

APPLICATION OF INFORMATION TECHNOLOGY AND SUPPLY CHAIN PERFORMANCE IN BANKING SYSTEM

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Abstract

The role and importance of information is obvious for everyone. Right flow and correct transfer of information make effective process and easier management of them. The use of IT¹ systems to get and analyzing information could have been a clear impact on firm performance. A manager can determine their strategy by helping IT based on all the factors affecting supply chain, rather than only considering factors related to a particular stage of the supply chain.

Keywords: Supply Chain Performance, IT, Banking System

1. Introduction

In the 90s for the first time, cash payment has been made possible through the internet. By development of internet and its influence in homes and organizations, using this tool was significant growth and in 1999 established the first virtual bank in Canada. The system of its work was in such a way that customers without having to visit the bank physically, did virtually all of their banking through computers and internet network. The main objectives of electronic payment system include increasing efficiency, improve security, and enhance customer comfort and the ease of use of the payment system. Payment via the internet has advantages such as speed, convenience and flexibility to perform banking transactions (Mohammadloo & et al, 2011).

Information plays a key role in the success of supply chain structures because it enables management to make decisions on a wide variety of tasks and functions. Information has a great effect on supply chain performance. Because it provides a foundation that be implemented its supply chain processes and managers make decisions based on it. Therefore, the arrival of large banks in the field of information technology makes it possible for of them to provide a significant leap to offer and expand their electronic services. They introduce new practices to their customers using information and communication tools every day because customer gets services needed to better every day. Accordingly, Iranian banks must adapt to new technology and international banking industry (Hassani & Soltani, 2008).

2. Importance and Necessity of Research

Nowadays information in a supply chain is an important factor to decide the optimum for the development and survival and so encompasses two purposes of coordination and forecasting and planning (Gilaninia & et al, 2011). It can be said given the importance of information flow and its role in the supply chain that supply chain compared with the individual firm has

¹ Information Technology

three specific features that include more coverage, more access channels and high quality information. IT improves distribution and data transfer and improve supply chain efficiency. IT promotes both internal and external cooperative relationships and prevents the emergence of the bullwhip effect. Other effects of information technology in supply chain management include increasing accountability, make new connections with customers to identify their needs, develop sales channels, improve the performance of supply chain and improve the competitive position (Doroodchi & Nikmehr, 2014).

Continuous progress in the field of information and communications technology has created evolutionary series in the supply chain and effective techniques to manage it (Gilaninia & et al, 2013b). The emergence and application of information technology has improved many component of supply chain and help to achieve competitive advantage compared to competitors and will enable a supply chain in a way favorable decisions to encourage the development and overall to maximize profitability of the supply chain (Pourrasouli Tabalvandani & Zanjani, 2013).

3. IT and Supply Chain

At the same time, supply chain management with the chain material circulation, also encompasses circulation of information. Communication between components in terms of flow of information is two-way. By early 1980, the information between organizational units was paper documents and this information was often inaccurate and accompanied by errors (Mortezapour, 2001). Introducing the concept of supply chain, supply chain members realize essential importance of information and information technology.

Now information in supply chain is a key tool in making decisions for the firm's survival and development. Communication between all operations and processes in the supply chain is made through information that the expansion of this communication will enable firms to make correct and appropriate decisions in the supply chain (Samiezhadeh & Hosseini, 2005). In a supply chain, information with two purposes is used:

- 1) coordination of activities related to manufacturing, warehousing, localization and transportation
- 2) Forecasting and planning in order to estimate future demand and response.

Accurate and timely information available leads to coordinating various activities of supply chain as well as careful planning and efficient in various fields including demand planning, production, purchasing and material requirements planning and transport. Also information in strategic planning that its ideals in a supply chain involves developing regions and new markets, create new facilities, good success in the market, have many applications. Detailed information can lead to the high efficient operational decisions and planning but on the contrary cost of get information and installing information system to provide this information may be very heavy (Gilaninia & et al, 2012). In a supply chain, the efficiency and responsiveness of firm depend on the accuracy and amount of information to share with each other. In fact, sharing and distribution of information should be balanced and measured that competitors cannot use this information to their advantage and to the detriment of firms and this is a business concern (Doroodchi & Nikmehr, 2014).

4. Background of Research

The concept of supply chain based on the formulation of a network of value - chain includes fundamental nature that required providing resources and information in order to achieve the goals of efficient management of providers. The industry market (B2B) many providers should be has the ability to provide the level of delivery capability that be compatible with their corporate customers. Suppliers can obtain deliver practical capacity and efficient of

enterprise resource planning system that can provide better process information in a supply chain under the terms of a skilled workforce and completed with supply chain management (Gilaninia & et al.2013a). This advantage can be published also to demand chain to respond to customer delivery operations in the markets of business-to-consumer (B2C). Under pressure from source, such services could be responsible for supporter server outside the company.

