



8th International Strategic Management Conference

The Impacts of E-SCM on the E-Tailing Industry: An Analysis from Porter's Five Force Perspectives

Süleyman BARUTÇU^{a*}, Mustafa Zihni TUNCA^{b*}

^a*Pamukkale University, Denizli, 20040, Turkey*

^b*Süleyman Demirel University, Isparta, 32100, Turkey*

Abstract

The growing of e-tailing industry drives e-tailers and e-suppliers to search for radically new ways of doing business because they have to manage all activities from procurement to delivery in their e-tailing supply chain efficiently. Nowadays, E-SCM (Electronic Supply Chain Management, also can be called as the Internet-Based Supply Chain Management) is an important tool in which customer needs are simultaneously connected to the procurement of raw materials or components, product manufacture or assembly, logistics, product delivery and support services to achieve higher market share and profit. This paper analyzes the roles of E-SCM and the effects of E-SCM on e-tailing industry in terms of e-suppliers' and e-tailers' perspectives. The impacts of E-SCM on e-tailing industry structure are analyzed with five forces (competitive rivalry, supplier power, buyer power, the threat of substitution and the threat of potential new entry) called as Porter's Five Force Analysis. In conclusion, the positive and negative impacts of E-SCM on e-tailing industry are presented, and some recommendations to e-tailing supply chain partners are given.

© 2012 Published by Elsevier Ltd. Selection and/or peer-review under responsibility of the 8th International Strategic Management Conference

Keywords: E-Supply Chain Management, E-Tailing Industry, Porter Five Force Analysis

1. Introduction

The Internet, Information Technologies (IT) and Electronic Communication have not only generated broad opportunities in the competitive business environments but also created significant changes in business activities. Thus, in the literature, an "e" in front of concepts can be used if it requires the use of the Internet or Electronic. In this study, "e" is the abbreviation of concepts related to the Internet in order to point electronic commerce, electronic retailers and electronic customers etc. Instead of them, e-commerce, e-retailers or e-tailers and e-customers are used.

Currently, Business to Business (B2B), Business to Consumer (B2C) and Consumer to Consumer (C2C) e-commerce and e-marketing have created entirely new direct channel and selling opportunities for not only retailers but also customers. Electronic Retailers (e-tailers) such as ciceksepeti.com, hepsiburada.com, bimeks.com, teknosa.com, gittigidiyor.com, dell.com, ebay.com, amazon.com and etc. have generated huge markets for selling their products

* Corresponding author. Tel.: +90-0258296 2702; fax: +90-0258296 2626
E-mail address: sbarutcu@pau.edu.tr

directly to the customers by bypassing the traditional intermediaries not only in Turkey but also in the world. However, one of the most important challenges for e-tailers is to integrate supply chains and logistics technologies into their businesses. As a growing number of e-tailers enter the B2C or C2C e-commerce, the importance of supply chain activities are also increased.

The Internet and IT also shape many business activities from suppliers to customers, and let suppliers, manufacturers, logistics service providers and customers to meet at electronic marketplaces in order to search, order, sell products and services or communicate among the supply chain members efficiently. For the reason that the presentation of each member (suppliers, manufacturers, warehouses, retailers and customers, etc.) affects the overall performance of the supply chain, one of the key points is that the entire process and supply chain must be viewed as one system. Thus, companies in the supply chain entail a system to control the entire supply chain. The Internet is one of the most effective tools to provide communication among people, and E-SCM is one of the systems to follow, monitor and control the all supply chain activities. Therefore, the Internet has changed all business activities.

The aim of this study is to examine how the Internet affects e-tailing supply chain from Porter's Five Force perspectives. Accordingly, (1) the impacts of the Internet on business activities, E-SCM, e-tailing industry and Porter's Five Forces Analysis are explained comprehensively, and (2) the effects of E-SCM on e-tailing industry are analyzed and discussed.

2. Literature Review

2.1. *The impacts of the internet on business activities*

The Internet is bringing fundamental changes in the many business activities. On the one hand, the Internet has facilitated communication among supply chain members and provided a pervasive communication infrastructure as well as enormous business opportunities. On the other hand, the Internet has affected companies' power and their competitive advantage. There are very important impacts of the Internet on business activities from communication to service after sale. Particularly, the Internet is revolutionizing marketing, retailing, shopping and advertising activities of products and services. Companies are using the Internet technologies to reach out to their suppliers, manufacturers, logistics providers or customers and provide a point of contact 24 hours a day, 7 days a week. Examples of recent benefits reached by companies from the use of the Internet and IT include: (1) quick response and access to information; (2) better customer service; (3) increased competitiveness; (4) reduction on data and data re-entry (Lai et al., 2005). Thus, the Internet has become a convenient and effective tool to communicate in real time with all sides of supply chain members (Lancaster et al., 2006). Moreover, using the Internet enables e-customers to fairly easily, access information about product and service, vertical information (i.e., comparing a product across suppliers) at a low cost, to efficiently screen the offerings, and easily locate a low price for a specific item (Kolesar and Galbraith, 2000). In other words, there are also several attractive attributes of the Internet on shopping including time- and money-saving, convenience or easy accessibility, the e-customer's ability to screen and select a wide range of alternatives, and the availability of information for making purchasing or ordering decisions etc. The impacts of the Internet on business activities can be also analyzed in commerce, marketing, retailing industry and SCM activities separately.

