Tilburg University
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A Research of Porter’s Generic Strategies and Value Chain Concept in E-Commerce: An Observation of Two Online Business Models

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Management Summary

The present study makes an attempt to contribute to the knowledge about the online business strategies. Porter's framework of three generic strategies (i.e. cost leadership, differentiation and market focus) is used in the current study to compare the business strategies of companies operating only in an electronic marketplace (i.e. online firms) and firms operating in both electronic and traditional markets (i.e. click-and-mortar firms). This study also examines the relationship between the generic strategies, including the integrated strategy (i.e. stuck in the middle) combining elements of cost leadership and differentiation strategies, and the business performance in e-commerce. Finally, it investigates if the Internet-based activities of firm's value chain have impacts on the competitiveness of its business strategy.

A multiple-case method was used to answer the above questions. Eight managers from eight different firms were interviewed, including six firms operating online and the other two operating only in traditional markets (i.e. brick-and-mortar firms). The reason of doing so is to compare the results between firms which belong to the online business models and brick-and-mortar firms.

The data indicated that Porter's generic strategies were relevant to electronic markets. Depending on their business model, firms follow different competitive strategies. Online firms are more likely to follow a differentiation strategy while click-and-mortar firms are more reliant to come with a strategy based on cost. The data also suggested that differentiation strategy had the strongest contribution to business performance. In addition, click-and-mortar firms combine elements of cost leadership and differentiation strategies improving their business performance. As regards the online firms, the majority of them do not follow this kind of strategy while they have better results. Finally, depending on the firm's competitive strategy and the extent in which it uses the Internet for specific functions, virtual value chain affects the business strategy in a certain degree.

Table of Contents

1. Introduction

An electronic marketplace connects buyers and sellers, offers means of electronic trade and provides rich information to the customers for products and services (Bakos, 1998; Dutta and Segev, 1999; Evans and Wurster, 1999; Lederer et al, 2001). If firms want to survive and succeed in the increasing competitive environment of e-commerce, they will have to establish effective business strategies. Some firms may choose to change the way they function so as to seek the benefits of new information technologies (Jarvenpaa and Ives, 1996) while others may establish a completely new business model in order to compete effectively in the new market (Angell, 1996). Firms have to recognize their strengths and weaknesses before they designate their resources and choose the appropriate business model and strategy (Lederer et al, 1997).

The internet not only creates new opportunities for all firms but also changes the global business infrastructure. Firms have to find ways to adjust to this important environmental change. They need to consider the costs and the benefits of the Internet and plan its use within the firm. According to McBride and Rogerson (1995), firms also undergo competitive pressures to use the Internet imposed by other firms with successful use of it. They also claim that the media "hype" puts pressure on firms to use the Internet in their business processes. Access to the Internet provides companies with new business opportunities as well as new problems and threats. According to McBride (1997), some of these opportunities are the use of the intranet (e.g. e-mail) within the companies, the cheap marketing targeting very wide audience, the increase in commerce because of the development in electronic payment and the access to a huge range of databases. He also points out some problems of using the Internet, such as the security of commercial transactions, the need of intelligence agents and the intermediaries for information search and some ethical issues. Thus, firms have to decide about their participation in electronic commerce realizing its benefits and threats.

Electronic commerce is determined as a variety of market transactions which are enabled by information technology (Applegate et al, 1996). It is another tool in companies' hands in order to reach potential customers implementing competitive strategies (Applegate et al, 1996). E-commerce also provides the trading partners with the ability to share data more easily (Adams, 1994). Some companies may compete in electronic marketplaces based on price and cost. However, others may follow strategies based on specific market segments.

The adoption of the Internet is a major strategic issue for the organizations. This adoption may change over time. For example, some companies initially adopted online sales but not its products' procurement via the Internet. However, they may change their strategy adopting the e-procurement process in the future. Based on this reasoning, Wu et al (2003) argue that "e-business adoption is conceptualized along dual dimensions – the process domains within which e-business is adopted and the degree of implementation of e-business within specific process domains" (p. 426).

Another important issue is how business performance is affected by adding the Internet channel to a company's distribution portfolio. Geyskens et al (2002) claim that a firm's performance can be enhanced by the combination of existing distribution channels and Internet channel if the demand- and supply-side advantages (i.e. demand expansion, higher prices and lower physical distribution as well as transaction costs) are contributed to the firm. However, on the other hand, an additional Internet channel may abuse firm's performance through demand- (i.e. reduced revenues) and/or supply-side (i.e. increased costs) disadvantages.

Early studies have surveyed the electronic marketplace. Scott and Walter (2003) suggest that the Internet is part of business innovation and this is an important reason for further research related to opportunities, challenges and threats that companies may face in the e-business world. Managers and researchers try to understand how the game of electronic commerce is played and on which rules it is based. Amit and Zott (2001) argue that the key issues related to e-business are not clear yet and there are no widely accepted theories in order to address the features of e-commerce.

The theoretical lenses of the present study are Porter's (1980) generic strategies, the concept of the value chain (Porter, 1985) and the business performance. This paper makes an attempt to examine if the Internet-based activities of the value chain influence the competitiveness of firms' business strategy (i.e. cost leadership, market differentiation and market focus). It also investigates which business strategy leads to better business performance for two different online business models (i.e. online firms and click-and-mortar firms). The above broad research domain can be specified into three detailed research questions as follows: (1) Does Internet-based activities of the value chain affect the competitiveness of firm's business strategy (i.e. cost leadership, differentiation and market focus)? (2) Which business strategy is a performance predictor for two different online business models? (3) From the aspect of business performance, is the integrated strategy (i.e. ‘stuck-in-the-middle’) combining elements of cost leadership and differentiation more effective than the separate cost leadership and differentiation strategy?

Following this introduction, I next reviewed the related literature which consists of four domains. Then, the research framework is presented and the hypotheses are formulated in section 3. Section 4 documents the data collection method, followed by the data analysis. I conclude the report with the key findings, implications and the future research.

2. Theoretical Framework

Porter’s Generic Strategies

Porter’s (1980) framework states that a firm has to choose whether to target broad or narrow market segments in order for a firm to be successful in business. He also argues that a firm has to determine whether to differentiate its products/services from those of competitors or offer products/services with low cost in order to achieve competitive advantage. Based on this reasoning, Porter claims that firms can follow one or more of three generic strategies: *cost leadership*, *differentiation* or *market focus*. Furthermore, a firm follows a cost leadership strategy when it attempts to become the lowest producer in an industry offering undifferentiated products with the lowest cost at a standard market price. With a differentiation strategy, a firm seeks to differentiate its products/services by providing a better service level to customers and better product quality at a premium price. In addition, firms can compete based on the market focus strategy by concentrating their efforts on a specific niche in the market and offering specialized products for that niche. The company can also make use of cost leadership or differentiation approach concerning the focus strategy. Finally, according to Porter (1980, p. 35), when a firm fails to pursue successfully any of the generic strategies or more than one simultaneously, it is *stuck in the middle*.

