

## **COMPETITIVENESS OF E-COMMERCE COMPANIES: AN INTEGRATED APPROACH**

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### **—Abstract—**

This study aims to explore the factors affecting the competitiveness of e-commerce companies. An integrated approach was developed to identify the possible sources of competitiveness which are drawn from the resources, organizational and managerial capabilities, and knowledge of e-commerce companies. A study composed of two consecutive phases was conducted. First, a quantitative survey among the members of the Turkish Association of E-commerce Companies, was conducted. A case of Turkish e-commerce companies is selected because the Turkish e-commerce market is rapidly developing and providing a fruitful environment to conduct a valuable research. Furthermore, quantitative findings are supported with in-depth analysis of qualitative data collected by semi-structured interviews with the senior managers of the leading e-commerce companies in Turkey.

**Key Words:** *Firm-Level Competitiveness, E-Commerce Companies.*

**JEL Classification:** L25, L81.

### **1. INTRODUCTION**

This study tries to explore the possible sources of competitiveness for e-commerce companies. Competitiveness is one of the popular and yet controversial concepts in the literature. Not only its definition, but also its measurement is on debate. Because the concept has a multifaceted nature, there are some methodological challenges that make measurements difficult. Here, an exploratory study is offered by using an integrated approach to study competitiveness, such as resources, abilities, processes, and knowledge embodied in a firm.

The recent studies on firm level competitiveness revealed the importance of the process that leads to a firm to make a superior performance rather than just taking

the performance measure as an indicator of competitiveness (Lowendahl, 2000; Garelli, 2006). There are many factors affecting upon this process; some are called as assets and resources like plant and capital, some are called as capability such as human skills and quality, and some are called as knowledge like innovativeness and organizational learning. Garelli (2006) suggests using a holistic approach that covers the assets, resources as well as abilities, skills, and potentials to assess competitiveness. As Lowendahl (2000, p.84) states “*All assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies improve its efficiency and effectiveness*”. Thus, competitiveness as a multidimensional concept should be considered as a process of generating competitive advantages and be evaluated as the main indicator of a firm’s performance. It includes hard figures and numbers and tangible parts, like productivity, return, and profit, as well as soft, intangible components such as education, reputation, human skills or knowledge (Barney, 2001; Thompson and Strickland, 1999).

Competitiveness of e-commerce companies is a new research area. When thinking more than 19 % of growth of global sales of e-commerce each year (Internet retailer, 2012), it is seen a fruitful area of study. In this study, without considering industry specific conditions, the factors that are seen as basic requirements for all e-commerce companies entering the business are identified, and those differentiating factors enable firms to perform better than their rivals are identified.

## **2. E-COMMERCE COMPANIES AND COMPETITIVENESS: RELATED LITERATURE**

Competitiveness of e-commerce companies depend upon several inter related factors. As discussed earlier, competitiveness could be seen either as a process of affecting the organizational output or as an output of an organizational process. Defining the concept as a process requires a well- defined electronic commerce concept. According to Schneider and Perry (2001, p.10), electronic commerce can be defined as “the use of electronic data transmission to implement or enhance business processes.”

The term “business processes” is specifically described as “the activities in which businesses engage as they accomplish specific elements of commerce” (Schneider & Perry, 2001, p. 9). According to Schneider and Perry (2001, p.8), specific elements of commerce on the seller’s side include identifying customers’ needs, creating products/services, promoting products/services to customers, engaging in

transaction processes, delivering products/services, processing payment, and providing after-sales services. Of course, not all business transactions can be fully accomplished by using e-commerce technologies. Some activities of commerce use traditional commerce activities more effectively. The current state of available technologies and the structure of business organizations might change the situation (Schneider and Perry, 2001).

There are some fundamental differences between e-commerce companies and classical bricks and mortar businesses which have certain influences on their process of generating competitive advantages. First, online businesses, in order to survive, must be customer oriented, as producing as a customized service to each customer. They directly reach to ultimate customer, they provide several varieties on price and delivery conditions, and they constantly develop new offerings for them and come up with innovative ideas. To do so, they should be organized flexible and agile enough and should follow up certain rules and principles in order to maintain service quality. Comparing to classical firms, e-companies face with fiercer competition which comes from almost any side since there are no geographic boundaries. Since customers can acquire whatever they need from any part of the world, maintaining the position in the minds of the customer is getting harder and therefore creating customer satisfaction and gaining customer loyalty are much more delicate issues that e-commerce companies are facing upon. There are also some basic issues yet to be solved such as distrust of customers about the payment and its security against the delivery of the goods they consider to buy.

Although competitiveness of e-commerce businesses is relatively a new research area, there is a quite literature on defining service quality parameters and success factors for e-commerce businesses which will provide backdrop for this study. Duffy and Dale (2002) identify several key processes in e-commerce businesses. The way of order fulfillment and order generation, financial control, IT and web applications to increase responsiveness and flexibility, providing 24/7 service, and customer services are seen the main areas for operating an e-business.

