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A Study on Supply Chain Management as Perceived by the Operating Supply Chain Employees of Restaurants in Thanjavur

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***Abstract*: The research described in this article was carried out to investigate the understanding and perception of operating employees of supply chain regarding efficient supply chain management of the restaurants in Thanjavur district also helps to understand whether they are really aware of the importance of relationship with suppliers and customers. This research study is carried out with the help of survey questionnaire collected from 100 operating employees of supply chain of different position from different restaurants in Thanjavur district. samples are chosen on the basis of simple random sampling method and the collected data are analyzed with the help of statistical tools such as chi-square, correlation and one-way ANOVA. A brief literature review is presented in the next section. This is followed by preliminary findings of the study. In the final section some concluding remarks are presented.**

***Keywords*: Supply chain management, Perception of supply chain employees, operational performance**

1. Introduction

In simple words, Supply Chain Management (SCM) can be described as a network of facilities and distribution options. Wherein Supply Chain Management involves functions such as material procurement, transformation of the material into intermediate and finished products, and then distribution of the finished product to consumer.

Supply chains are found to exist in both service and manufacturing sectors, although the complexity of the supply chain may vary vastly from industry to industry and firm to firm, however it represents a logical advance in our evolving understanding of business performance (Smith and Budress, 2005).

"Supply Chain Management is a strategy through which such integration can be achieved"

Management experts for this business process realized that significant productivity enhancement could only come from managing relationships, information and material flow across enterprise borders.

Supply Chain Management today:

The logistics or the SCM industry in India has been receiving greater attention in the last few years. In-spite of its huge potential the growth of the sector has not kept pace with India's wider economy, thereby being a threat to our future competitiveness. The acceleration in industrial production and changes in consumption patterns have resulted in a high demand for basic and specialized logistics management, both at the local and cross-border levels. A recent study report suggests that the Indian logistics industry is likely to grow at 10-15 per cent per annum between now and 2015 and by which point it is likely to be worth $385 billion.

There are two major reasons for this growth. Firstly, the demand has been fueled by the growth in industries that tend to outsource such as automobiles, consumer packaged goods, hi-tech, telecom and retail, among others. The movement of basic commodities domestically and globally, has also led to an increase in so-called 'multi-nodal' and bulk transportation due to the emergence of many new ports and port-related service providers. This growth should be driven further by the impending change in the Indian tax system from state-level Value added Tax (VAT) to a national and uniform Goods and Services tax (GST), which will help create a national market for many goods and services.

The logistics sector is likely to respond by making more use of hub-and- spoke systems, large-scale warehousing and specialized services. A gradual opening up of key sectors such as retail, aviation, defense, etc, will also help drive expansion. Secondly the entry of Multinational Companies (MNCs) in sourcing, manufacturing and distributing can be attributed as the other growth driver.

Policy Priorities:

In India there are three policy priorities:

- Firstly, the government needs to draw up a comprehensive national logistics policy. Currently various components of logistics (surface transport, railways, shipping, air, commerce, finance) are all separate entities. There is a need to drive the policy in a synchronized manner.
- Second national priority should be focused on investment in logistics infrastructure. This means direct investment into alternative traffic modes to road, particularly rail and coastal shipping in order to ease traffic congestion, bring down costs and

minimize carbon emission.

- Thirdly there is a need to invest more in our people with the growing complexity of supply chains; we need more skilled people to manage supply chains. There is a clear need for both the government and private entities to create well focused and sustained skills and training programmes.
- There are several other areas, such as technology adoption and policy simplification for trade facilitation that are also worthy of attention and focus. Getting this right, too, will put our country firmly on the right track. It's time for all stakeholders to pull in the same direction.