However, the arrival of the Internet created new business models and made the rules and mechanisms of the market more complicated. Many studies (Lederer et al, 1997; Gonsalves et al, 1999; Rangan and Dell, 1998) suggest that companies use the electronic commerce more in order to differentiate their products and services from their competitors and focus on specific market’s segments of potential customers than to compete through the cost and price.

Cost Leadership Strategy

Cost leadership can be a strategic option for many online businesses. This kind of strategy is pursued by firms that sell standardized products and services such as books industry (Barnersandnobles.com) and travel industry (Expedia.com). It also appeals more in customers who are price sensitive. Phau and Poon (2000) state that online companies achieve modest level of customer brand-loyalty meaning that firms operated in e-commerce will be forced to compete on price. The bargaining power of customers is increased because they have access to more information on products and services which leads to lower search costs as well (Porter, 2001). This fact results in the increase of price competition among the sellers (Bakos, 1998). Moreover, the fact that firms operating in electronic market are able to adjust their prices more quickly leads to higher price flexibility and resourceful price competition (Lee and Gosain, 2002).

On the other hand, Pan et al (2002) argue that many buyers in electronic commerce, who are characterized by brand loyalty, tend to be less sensitive to price. Degeratu et al (2000) also argue that the premise that the price competition will be increased in electronic market is wrong. It is worthwhile to mention that large, established firms which have higher resources are more likely to follow a cost leadership strategy while smaller companies compete by differentiating their products and services in a niche market (Wright, 1987).

Differentiation Strategy

Differentiation strategy will be more likely to be pursued if the firm is based on customized products and services, customers’ convenience, customized online experience or a combination of all these features. For instance, trying to reach repetitive purchases, Amazon.com decreased customers’ search cost, prompted trust and provided products, services and online experiences adapted to customers’ needs. Differentiation must also be based on elements that are difficult to be imitated (Porter, 1980). Some of them are the product features, design, brand image and customer service as well as security of transactions and speed of delivery. The majority of the elements which businesses use in traditional market can also be used in electronic market. In e-commerce, the buyers can get access to more information and compare them more easily. It leads to lower switching costs for the customers (Kim, 2000; Porter, 2001). This fact encourages the e-businesses to pursue a differentiation strategy.

Porter (2001) states that the emergence of the Internet lowers switching costs for the customers, increases customers’ bargaining power and lowers barriers to entry into an electronic market. So, the early adopters or first movers can lose their advantages very quickly and easily since competitors can learn quickly how to provide the same or even better products and services. Furthermore, brick-and-mortar firms can easily adopt online channels changing to click-and-mortar companies and compete with online firms.

There are many studies which identify ways for differentiation in electronic commerce. Amit and Zott (2001) point that trust between partners and security in trade transactions can be important keys for customers’ loyalty. In addition, Liu and Arnett (2000) argue that some key characteristics of websites such as quality of information and level of service help online retailers to differentiate their products. The more information is given related to the connection between products and customers’ wants, the less sensitive are the customers to price (Lynch and Ariely, 2000). Yang and Jun (2002) conclude that an online firm will have higher levels of buyers’ loyalty, if it offers better customer service than competitors.

Miller (1986) extents Porter’s generic strategies framework and discriminate differentiation strategies based on innovation. This kind of strategy can help companies to establish competitive advantage which is difficult to be predicted and imitated by competitors. The Internet provides firms with new information technologies which encourage them to innovate and differentiate their products and services (Fitzsimmons and Fitzsimmons, 1997).

Market Focus Strategy

Following a market focus strategy, firms concentrate their efforts on specific segments of the market. They either lower the cost or differentiate their products and services from the competitors. This kind of strategy is usually followed by small companies which cannot compete against established, large firms (Wright, 1987). Porter (2001) also claims that the barriers of entry in an electronic marketplace such as sales force, access to channels and required investments are lower. Thus, targeting even smaller segments might be feasible for small companies to enter in this new market. According to Bakos (1998), the Internet allows firms to adapt their products and services for particular customers’ needs.

The internet facilitates the fragmentation of the market and drives the customers toward appropriate products and services. Based on this reasoning, Yelkur and DaCosta (2001) argue that pursuing a focus strategy in electronic commerce, a firm is able to charge higher prices by customizing their products to meet buyers' needs. In traditional business, the same level of personalization would be more expensive to be offered.

Nevertheless, Kim et al (2004) argue that cost leadership and differentiation strategies will be applicable to e-business firms in a broad sense, while the focus/niche strategy will not be as viable to e-business as to business-to-consumer context. Despite these findings, they state that e-businesses which are not capable of taking advantage of the fragmenting opportunity of the Internet will be unlikely to have competitive advantage.

"Stuck in the Middle"

According to Porter (1980), cost leadership and differentiation strategies are contradicted with each other because they require different kind of resources. A firm will fail to reach high performance, if it combines these two competitive strategies. However, many studies have questioned Porter's arguments about the exclusivity of the generic strategies (Booth and Philip, 1998; Glazer, 1991; Karnani, 1984; Wright et al, 1990; Hill 1988; Murray, 1988). Any disharmony between cost leadership and differentiation strategies may apply in more consistent environment while unstable environments require flexibility and combination of more than one generic strategy (Kim and McIntosch, 1999). In addition, Merrilees (2001) states that many online firms have successfully employed integrated strategy combining elements of cost leadership and differentiation. Kim et al (2004) also declare that an integrated strategy combining elements from cost leadership and differentiation is the most effective strategy for firms which operate in e-commerce.

Online Business Models: Online Versus Click-and-Mortar

The role of the Internet in the business world is becoming more and more important. Porter (1980) and Porter and Millar (1985) argue that a firm must respond to five competitive forces before it develops its business strategy. These forces are the threat of new entrants in the industry, the rivalry among competitors within the industry, the threat of substitute products and services, the bargaining power of suppliers and the bargaining power of buyers. The firm tries to find which of these forces are weak in the industry where it wants to enter. But, according to Mo Koo et al (2004, p. 167), the emergence of the Internet and the electronic marketplaces increase the complexity in market dynamics. This complexity has to do with the changes in the offerings of products/services and in the firms' cost structure. It allows the emergence of a new type of firm operating exclusively in an electronic marketplace (i.e.

online firm) to compete with traditional brick-and-mortar. It also allows the traditional brick-and-mortar firms to access customers, which firms could not previously reach, via the use of the Internet (i.e. click-and-mortar firms). These two types may have different ambitions and compete with each other based on different strategic strengths.

