

# Effectiveness and implementation of ERP in Shipping company in Oman- A conceptual study

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**ABSTRACT** - This is a conceptual paper to study Effectiveness and implementation of ERP in Shipping company in Oman- A conceptual study . The purpose of this study is to give integrated details on the selected topic challenges, objectives and lists of the questions related to this study. An overall introduction to Supply Chain Management and what precisely is it. Also, it will demonstrate the sensitivity of the supply chain management briefly. Also, there will be a little a bit discussion on the research problem and what we expected from this report. the effect of the supply chain on Shipping Co, process and Procedure, ERP (Enterprise Resource Planning) and supply chain performance.

The research methodology will help to design the research and will determine which tools will be used to collect data and how will analyse this data, validity and reliability of the information provided in the report. Also, the report will present analytic tools to be used in data analysis and will address the timeline, limitation and scope of the study. The collection of primary data will be from the response to a questionnaire from the convenience sample. The study is an attempt to present the effectiveness of supply chain Management in Shipping Co. and will highlight the gaps - If any - which will help the stakeholders to improves their systems.

**Keywords:** *Supply chain Management, Performance, Effectivness, Process and Procedures, ERP System, Value for Money*

## I. INTRODUCTION

### *Problem Statement*

The first problem to be addressed in this research is that Supply Chain Management becomes an essential role in reducing company spend; it can participate heavily in reducing the cost of materials and services bought for the company which indirectly reflect into company profit. Thus companies tend to measure supply chain performance and effectiveness. There are many definitions of word performance; the concept divided into two terms which are efficiency and effectiveness. Effectiveness shows performance related to the level of achieved planned outcomes. Colloquially 'effectiveness is doing the right things'. (Teresa Wu, 2009) . Supply chain practices in the ideal situation are linked together and support each other to reach to the ultimate goal.

The structure of the supply chain is essential and helps in increasing the level of efficiency in any department. Also, it gives more understanding of the way the supply chain perform. It is vital to look closely to the structure of the supply chain to provide excellent communication between the end users and the supply chain section. It also gives clarity to employees about the roles and responsibilities in achieving supply chain targets.

Richard J. Schonberger stated that communication in the supply chain has a significant role to execute the work and make sure that services and goods delivered to the end users. (Schonberger, 2010). ERP system in particular supply application has to play a significant role in reducing paperwork and helps the buyers to execute the day to day requirements in a reasonable timing without delay. Deficiency of the system will hamper the supply of the goods and services to the ship. Costs are too high to manage these operations, and eventually, it will impact the company performance and its reputation.

In the typical situation and for the expected benefit from the supply chain, the entire process must be designed, coordinated and managed as a single unit. It is vital to study this aspect as Shipping company is facing problems in receiving requisitions through the ERP system, as requisition received from the ships through the system, the requisition takes time until reflecting in the office. The time difference is another problem as the ship is trading globally hence the communication between the ship and the head office take time. Also, Shipping Co. is indirectly owned by the government which made them follow the tender board law which somehow delays the process in the company. As a Shipping Company, usually taking decision needs to on the spot.

This study considered as one of the earliest - if not the only - studies that focused on Shipping Company in Oman

and studied its Supply Chain process. The ERP system, process and procedure, supplier's relationship, Structure of Supply chain employee elements are essential to study and analyse. As ERP systems performance influences the efficiency and performance of the work, hence it is essential to study this aspect from Oman's perspective.

### ***Purpose of Inquiry and Inquiry Questions***

This conceptual paper is intended to identify and understand the factors that affect the Supply Chain Management practices through an analysis of a Shipping Co. Practices and how that effect on the performance of OSC Therefore, the inquiry questions for this paper are:

1. How supply chain management contributes to the Shipping Company performance?
2. What is required to improve the supply chain in Shipping Co.?
3. Up to what extent the employees in the Shipping co are efficient concerning ERP systems?
4. What is the effectiveness of the supply chain?
5. What role plays by the suppliers in the performance of Shipping Co.?
6. What is the overall effectiveness and performance of Supply Chain practices through ERP systems in Shipping Company?
7. What are the Managers' Perspectives in this regard?

### ***Significance of the Inquiry***

This conceptual paper is significant because it will explore several factors that affect the practices of supply chain Management of Shipping Co which effect the performance of the company. This paper will examine those factors and make recommendations for future research.

### ***Summary of Theoretical Framework***

This conceptual paper integrates Supply chain Practices and performance which make it necessary to give a theoretical framework on Supply chain Management. The theoretical model that best explains Supply chain Management practices is how the transfer of goods through over the supply chain and how the performance is measures, the performance in supply chain is changed from managing individuals to integrate the activities within the supply chain function. At present there is no industrial standard for processed of the supply chain and each process of supply chain has strategic and operational and both provide the way of implementing the process and the implementations steps in details (Lambert, 2008).

### ***Delimitations and Limitations***

This conceptual paper is delimitaed to the parctecess carried out in Shipping Co, and the effectiveness of their supply chain practessed and as it may be aware that in every study, there is a limitation as this research as it is the only shipping Co in Oman. The below are some limitation might be appearing during the research.