2. Review of literature

- Miguel Gonzalez-Loureiro Marina Dabic Timothy Kiessling , (2015), Globalization has changed the way firms act strategically, as their supply chains have become complicated webs of global networks with supply chain management attempting to build critical linkages externally while managing internally. The new supply chain has evolved to a relationship focus where suppliers and customers have all become co-producers of Value. Scholars have suggested that supply chain management can potentially be one of the sources of a firm's competitive advantage and a key to its global strategy, partly because firms seek differentiated strategies in the global marketplace where supply chain management plays a complementary role.
- Karami, Meisam &Malekifar, Shaghayegh & Beigi Nasiri, Ali & Beigi Nasiri, Mostafa & Feili, Homayoun & Khan, Saif-ur-Rehman. (2015). Addressing a lack of research on the relationship between marketing and supply chain management, a new conceptual framework incorporates organizational learning, supply chain innovation, trust, supply chain management strategy, commitment, and collaboration as mediating factors in the relationship between market orientation and supply chain performance. Only by identifying the dimensions of effective performance and assessing their impact on each other can organizational leaders strengthen the bonds among partners in the supply chain toward generating the efficiencies that improve its management and performance.
- Arawati Agus, Member, IACSIT (2015), A good implementation of supply chain management can produce positive outcomes such as excellent product quality, low operating costs, on-time deliveries, and reduce wastage and inventory. The result demonstrates a new discovery of how important (magnitude and direction) is new technology and innovation as well as quality information exchange. By adopting new technical and innovative machineries and tools, production efficiency and effectiveness can be enhanced. In addition, quality products can be produced effectively with maximum utilization of precious and limited resources. The quality information exchange and collaboration among supply chain partners are very crucial in achieving long term benefits. To achieve high performance in supply chain managementLu, Lauren & Swaminathan, Jaya.
- shankar. (2015). In the last decade, building sustainable supply chains has gathered tremendous attention from environmentalists, NGOs, and businesses. This society wide sustainability initiative has influenced many firms' supply chain strategies. For instance, Wal-mart in 2005 launched three overarching sustainability goals (Denend and Plambeck 2007).
- use 100% renewable energy;
- produce zero waste;
- sell products that sustain our resources and environment

To achieve these goals, the company examined various aspects of its supply chains to identify areas that offered the most potential for sustainability. And it used various incentives to motivate its suppliers to contribute to its sustainability goals.

3. Research methodology

A. Research Design

Research design adopted for this research is "Descriptive Research".

B. Objectives of the study

- To investigate the understanding and perception of operating employees of supply chain regarding efficient supply chain management of the restaurants in Thanjavur district.
- To display the degree of knowledge of the operating employees of supply chain about the supply chain management practices.
- To understand whether they are really aware of the importance of relationship with suppliers and customers.

C. Statement of problem

Supply chain employees, suppliers and clients have major role in establishing and developing effective supply chain management and collaboration and also in avoiding fragmented and adversarial nature of business. In order to achieve such high level of collaboration required to synchronize supply chain, companies must balance the needs of customers with those of suppliers and partners.

For that, the business must maintain equilibrium between open communication and responsible information exchange, which is made possible through the operating employees of supply chain.so this study examines the attitude of supply chain employees concerning the perception of supply chain management of the restaurants in thanjavur district.

D. Sampling framework

The population is finite and "Simple random sampling

Table 1
Chi Square Test
A. Experience and the respondent's perception towards the statement to enhance supply chain efficiency "Establish long term relationship with suppliers

Experience	"Establish long term relationship with suppliers"					
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total
Less than 1 year	12	10	2	0	0	24
1 – 3 years	8	30	4	0	0	42
3 – 6 years	4	6	0	0	0	10
6 – 10 years	8	2	0	0	0	10
Above 10 years	10	4	0	0	0	14
TOTAL	42	52	6	0	0	100

Chi Square Analysis

Group	Observed frequency	Expected frequency	O-E	(O-E)2	(O-E)2/E
Aa	12	10.08	1.92	3.6864	0.36571
Ab	10	12.48	-2.48	6.1504	0.49282
Ac	2	1.44	0.56	0.3136	0.21778
Ad	0	0	0	0	0
Ae	0	0	0	0	0
Ba	8	17.64	-9.64	92.9296	5.26812
Bb	30	21.84	8.16	66.5856	3.04879
Bc	4	2.52	1.48	2.1904	0.86921
Bd	0	0	0	0	0
Be	0	0	0	0	0
Ca	4	4.2	-0.2	0.04	0.00952
Cb	6	5.2	0.8	0.64	0.12308
Cc	0	0.6	-0.6	0.36	0.6
Cd	0	0	0	0	0
Ce	0	0	0	0	0
Da	8	4.2	3.8	14.44	3.4381
Db	2	5.2	-3.2	10.24	1.96923
Dc	0	0.6	-0.6	0.36	0.6
Dd	0	0	0	0	0
De	0	0	0	0	0
Ea	10	5.88	4.12	16.9744	2.8868
Eb	4	7.28	-3.28	10.7584	1.4778
Ec	0	0.84	-0.84	0.7056	0.84
Ed	0	0	0	0	0
Ee	0	0	0	0	0
					22.207

method" will be adopted for selecting samples from the finite one and the sample size is 100. The period of research study contained 2 months from 01 March and 30 April ,2019

E. Data collection methods

Primary data is the data collected by the researcher themselves

- Observation
- action research
- questionnaires

Secondary data sources are data that already exists such as Previous research journals and articles, Web information, Historical data and information.