To begin with click-and-mortar firms, Mo Koo et al (2004, p. 163) state that *'Click-and-mortar firms are traditional businesses that have supplemented their brick-and-mortar operations with online channels either in response to the threat posed by emerging online firms or in search of the opportunities afforded by the Internet'*. The adoption of the Internet is not dependent on the kind of industry. More and more brick-and-mortar firms adopt the Internet using their websites in order to reach customers. Liu et al (1997) conclude that the adoption depends on the level of firm's revenues since the higher business performance the firm has, the more likely it uses the website in order to attract customers. Moreover, the extent of Internet adoption is mainly related to organizational characteristics (Thong, 1999). The competitive advantage, that a firm gains, depends on the firm's ability to make IS investments responding to customers' pressure and/or initiatives of competitors. For example, Barnes and Noble was leader in the traditional bookseller market for many years. It adopts Internet-based channels complementing its traditional one in order to compete with Amazon.com. Further, Teo and Pian (2003) conclude that business technology strategy, top management support and technology compatibility are the key factors associated with the extent of Internet adoption. In addition, Geyskens et al (2002) argue that the gains of adding an Internet channel in an established conventional channel system outperform the present and expected costs.

Moreover, *online companies are firms which operate distributing their products only online via their web-sites* (Mo Koo et al 2004, p.163). This kind of business model depends on the IS technologies opportunities created by the Internet. In addition, the lack of physical stores lowers the costs for these companies. There are many examples of online firms which recently started but have already become powerful competitors in various markets such as Amazon.com and Netscape.com.

The present study investigates how online firms differ from click-and-mortar firms with regard to Porter's (1980) competitive strategies and whether business strategy are linked to better business performance.

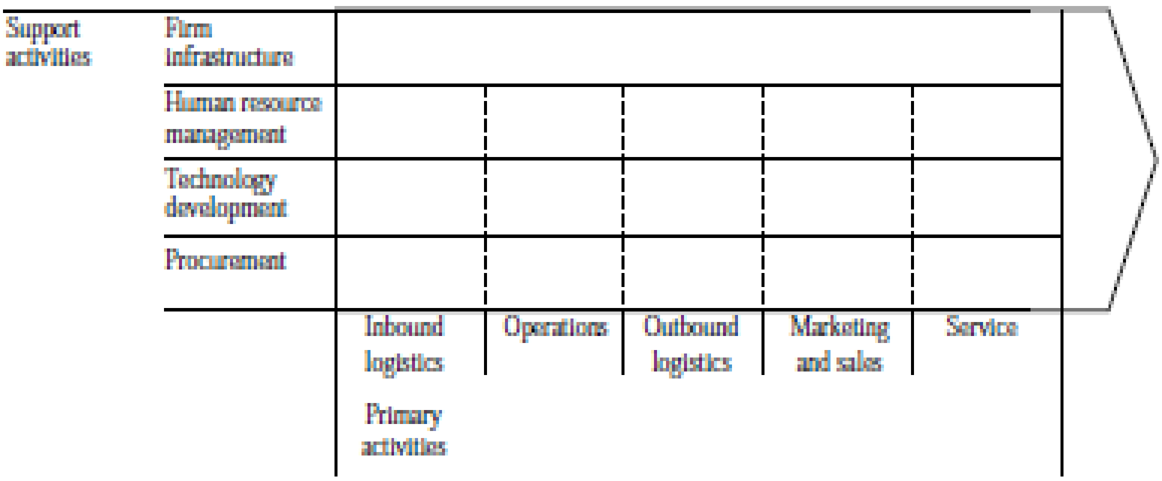
Value Chain and the Internet

Porter (1985) introduced the concept of value chain (Figure 1). Firm's value chain consists of nine categories of activities which are linked together. These activities are divided into two categories: primary and support. Primary activities have to do with the creation and distribution of the product as well as the after sale assistance (i.e. Inbound Logistics, Operations, Outbound Logistics, Marketing and Sales, After-Sales Service). Support activities support primary activities (i.e. Firm Infrastructure, Human Resources Management, Technology Development, and Procurement). Each firm in an industry has different value chain. These differences among the competitors in the same industry are the sources of competitive advantage. According to Rayport and Sviokla (1995), the introduction of electronic commerce leads to a new locus of value creation through the virtual value chain. Firms must pay attention to the interaction among the traditional value chain and virtual value chain. Managing well these two interacting value-adding processes, a firm can attain competitive advantage. The Internet affects the cost and the quality of activities in value chain optimizing value system's workings in real time (Porter, 2001).

The Internet increasingly influences the business environment allowing new value chains with new players, products and services in the market (Evans and Wurster, 1997; Hackney et al, 2002; Rahman, 2004). Many enhancements are proposed to the value chain model. Normann and Ramirez (1993) present the value constellation concept by considering continual reconfiguration of relationships among a constellation of suppliers, partners and customers.

According to Janssen and Sol (2000), the intermediaries play an important role in the electronic value chain. The emergence of the Internet has resulted in many changes regarding the ways and methods of conducting business. There is a transformation of organizational value chain and, generally, value systems (Porter, 1985, 2001). Early studies show that the Internet provides firms with a direct interaction with their customers. This fact leads to the gradual decrease of intermediaries in the value chain (Malone et al, 1987). The term disintermediation describes the move towards shorter value chains in electronic commerce. Many recently studies have started to question the disintermediation concept (Burton and Mooney, 1998; Adelaar, 2000). Sarkar et al (1995) introduce the cybermediation term which describes the creation of new markets for electronic intermediaries. Furthermore, both click-and-mortar and online firms seek the benefits of these changes by playing the role of cybermediaries in a market and/or by reducing their transactions costs with the existence of less intermediaries in the value chain.

In this study, I adopt Koh and Nam (2004) Internet utilization taxonomy with three categories of primary activities of the Internet value chain (i.e. logistics, operations and sales and marketing). These three major categories are classified into nine sub-categories of support activities (i.e. alliance, trading, database, human resources, communication, automation, sales, advertising and marketing).



Source: Porter and Millar (1985)

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Figure 1: The value chain model

Performance

Each generic strategy influences business performance with different ways. E-business firms, which follow cost leadership strategy, sell standardized products and services. According to Porter (2001), the customer switching costs are lower because of easy price comparisons. Thus, the firms which pursue this kind of strategy are locked to continuously cut the prices without improving their business performance. However, the Internet helps firms to diminish their costs and re-organize their cost structure offering lower prices and improving their performance. As regards the differentiation strategy, it is based on customizable products and services providing convenience and unique online experience. E-business firms have many ways to differentiate their products such as website design, convenience and customized recommendations. Depending on the way that each firm differentiate its products, it can either enhance or not its business performance. Finally, the market focus strategy is chosen by smaller firms which cannot compete with large, established firms. They may improve business performance focusing on specific segments of the market and offering more customized products.