One of the major impacts of the Internet and IT on business activities is commerce and marketing areas. The emergence of the Internet and its applications in commerce and marketing generated a huge amount of interest among entrepreneurs, managers and academics. Therefore, the Internet comes up the concepts of e-commerce and e-marketing. These new concepts have attracted special attention by current retailers or new entrepreneurs because of their market growth potential and impact on business activities from advertising, direct marketing, selling, shopping to logistics services not only in B2B and B2C markets but also C2C markets.

The rapid development of e-commerce has seen emerging in the e-tailing industry as well. E-tailing can be defined as selling products and service using the Internet. Recent trends in e-tailing industry have created pressure on traditional retailers, because e-tailing is a low cost marketing opportunity. Therefore, the retail industry is undergoing major changes in the 2000s. As competition between retailers and e-tailers are expected to intensify more and more, profit margins will become more rigid. E-tailers encompass three main facilities of consumption activities. Specifically, a product search facility (often referred as a product evaluation or information gathering facility), an on-line purchase function and a product delivery capability (Kolesar and Galbraith, 2000). The e-store can be defined as a commercial web site on which consumers can shop and make a purchase (Lim and Dubinsky, 2004). The e-stores have been able to bypass other traditional middlemen, intermediaries or retailers and shorten the length of distribution channel. Moreover, the producers of products and services would use e-stores to connect directly with e-customers, bypassing their wholesalers and retailers. Thus, the e-store is the Internet version of store that set up electronic

storefronts on the Internet and makes money by selling products directly to e-customers. In order to operate e-stores in the e-tailing industry efficiently, they need to use information technology and E-SCM.

2.2. Information technology and supply chain management

The abilities to anticipate, quickly meet customer wants and increase customer satisfaction are essential to maintain a competitive advantage and a company's survival. One of the ways to get the competitive advantage is effective SCM that provides a major source of competitive advantage (Hammant, 1995). The Global Supply Chain Forum defines SCM as the integration of key business processes from end-customer through original supplier that provides materials, products, services, and information that add value for customers and other stakeholders. Shortly, the objective of the SCM is to create value for all supply chain members (Lambert et al., 1998).

Managing a supply chain includes activities such as material sourcing, production scheduling, and the physical distribution systems (Koh et al., 2006). The goal of a supply chain manager must therefore be to link the end customers, the channels of distribution, the production processes and the procurement activities. However, companies should develop new ways of doing business in order to achieve competitive advantage, and invest in technology to improve the effectiveness of their supply chain effectiveness (Hammant, 1995). Moreover, the complexity of SCM has also forced companies to go for IT systems, because only SCM system is not sufficient in the information age. Accordingly, IT is recognized as a critical tool to increase logistics competence and competitiveness (Closs et al., 1997) because it has a tremendous influence on achieving an effective SCM (Gunasekaran and Ngai, 2004). The necessary information flow within and between companies and departments to enable such an operation cannot be possible without a support of relevant information systems (Lin and Tseng, 2006). One of the enabling factors for the achievement of this goal is the effective use of IT to enhance SCM and logistics competitiveness (Hammant, 1995; Closs et al., 1997). Hence, managers of companies should realize that without support of IT systems, it is difficult to provide information for making the best supply chain decisions (Gunasekaran and Ngai, 2004) and supply chain partners should benefit from IT in their SCM activities. Consequently, the Internet and IT were assessed not only as a competitive weapon in supply chain and logistics management (Closs et al., 1997) but also the major driving factor influencing the performance of the supply chain (Lin and Tseng, 2006).

IT systems such as Material Requirements Planning (MRP) Manufacturing Resource Planning (MRPII), Enterprise Resource Planning (ERP), Supplier Relationships Management (SRM), Bar Coding, Radio Frequency Identification (RFID), Electronic Data Interchange (EDI), the Internet, E-commerce, e-supply chain software, and etc. (Gunasekaran and Ngai, 2004; Koh et al., 2006; Barutçu, 2007; Ketikidis et al., 2008) play an important role in SCM and logistics. Thus, even though each system has its own specific purposes and benefits, these applications provide the communications links and information flow to maintain coordination of supply chain activities and help in the integration of supply chain functions by giving supply chain members' access to databases and other information resources.