F. Statistical tools

This part of study is mainly focused on verifying main objectives of study. Researcher used Simple Percentage Analysis using Charts and Tables, Chi Square, Correlation and One Way ANOVA as statistical tool for analysis of data.

Keeping in view of objectives of the study, the researcher is frame suitable hypothesis and tested appropriated.

- Relationship between Experience and the respondent's perception.
- Statement to enhance supply chain efficiency "establish long term relationship with suppliers"
- Relationship between Education and respondent's perception regarding the importance of complaint handling in developing a successful supply chain
- Correlation between Age and Impact of modernization of technology.
- Relationship between position in the supply chain and the perception regarding extension of own supply chain.

G. Scope of the study

This study is confined to supply chain management practices as perceived by the operating employees of supply chain in restaurents in Thanjavur city only and it is not applicable in other areas.

H. Limitations of the study

- The information might not be accurate due to closed

Table 2
Chi Square Test
B. Education and respondent's perception regarding the importance of complaint handling in developing a successful supply chain

Education	Importance of complaint handling in developing a successful supply chain					
	Very Important	Important	Fairly Important	Slightly Important	Not Important	Total
Up to SSLC	0	0	0	2	2	4
HSC	8	4	2	4	2	20
UG	26	4	12	8	0	50
PG	8	4	4	4	0	20
Others	0	4	0	2	0	6
TOTAL	42	16	18	20	4	100

Chi square analysis

Group	Observed frequency	Expected frequency	O-E	(O-E)2	(O-E)2/E
Aa	0	1.68	-1.68	2.8224	1.68
Ab	0	0.64	-0.64	0.4096	0.64
Ac	0	0.72	-0.72	0.5184	0.72
Ad	2	0.8	1.2	1.44	1.8
Ae	2	0.16	1.84	3.3856	21.16
Ba	8	8.4	-0.4	0.16	0.01905
Bb	4	3.2	0.8	0.64	0.2
Bc	2	3.6	-1.6	2.56	0.71111
Bd	4	4	0	0	0
Be	2	0.8	1.2	1.44	1.8
Ca	26	21	5	25	1.19048
Cb	4	8	-4	16	2
Cc	12	9	3	9	1
Cd	8	10	-2	4	0.4
Ce	0	2	-2	4	2
Da	8	8.4	-0.4	0.16	0.01905
Db	4	3.2	0.8	0.64	0.2
Dc	4	3.6	0.4	0.16	0.04444
Dd	4	4	0	0	0
De	0	0.8	-0.8	0.64	0.8
Ea	0	2.52	-2.52	6.3504	2.52
Eb	4	0.96	3.04	9.2416	9.62667
Ec	0	1.08	-1.08	1.1664	1.08

ended questionnaires. Other than the option may have its control over the employee's perception and response.

- Because of the fixed number of samples, we can't take the result for whole.
- As simple random sampling has been used, probability will be more for sample error. It might have the chances to take full of positive result giving or negative result giving samples.

4. Data analysis and interpretation

Null hypothesis Ho: There is no relationship between Experience and the respondent's perception towards the statement to enhance supply chain efficiency "establish long term relationship with suppliers"

Alternate hypothesis H1: There is a relationship between Experience and the respondents perception towards the statement to enhance supply chain efficiency "establish long term relationship with suppliers."

Calculated Value of $\chi 2$= 22.207

Degree of Freedom = (R-1) × (C-1) = (5-1) × (5-1) = 16

Table value of chi square for 6 degree of freedom at 5 per cent level of significance is 26.296

Conclusion: calculated value of chi square is less than the table value, so the null hypothesis is accepted, alternate hypothesis is rejected. Hence it is concluded that there no significant relationship between Experience and the respondents perception towards the statement to enhance supply chain efficiency "establish long term relationship with suppliers."

