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IDENTIFYING THE FACTORS OF SUPPLY CHAIN MANAGEMENT STRATEGY – A STUDY

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Abstract: Communication and technology aids in product tracking and distribution result in higher customer contentment with the supply chain process when employees are connected through many succession of the supply chain workers likely feel more fulfilled and activities often run more smoothly. This article makes an attempt to explain the impact of technology, communication and self evaluation on supply chain management and our study tries to prove that communication, technology and self evaluation are the important component of successful supply chain management.

Keywords: Communication, Technology, Self-evaluation, Six Sigma.

1. INTRODUCTION

Supply chain management is the procedure of handling the entire production flow of a goods or services, starting from the raw components all the way to delivering the final product to the consumer. Supply chain management (SCM) represents an effort by suppliers to develop and implement supply chains that are as efficient and economical as possible. SCM attempts to centrally control the production, shipment and distribution of a product. SCM encompasses the integrated planning and execution of processes required to manage the movement of materials, information and financial aspect in activities that broadly include demand, planning, sourcing, production, storage and transportation. Supply chain management creates a number of benefits that translate to higher profits, better brand image and greater competitive advantage. SCM also have other advantages such as (a) to understand the

customer demand, (b) to manage supply chain visibility, risk management and predictive capabilities, (c) SCM helps to increase sustainability, both from a societal and an environmental stand point, (d) SCM improves quality, and (e) SCM improves cash flow management.

If anybody wants to make his/her business successful, everyone is to depend on supply chain system. Industry with high performing supply chains usually achieve superior revenue growth in comparison to other companies in their industry and those with poor supply chains often fail.

2.   LITERATURE REVIEW

Burgess *et al.* (2006) focus on the aspects of supply chain management on some emerging issues. Supply chain management informed us some knowledge about narrow functional areas. This article mainly focused on the manufacturing industry. As per Kleab (2017) supply chain management is a cross functional approach that includes managing the movement of raw materials into an organization. In this article he mainly focused on core competencies which become more flexible. Borade & Bansod (2018) observed that supply chain management becomes a vital issue for manufacturers, professionals and researchers. To manage supply chain effectively it must be understood properly. This paper mainly discussed about the working area of supply chain management activities. Mukhamedjanova (2020) considered that supply chain management acts as key business activities at the needs of end customers and other kinds of competitions. In this article, an attempt has been made to analyze the work of auditor on the concept of supply chain management. Based on the above, the objective of the study is to identify the factors of supply chain management strategy under study.

3.   DATA AND METHODOLOGY

The present study is mainly based on the primary data. The data and information were collected from general people through structured questionnaire. Total 12 (twelve) questions were set for the people and data were collected from 200 respondents. The data were analyzed in SPSS software. Factor analysis has been used to identify the most important factors which have impacted mostly the supply chain management.

4.   EMPIRICAL RESULTS AND ANALYSIS

Supply chain management (SCM) affects manufacturing units in a variety of ways, including an availability of inputs needed for production process, costs

and profitability of manufactured items. Effective supply chain management can ensure that raw materials consistently arrive at production facilities on time. If the supply chain breaks down before inputs arrive, a manufacturer can be forced to procure materials from alternative source quickly, possibly resulting in higher prices and lower profitability. Modern supply chain management can change whole scenario of production processes to remain competitive in the global market place. Continuous upliftment program such as introduction of Six-Sigma systems can change supply chain management dynamics that require eminent co-operation with customers and suppliers than ever before.

Table 1: Reliability Statistics

Cronbach's Alpha	No of Items
.721	9

Reliability is another name for consistency. Cronbach's alpha is considered to be a measure of scale reliability. Cronbach's alpha is not a statistical test, it is a co-efficient of reliability or consistency. From the above table it has become clear that the alpha co-efficient for the nine items is .721, suggesting that the items have relatively high internal consistency (count that a reliability of 0.700 or higher is considered 'acceptable' in most social science research situation.

Table 2: KMO and Bartlett's Test Results

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.753
Bartlett's Test of Sphericity	Approx. Chi-Square	369.042
	Df	36
	Sig.	.000

The Kaiser-Meyer-Olkin (KMO) test is a measure of showing the suitability of data for the purpose of factor analysis. The test measures sampling adequacy for each variable in the model. KMO values more than 0.7 indicates that the sampling is adequate. The Bartlett's test of Sphericity was used to test the null hypothesis that the correlation matrix is an identity matrix. A significant statistical test (usually less than .05) shows that the correlation matrix is indeed not an identity matrix. Both the value of KMO & Bartlett's test shows that the factor analysis was good for the statistical measure.

Table 3: Factor Analysis Statistics

Variables	Factor-1	Factor-2	Factor-3	Commu Nalities
Var-1(Periodic Review)	.790			.632
Var-11(Customer Interaction)	.628			.555
Var-12(Share Information)	.825			.703
Var-2(Experience)		.602		.500
Var-8(Exchange Ideas)		.645		.623
Var-10(Technology)		.851		.730
Var-3(Evaluate Performance)			.739	.678
Var-6(Alternative Way)			.657	.553
Var-9(Delivery Personnel)			.500	.500
Eigen Values	3.044	1.379	1.042	
% of Variance	33.826	15.322	11.575	60.723

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Factor loadings are simple correlations between the variables and the factors. Factor loadings show how well the items represent the underlying factor. Var-1 (Periodic Review), Var-11 (Customer Interaction) and Var-12 (Share Information) are well explained of factor-1(Communication). Factor-2 (Technology) have stated by three variables such as Var-2 (Experience), Var-8 (Exchange Ideas) and Var-10 (Technology). Factor-3 (Self-evaluation and Others) also have stated by three variables such as Var-3 (Evaluate Performance), Var-6 (Alternative Way) and Var-9 (Delivery Personnel). Communalities which show how much of the variance in the variables has been accounted for by the extracted factors. Communality value which should be more than 0.5 to be considered for further analysis, here all the value is accounted more than 0.5. Eigen value represents the total variance explained by each factor. Factors having Eigen values more than 1 are selected for further study. The percentages of variance have also reflects a positive figure. 33 per cent variance of factor-1 express how closely the result was associated with statistical analysis. Total 60.723 per cent variance was expressed by three factors in factor analysis.

5.   CONCLUSION

Organizations have multifarious objectives like raised competitiveness, better customer service and increased profitability etc. To achieve those objectives organizations employ various accessec. One of these approaches is supply

chain management. It is the channel of customer, manufacturer, distributors and suppliers concentrating the flow of information, services and finance. Progressing supply chain communication is a vital step towards making supply chain elasticity and alleviating procurement risks. The excellent the communication lines across supply chain, the better will be the system of management. The communication with co-workers, clients and customers etc. need to be managed successfully to make the supply chain achievement success. When it comes to technology, there are many influence of it on supply chain management to make a business more skilled. The biggest convenience of technology in supply chain management come from reducing costs, improving customer services and progressing operational efficiency. Performance assessment is a necessary element of effective planning and control as well as decision making. To identify the sickly links in supply chain and promote it performances, evaluation of supply chain is very important. It can provide essential feedback information to reveal progress. Supply chain management has become a key subject on supply chain performance area. Therefore, a set of exercise like communication, technology and self-evaluation of supply chain management has been go through worldwide often without having its true impact measured adequately.

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