There are many research articles on IT in SCM. For example, Gunasekaran and Ngai (2004) made to review the literature and presented a framework for identifying the implications and applications of IT in SCM. Critically reviewing the literature helped to identify the major strategies, enabling technologies and critical success factors for the application of IT in SCM. According to their literature researches, the major issues that need to be addressed when attempting to enhance the role of IT in supply chain integration and review that include: (1) strategic planning for IT in SCM, (2) virtual enterprise and SCM, (3) e-commerce and SCM, (4) infrastructure for IT in SCM, (5) knowledge and IT management in SCM, and (6) implementation of IT in SCM. In order to increase IT in SCM, all companies should consider all issues that they explained. To sum up, IT is one of the most powerful tools in the 21st century. Besides MRP I-II, IDE, ERP and some special software and systems, IT continues to present new tools for companies to apply in supply chain activities like E-SCM that manage and share information flow across the supply chain partners.

2.3. The e-supply chain and logistics management

As explained above, SCM is one of the most important concepts in the highly competitive business environment since it encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers (3PL), and customers. In essence, SCM integrates supply and demand management within and across companies (Council of Supply Chain Management Professionals, 2012).

Many companies are struggling with the question of how the Internet and e-business impact their supply chain activities. It could have the effect of eliminating some intermediaries (such as the wholesaler or retailers), but it also fosters the emergence of new players like logisticians, whose role is to adapt traditional logistics chains to take into account the requirements of e-business (Auramo et al., 2001). The Internet has provided managers in the supply chain with the ability to be agile in managing their supply network. This includes the ability to: (1) quickly adjust inventory levels, (2) add or reduce carriers when needed, (3) increase the speed in reacting to customer service problems, (4) more effectively manage distant facilities, (5) reduce the level of paperwork, (6) adjust material throughput when necessary, (7) track shipments more accurately, (8) develop cost effective purchasing strategies, (9) improve production scheduling and (10) reduce operational redundancy in systems (Lancioni et al., 2003). In summary, E-SCM systems makes possible that companies in supply chain monitor the inventories, improve the utilization of their transportation and warehouse assets, and eliminate duplication of effort in performing different logistics activities for their user companies (Lai et al., 2005).

E-SCM is defined as the control of material and information flow, the structural and infrastructural processes relating to the transformation of the materials into value added products, and the delivery of the finished products through appropriate channels to customers and markets in order to maximize customer value and satisfaction (Narasimhan, 2001). E-SCM has allowed for a greater exchange of information throughout the supply chain, and companies can get benefits from lower inventory levels, quicker response to problems, higher quality levels, higher customer satisfaction, and more diverse product offerings. However, all these benefits remains to be seen if all companies in supply chain are willing to exchange that information and use e-supply chain software (Lancaster et al., 2006). In other word, E-SCM employs data sharing infrastructure that combines the Internet and supply chain activities, enables to manage all supply chain activities from procurement to logistics, and provides the software-platform infrastructure for managing all supply chain activities.

2.4. The role of e-supply chain and logistics management in the e-tailing industry

By the 1990s, companies recognized the necessity of looking beyond the borders of their own companies to their suppliers, suppliers' suppliers, and customers to improve overall customer value (Duclos et al., 2003). Suppliers, manufactures, wholesalers, distributors, customers and logistics service providers are part of the supply chain. E-SCM looks at the relationship among them in the context of value added procedures or services via the Internet. Therefore, the Internet and E-SCM enabled to manage all supply chain activities have significantly changed the conditions of competition in many industries as well as e-tailing industry.

E-tailers should manage hundreds of distributors, wholesalers and e-customers relationships. The crucial elements of implementing a successful e-tailing strategy seem to lie on the customer and on the logistics. Moreover, logistics is a driving force for profitable e-tailing. For many e-tailers delivery of ordered products causes two major problems. On the one hand retailers have to fulfill logistic functions like picking, packing and transportation that are fulfilled free of charge by customers of physical stores. On the other hand, the customers may not accept delivery fees (Kotzab and Madlberger, 2001).

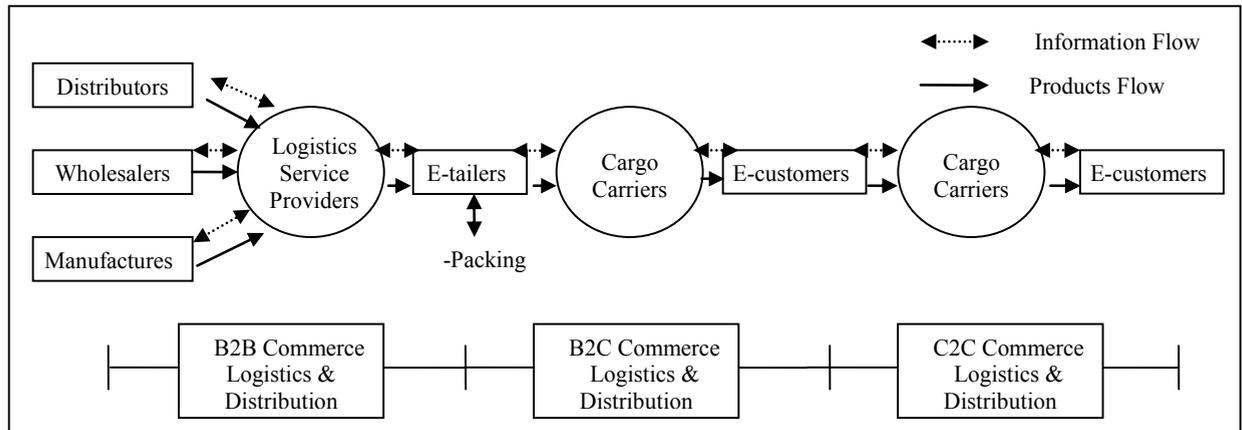
Logistics is concerned with satisfying the supply of the customers' needs and wants in a marketing channel. For example, a couple of the essential inbound and outbound contributions of the logistics activities in a marketing channel are the procurement of materials and components from the suppliers, and the physical distribution of finished products to the customers (Svensson, 2002). Logistics management is that part of SCM that plans, implements, and controls the efficient, effective forward and reverse flow and storage of products, services and related information between the point of origin and the point of consumption in order to meet customers' requirements (Council of Supply Chain Management Professionals, 2012).

