A Review of Supply Chain Management Practices in India and Ethiopia

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Abstract

The third world countries especially in India and Ethiopia are more favorite destinations for many MNCs across the world. This is because many MNCs in developed nations are finding it difficult to produce the products in their home countries as the cost of production is very high due to high labor costs and other costs. In India and in Ethiopia there is a plenty of trained manpower. But India are more advanced in many respects compared to Ethiopia and the researchers of this paper have put in efforts to indentify the differences in SCM practices in both the countries. The researchers in this study has found out that the India as well as Ethiopia are following resource saving concept with major improvements in delivery performance, responsiveness, supply chain costs, and asset management can be achieved. There are several barriers to a success in India as well as Ethiopia due to lack of managerial commitment and hierarchies as well as outsourced IT departments in many companies. We have offered some recommendations to the decision makers in mid-sized industries in India and Ethiopia to overcome these barriers by using suitable SCM techniques.

Keywords: Scheduling, Material Requirements Planning, Manufacturing Resource Planning, Enterprise Resource Planning, Supply Chain Management and Financial Costs etc.

Originality/value: The researchers of this paper has conducted a study on A Review of Supply Chain Management Practices in India and Ethiopia. This paper focuses on the various cost structures and by effective SCM practices how these countries are faring well. As the data collected from a limited number of respondents, the results may not be representative of the whole population.

1. Introduction

Today's globalized economic scenario there is an ever changing product life cycles demanded the quick adaptability to various cost cutting methods both in production and distribution (Kameswara Rao Poranki; Asif Perwej; Nikhat Akhtar 2015) and also the authors have defined the Supply Chain Management is a set of activities undertaken to promote effective and efficient management of supply chains. Out of those activities could be supplier partnership, physical movement of goods, meeting customer demands and information sharing throughout the supply chain. In order to reduce the cost the modern world has adopted supply chain management as the suitable to do so. The current competitive scenario supply chain management assumes a significant importance and calls for serious research attention, as companies are challenged with finding ways to meet ever-rising customer expectations at a manageable cost for higher profitability. According to some authors, all encompassing philosophy of SCM embraces each of these functions to produce an overall supply chain strategy that ultimately enhances firm performance (Croom et al. 2000;Wisner and Tan 2000). According to the latest authors from India, it was opined that previously manufacturers were the drivers of the supply chain - managing the pace at which products were manufactured and distributed. Today, customers are calling
the shots, and manufacturers are scrambling to meet customer demands for options/styles/features, quick order fulfillment, and fast delivery. Companies that learn how to improve management of their supply chain will become the new success stories in the global market place. Then the study on benchmarking shows significant cost differences between organizations that exhibit best-in-class performance and those with average performance. However, Supply Chain Management (SCM) has been a melting pot of various aspects, with influences from logistics and transportation, operations management and materials and distribution management and marketing are being studied by many authors (JineshJain, G.S.Dangayach, G.Aggarwal, SoumyaBanerjee, 2010).

**Review of Literature**

Coming to the latest authors like Rungtusanatham et.al. (2003) carried out a comprehensive review of 285 SCM articles published in 6 operations management journals during a period of 21 years from 1980-2000. They noticed the occurrence of major changes in the last 5 years of their sampling period, and that two topics stood out as showing fastest ascendancy to prominence operations strategy and supply chain management. They Journal of Studies on Manufacturing (Vol.1-2010/Iss.1) Jain et al. / Supply Chain Management; Literature Review and Some Issues / pp. 11-25 observed that the SCM related articles increased significantly after the first half of 1990s, thereby implying the increased interest of researchers in this field and accelerated growth of this discipline. It shows that SCM is a booming and growing field, and offers plenty opportunities in research. In the recent past many new authors on SCM and it practices have developed the mechanics of supply chains have become very complex, and Blackhurst etal. (2005) showed as to how supply chain complexity can make the modeling of the chain a multifaceted task. Also the authors have concentrated only on those articles which focus on the multi-faceted aspects of the Supply Chain and examine the inter-dependence and co-ordination of two or more facets of the Supply Chain. Some other set of modern authors have examined several aspects of the SCM and contributed to enhance overall understanding of multifaceted SCM. There are many several definitions and frameworks which were developed for multi-dimensional SCM (Sanders et.al., Jüttner and Baker 2007) examine aspect of integrating marketing and supply chain management. However, Sanders et.al. (2007) suggested a Multidimensional Framework for Understanding Outsourcing Arrangements. Yet another set of authors like Frizelle and Efstatthiou (2007) report a study the impact of operational complexity on the cost in customer–supplier systems. In the same time period the author from India along with other authors (Adhitya et.al. 2007) developed a model-based rescheduling framework for managing abnormal supply chain events.

