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Supply Chain Management Practices of Select Petroleum Retail Outlets in Salem District

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Abstract

Supply chain management is one of the modern management theories that have inspired businesses to be competitive. Cost effectiveness and customer satisfaction are the main goals of supply chain management. Supply chain management, as it is commonly called, is a crucial component of most firms and is critical to both customer happiness and business success. The petroleum businesses' supply chain management procedures pertaining to information technology, logistics, inventory, procurement, and customer service are presented in this study. The study's key conclusions indicate that shops are not adhering to benchmark criteria and are unaware of them. Retail establishments do, however, offer hygienic restrooms and car wash services.

The primary goals of this study are to determine and analyze the SCM practices that will be employed in the retail petroleum distribution locations located in the Salem District study region and to suggest methods for maintaining SCM practices in the petroleum sector. Along with increased customer happiness and retention, it will undoubtedly lead to the expansion of retail petroleum channels.

Keywords: Supply Chain Management, Satisfaction

I. INTRODUCTION

In the study of commerce, **supply-chain management (SCM)**, “to manage the flow of goods, services and contains the program and loading of raw materials, of work-in-process inventory, and finished goods from the point of origin for consumption”. Interrelated or interlinked networks and businesses combine in the establishment of products and services essential through the final customers in a supply chain. Supply-chain management has been clear as the (planning, design, control, execution and checking of supply-chain actions with the objective of making net value, leveraging worldwide logistics, building a competitive organisation, matching supply with demand and measuring presentation globally). SCM practice appeals deeply from the areas of industrial engineering, logistics system and strives for a combined approach. Marketing channels play an important role in supply-chain management. Present research in supply-chain management is troubled by the topics related risk management and sustainability between others. Several suggest that the people dimension of SCM, internal integration, ethical issue, and human capital/talent management were areas and diminished on the research program.

Review of Literature

1. **V.Jain, S. Wadhwa, and Deshmukh,(2009)**, explained a wide analysis of the main methods of supplier-related problems mainly “supplier–buyer relationships, supplier selection through the description of the main characteristics, supplier–buyer give in relationships in a active supply chain techniques, constant developments and research actions”. And also these issues related to the mixing of essential processes through structural limits through improved statement and teamwork are lectured, with its natural focus on Web-enabled collaboration between the suppliers and the buyers.
2. **Chima CM. (2011)** discussed the application of the uniform commercial code to supply chain management issues and several strategies are examined for improving supply chains in the oil and gas industry. It also explained how improving supply chain logistics in the oil and gas industry can improve efficiency and the bottom line.

3. **S. Saad, Z.M. Udin, and N. Hasnan,(2014)**, shows the process of energetic supply chain skills and its presentation. To propose the informative model and where it will direct towards the objective qualitative methodology. In this study delivers rich and heavy report for the active of supply chain where the result will donate to the executive and abstract view of supply chain management in oil and gas industry.
4. **Happy sonbihma and Elias Munapo (2017)** explains supply chain management performs of petroleum manufacturing such as inventory, procurement, and information technology and customer service. Petroleum companies in Zimbabwe are uncompetitive because SCM practices are ineffective. Hence un-competitiveness of petroleum companies is associated with the companies have not embraced the SCM philosophy.

Objectives of the Study

- 1.To Understand Importance of (Supply Chain Management) on petroleum industry related to Petrol and Diesel.
- 2.To learn the supply chain management follow of selected Indian petroleum companies as well as the retail channels are located in Salem district.
- 3.To present the socio-economic profile of respondents of retailers.
- 4.To elicit the views of retailers and problems relating to downstream activities of petroleum products in Guntur district.

Hypothesis of the Study

H₀:Dealers of petroleum retail outlets of IOCL, HPCL and BPCL are not facing any problem in the distribution of petroleum products.

Research Methodology

To study this research paper it is expressive in nature, and the researcher targets at examining the “Supply chain management” issues that occurs in the petroleum retail passages. The retail channels of major oil business are situated in and around Guntur establish the creation of the study. The researcher has directed a pilot study in and around Guntur choosing only (55) respondents covering (5) petroleum retail outlets and 10 of their consumers, to confirm the complete structure and the efficiency of questionnaire. The respondents are very free to express their opinions and they providing a reasonable comments on some features and definite the validity of all items in the questionnaire. The particular and logical analysis can be possible only when an suitable sampling technique is accepted. The present study has chosen useful sampling technique for its research on the supply chain management problems of retail outlets. The researcher was

initially expected at gathering primary records from the overall of (303) retail outlets. Therefore the structured questionnaires were arranged, verified their strength, consistency and then the issued questionnaires to all the directed respondents. It is initiate that there is (303) Retail Outlets of BPCL, IOCL & HPCL in Guntur district, however the researcher were capable to gather the complete questionnaires from (288) retailers on behalf of (303). This study is generally built on the Primary data. The primary data are collected from the sample respondents by structured questionnaire and includes the all main information basics for the study on downstream supply chain management practices. The secondary data is related to the many ideas of supply chain management practices in petroleum industry are also collected from “the books and published papers, internet sources, various Magazines etc.” In order to support the abstract base, the data connecting to the profile of oil companies and also the works reviews are also collected from the various research articles published in supposed journals both national and international level.