Null hypothesis Ho: There is no relationship between Education and respondents perception regarding the importance of complaint handling in developing a successful supply chain

Alternate hypothesis H1: There is a relationship between Education and respondents perception regarding the importance of complaint handling in developing a successful supply chain.

Calculated Value of $\chi 2$= 50.3841

Degree of Freedom = (R-1) × (C-1) = (5-1) × (5-1) = 16

The table value of chi square for 6 degree of freedom at 5 per cent level of significance is 26.296.

Conclusion: calculated value of chi square is more than the table value, so the null hypothesis is rejected, alternate hypothesis is accepted. Hence it is concluded that there is a significant relationship between Education and respondents perception regarding the importance of complaint handling in developing a successful supply chain management.

Table 3
Correlation
C. Correlation between Age and Impact of modernization of technology

		Age	Impact of modernization of technology
Age	Pearson Correlation Co-efficient (r)	1	-0.30084*
	Sig. (2-tailed)		0.002
	N	100	100

Table 4
One-Way ANOVA
D. Relationship between position in the supply chain and the perception regarding extension of own supply chain

Anova: Single Factor						
SUMMARY						
Groups	*Count*	*Sum*	*Average*	*Variance*		
Position in the supply chain	100	342	3.42	2.023838		
Extend own supply chain	100	182	1.82	0.957172		
ANOVA						
Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	128	1	128	85.87693	3.29E-17	3.888853
Within Groups	295.12	198	1.490505			
Total	423.12	199				

Inference: From the table 3 it is inferred that, Age and Impact of modernization of technology which is significant at 0.002 which is less than the significant level of 0.05 i.e. $p < 0.05$. The alternative hypothesis (H1) is accepted and null hypothesis (H0) is rejected. Therefore, it is concluded that there is a significant correlation between Age and Impact of modernization of technology.

Alternate hypothesis (H1): There is a significant relationship between position in the supply chain and the perception regarding extension of own supply chain.

Null hypothesis (Ho): There is no significant relationship between position in the supply chain and the perception regarding extension of own supply chain.

Inference: Table 4 shows, the calculated p-value (3.29 E-17) is larger than the significant value α (0.05). The alternative hypothesis (H1) is rejected and null hypothesis (H0) is accepted. Therefore, there is no significant no significant relationship between position in the supply chain and the perception regarding extension of own supply chain.

5. Findings, suggestions and conclusion

A. *Findings*

- Majority of the respondents are male
- Majority of the respondents are in the age group of 26-35 years
- Majority of the respondents are undergraduate
- Majority of the respondents are working in the distribution section of supply chain
- Majority of the respondents have 1-3 years of working experience in the supply chain management field
- Major percentage of respondents agreed that to enhance supply chain efficiency it is good to establish long term relationship with suppliers (50%)
- Major percentage of respondents strongly agreed that to enhance supply chain efficiency it is better to communicate firm's future strategic needs to the suppliers (46%), establish more frequent contact with members of own supply chain (46%), regularly solve problems jointly with the suppliers (42%) and frequently interact with customers to set reliability, responsiveness and other standards (36%).
- Major percentage of respondents consider complaint handling (44%), flexibility in supply chain(42%) and on-time delivery(38%) are very important and order fulfillment(42%) is consider as important to develop a successful supply chain whereas quality of materials and services(36%) is consider as fairly important compared to others.
- Major percentage of respondents predict the trend of modernization of technology (56%) and sustainability and circular economy (54%) have very great impact whereas diversified consumer preferences (48%) and traceability (34%) have great impact on effective supply chain management.
- Major percentage of respondents consider the function of purchasing (50%), transportation (46%) production planning (36%) and lead time (36%) have very great effect whereas inventory (36%) has somewhat affect the efficiency of supply chain management in relation with suppliers.
- Major percentage of respondents consider the following strategies such as deal with suppliers locate closer to firm (54%), extend own supply chain(52%), participate in the sourcing decision of the suppliers(46%), use third party supply chain management specialists(34%) and create supply chain team that include members from different companies(30%) as excellent strategies.

B. *Suggestion*

- It is necessary to update traditional supply chain

management method which causes cumbersome structure and stimulate the unreliable environment.