![Figure-01](http://www.scmsol-llc.com/solutions/aps-advanced-planning-and-scheduling/)
The above Figure-01 explains about Advanced Planning and Scheduling mainly focuses on Planning, Scheduling and Execution at the center and remaining activities are interrelated in order to maximize the efficiency of the engineering or manufacturing process in order to make good profits.

**Figure-02**

![Supply Chain Management Diagram](https://www.123rf.com/stock-photo/supply_chain_concept.html)

The above Figure-02 tells us various activities of Supply Chain Management related to upstream, downstream, value, distribution, logistics, information, inventory and cash-flow. This kind of systematic arrangement of various activities related to the engineering or manufacturing process would enhance the efficiency of the supply chain and thereby reduce the cost of production. Thus, supply chain management no doubt would help to improve the profitability of the industry through cost reduction.

**Research Methodology**

We have Identified four Industrial components manufacturing companies located in Visakhapatnam, in India and Addis Ababa in Ethiopia were studied and questionnaire was circulated to top officials of all the four companies and around twenty responses were collected for the purpose of analyzing. Other outputs were gathered from the responses of the employee. This research is limited to very less number of industries and many not represent the whole universe. The data gathered from only top officials of the company and thus it many not represent other industries in this sector both in India as well as in Ethiopia. This is the earnest attempt of the authors to have quick understanding on SCM practices and its benefits related to various cost cutting situations in both the countries. In future the study could be more wider to draw suitable conclusions of in this kind of research. It is interesting to note that the Technical performance is the quality of the production time delivery, supply issues it is a very important factor as it shows the Capability of the company and Financial Performance indicates the net profit or loss gained by the company as both are dependent variables. It means without technical performance by the implementation of modern SCM practices the financial performance is not possible. Also, the researchers have conducted this study to know the impact of usage of advanced technology along with SCM on the profitability of these mid-sized industries in both the countries.

**Labor Costs**

In these Industrial Component Manufacturers, there is often a fluctuation in the demand for production of the products. Therefore, these industries either in India or in Ethiopia have only a limited number of
permanent laborers. This has forced the managements of these companies to employ some casual laborers in order to meet the increase in demands of the customers when necessary. So they have to train the casual laborers in the meantime to work, which results in wastage of time and money for these Industries. These industries are not able to meet out the demands of the laborers as they expect high salary which cannot be met out by these industries either in India as well as in Ethiopia. These industries have to give allowances like rent, food etc. which affects their profit very badly. They also need to satisfy the bonus demands made by the workers. Thus labor cost is most important and it is having a dominant impact on the profitability of these industries in both the countries.

Financial Costs
The Industrial Component Manufacturers and the suppliers are mutually independent on each other. The Industrial Component Manufacturers can also be called as OEMs (Original Equipment Manufacturers) demands for the continuous supply of materials from the suppliers so that the production is not affected. In case of any financial instability the supplier will not be able to manufacture the products in time. In case their is inventory stock or there are more than one supplier for that product manufactured the production in the next level of the supplier or the OEM will not get affected or else the production has to be stopped until the financial crisis is solved. so every supplier is regularly audited every year. The audit conducted every year focuses on the Turnover Growth, Dept Equity Ratio, Profitability, Assets, Quality Standards. In case the supplier is a large scale manufacturer he is capable to handle the problem by himself. Or if the supplier is not financially strong he has to face financial instability (Constantin Blome and Tobias Schoenherr, 2011 and Atanu Chaudhuri, Peter Koudal and Sridhar Seshadri, 2010).