E-SCM and logistics systems are very important in e-tailing industry. E-stores utilize many information systems from web design to information flow. E-stores information systems allow customers to send orders and suppliers to receive orders from the website. For example, when the e-customer makes a purchase from e-stores such as Hepsiburada.com, the supply chain includes the e-stores, their suppliers and logistics service providers. Having made a product choice, the e-customers order and pay for the product. The e-stores order the product to their suppliers and logistics service providers. The e-customers may return to the e-stores web site to check the status their orders. That processes involves information, products and fund flows among various stages of the e-tailing supply chain.

As seen in Figure 1, the importance of the e-logistics management in e-commerce models divided into B2B, B2C and C2C perspectives. E-tailing industry is characterized by a complex structure with not only many relationships among suppliers, distributors, wholesalers, manufactures offering hundreds of products in B2B e-commerce but also many relationships between e-tailers and e-customers in B2C commerce and finally many relationships among e-

customers in C2C commerce. In all side, logistics service providers and cargo carriers have important role among their transactions. E-tailers of such products which cannot be transferred in a digital mode (e.g. software, music, etc.), have to procure and deliver ordered products to the homes of their final e-consumers. This rather complicated and expensive service is likely to be a great obstacle for e-tailing.

Figure 1. The relationships among partners in the e-tailing supply chain



Source: Barutçu, S. (2007) The Role of Internet-Based Supply Chain Management on E-Tailing Industry and E-Customer Satisfaction Level From Cargo Carriers, 5th International Logistics and Supply Chain Congress, p. 235

Moreover, Figure 1 shows the importance of the appropriate information flow. To run appropriate information flow from customers to suppliers, among suppliers and among customers, The Internet needed all data online. Success for e-tailers will depend on suppliers and logistics service provider relationship. E-SCM system has the potential to make a better supply chain information flow. For example, within e-store logistics operations, a large amount of information flow is generated due to the extensive product range, the broad supply base and the need to monitor product stock at different suppliers. Therefore, the integration of the e-information systems in e-tailing industry is a critical issue because it incorporates e-tailing supply chain applications. Moreover, this Figure 1 also illustrates that logistics service providers, especially cargo carriers, are an integral part of the e-tailing supply chain. In other word, the logistics service providers and cargo carriers become the bridges among manufacturers, distributors, wholesalers, e-tailers and e-customers.

3. Porter's Five Forces Analysis for the Effects of the Internet on E-Tailing Supply Chain

Porter (2001) examined "How the Internet Influences Industry Structure". According to his analysis, the Internet has some positive and negative impacts to many industries. For example, on the one hand, the Internet can increase an industry's efficiency and profitability in various ways, expanding the overall size of the market by improving its position relative to traditional substitutes; on the other hand, the Internet technology offers buyers with easier access to information about products and suppliers, thus strengthening buyer bargaining power and getting less profit. In this stage, the articles related to the analyzing of "how E-SCM influences e-tailing industry structure" with Porter's Five Force Analysis do not come upon in the literature. Thus, the impacts of E-SCM on e-tailing industry are examined with Porter's Five Force Analysis.

3.1. Porter's five forces analysis

Porter (1980) provided a dynamic and focused structural analysis of an industry called Porter's Five Forces analysis in the literature. This analysis is a simple but powerful model to determine competition level in an industry. In terms of Porter's Five Forces framework, the strengths of the company are determined by its competitive position under five forces. Managers and academicians can use Porter's Five Forces analysis to determine the competition level and attractiveness of the analyzed industry, evaluate its position, and construct strategies to gain a competitive advantage.