Furthermore, Brynjolfsson and Hitt (1996) argue that the investment in information technologies may indeed provide improvement in organizational performance. For example, General Electric implemented an Internet-based system to deal with supplier payments. Traditionally, it took it about 60 days to pay suppliers but after this implementation, the payment period was decreased to 15 days resulting in a 12 percent reduction in annual accounts (Murray and Sapsform, 2001).

I measure firm's business performance of online and click-and-mortar firms based on two factors. As regards the click-and-mortar firms, I examine whether the performance enhanced by operating in e-commerce. I also investigate whether online firms improved their business performance by investing on new information technologies.

To sum up, online and click-and-mortar firms choose and follow a competitive strategy. The present study investigates if the choice of competitive strategy is related to firm's business performance.

3. Theoretical Development

The Research Framework

Based on the above four rich but separate domains of literature, I propose an integrated research framework for investigating the interaction relationships among Porter's generic strategies, the online business models, the value chain model, and the business performance, as explained below.

I argue that a firm's business model in online marketplaces (i.e. click-and-mortar and online firms) is closely related to its choice of the competitive strategy (i.e. cost leadership, differentiation and market focus). As a result of the choice of the competitive strategy, firm's business performance varies. Additionally, if a firm combines elements of cost leadership and differentiation strategies, it will have better business performance. Finally, firm's value chain affects the competitiveness of the generic strategies. I summarize these arguments into a research model (as shown in Figure 2) and provide the detailed justifications for each hypothesis in the research framework below.

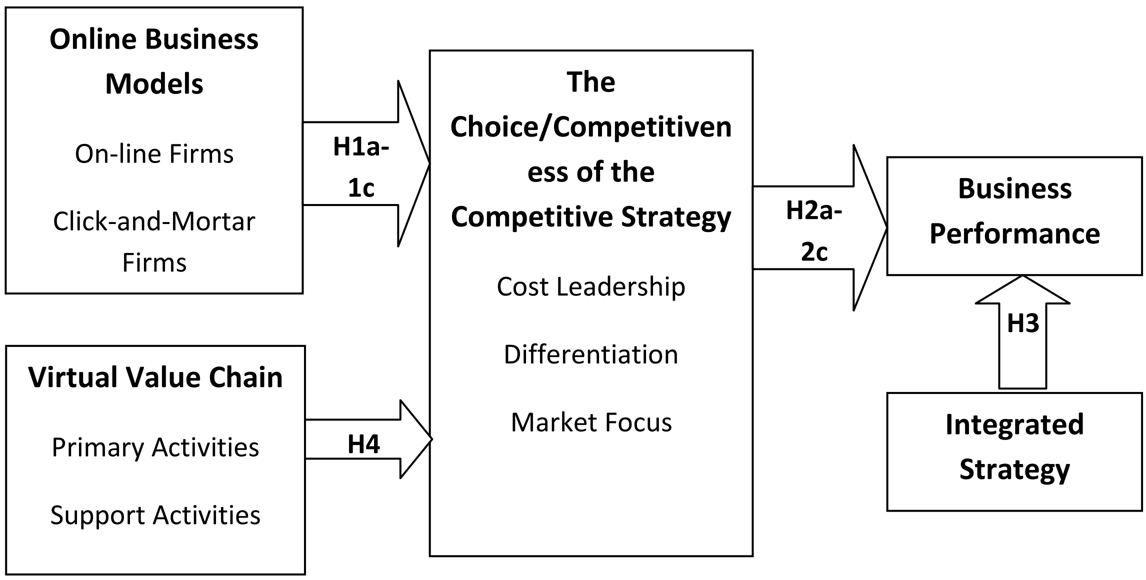

Figure 2: The Research Framework

Hypotheses

The type of business model (i.e. click-and-mortar and online firms) has significant impacts on how a firm competes in an electronic marketplace. The way that a firm competes in e-commerce is clearly connected with the choice of its competitive strategy. In the present study, the competitive strategy is concerned by Porter's three generic strategies (Porter, 1980). The emergence of the Internet provides each business model with competitive advantages. These competitive advantages lead a firm to choose its competitive strategy. Specifically, on the one hand, Verity and Hof (1994) argue that the Internet increases the bargaining power of buyers by improving their access to any information and eliminates or lowers market's entry barriers by leading many brick-and-mortar companies to the danger of extinction. The price flexibility, the ability to take advantage of the first mover's benefits and the lack of conflicts between traditional and online channels are some of the privileges that online firms have. On the other hand, Porter (2001) claims that traditional businesses are not at risk and the market structure does not necessarily change because of the emergence of the Internet. In addition, Brynjolfsson and Smith (2000) argue that click-and-mortar firms have the competitive advantages of brand recognition, reputation and credibility that online firms do not have. Considering that the level of the competitive advantages which results from different business models is connected with the choice of the strategy, I thus propose un-dimensional hypotheses below and use the data to render the conclusion.

Hypothesis 1a: The choice of cost leadership strategy varies significantly between online firms and click-and-mortar firms.

Hypothesis 1b: The choice of differentiation strategy varies significantly between online firms and click-and-mortar firms.

Hypothesis 1c: The choice of market focus strategy varies significantly between online firms and click-and-mortar firms.

In the present study, the meaning of business performance is related to the investment in IT or the entry in e-commerce. Different strategies may have different results in terms of the business performance in the online and click-and-mortar firms. Online firms continuously invest in IT since this is the only way to improve their websites attracting more clients, differentiating their products and improving the business performance. On the other hand, brick-and mortar firms enter in e-commerce changing to click-and-mortar firms. This fact helps them to increase their sales targeting in broader audience. It also diminishes firm's costs since they may close some of their physical stores.

Kim et al (2004) suggest that the cost leadership strategy does not lead to superior business performance for firms operating in e-commerce (i.e. online and click-and-mortar firms). However, according to their study, the differentiation strategy is more likely to produce higher performance. They also argue that market focus strategy is less viable than cost leadership and differentiation strategies. Therefore, it would be interesting to examine if generic strategies are related to business performance based on the data in order to render conclusions.

Thus, the following hypothesis can be formulated with regard to three generic strategies:

Hypothesis 2a: Cost leadership strategy followed by online and click-and-mortar firms is significantly related to business performance.

Hypothesis 2b: Differentiation strategy followed by online and click-and-mortar firms is significantly related to business performance.

Hypothesis 2c: Market focus strategy followed by online and click-and-mortar firms is significantly related to business performance.