Production Costs
Production costs are the most important for any manufacturer. The problems of Industrial components manufactures have problems like, repair, supplier production or raw material arrival delay, labour problems, power cuts, tools ware, excess work load due to demands, quality problems etc. Therefore, the companies in either in India are in Ethiopia has to maintain a regular production schedule for every manufacturing or engineering activities. If the production fails for a day these OEMs (Orginal Equipment Manufacturers) it will affect the supply to the manufacturing companies who are highly dependent on these OEMs. All the above are leads to the affect on the cost structue of any OEM.

Supplier Costs
The tier one companies are bigger companies get products from the tier 2 suppliers. The tier2 suppliers get raw materials or parts from the tier 3 suppliers. So there are various problems involved in the selection of suppliers. As observed in all the supplier companies in all the levels of suppliers. The OEMs have their own policy of purchasing a material from their suppliers. the purchasing policies or the SSP (Supplier Service Policy) are similar for all the levels of the suppliers

Logistics Cost
Logistics is an integral function of every MSE. It is a channel of supply chain which the value of time and place utility. In India, few raw materials are cheaper in places like Hyderabad and Bombay but it takes one month to deliver the raw materials whereas it takes only 10-12 days for delivery in local surrounding area where the costs are at a higher rate (Stephan Vachon and Robert D. Klassen, 2002). Another problem being faced by MSE is as most of the industries are outside the city it is very difficult to transport the raw materials as well as to deliver the finished products (Sezhiyan Tom Page, D.M. and Paivi Iskanius, 2011).

Results
After analyzing the facts and figures the researchers have found out the means of Technical performance(2.98) and Financial Performance(1.44) in Ethiopia as per the Table-1 in the annexure. Whereas the same variables in India the Technical Performance(4.53)and Financial
Performance (3.78). This shows that in Ethiopia as the technical performance is low the financial performance also low compared to that of India. We can say that the mid-sized industrial component industries in Ethiopia must focus on technical performance and where as India need to maintain sustainable growth both the above factors. Coming to various costs in Ethiopia according to the Table-2 in the annexure the cost of production is high compared to that of India. Finally in the Table-3 tells us the usage of advanced technology along with Supply Chain Management practices made India stand up in terms of performance as well as in profitability compared to that of Ethiopia.

Conclusion

The researchers of this paper have made a simple survey to understand quickly about the Supply Chain Management Practices in Ethiopia and India. As in the case of mid-sized industrial manufacturers in India are able to reduce their labor costs, financial costs, logistics costs, supplier costs so as to reduce their overall production costs which in turn made Indian industries made high profits compared to Ethiopia. We have conducted the survey to limited number of respondents in India as well as in Ethiopia. The respondents are top officials of various Industries in India as well as in Ethiopia. There is a need for Advanced Planning and Scheduling for the OEMs in any country to make good profits. Coming to technical performance and it impact on financial performance is better in case of India compared to that of Ethiopia. Therefore, Ethiopian industries needed to upgrade their technology to improve their financial performance as well. Finally the usage of advanced technology coupled with the best Supply Chain Management practices only would be more suitable for any mid-sized industrial component manufacturer or OEMs in any country. The researchers recommend the future researchers that the scope of the study required to be increased in order to get highly suitable results for managerial decision making.

References


ANNEXURE

Table-1: Dependent Variables (Ethiopia India)

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<tr>
<th>S.No</th>
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<th>Mean</th>
<th>Factors</th>
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<td>Technical Performance</td>
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<td>2.</td>
<td>Financial Performance</td>
<td>1.44</td>
<td>Financial Performance</td>
<td>3.78</td>
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Table-2: Independent Variables (Ethiopia & India)

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<td>Supplier Cost</td>
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<td>Labor Cost</td>
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<td>Production Cost</td>
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Table-3: Advanced Technology & SCM Applications (India Ethiopia)

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<th>Mean</th>
<th>Factors</th>
<th>Mean</th>
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</thead>
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