- Self-reported date as it is not possible to collect the data directly from the employees, therefore some employees will use email to send their response.
- Resistance to participate to the questioner from the offshore employee as they might be involved in cargo operation or might has fear from the head office management which takes time. However, The researcher will make it clear to the employee that their response will be confidential and will not share with the company management. Also, they do not have to show anything indicts their personal.
- The Validity of the data might be affected as a response to questioner might not take it seriously the researcher will filter the response and take out the one that not take it seriously.

## **II. LITERATURE REVIEW**

Supply chain Management has many definitions, The most relevant to this research. As per "Cooper & Ellram, 1993; La Londe & Masters, 1994; Lambert, Stock, & Ellram; 1998. La Londe and Master (1994) defined that a Supply chain is a set of firms pass martial forward" (Mentzer, 2001). There are many firms involved in product manufacturing and delivering it to the end users through the supply chain process.

The effectiveness and Performance of Supply Chain have become an essential aspect of supply chain Functions. The organisations tend to measure the supply chain activity to know where they stand and to get the maximin outcome from the supply chain. Companies evaluate supply chain activity in a continuance basis which gives a competitive advantage to the company and helps to increase the performance and develop the outcome of the supply chain; Supply chain evaluation is defined as qualitative and quantitative assessment over a specified period to achieve corporate or operational goals and objectives. (Kenneth Lysons, Brian Farrington, 2012)

This research will present the importance of supply chain practices that help to increase the level of efficiency and performance of the supply chain management. it will present the relationship between supply chain practices and how it linked to each other also the importance of planning and how to help in success of supply chain also the research will present the challenges and recommendations to improve the supply chain practices in Shipping Co. (Asghar Sabbaghi, Ganesh Vaidyanathan2, 2008)

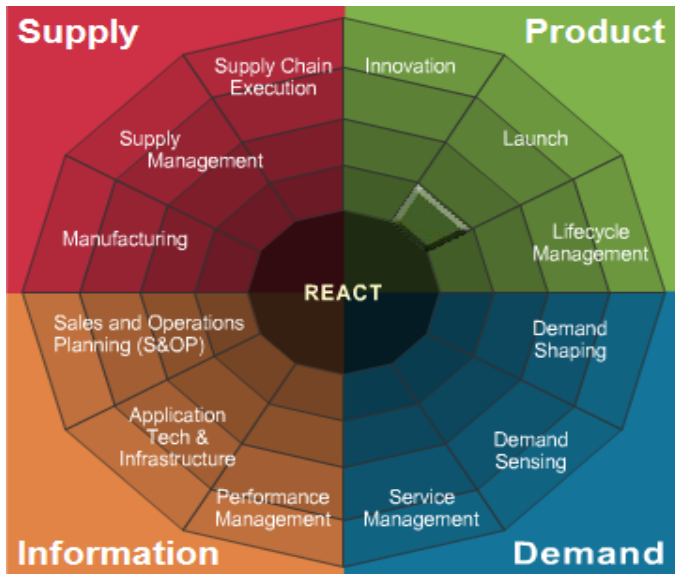


Figure 2.1 Supply Chain Effectiveness  
Source: (Miles, 2012)

## 1.1 Supply Chain Management Definition and importance

### 1.1.1 Supply chain definition

Supply Chain Management can be defined as the collaboration between all supply chain functions to achieve specific goals set by the organisation such as achieve value for money and raise the level of services provided by the company and suppliers. Cost reduction is one of the key objectives of supply chain management, including reducing the internal cost that affects the organization and the external cost to customers and suppliers, and in order to achieve this, we must consider how to develop the relationship between the departments in the company. Therefore, the company needs to continuously evaluate the supply chain practices, measure its performance and ensure that the result is practical and effective. (Schoenherr & Tummala, 2008)

Every organisation has a supply chain department, and it is work toward the same objective which is to contribute dramatically to the organisation to generating profit for the company. Every company has its process and procedure with regards to the supply chain. (Blanchard, 2010)

Moreover, each company has its model in executing supply chain, but the main concepts and principles will always remain the same across all companies, and it will be almost similar in all type of business hence the concept of the supply chain is the plan, Source, Make, delivery and return. (Blanchard, 2010)

The partnership with the supplier is the new approach of the supply chain function using of technology, reduction of cycle time and outsourcing considered as a new way of evaluating the supply chain.