As I already mentioned there are some studies (Kim et al, 2004; Merrilees, 2001) which conclude that the integrated strategy combining elements of cost leadership and differentiation strategies (i.e. stuck in the middle) is the most successful one for firms which operate in electronic markets. A reason for this conclusion is the fact that electronic markets are characterized by high instability. Unstable environments require more flexible strategies such as the integrated strategy which combines elements of two competitive strategies. A representative example is the case of Amazon.com which combines cost leadership and differentiation. This strategy helped the firm to reach the top being the most successful e-bookstore in the world. It has higher revenue and sales than competitors such as AutoNation, Inc. and Books-A-Million, Inc.. Specifically, the differentiation is based on branding by offering more brands and on channel management by cooperating with more than one transfer companies to each country. Amazon also decreases its costs by offering low prices and many discounts.

Thus, I offer the following hypothesis:

Hypothesis 3: Integrated strategy combining elements of cost leadership and differentiation (i.e. stuck in the middle), which is followed by Internet-based firms, will result in better business performance than cost leadership and differentiation individually.

As I mentioned in the literature review, the emergence of the Internet affects the value chain model. This influence derives from the change of the role of intermediaries and the business environment. The Internet also encourages firms to find new value-adding processes enhancing the competitiveness of their business strategy. In addition, it allows new value chains in which the players have different relationships compared to those in a traditional value chain. I adopt Internet utilization taxonomy defined by Koh and Nam (2004) where three categories of activities of the Internet value chain (i.e. logistics, operations as well as sales and marketing) are specified. Therefore, it would be quite interesting to investigate if the Internet-based activities of virtual value chain influence the competitiveness of the business strategies, so as to highlight the evolvement of traditional value chain suggested by Porter (1980).

Thus, I formulate the following three hypotheses:

Hypothesis 4: Internet-based activities of firm's value chain (i.e. logistics, operations, sales and marketing) have impacts on the competitiveness of firm's business strategy.

4. Research Methodology

This paper is a multiple-case study where qualitative data is collected. The choice of multiple-case study gives us the advantage for a more robust study where the evidence is considered as more compelling. This method also helps us to strengthen the precision, the validity and the stability of the findings.

I conducted eight (8) case studies in order to validate the hypotheses. Three interviewees are from online firms. The other three are from click-and-mortar firms and the rest two are from brick-and-mortar firms. I think that the choice of three firms of each online business model and two brick-and-mortar firms are sufficient to provide us with valid and reliable results. Furthermore, investigating the performance of offline firms (brick-and-mortar cases), I try to point out differences and similarities between online and offline firms in order to verify the hypotheses. I also strengthen the rigor of this study by collecting as much financial procedures and manuals as possible from each firm. The purpose of collecting this objective data is to provide additional support to the interview data.

Based on the theoretical framework and the collected data, I will make an attempt to see if there is any difference in the choice of the strategies that online and click-and-mortar firms pursue. I will also investigate the inter-relationship between business strategy and business performance. Another important issue that I am going to examine is if the integrated strategy ("stuck in the middle") leads to better performance than the other generic strategies do. Finally, I will test if the Internet-based activities of firm's value chain influence the competitiveness of the business strategy.

Data Collection

According to Yin (2003), the use of multiple sources of evidence leads to more convincing and accurate results. The data collection of this study is theory-driven and is derived by several sources: interviews, documentation and archival records.

As regards the interviews, I selected six firms which operate in electronic market and two which act in offline markets interviewing one manager of each firm. Concerning the companies' location, two of them were located in France and the other six in Greece. The data collection, which took about twenty days to complete, was initially conducted by e-mail in order to arrange the time of the interview and then follow up phone calls were made or the Skype application was used. I also tried to interview managers who had a high position in the organization's stratification system in order to have better and more precise information for the firm. The type of interview was a focused interview in which the respondent answered to a specific number of questions (Yin, 2003). Finally, each interview took place once and lasted almost an hour on average.

The interview instrument was developed with semi-constructed questions derived from the literature on Porter's framework about competitive strategies, from value chain concept and from business performance as discussed above. In detail, I constructed the interview questions based on Koo et al (2004) study about Porter's generic strategies and business performance while Koh's (2005) study about the relationship between firm's value chain and the use of the Internet was the source for the questions related to the value chain concept. The interview questions were also prepared in English and translated in Greek in some cases.

Moreover, the documentation and the archival records as sources of evidence have an important role during the data collection. However, the most crucial problem of interview method is the respondents' bias. By collecting administrative and organizational documents such as internal reports, manuals, documents about internal processes and organizational charts and budgets, I tried to verify respondents' answers and decreased their bias for their firm.

According to Yin (2003), the case study protocol is a way of increasing the reliability of the case study research. It is essential for a multiple-case research since it guides the investigator to collect the data from each case. It also consists of four sections (as shown in Appendix chapter). First, an overview of the case study project where project objectives, case study issues and relevant readings about the issue are presented. Second, the field procedures where the access to case studies sites and the schedule of the data collection are demonstrated. Third, the case study questions where there is a presentation of the specific questions on which the investigator is going to be based in order to collect the data. In the present study, the main questions are related to the distribution channel that the firm uses and the extent to which it utilizes the Internet for specific functions, such as the sales and marketing as well as the human resources. There are also questions connected with the firm's business performance related to its competitors. The fourth section has to do with the guide of the case study report where the outline of the data is presented.

Demographics

Of the eight firms interviewed, three were online, three were click-and-mortar and the rest two were brick-and-mortar. As shown in Table 1 below, click-and-mortar firms had higher revenue than online firms on average. In addition, click-and-mortar firms operated in their industry longer than online firms while online firms had fewer employees than click-and-mortar firms on average. Online service and retail were the main industries of online firms while import, infrastructure and media were click-and-mortars' industries. As regards the characteristics of managers who were interviewed, more than half of them had a position in senior management while the respondents in two online firms had a mid-level management position. The brick-and-mortar firms of the research operated in advertising and manufacturing. The one's size was really small while the size of the other one was mid-level.

Firm Type	Revenue (in €million)	Type of Industry	Years in Industry	Number of Employees	Interviewees' Position
Pixmania (online)	More than 30	E-commerce-Internet	11	1400	Business Developer – Marketing – Traffic projects
Urban Rivals (online)	Between 5 and 10	Online video games	4	70	Business Developer
Technopneumatic (Online)	Between 5 and 10	Industrial automation & workshop and repair equipment	36	38	Chief of Accounting
Attica Media Group (click-and-mortar)	Between 10 and 20	Media and Publications	17	400	Chief of Marketing
Terna (click-and-mortar)	More than 30	Infrastructure construction and Energy	39	1500	Chief of Auction division, of costing of projects and of insurance division
Kanellakis (click-and-mortar)	Between 10 and 20	Import and suppliers of plumbing and sanitary	27	37	Chief of Accounting
Frezyderm (brick-and-mortar)	Between 10 and 20	Production of cosmetics products, production and trade of pharmaceutical products, trade of baby nutrition products	20	127	Chief of Accounting
Ez-Dot (brick-and-mortar)	Less than 5	Graphic Arts and Advertising	10	10	CEO

Table 1: Demographics by Revenue, Industry, Years in Industry, Number of Employees and Interviewees' Position

Data Analysis

Yin (2003) claims that there are three general strategies – relying on theoretical propositions, thinking about relevant explanations and developing a case description - which help you to treat the evidence properly, provide imperative conclusions and eliminate alternative interpretations. In the data analysis, I relied on all three strategies. I started from the formulation of theoretical propositions based on the theoretical framework and the research questions. Then, I justified the possible explanations in the hypotheses arguments. And finally, I pursue multiple interviews to describe the firm-cases.