Delon & McLean said that Use the system as a measure of success has been suggested in many conceptual models of information systems and empirical studies. This structure has examined as real application and the application reported (Fuerst&Cheney,1979; Raymond,1985). Another measure aspect of application is that, in fact, who uses from system? Executive directors (Delone, 1988) or monitors of companies (Raymond, 1985). Delon & McLean report that application has studied at different levels. For example, Van Lommel and Debrabander (1975) discuss the four levels of application: Receive instructions, data record, control and planning. According to studies of delon & McLean, organizational effectiveness has not defined a clear and measured variable. Related criteria can be categorized into three different topics: studies that take advantage from benefit, from productivity, from cost / benefit analysis. Among these three studies, one or more criteria are selected for the operation of organizational effectiveness. For example, Benbasat & Dexter (1985: 1986) from profit and profit performance are used to measure organizational effectiveness. Miller (1987) Rivard (1984) from cost / benefit analysis have used for the study of information systems success. Edelman (1981) productivity takes advantage as a result it and overall organizational effectiveness is considered as a result of Millman (Millman&Hartwick, 1987). Basically, the task of organizational impact variables is measuring how impact of the information on the overall performance, reduce or eliminate costs, gain productivity, problem solving, business income, sales, return on investment and cost / benefit analysis.

According to studies conducted, research proposed model for the application of information technology on supply chain performance will be provided as follows:

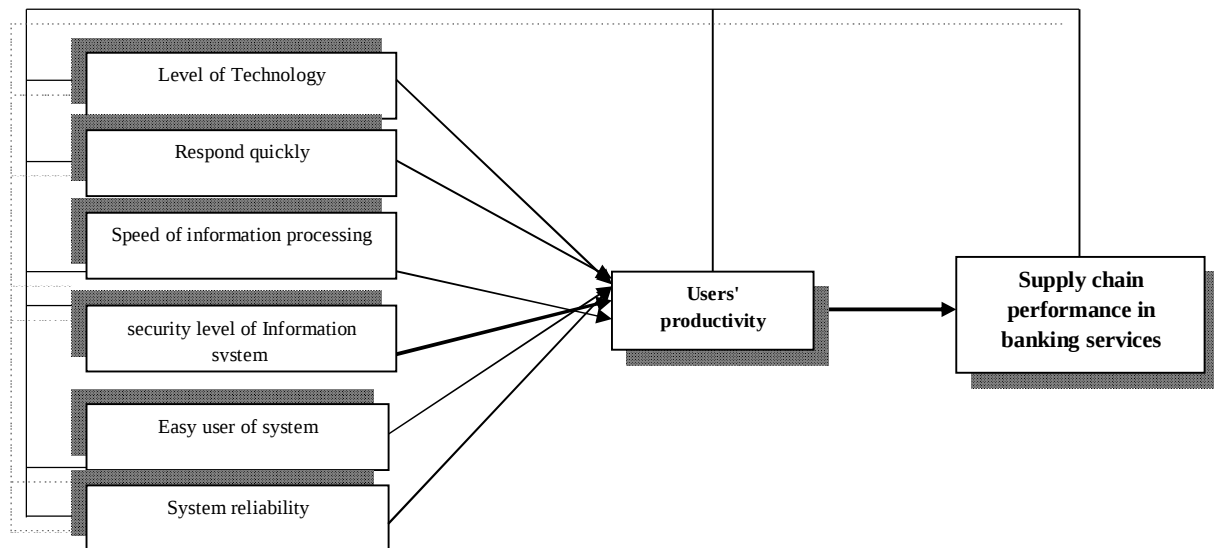


Figure (1) conceptual model derived from Beiglo, Gilaninin.(2015)

5. Discussion and Conclusion

Now information in supply chain is a key tool in making decisions for the firm's survival and development. Communication between all operations and processes in the supply chain is made through information that the expansion of this communication will enable firms to make correct and appropriate decisions in the supply chain to encourage the development and generally to maximize the profitability of their supply chain. It can be said given the importance of information flow and its role in the supply chain that supply chain compared with the individual firm has three specific features that include more coverage, more access channels and high quality information. IT improves distribution and data transfer and improve supply chain efficiency. Also Other effects of IT in supply chain management include increasing accountability, make new connections with customers to identify their needs, develop sales channels, improve the performance of supply chain and improve the competitive position.

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