Another definition of the supply chain is some activities taken by the organisation to support effective supply chain

management. The organisations can utilise suppliers process capabilities to improve the supply chain competitive advantages and performance and how it functioned within the organisation. There are other supply chain practices which are required and very important such as planning and strategy; they need to involve their stakeholder in this activities to get an ultimate result and get the collaboration within the supply chain and between function in the organisation. (Dr. Siddig Balal Ibrahim; Abdelsalam Adam Hamid, 2012)

### 1.1.2 Supply chain Process flow

The process of the supply chain should be helpful and not complicated to a limit where it becomes the reason for delay the work, at the same time it should not be very loose hence the management needs to approve the appropriate process for their organisation. Some of the processed can be costly for the organisation and slow at the same time however they are other processed which can be faced and has a low-cost impact on the organisation. (Wisner, 2016)

### 1.1.3 Enterprises Resources Planning

As Supply chain activities are driven by competitiveness which required the business to be face in terms of getting the required information hence the organization needs to be keen in selecting the right ERP system to ensure smooth transfer of information between company departments, without an efficient system it would be difficult to process a small task.

Supply chain flow of information needs flows in tow direction, access to the information needs to be done in timely manner. Having the right ERP is key success factor of supply chain. (Christian Ndubisi Madu, Chu-hua Kuei, 2005)

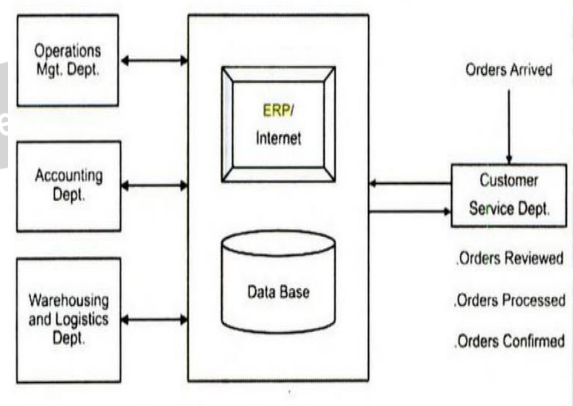


Figure 2.2 ERP Customer order Process

Source: (Christian Ndubisi Madu, Chu-hua Kuei, 2005)

### 1.1.4 Supply Chain Performance

Supply chain Effectiveness and performance has increasingly recognised as important element for the company which helps to gain competitive advantage.



Some scientists and practitioners in the supply chain have discussed various aspects of supply chain performance in previous period, although most of these researches have looked in to two essential areas. First defining factors that clarify why some supply chain performance is well, second, the motion of measurement systems for supply chain performance. In the next section, we review these two categories. (Lambert, Douglas M.; Cooper, Martha C., 2000)

### SUMMARY OF HYPOTHESES

- H1 Measuring supply chain practices and performance has Impact of the performance of the supply chain.  
 H2 The proper process of supply chain is directly influencing of the cost saving of the supply chain.

### III. CONCLUSION

Supply chain management is a vital practice which in best case scenario impact in the spend of the company it can dramatically reduce the cost of the company if it done in a proper way, this study will give a recommendation to shipping co. for implementation such as improvement in ERP system and review supply chain process and procedure witch defiantly with impact on the practices of the supply chain and helps to reduce cost and time.

### IV. REFERENCES

- [1] Asghar Sabbaghi, Ganesh Vaidyanathan, 2008. Effectiveness and Efficiency of RFID technology in Supply Chain Management: Strategic values and Challenges. *Journal of Theoretical and Applied Electronic Commerce Research*, 3(2), pp. 71-78.
- [2] Blanchard, D., 2010. *Supply Chain Management Best Practices*. Second Edition ed. USA: John Wiley & Sons Inc.
- [3] Christian Ndubisi Madu, Chu-hua Kuei, 2005. *ERP and Supply Chain Management*, USA: Chi Publishers Inc.
- [4] Kenneth Lyons, Brian Farrington, 2012. *Purchasing and Supply chain Managment*. Eighth Edition ed. Harlow, UK: Pearson Education Limited .
- [5] Lambert, Douglas M.; Cooper, Martha C., 2000. Issues in Supply Chain Management. *Industrial Marketing Management*, 29(1), pp. 65-83.
- [6] Lambert, D. M., 2008. *Supply Chain Management: Processes, Partnerships, Performance*. Third Edition ed. Ohio, USA: Supply Chain Management Institute,.
- [7] Mentzer, J. T., 2001. *Supply Chian Managment*. First Edition ed. United Kindem: SAGE Publication, Inc.
- [8] Miles, T., 2012. *Kinaxis Blog*. [Online] Available at: <https://blog.kinaxis.com/2012/08/measuring-supply-chain-effectiveness/> [Accessed 31 10 2018].
- [9] Schoenherr, T. & Tummala, V., 2008. Best Practices for the Implementation of Supply Chain Management Initiatives. *International Journal of Logistics Systems and Management*, 4(4), pp. 391-410.
- [10] Schonberger, R. J., 2010. *World Class Manufacturing: The Next Decade: Building Power, Strength, and Value*. First ed. Washington, USA: Simon and Schuster.
- [11] Teresa Wu, J. V. B., 2009. *Managing Supply Chain Risk and Vulnerability: Tools and Methods for Supply Chain Decision Makers*. first Edition ed. Arizona, USA: Springer Science & Business Media.
- [12] Wisner, J. D., 2016. *Operations Management: A Supply Chain Process Approach*. First Edition ed. Nevada, USA: SAGE Publications.