Miles and Huberman (1994) suggest two types of qualitative analysis: within-case analysis and cross-case analysis. Within-case analysis has to do with the description, understanding and explanation of a single case. On the other hand, cross-case analysis is linked to multiple-case studies. Thus, the data analysis is related to the second type. I made this decision for several reasons. First of all, I wanted to enhance study's generalizability. Although this goal is unsuitable for a qualitative research, I would like to know if the study's findings are relevant or applicable to other similar settings. Another reason is the deeper understanding and explanation. It will help me to see if the hypotheses are supported or rejected through the examination of differences and similarities among the eight cases. The data analysis is also case-oriented (Miles and Huberman, 1994) where I formed 'families' of cases – online firms, click-and-mortar firms and brick-and-mortar firms – and investigated if the hypotheses were supported or rejected by the data.

Therefore, I classified the data based on what distribution channel each firm uses. The data collected by online and click-and-mortar firms was used in order to test the hypotheses. These two groups -online and click-and-mortar firms- were compared so that any different and similar information which support or reject the hypotheses to be found. The supportive role of the brick-and-mortar firms is to compare them with firms which operate in electronic markets and examine how different or similar they are in terms of verifying the hypotheses.

5. Results

Hypotheses 1a-1c

To begin with the hypotheses 1a-1c, I analysed the data collected by online and click-and-mortar firms separately based on each firm's generic strategy. My purpose was to see if there was a significant difference in the choice of the strategy between the two online business models. The group of online firms consisted of Pixmania, Urban Rivals and Technopneumatic Companies while the group of click-and-mortar consisted of Attica Media Group, Terna and Kanellakis Companies.

As regards the hypothesis 1a, it assumes that there is a significant difference between online and click-and-mortar firms based on the choice of cost leadership strategy. The relative question to the respondents were to rate the firm's business performance over the past three years related to their competitors based on the price competitiveness, cost advantage and cost consciousness.

The first case is Pixmania Company. It has excellent price competitiveness because, as manager claimed, they offer significant lower prices than competitors. For example, one of Pixmania's competitors, Shopping.com, sells a Blackberry smartphone about 30-40 euro higher than Pixmania. Nevertheless, in terms of actual cost the data did not show that the firm follows cost leadership strategy. The reason is that the costs of the companies in this industry are almost the same for everyone since all use only the Internet channel to sell the products. Some small differences may exist based on beneficial agreements with suppliers. Urban Rivals Company is on the industry average with regard to price competitiveness and cost advantage. The manager claimed that the price competitiveness depends on the payment system and the commissions that each firm gets. There are two models of payments: fix model and commission model. They also offer quantity of credits. For instance, the customers pays 50 euro and takes 50 credits. Most of the companies in the industry follow the same payment systems. They cannot easily obtain cost advantage since the technology is also the same for everyone. With the term 'technology' the manager meant the technology which is used for the payment systems, the transaction process and the orders. The company is more client-oriented than cost-oriented. Someone can understand it from the fact that the firm offers different product types depending on customers' needs having the product quality as priority and not the cost. This means that the price consciousness of the company is poorer than competitors. So, Urban Rivals Company clearly does not pursue cost leadership strategy. The last company of the online group is Technopneumatic Company. According to its manager, the firm is price competitive charging lower prices than competitors. A representative example is that if a customer buys a detergent for a machine from Technopneumatic, it will cost 5 euro lower rather than buying it from firm's competitors. It also has good cost advantage and consciousness since it obtains lower transaction costs. The big experience, that it earned operating for about 40 years in the industry, gives to it the bargaining power to obtain more beneficial agreements with suppliers than competitors do. Therefore, I concluded that Technopneumatic Company follows a cost leadership strategy.

Moving to the group of click-and-mortar firms, the results were different. As the manager of Attica Media Group Company argued, the company is price competitive because it offers a little bit lower prices than competitors. For instance, Imako Company is the main competitor. Attica Media group sells a women's magazine (i.e. Shape) 2, 80 euro while Imako's women's Magazine (i.e. Woman) costs 3 euro. It also has a general consciousness since decreasing the costs, it tries to adjust to the changes of the environment under the Greek economic crisis. They clearly pursue a cost leadership strategy. In addition, Terna Company follows cost leadership strategy but for a different reason. The manager pointed that the industry in which the firm operates is related to auctions for construction works and energy. So, each firm makes its offer and the best offer (i.e. lower price) is accepted. For this reason, it tries to minimize its costs and prices as much as it is possible. Finally, the last company of click-and-mortar group is Kanellakis Company. According to its manager, the competition in the import industry, where Kanellakis Company operates, is very tough and the costs and prices depend on the transaction costs. Thus, it clearly makes an attempt to diminish its costs and be price competitive. Looking the company's internal reports and financial highlights, I understood that firm has cost advantage from competitors because its prices and costs are lower by making effective deals with foreign suppliers. Therefore, it obviously follows a cost leadership strategy.

Online firms are more likely to reach price competitiveness rather than cost advantage. The reason for this lies to the fact that online firms cannot easily achieve brand-loyal customers. So, they are forced to compete on price. As regards the cost advantage, there are no big differences in the cost among online companies since all try to decrease their costs using the Internet channel. However, it depends on the size of the firm. Larger and established companies, like click-and-mortar firms-cases of this study, have more resources in order to diminish their costs reaching cost advantage and following cost leadership strategy. Based on this reasoning, the data analysis showed that the hypothesis 1a is supported. Two of the three online firms do not pursue cost leadership strategy while all click-and-mortar firms follow this kind of strategy, according to the data below.

The hypothesis 1b postulates a difference between the two groups based on the choice of differentiation strategy. The relative question to the managers were to rate the company's business performance over the past three years related to their competitors based on the design differentiation, product/service quality and breadth product/service line.