- It is suggested to understand the downside of the change being proposed in the business situation and manage it well enough for a better supply chain efficiency.
- For a better knowledge management of supply chain employees, collect feedback periodically and solicit their opinions, expertise and advices.
- Encouraging the employees to form relationship and embrace the desire to socialize which helps them to decide who to go with specific queries, which further helps them to act faster and make better decisions.it is possible through intrinsic motivation, more motivated the employee feels, more likely they share knowledge.
- New developments on technology provide many advantages for communication. Instead of old- fashioned information management which relies on time consuming-manual processes, multiple handoffs, and error-prone data reentry, implementation of recent technological improvements i.e. XML, e-commerce enable convenient environment for free flow of information.
- Each supply chain employees should concern adapting to their individual strategy to the whole supply chain organization instead of optimizing their own aims.
- Determination of common problems might provide taking precautions on the whole sector helps to diminish the obstacles for implementation of optimal supply chain performance, because only focusing on local aims instead of concerning the whole chain causes the lack of coordination between the parties.

6. Conclusion

From this study, it is concluded that The proportion of the respondents in our survey have better knowledge regarding the efficiency of supply chain management, chiefly, it seems, they thought establishing long term relationship with suppliers and dealing with suppliers locate closer to firm is the best strategy. Purchasing i.e. procurement of materials and complaint handling is the majority important function as it is the major influencer of mutual relationship with suppliers as well as customers. It also stresses the need to concern the modernization of technology as it has the greater impact on supply chain efficiency

In order to achieve better degree of knowledge on the side of supply chain employees, it may be essential to educate and inculcate more advanced ideas such as supply chain teams, or information sharing, or use of EDI, etc. Information flow should be managed well enough as it has a direct impact on the scheduling, inventory control and delivery plans which are fundamental elements for the coordination of members in a supply chain.

References

[1] Miguel Gonzalez-Loureiro et. al, "Supply chain management as the key to a firm's strategy in the global marketplace", International Journal of Physical Distribution & Logistics Management, Vol. 45 Iss 1/2 pp. 159 – 181
[2] Karami, Meisam & Malekifar, Shaghayegh & Beigi Nasiri, Ali & Beigi Nasiri, Mostafa & Feili, Homayoun & Khan, Saif-ur-Rehman, "A Conceptual Model of the Relationship Between Market Orientation and Supply Chain Performance," Global Business and Organizational Excellence. 34.
[3] A Agus, "Supply Chain Management: The Influence of SCM on Production Performance and Product Quality," Journal of Economics, Business and Management, Vol. 3, No. 11, November 2015.
[4] Supply Chain Management. International Encyclopedia of the Social & Behavioral Sciences.
[5] Innovations and Strategies for Logistics and Supply Chains.
[6] Supply Chain Management: Some Issues and Challenges - A Review International Journal of Current Engineering and Technology, Vol.4, No.2, April 2014.
[7] http://inpressco.com/category/ijcet
[8] Supply chain management concepts: literature review, IOSR Journal of Business and Management (IOSR- JBM), Volume 15, Issue 6 (Jan. 2014), pp. 60-66.
[9] South African Journal of Industrial Engineering November 2014 Vol 25(3), pp 25-38
[10] Zeng, Jing & Anh, Phan & Matsui, Yoshiki. (2013). Supply chain quality management practices and performance: An empirical study. Operations Management Research. 6. 10.1007/s12063-012-0074-x.
[11] Sukwadi, Ronald & Wee, Hui & Yang, Ching-Chow. (2013). Supply Chain Performance Based on the Lean–Agile Operations and Supplier–Firm Partnership: An Empirical Study on the Garment Industry in Indonesia. Journal of Small Business Management. 51.
[12] Grounded theory: an inductive method for supply chain research. International Journal of Physical Distribution &Logistics Management, 42 (8/9), pp. 863-880.
[13] "Customer-facing supply chain practices -The impact of demand and distribution management on supply chain success", Journal of Operations Management, Volume 30, pp. 269-281
[14] "Supply chain risk management in French Companies", Decision Support Systems, Volume 52, pp. 828-838.
[15] https://ifrnd.org/journal/index.php/imb r/article/view/950
[16] T. S. Chan, Felix & Kai Chan, Hing. (2010). An AHP model for selection of suppliers in the fast changing fashion market. The International Journal of Advanced Manufacturing Technology. 51. 1195-1207.