The competitiveness of an industry is influenced by five forces and the collective strength of these forces determines the ultimate profit potential of an industry. If the each force has high power, companies do not determine the prices of products easily and get high profits. In contrast, if the each force has low power, companies can

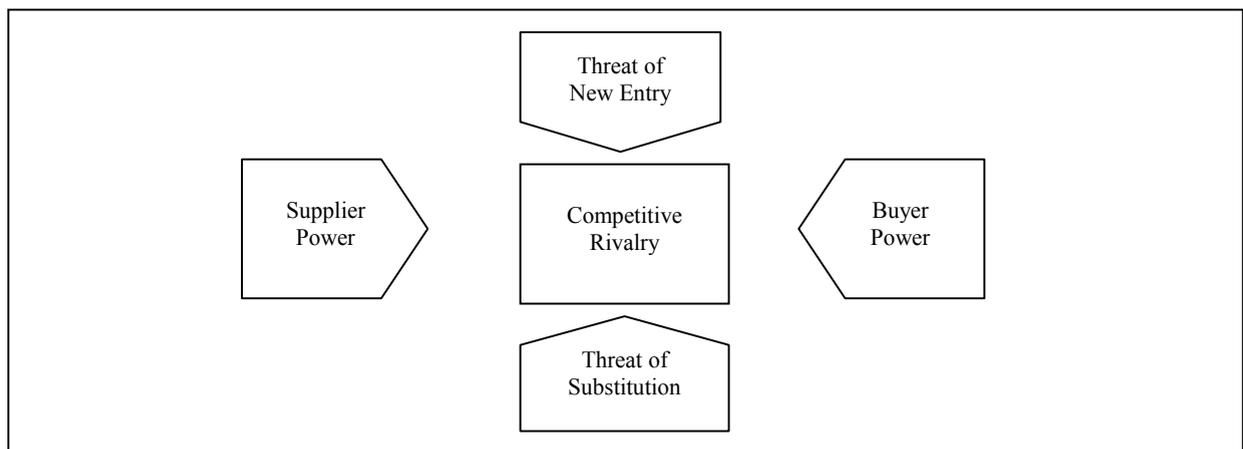
determine the prices of products and get higher profits easily (Thomson et al, 1995). In this sense, low power of each force is good for companies and high power of them is good for final customers or end-users. As seen in Figure 2, these five forces covered in the analysis are competitive rivalry, supplier power, buyer power, the threat of substitution and the threat of potential new entry.

Supplier power refers the power of suppliers to drive up the prices of your raw materials, supplies, tools or inputs. If the suppliers can change the price of products and drive up prices easily, they have power. Suppliers have control over the competition in the industry through their bargaining power. Few suppliers, no substitutes to the supplier's products and high switching costs from the supplier increase supplier's bargaining power.

The threat of new entry refers the ease with which new companies or competitors can enter the market. The new entrants to an industry can threaten existing competitors, because they bring additional production capacity. The key concept in analyzing the threat of new entrants is the entry barriers. If a company finds entry into a new industry difficult or a competitive disadvantage, entry barriers exist. Every industry has its special characteristics that may restrain new entries. Some common factors that raise barriers of entry are: long-term relationships with the customers, capital requirements, economies of scale, switching costs differentiation, and government policies. If new competitors can quickly enter the industry and the industry has low growth rate, these weaken companies' power. In contrast, the high industry growth rate and high entry barriers to industry are advantageous for existing companies in the industry.

Threat of substitution refers the extent to which different products used in place of your companies' products or offered by other industries. The number of substitute products and the cost of switching them affect the treat of substitution. If the customer or company has low switching costs to substitute products, threat of substitutes will be very high. In contrast, if substitution is not easy, this strengthens companies' power in the industry.

Figure 2. Porter's Five Forces Model



Source: Porter, M. E. (1980) *Competitive Strategy, Techniques for Analyzing Industries and Competitors*, The Free Press, New York, USA, p.4

Buyer power refers the power of your customers to drive down your prices. How easy it is for buyers to drive prices down shows bargaining power of buyers. This power is driven by the number of buyers, the importance of each individual buyer in an industry, switching cost from one supplier to other suppliers, and so on. If a company deals with few and powerful buyers, these powerful buyers will be able to force their wants and control the company easily. Buyer power increases with the buyers' purchasing power from the same supplier in large amounts, standardized or undifferentiated products, low switching costs, threat of backward integration, purchase being not important for the buyers.

Competitive rivalry refers the strength of competition in an industry. The main factors that tend to increase rivalry among industry competitors are; the number of rivals, numerous equally balanced rivals, high fixed costs of production, low differentiation, low switching costs, culturally diverse competitors, slow growth of the industry, concentration, brand identity, informational complexity, diversity of competitors, corporate stakes, and exit barriers. Therefore, these factors affect competition among companies in the industry.

3.2. Analysis results

As seen in Table 1, how E-SCM influences e-tailing industry structure in five dimensions can be summarized and analyzed as following;

The bargaining power of suppliers: Supplier power is higher when e-tailers have fewer alternatives from whom to procure. However, E-SCM gives many suppliers' alternatives. E-SCM, on one hand, can give e-tailers access to more different suppliers. On the other hand, E-SCM tends to give all suppliers equal access to e-tailers, and provides a channel for suppliers to reach different e-tailers. Therefore, E-SCM decreases the dependency upon existing channels of distribution, reduces the bargaining power of suppliers and tends to raise bargaining power of e-tailers over suppliers.