To be more specific, Pixmania Company pursues a differentiation strategy. The manager said that a highly cost project has been developed for the optimisation of 26 sites in terms of design and friendly user during the last 3 years. It is something completely different from its competitors and more customers are going to be attracted. He also claimed that the company added new services and products categories expanding its breadth of line (e.g. pixplace, e-merchant). The company offers a customer platform in its website where the customers can rate the quality of the products. Evaluating the results, I concluded that the quality of the products and services are in a good level. In addition, Urban Rivals Company also comes with a differentiation strategy. The data undoubtedly showed it since they hired art creative artists and scenario development employees in order to enhance and differentiate the design of the game. They also managed to greatly expand firm's breadth of product and service line offering a new multiplayer massive organization with new options, comics, figures and games. Moreover, they provide a unique and high quality experience to firm's customers as the game has uncommon figures, characters and graphics. About Technopneumatic Company, the things were a bit complicated. I concluded that it partially follows a differentiation strategy. Company's design differentiation is on average because its products have standard design from the manufacturer who also supplies other companies with the same products. However, the quality of the product and service is very good considering that company delivers high quality products and services to its customers. If a customer makes complaint about the product quality, the company will accept the return of the product and give his money back. Regarding the breadth of product/service line, the manager pointed out that it is in a good level but there are improvement margins adding new product lines.

Furthermore, I had almost the same results in click-and-mortar firms. In the Attica Media Group case, the data showed that it partially pursues a differentiation strategy. As the manager argued, the product/service quality and design differentiation are in a good level since the media and publication industry is highly competitive. The differentiation of the product is based on the material of each magazine and on the human resources effectiveness. They coordinate with external foreign partners for new ideas and try to motivate their employees with bonus. Nevertheless, the breadth of products and services are very good because the firm offers a huge variety of magazines. For example, they sell magazines for gadgets, video games, fashion and hunting. About Terna Company, the data revealed that they follow a differentiation strategy. The manager claimed that the design differentiation has to do with the format and the structure of the auctions. Based on this reasoning, they are in a good level by earning most of the auctions in which they participate. The product and service quality is good since it delivers the construction works on time and without problems. However, if any problem exists, the company will pay for it offering full insurance to its customers. At the last three years they focused on energy products and expanded firm's product/service line with stable steps. Moreover, Kanellakis Company clearly made a significant attempt to differentiate its products from competitors. It was clear from the data that they select very carefully their customers delivering unique and high quality products with safety and on time. Although, the company's product line consists of about 100 different product categories, they want to expand the breadth of product line.

The emergence of the Internet provides customers with access to more information about products/services. They may compare the products more easily. This fact bolsters customers' bargaining power since their switching costs are decreased. Thus, companies which operate in online marketplaces can choose to adjust their products to customers' needs differentiating them from competitors. There are many ways which lead to the differentiation of products/services. An online company may differentiate its products' design by changing some key characteristics in its website. It may also offer high quality products and services by providing safe and quick transactions. Finally, an online firm may expand its breadth of product/service line by enriching its products/services. All these methods of differentiation are almost the same for click-and-mortar firms. Because of that, there was no significant difference between online and click-and-mortar firms. Therefore, the hypothesis 1b was not supported.

The hypothesis 1c postulates a difference between the two groups based on the choice of market focus strategy. The relative question to the managers were to rate the company's business performance over the past three years related to their competitors based on the market focus on price and cost and on the market focus based on innovative process and geography.

As regards Pixmania Company, there is no big difference from the competitors with regard to market focus based on price and cost. The manager supported that there is an adaptation of the price and cost to every country in which the company operates. In addition, the price is adapted to the local economic and development conditions as well as the customers' needs. The costs mainly depend on the transaction from the company to the customer. All these tactics and methods are also followed from competitors. Nevertheless, they are looking for innovative options offering unique delivery services. For example, if the delivery of the product takes place later than the agreed date, the company will give a gift to its customer. They also operate in 26 different countries while their competitors operate in 20 countries in average. This evidence showed that although the company does not focus on the price and cost, it clearly does it based on innovation and geography. Thus, the company partially pursues a market focus strategy. The data is more unequivocal to Urban Rivals case. It follows a localized price and cost company policy depending on the country in which it operates. For instance, the Romanian basic salary is 400 euro while the German basic salary is 1300 euro. If a Romanian buys 20 euro credits, he will take 50 credits. Unlike a German who will take 1 credit per 1 euro. In addition, an innovative way to focus on each market is its participation in many expositions to the countries of interest. However, their competitors operate in more countries. To this extent the company comes with a market focus strategy. The reason for this lies to the fact that their competitors do not perform in much more countries. Furthermore, Technopneumatic Company operates only in Greece where the cost and price are fixed for everyone within the industry. The company tries to find innovative ways to focus on specific segments of the market but their competitors do it as well. In this way, the company does not follow a market focus strategy.

Concerning the click–and-mortar firms, Attica Media Group operates only in Greece and tries to attract customers from specific segments of the market with innovative ways such as Internet-based magazine and gifts-gadgets. However, its competitors implement the same innovative ways to attract customers. In addition, the price and cost are the same for everyone. It offers products in fixed prices either through stores or company's website. Based on this reasoning, it is obvious that the company does not come with a market focus strategy. In another way, Terna Company undoubtedly follows a market focus strategy on the grounds that they adapt the price of the auctions to each customer separately trying to find innovative ways in order to surprise them positively. The company also acts in S.E. Europe, Asia and South America adjusting to each country economic conditions, legislation and culture. Finally, Kanellakis Company tries to focus on price and cost depending on the customer. As the manager claimed, they have agreement with each big partner separately. These agreements are related to payment methods, orders' volume and delivery time. However, the innovation and geography focus is in moderate level since the company operates only in Greece following the same tactics for everyone. Thus, I suggested that the company partially pursues market focus strategy.

The market focus strategy suits more in small companies because they cannot compete with large, established firms. So, they choose to focus their efforts on specific segments of the market. This focus may be based on price, cost, innovation and geography. The first two kinds of focus are strongly related to cost leadership strategy but for a niche market. The adjustment of price to each country or to each customer decreases the costs. The rest two are related to the differentiation strategy where the companies try to differentiate their products providing innovative products which cannot be imitated easily by competitors or offering their products/services to more countries or regions than competitors do. In the cases, there is a small difference among online firms since larger firms either partially or completely follow market focus while the smaller do not. On the other hand, the size difference did not influence with the same way the results in click-and-mortar firms. However, the results are similar for both online business models. Consequently, I justified that the hypothesis 1c was not supported.