Results and Interpretation

1. In this study it is clearly noticed that common of the retailers are graduates. Majority of the retail outlets are succeeded by the owners only few of the retail outlets are managed by the managers.
2. The annual turnover of 93% of retail outlets is above 5 crores and the sales of 89% of the retail outlets are below 10000 liters.
3. Most of the dealers purchase petroleum products once in every two days. While purchasing most of the dealers are not following EOQ policy.
4. Only 40% of the retail outlets have their own transportation.
5. In the majority of the retail channels worker's strength is 5-10 members.
6. Only few retail outlets have their own customer service policy.
7. Most of the retailers planned to improve their sales growth by offering a variety of sales promotion schemes.
8. Common of the respondents would like to maintain the good relationship with vendors to improve their business.
9. The daily changes in the prices of diesel & petrol have no significant effect on retail outlets sales but inter-state variations are causing share of effect on their earnings.
10. 70% of the retailers are not following benchmark standards and they don't have aware of benchmark standards.
11. In popular of the retail outlets were provided washrooms cleaning, vehicle washes facility. Though display boards using credit/ debit card facility are not visible in 79% of the retail outlets.

12. 64% of the retailers of the retail outlets use RTGS/NEFT for making payments in the purchase of petroleum products and 36% of dealers use Net banking for making payments in the time of purchase of petroleum products.
13. IOCL, BPCL and HPCL companies provide incentives to their dealers of retail outlets for who has main sales.
14. Last 5 days in every month credit facility provided by the IOCL and HPCL to their dealers based on the sales volume of the retail outlet.
15. The discussion with the retailers revealed the following problems of the retailers.
 - Maintenance of employees is load to the retailers as per the OMC's guidelines.
 - BPCL retailers Facing the repair problems and company service people do not respond in time.
 - Retailers wanted advanced skill which were using in developed countries to reduce man power.
16. The common of the respondents are very satisfied with the behind service delivered by vendors.
 - Quantity
 - Ultra- modern electronic vending machine
 - Payment for wash room facility
 - Wash room
 - Timely service
 - Location
17. The majority of the respondents are satisfied with the following service by vendor
 - Quality
 - Price
 - Clean environment
18. The majority of the respondents are neutral with the petro card service by vendor.

**Table 1 Level of Satisfaction
Homogeneous Subsets**

Level of Satisfaction	N	Subset	
		1	2
Highly Dissatisfied	18	27.8889	
Dissatisfied	18	92.1111	
Neutral	18	142.2778	
Highly Satisfied	18	203.7778	
Satisfied	18		505.9444
Sig.		.081	1.000
Means for groups in homogeneous subsets are displayed. Based on observed means. The error term is Mean Square (Error) = 74895.191. a: uses Harmonic sample size =18.000 b: Alpha=0.05			

**Table 2 Mean Satisfaction scores of customers with services of petroleum
retail outlets**

Weighted Score	
Service	Score
Quality of Fuel supplied	3.796296
Quantity of Fuel supplied	3.680041
Price of Fuel	1.573045
Quantity of Fuel supplied	3.208848
Clean Environment	3.817901
Customer care service	4.018519
Ultra – modern electronic vending machine	4.028807
Free Air filling facility	4.406379
Free Parking facility	3.652263
Wash rooms facility	4.649177
Petro card facility	2.763374
Accepting Credit cards	3.952675
Service people	3.334362
Behaviour of Service people	3.507202
Fire protection equipment	4.864198
Generator facility	4.895062
Timely service	4.054527
Location/area of outlet	3.975309

Table 3 Opinion from Petroleum retail outlets

Statement	Yes	No
Do you have any Value added customer service policy?	190	98
Are you satisfied with the supply from company?	253	35
Will your workforce be prepared to handle the changing demands?	274	14
Do you have benefits in the price variation?	0	288
Do you hire your truck for other companies as a third party logistics provider?	20	268
Do you follow EOQ policy?	29	259
Have You Ever Noticed the Difference between Ordering Quantity and Receiving Quantity	6	282
Do You Follow The Bench Marking Standards?	86	202
Do you have any displays indicating customers to use credit/debit card?	60	228

II. CONCLUSION

The petroleum sector plays a vital role in the improvement for any economy. On India different OMC'S are refining and distribution for the petroleum products in the country. The two important parties who are involved in the petroleum products are retailer and customers. In this present study an effort is made to discover out the problems of the retailers in the distribution of petroleum products.

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