The threat of substitution: Threat of substitute products or services in the e-marketplace is high because there are many e-suppliers and e-tailers alternatives. Larger the number and the closer substitute products involve an increase the tendency of e-tailers to switch between suppliers. Thus, E-SCM decreases supplier switching cost. The increase of E-SCM creates new substitution threats for suppliers. This strengthens e-tailers' power in the e-tailing industry, but on the other hand, it weakens e-suppliers' power.

Table 1. The impacts of E-SCM on the E-Tailing Industry

Supplier Power	-	E-SCM can give e-tailers access to more different suppliers. E-SCM tends to give all suppliers equal access to e-tailers, E-SCM provides a channel for suppliers to reach different e-tailers. E-SCM tends to raise bargaining power of e-tailers over suppliers.
Threat of Substitution	+	E-SCM increases the number of alternative suppliers. E-SCM creates new e-tailers threats. E-SCM decreases supplier switching cost. E-SCM makes easier to find new suppliers.
Threat of New Entry	+	E-SCM reduces entry barriers of new players. E-SCM makes easier to entry the e-markets. E-SCM reduces the differences among competitors. E-SCM applications are difficult to keep proprietary from new entrants.
E-tailers Power	+	E-SCM eliminates powerful suppliers. E-SCM reduces suppliers switching costs. E-SCM shifts bargaining power from suppliers to e-tailers. E-tailers may turn down to work with their suppliers very easily.
Competitive Rivalry	+	E-SCM makes the overall industry more efficient. E-SCM can expand the size of the e-tailing industry. E-SCM reduces the differences among competitors. E-SCM widens the geographical market and increases the number of competitors.

The threat of the entry of new e-tailers and e-suppliers: E-SCM reduces barriers to entry and makes easier to entry the markets. The increase of suppliers shifts power to e-tailers. There is no existence barrier for suppliers to entry e-tailing supply chain. Thus, due to very easily increase the number of e-tailing suppliers, the competition level among them will increase every time. E-SCM reduces suppliers switching costs. E-SCM reduces the differences among competitors. E-SCM applications are difficult to keep proprietary from new entrants. Therefore, the threat of the new e-tailers and e-suppliers entry will be high all the time.

The bargaining power of e-tailers: E-tailers' power over suppliers is higher when e-tailers have more choices than suppliers. Moreover, e-tailers may turn down to work with their e-suppliers very easily. In terms of e-tailing supply chain, E-SCM shifts bargaining power to e-tailers. E-SCM improves e-tailers' bargaining power over traditional suppliers.

The intensity of competitive rivalry: The intensity of competitive rivalry is one of the major determinants of the competitiveness of the e-tailing industry. There are many e-stores of about the same size and little differentiation between competitors' products and services. Because of the absence of any barrier to market entry and the presence of a large number of e-suppliers and e-tailers, there will be higher competition level among themselves as well as with each other. E-SCM makes the overall industry more efficient.

In sum up, E-SCM widens the geographical market, raises the attractiveness of e-tailing industry, expands the size of the e-tailing industry and increases the number of e-suppliers and e-tailers. A large number of global and national levels, hundreds of e-suppliers and e-tailers are located. In the international arena, particularly in the United States and European countries also leads to an increase in competition due to entry into e-tailing industry. That there are many competitors in the e-tailing industry, of course, is highly competitive, because all the suppliers must fight for the same e-tailers, and all the e-tailers must fight for the same e-customers. However, e-tailers can freely, at any time or low-or zero-cost, change their e-supplier; it is a big challenge for e-suppliers to grab e-tailers. After the analysis of current and potential future state of the five competitive forces, managers of e-suppliers and e-tailers can search for options to influence these forces in their businesses' interest.

3.3. Managerial implications

The light of the Porter's Five Force Analysis results, in order to develop switching barriers of e-tailers and reduce the power of e-tailers, what actions to increase e-suppliers' competitiveness can be put in order as establishing Strategic Supplier Alliance-SSA- (Stuart and McCutcheon, 1996; Maloni and Benton, 1997; Kannan and Tan, 2004) and developing Supplier Relationship Management-SRM- (Gulledge, 2002; Choy et al. 2003).