From the customer perspective, Mohanty, Seth, and Mukadam (2007) describe possible quality dimensions for e-commerce businesses. Relying on Kano's classification for the levels of customer expectations for product and service quality, they divide quality dimensions into three clusters; basic-must requirements; performance-expected requirements, and delight-excitement features (Mohanty, Seth & Mukadam, 2007). Although they seem to demote whole e-commerce business to a sole business of web site design and management, there are important queues in their modeling for this study.

According to Mohanty, Seth and Mukadam (2007), basic must requirements are those that do not give positive satisfaction or provide significant increase in performance, though dissatisfaction results from their absence. Therefore, e-commerce companies must fulfill these expectations in order to run their businesses. The other clusters are more related with firm performance, thus serve for competitiveness. Performance-expected requirements of an e-commerce business are seen the ease of use of web site, its features, sharing accurate and updated information and customization of services, e-commerce integration, having a business structure that increase responsiveness and flexibility. The last cluster of factors are those that lead to a superior performance, thus create an edge for competitiveness. These so-called-delight-excitement factors are those that give positive satisfaction to customers. Transcendence –the visual presentation of web site, courtesy or empathy-related with customer experiences, retrievability-the management of data-bases, interactability-creating means for consumers to express their opinions and to communicate, and service differentiation- related with core competencies can also be seen as important sources of competitiveness.

There are several studies attempting to identify important or critical success factors of e-commerce businesses. For Keh and Shieh (2001), it is very important to be the number one in the market segment if it is well managed. First mover advantage can give control of resources that followers may not be able to match. If the company has a superior product or service offering, it will not be copied

easily, thus will be a competitive advantage. Other than these resources, they emphasize the importance of web design and management. Not only the updated information given on web sites, but their value-added characteristics, such as reaching to website easily, gathering information quickly and easily, appealing design instruments of web site could be important competitive advantages to a firm. Sometimes a strategic alliance is more important than all other resources they stated, especially the alliances in payment transactions and delivery (Keh & Shieh, 2001).

Eid, Trueman, and Ahmed (2002) highlight the importance of marketing strategy related factors for the success of e-commerce firms. Firms that could offer competitive price and appealing promotional programs would be ahead of competition. Besides, a strong brand image and name can help to overcome security and reliability related problems that most e-commerce companies are facing through. The involvement of top management teams in daily business activities and their years of experience are seen vital. Also, establishment of strategic goals and sharing them with employees are seen important means to

increase capabilities of a firm, thus could be competitive advantages. According to Thornton and Marche (2003), e-commerce firms should have strong capital and financial control to maintain flexibility and to create superior value to their customers. Choosing the right e-commerce business idea which is strongly related with choosing internet business model is seen vital for the success of e-commerce (Kearney, 2000).

### **3. RESEARCH DESIGN & METHODOLOGY**

The main focus of this study is to identify factors that influence the competitiveness of e-commerce companies. This research aims to reveal the answers of the following two questions:

1. What are the basic-must requirements that e-commerce companies must have in order to enter the business?
2. Regardless of industry, what are the relevant factors necessary for competitiveness of e-commerce companies?

By using a similar model developed by Mohanty, Seth, and Mukadam (2007), the factors derived from the literature review are analyzed by conducting an exploratory research. The factors are tested whether they are basic- must requirements, or performance-expected requirements, and whether they have delight-excitement features. The factors identified with the last two categories are seen as competitiveness related since they include firm specific resources, capabilities and knowledge to provide superior value and to reach a superior position in the marketplace. Thus, in this study an integrated approach is undertaken to illuminate the multidimensional construct of competitiveness. Table 1 presents the integrated model proposed in this study and lists the factors derived from the relevant literature.

Since there is no confirmatory research exists about competitiveness of e-commerce companies, especially in a developing country, the result of exploratory research can be better than no information regarding a phenomenon of interest. Here, a non-representative small survey is conducted among the members of Turkish Association for E-commerce Companies (ETID). Although it is an exploratory research, a survey technique is chosen as a prior research to be able to allocate the possible factors into the three categories, namely as basic-must requirements, performance-expected requirements, and delight-excitement features. Then, in-depth interviews with the senior managers of the three leading e-commerce firms in Turkey are conducted to get a deeper understanding about

the competitive structure of e-commerce business and to clarify the possible sources of competitiveness.

