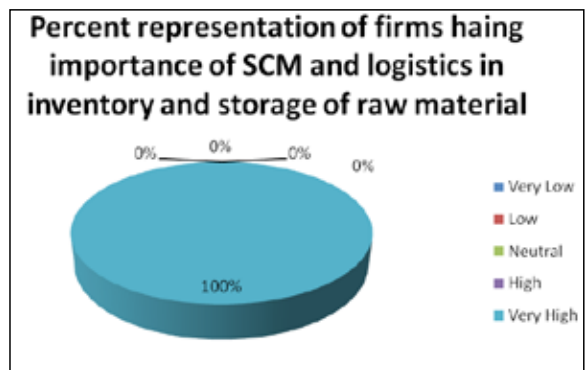
When hospitals were surveyed for the importance of Supply chain and Logistics in the production function of the firm, it was directly said and understood that the hospitals being the service sector, had nothing to manufacture of produce. Hence the responses of all the firms surveyed were very low in terms of importance.

Procurement:



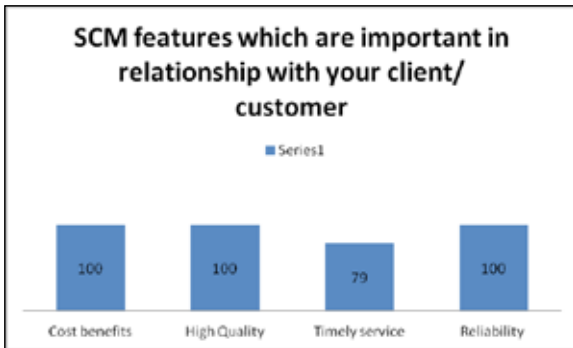
When the hospitals were questioned for the importance of SCM and Logistics in procurement of Raw material, majority of the firms agreed that the purchasing process is very vital to achieve standardization. But only 6% of the firms had very high level of importance given to the process.

Inventory and storage:



All the surveyed hosoihtals agreed that they give importance to the storage of raw material at their inventory house.

SCM features which are important in relationship with your client/ customer



Instruments used to measure Supply chain Performance and organizational Performance and their denotations are given below.

SP	Supplier Partnership
CR	Customer Relationship
IT	Information Technology
IS	Information sharing and Information Quality
OP1	Organizational Performance-Market share
OP2	Organizational Performance- Return on investment
OP4	Organizational Performance- Growth of sales
OP6	Organizational Performance- Overall competitive position

Following is the correlation table for the instruments of SCM and Organisational performance.

	SP	CR	IT	IS	OP1	OP2	OP4	OP6
SP	1.00							
CR	0.75	1.00						
IT	0.78	0.61	1.00					
IS	0.87	0.70	0.89	1.00				
OP1	0.66	0.59	0.60	0.60	1.00			
OP2	0.66	0.59	0.60	0.60	1.00	1.00		
OP4	0.76	0.66	0.37	0.55	0.61	0.61	1.00	
OP6	0.90	0.75	0.59	0.68	0.80	0.80	0.87	1.00

TESTING OF HYPOTHESIS:

H1: Firms with high level of supplier partnership practice will have high level of organizational performance.

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.83							
R Square	0.69							
Adjusted R Square	0.67							
Standard Error	0.59							
Observations	15.00							
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-1.37	0.81	-1.70	0.11	-3.12	0.37	-3.12	0.37
SP	1.19	0.22	5.38	0.00	0.71	1.67	0.71	1.67

Test of Significance

t = 5.38

From the t value, using t distribution, p value is calculated.

p= 0.000126

Hence r is not significant at 5% level of significance.

So we reject null hypothesis and interpret that there is impact of Supplier partnership on the overall organisational performance.

Interpret of the result

The multiple correlation coefficient is 0.83. This indicates that the correlation among the independent variable which is supplier partnership and dependent variable which is organisational performance is positive.

Coefficient of determination is 0.46 which means that the supplier partnership explains the variation in the organisational performance of the organisation by 69 %. The 31% remaining are explained by other parameters that remain unexplained.

These unexplained parameters can other SCM parameters like customer relation, IT adoption etc.

H2: Firms with high level of customer relationship practice will have high level of organizational performance.

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.72							
R Square	0.51							
Adjusted R Square	0.48							
Standard Error	0.74							
Observations	15.00							
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.31	0.72	0.42	0.68	-1.26	1.87	-1.26	1.87
CR	0.69	0.19	3.71	0.00	0.29	1.09	0.29	1.09

Test of Significance

t = 3.7

From the t value, using t distribution, p value is calculated.

p= 0.002627

Hence r is not significant at 5% level of significance.

So we reject null hypothesis and interpret that there is impact of customer relationship on the overall organisational performance.

Interpret of the results

The multiple correlation coefficient is 0.72. This indicates that the correlation among the independent variable which is customer relationship and dependent variable which is organisational performance is positive.

Coefficient of determination is 0.51 which means that the customer relationship explains the variation in the organisational performance of the organisation by 51%. The 49% remaining are explained by other parameters that remain unexplained.

These unexplained parameters can be other SCM parameters like supplier partnership, IT adoption etc.

Conclusion:

Coefficient of determination between supplier partnership and organisational performance is 0.46 which means that the supplier partnership explains the variation in the organisational performance of the organisation by 69 %. The 31% remaining are explained by other parameters that remain unexplained.

Similarly the Coefficient of determination between the customer relationship and organisational performance is 0.51 which means that the customer relationship explains the variation in the organisational performance of the organisation by 51%. The 49% remaining are explained by other parameters that remain unexplained.

For the service sector, hospitals, the highest degree of correlation is found between supplier partnership and overall competitive position. Hospitals generally have a set of fixed suppliers for the drugs, medicines, surgical equipment etc. Hospitals has to maintain a very sound relationship with the supplier as the quality, delivery schedules and involvement of the supplier in the service rendered by the hospital clearly defines the quality of service hospital gives to its patients. So the hospitals under survey completely believed that considering the suppliers as the important stakeholders of the organisation helps the organisation to achieve a leading position in the market.

Suggestions:

Identify customer future expectations: When a customer finds the service he renders from a hospital or a hotel excellent, he revisits the same place for future wants.

Reducing complexity of SCM: The biggest issue with implementing logistics and supply chain management in the service industry is its complex nature.

Management support: The tactical level of implementation of logistics and supply chain management focuses on steps that are taken at a higher level for successful implementation.

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