The SSA is a relationship formed among companies in the supply chain to achieve specific objectives and benefits and marked by mechanisms for buyer-supplier collaboration to solve problems and to share the benefits that are derived from quality or productivity gains that the joint efforts provide. The fundamental purposes of strategic supplier alliances are to enhance the long-term competitiveness of strategic partners in the supply chain and increase operational performance of each member through reductions total production, inventory, and quality control costs. Theoretically within SSA, traditional competitive barriers between supply chain members are mitigated to create mutually beneficial relationship, thus leading to increased information flows, reduced uncertainty, and a more profitable supply chain. Rather than concerning themselves only with price, companies are looking to suppliers to work cooperatively in many supply chain operations. Specifically, a strategic supplier alliance is a relationship Such alliances are intended to provide competitive advantage to the buyer through greater flexibility, more technical input from the supplier, quicker response and reduced total purchasing costs; the supplier gains through better planning information, greater demand security and, often, technical assistance from the buyer (Stuart and McCutcheon, 1996; Maloni and Benton, 1997). Thus, the SSA among E-SC emphasize a direct, long-term association, encouraging mutual planning, problem solving, improvement and success sharing in the e-tailing industry. Mutual problem solving can result in a win-win solution among e-suppliers, e-tailers and logistics service providers. Besides SSA, developing Supplier Relationship Management-SRM- (Gulledge, 2002; Choy et al. 2003) as a new category of supply chain applications contributes to the suppliers' collaboration, communication, negotiation, selection and loyalty, and thus increases the competitive advantage of the partners in a supply chain (Choy et al. 2003). SRM is the utilization of the latest technologies to build networks of collaborative relationships that bring joint benefits to large companies and their suppliers. E-SRM can dramatically improve supply chain performance, empower a new level of supply-base management (Herrmann and Hodgson, 2001) and gain joint benefits with suppliers (Gulledge, 2002). For example, with the mySAP Supplier Relationship Management (mySAP SRM) software designed to achieve sustainable savings, value-generating supplier relationships, and faster business innovation integrates strategic practices for supplier qualification, negotiation, and contract management more tightly and cost-effectively with other company functions and their suppliers' processes. Using this software, managers of companies can (1) simplify and automate procurement, (2) evaluate, enable, and engage your suppliers more effectively, (3) develop supplier relationships that deliver value (SAP-SRM, 2012). As a result, the benefits of this software are lower costs, increased profits, a better-run business and improved e-suppliers and e-tailers' loyalty.

4. Conclusion

Porter's Five Forces is a model used to investigate the industry in which a product, company or system operate to generate competitive advantage, impact on competitions and analyze the attractiveness. Understanding of the Internet's effects on SCM (E-SCM) and e-tailing industry, Porter's Five Forces model provides an insight into e-tailing industry by showing how the forces of supplier power, buyer power, threat of substitution, the threat of the entry of new e-tailers and e-suppliers and internal rivalry affect to completion level in e-tailing supply chain.

Consistent with Porter's Five Force analysis, changes in competitive conditions in all industries, the Internet has changed the retailing industry as well. These changes have also affected the traditional retailers, suppliers and their supply chain operations and necessitated the management of procurement activities of e-tailers within the E-SCM philosophy. However, there are some positive and negative impacts of E-SCM on e-tailing industry. E-SCM

system are useful to (1) make easier to start new businesses, (2) increase the number of e-suppliers and e-tailers, (3) make easier to manage supply chain activities, (4) allow to provide effective relationship among e-suppliers, e-tailers, logistics and transportation service providers, (5) enable supply chain partners to continuously track goods and share information via the Internet through the supply chain, (6) allow a business to automatically deal with problems within the supply chain, (7) enhance the responsiveness of their suppliers and e-tailers, (8) harmonize information among suppliers, logistics service providers, wholesalers, retailers, customers and other partners, (9) make possible the automation of all supply chain activities to decrease procurement costs and increase profit, and (10) increase e-tailers power in the e-tailing supply chain. However, E-SCM system may have adversely affected the e-suppliers. The negative impacts of E-SCM on e-tailing industry are to (1) decrease the competitive advantages of e-suppliers, (2) enable to emigrate competition to price, (3) increase pressures for price discounting among e-suppliers and e-tailers, (4) decrease suppliers switching cost and barriers and finally (5) decrease the bargaining power of suppliers.

As a result, on one side, E-SCM has expanded e-suppliers' business volume and increased their businesses by opening their own e-stores. On the other side, E-SCM has caused to increase competition level among e-suppliers, and decrease their e-supplier power. In the further researches, (1) how the Internet affects the supply chain functions from procurement of materials, transformation of these materials into intermediate and finished products to the distribution of these finished products to customers can be analysed separately, (2) and how e-suppliers regain their competitive advantage and their bargaining power over e-tailers can be investigated.