**Table1. An Integrated Model for E-commerce Competitiveness**

Possible Sources of Competitiveness for E-Commerce				
Resources		Capabilities		Knowledge
Tangible Resources	Intangible Resources	Organizational	Managerial	
Technological resources	Reputation Brand name and awareness	Convenient web site value added content	Strategic business plan	Domain Knowledge
E-commerce system with supporting back-end operation	Trust Policy of recall/withdraw of products	Customer relationship management Order fulfillment	Valuable business idea	Information flow
Financial resources and control		Technological issues	Management commitment	Training and development programs for employees
Human resources		Internet connection speed Scalability and Flexibility Security	Marketing and Sales Related Activities	Monitoring firm performance, industry developments and competitors' activities
Strong customer service team		Partnership/strategic alliances	Choice of product Large /unique product selection	Innovativeness
Strong IT personnel			Competitive price Delivery	Data-base management
Strong sales force			Advertising and Sales promotion	
Market Position				
First mover advantage				

#### 4. FINDINGS

It is observed that the resource related factors; especially tangible ones are mostly seen as basic- must requirements while others listed as capabilities and knowledge related factors are seen as performance enhancing factors that are necessary to be competitive. In other words, an e-commerce firm might rely on its capabilities and knowledge to be competitive, but first it has to build the fundamental resources necessary to satisfy the consumers. Specifically, strong financial structure and control, human resources including strong customer team, client team and sales

team, technological resources that enable e-commerce transaction, convenient web site, strategic business plan, valuable business idea and domain knowledge about the industry are evaluated as basic-must requirements to run an e-business. Although they are not seen as important as others, offering training and development programs for employees, monitoring firm performance, industry developments and competitors' activities could be classified under this category.

Addressing to the second research question of the study, it seems that the most important factors affecting the competitiveness of e-commerce companies are intangible resources; reputation and trust, and capability and knowledge related factors. Specifically, customer relationship management, innovativeness, database management, management commitment to business, technological issues like internet speed, security and flexibility, strategic alliances and partners, and all marketing and sales related factors are seen as sources of factors affecting competitiveness of e-commerce companies.

There are only two possible sources left uncategorized; market position, and information flow. First mover advantage is only seen as an advantage if it is supported by organizational and managerial capabilities and other resources. Thus, it is stated that an e-commerce firm's competitiveness depends on its capabilities to use the resources timely and valuably. Table 2 presents the summary of findings.

**Table 2. Factors Affecting Competitiveness of E-commerce Companies**

Competitiveness of E-commerce Companies			
Resources	Capabilities		Knowledge
Intangible Resources	Organizational	Managerial	
Reputation	Customer relationship management	Strategic business Plan	Monitoring firm performance, industry developments and competitors' activities
Trust	Order fulfillment	Valuable business idea	
Brand name and awareness	Technological issues	Management commitment	Innovativeness
Policy of recall/withdraw of products	Internet connection speed	Marketing and Sales Related Activities	Data-base management
	Scalability and Flexibility	Delivery Advertising and sales promotions	
	Security		
	Partnership/strategic alliances		

## 5. CONCLUSION

Although it has limitations of generalization and country specific characteristics, this study offers a useful framework to academicians for studying competitiveness of e-commerce firms and provides important insights to business people.

Because competitiveness is a multidimensional concept, this integrated framework enables to get a deeper understanding about the phenomenon under the study. Not only the resources, but also capabilities and knowledge of a firm could be studied at the same time if they are properly defined.

E-commerce companies like traditional ones should create superior customer value and finding ways to strengthen their relations with customers while also amusing them. There is nothing new about it. However, by doing that, e-commerce companies must be flawless, friendly, empathetic, and trustworthy, much more than traditional companies, while also working at 7/24 system. Thus, one of the most important factors is the ability to provide such a customer service. Technological issues, such as internet connection speed, security, scalability and flexibility may create important barriers for firms to reach their customers if they lack to demonstrate expected performances. Since they are relatively new in a rapidly developing business, e-commerce companies that invest on marketing communication activities and branding could alter its competitive strength.

Managerial skills and management commitment to the business are seen important factors to increase competitiveness of an e-commerce company. Most e-commerce companies are founded by entrepreneurs who already have passion for competitiveness. Because the e-commerce process include different challenging stages and aspects, effective management capabilities are necessary. In addition, the strategic alliances and partners chosen for servicing to customers are important. They not only strengthen the reputation of company, but also help to manage order fulfillment by their effective delivery and logistics systems.

Knowledge is generally seen as the most important of all for competitiveness (Grant, 1998). An e-commerce company should have a valuable business idea and plan in order to enter the business. However, there are plenty of dot.com companies who failed shortly after their entrance to markets even if they had a superior business idea. It is seen that along with a superior business idea, an e-commerce firm should invest certain amount on research & development activities to maintain its innovativeness and to increase its knowledge to understand the targeted market.

Further research, especially multi -case studies is needed to examine the factors retrieved from this study. It would also be useful to see a comparison about the sources of factors affecting competitiveness of online-dominated and offline dominated e-commerce companies.

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