5. References

- Auramo J., Aminoff A., Punakivi M. (2002) Research agenda for e-business logistics on professional opinions: *International Journal of Physical Distribution & Logistics Management*, Vol. 32 (7), 513-531.
- Barutçu, S. (2006) Supplier Relationship Management (Customer Relationship Management in Supply Chain), 4rd International Logistics and Supply Chain Congress, İzmir University of Economics, İzmir, Turkey, November 29-30, December 1, 645-651.
- Barutçu, S. (2007) The Role of Internet-Based Supply Chain Management on E-Tailing Industry and E-Customer Satisfaction Level From Cargo Carriers", 5th International Logistics and Supply Chain Congress, Okan University, November 8-9, 232-241.
- Choy, K. L., Lee, W. B., Lo, V. (2003) Design of an intelligent supplier relationship management system: a hybrid case based neural network approach, *Expert Systems with Applications*, February, Vol. 24 (2), 225-237.
- Closs, D.J. Goldsby, T.J. Clinton, S.R. (1997) Information technology influences on world class logistics capability, *International Journal of Physical Distribution & Logistics Management*, Vol. 27 (1), 4-17.
- Council of Supply Chain Management Professionals, (2012) <http://cscmp.org/aboutcscmp/definitions.asp>, Retrieved February 8, 2012.
- Duclos, L.K., Vokurka, R. J., Lummus, R. R. (2003) Conceptual model of supply chain flexibility, *Industrial Management & Data Systems*, Vol. 103 (6), 446-456.
- Gulledge, T. (2002) B2B eMarketplaces and small- and medium-sized enterprises, *Computers in Industry*, Vol. 49 (1), 47-58.
- Gunasekaran, A. and Ngai, E.W.T. (2004) Information systems in supply chain integration and management, *European Journal of Operational Research*, Vol.159 (2), 269-295.
- Hammant, J. (1995) Information technology trends in logistics, *Logistics Information Management*, Vol. 8 (6), 32-37.
- Herrmann, J. W., B. Hodgson, (2001) SRM: Leveraging the supply base for competitive advantage, Proceedings of the SMTA International Conference, Chicago, Illinois, October 1, 2001.
- Kannan, V.R., Tan, K. C. (2004) Supplier alliances: differences in attitudes to supplier and quality management of adopters and non-adopters, *Supply Chain Management: An International Journal*, Vol. 9 (4), 279-286.

- Ketikidis, P.H., Koh, S.C.L., Dimitriadis, N., Gunasekaran, A., Kehajova, M. (2008) The use of Information Systems for logistics and supply chain management in South East Europe: Current status and future direction, *Omega*, Special Issue on Logistics: New Perspectives and Challenges, Vol. 36, (4), 592-599.
- Koh, S.C. Saad, S. Arunachalam, S. (2006) Competing in the 21st century supply chain through supply chain management and enterprise resource planning integration, *International Journal of Physical Distribution and Logistics Management*, Vol. 36 (6), 455-465.
- Kolesar, M.B., Galbraith, R.W. (2000) A services-marketing perspective on E-retailing: implications for E-retailers and directions for further research, *The Internet Research-Electronic Networking*, Vol. 10 (5), 424-438.
- Kotzab, M., Madlberger, M. (2001) European retailing in e-transition? An empirical evaluation of web-based retailing - indications from Austria, *International Journal of Physical Distribution & Logistics Management*, Vol. 31 (6), 440-462.
- Lai, Kee-Hung, Ngai, E., Cheng, T. (2005) Information Technology Adoption in Hong Kong's Logistics Industry, *Transportation Journal*, 44 (4), 1-10.
- Lancaster, S., Yen, D.C., Ku, C.Y. (2006) E-supply chain management: an evaluation of current web initiatives, *Information Management & Computer Security*, Vol. 14 (2), 167-184.
- Lancioni, R. A., Smith, M. F. Schau, J. H. (2003) Strategic The Internet application trends in SCM, *Industrial Marketing Management*, Vol. 3 (3), 211-217.
- Lim, H. Dubinsky, A.J. (2004) Consumers' perceptions of e-shopping characteristics: an expectancy-value approach, *Journal of Services Marketing*, Vol. 18 (7), 500-513.
- Lin, C., and Tseng, H. (2006) Identifying the pivotal role of participation strategies and information technology application for supply chain excellence, *Industrial Management & Data Systems*, Vol. 106 (5), 739-756.
- Maloni, J.M., Benton, W.C., (1997) Supply Chain Partnership: Opportunities for operations research, *European Journal of Operational Research*, Vol.101, 419-429.
- Narasimhan, R. (2001), Information system utilization strategy for supply chain integration, *Journal of Business Logistics*, Vol. 22, 51-76.
- Ngai, E.W.T. (2003) The Internet marketing research (1987-2000) a literature review and classification, *European Journal of Marketing*, Vol. 37 (1/2), 24-49.
- Porter, M. (2001) Strategy and the Internet, *Harvard Business Review*, March, 62-78.
- Porter, M. E. (1980) *Competitive Strategy, Techniques for Analyzing Industries and Competitors*, The Free Press, New York, USA.
- SAP-SRM (2012) www.sap.com/solutions/business-suite/srm/index.epx (last visited March 15, 2012)
- Stuart, F. I., McCutcheon, D. (1996) Sustaining strategic supplier alliances, *International Journal of Operations & Production Management*, Vol. 16 (10) 5-22.
- Svensson, G. (2002) Supply chain management: the re-integration of marketing issues in logistics theory and practice, *European Business Review*, Vol. 14 (6), 426-436.