Online Business Model	Firms	Hypothesis 1a - Supported	Hypothesis 1b – Not Supported	Hypothesis 1c – Not Supported
Online Firms	Pixmania	Does not follow cost leadership	Follows differentiation	Partially follows market focus
	Urban Fields	Does not follow cost leadership	Follows differentiation	Follows market focus
	Technopneumatic	Follows cost leadership	Partially follows differentiation	Does not follow market focus
Click-and-Mortar Firms	Attica Media Group	Follows cost leadership	Partially follows differentiation	Does not follow market focus
	Terna	Follows cost leadership	Follows differentiation	Follows market focus
	Kanellakis	Follows cost leadership	Follows differentiation	Partially follows market focus

Table 2: Results for Hypotheses 1a-1c

Hypotheses 2a-2c

I examined the hypotheses 2a-2c using two different perspectives in order to evaluate the power of Porter's generic strategies as performance predictors as accurately as it was possible. Firstly, I analyzed the data to conclude if all three generic strategies were correlated to the business performance when all firms were considered together. The other point of view was to investigate which generic strategies were good performance predictor for online and click-and-mortar firms separately. It was interesting to see the difference between these two online business models based on their strategy and business performance. The first perspective was actually the test of the hypotheses 2a-2c.

According to the data, five of six companies enhanced their business performance either by operating in electronic commerce or by investing on IT/EC. And, only one (i.e. Technopneumatic Company) did not improve its performance by investing on new technologies. More specifically, Pixmania Company had a 15% increase in its total turnover by investing on a highly cost project in order to improve the design of its website. Urban Rivals Company also enhanced its business performance investing on new projects related to Android mobile platform where the customers have the opportunity to play company's online game through mobile phones. They also improved the project management tools such as Prince 2 and Scrum. In addition, Attica Media Group entered in e-commerce offering online magazines. The business performance was improved by increasing its overall sales and attracting more advertisements. Moreover, Terna Company's management team decided to use the Internet channel resulting in the activation in electronic auctions, more successful promotion and advertising as well as general improvement of business performance. Finally, Kanellakis Company simply added the Internet channel in its existed distribution channel. The result was to attract more customers and increase its sales.

Based on the aforementioned, the cost leadership and market focus strategies were found to be partially correlated to the business performance when all firms were considered together. In detail, Pixmania and Urban Rivals Companies, which did not follow cost leadership strategy, improved their business performance. On the other hand, Attica Media Group, Terna and Kanellakis Companies, which pursued cost leadership strategy, improved their performance. However, Technopneumatic Company, which tried to decrease its costs, did not improve its business performance. In the matter of market focus strategy, Urban Rivals and Terna Companies came with this type of strategy and improved their performance. Pixmania and Kanellakis Companies partially followed market focus strategy and enhanced their performance. Moreover, Attica Media Group did not pursue this strategy and had better results in its performance. Technopneumatic Company did not also focus on specific segments of the market but there was no improvement of its performance.

Concerning the differentiation strategy, it was found to be correlated to the business performance when all firms were considered together. Specifically, Pixmania, Urban Rivals, Terna and Kanellakis Companies differentiated their products from competitors improving their business performance. In addition, Attica Media Group and Technopneumatic Companies partially pursued differentiation strategy. But, the former improved its performance while the latter did not enhance its performance.

From the above data analysis, it is obvious that the cost leadership strategy is not performance predictor for the online firms. On the other hand, all click-and-mortar companies came with cost leadership strategy and there was improvement on their performance. As regards the differentiation strategy, it is a performance predictor for click-and-mortar firms. However, the results in online firms showed that the differentiation strategy is a performance predictor for them but not completely. Last but not least, market focus strategy partially is a performance predictor for click-and-mortar firms. Concerning the relationship between online firms and market focus strategy, I concluded that this strategy is not a very accurate performance predictor for this online business model.

To sum up, the hypotheses 2a and 2c were found to be partially supported while the hypothesis 2b was completely supported. All generic strategies had impact on companies' business performance in a certain degree. Either investing in new technologies or adding the Internet channel in their existing distribution channel, all companies made an attempt to seek the benefits of the Internet channel. Some of them did it better than others. It depended on the type of strategy and on the business model that they had.

Online Business Model	**Firms**	**Hypothesis 2a – Partially Supported**	**Hypothesis 2b – Partially Supported**	**Hypothesis 2c - Supported**
Online Firms	Pixmania	Does not follow cost leadership & Improve its performance	Follows differentiation & Improve its performance	Partially follows market focus & Improve its performance
	Urban Fields	Does not follow cost leadership & Improve its performance	Follows differentiation& Improve its performance	Follows market focus & Improve its performance
	Technopneumatic	Follows cost leadership & Does not improve its performance	Partially follows differentiation & Does not improve its performance	Does not follow market focus & Does not improve its performance
Click-and-Mortar Firms	Attica Media Group	Follows cost leadership & Improve its performance	Partially follows differentiation& Improve its performance	Does not follow market focus & Improve its performance
	Terna	Follows cost leadership & Improve its performance	Follows differentiation & Improve its performance	Follows market focus & Improve its performance
	Kanellakis	Follows cost leadership & Improve its performance	Follows differentiation & Improve its performance	Partially follows market focus & Improve its performance

Table 3: Results for Hypotheses 2a-2c

Hypothesis 3

According to the theory, a firm follows an integrated strategy when it combines elements of cost leadership and differentiation strategies ("stuck in the middle"). The environment also plays an important role. Stable environments require a clear strategy (i.e. cost leadership, differentiation or market focus) whereas the unstable environments require flexibility and combination of more than one generic strategy. Analyzing the data for the hypothesis 3 in order to see if the integrated strategy leads to better business performance, I took into account the firms' business performance, the industry in which each firm operates and if they followed cost leadership and differentiation strategies at the same time.

When all companies were considered together the results were not clear. However, when I separated the data to online and click-and-mortar firms, the results were more comprehensible. In detail, the hypothesis 3 is rejected when I analyzed the data of online firms-cases whilst it was supported for click-and-mortar firms.

More specifically, Pixmania Company operates in retail e-commerce where the changes take place very often because of the low entry barriers and the development of new technologies. In this unstable environment, the firm does not combine elements of cost leadership and differentiation strategies while its performance was increased. As regards Urban Rivals Company, it also acts in an unstable environment. The online games video is a quite changeable industry where its development depends on new technologies such as Android mobile application. However, the company does not pursue an integrated strategy whereas its performance was improved. In addition, Tecnhnopneumatic Company operates in a more stable environment than the prior two companies. The industrial automation and workshop and repair equipment are industries with small changes. New products are developed with low pace and the competition is based on specific factors which are unchangeable. Nevertheless, it combines cost leadership and differentiation strategies while its performance was dropped.

For click-and-mortar firms, the data showed completely different things. All companies combined elements of cost leadership and differentiation strategies and improved their performance. As regards the industries in which firms operate, Attica Media Group acts in Media and Publication industry. This kind of industry is unstable since the competition basement changes often and new ideas of advertising and promotion are developed after the emergence of the Internet. Moreover, Terna Company operates in infrastructure construction and energy industries. Both are unstable industries. The former depends on legislation issues of each country in which the company acts. The laws change very often and the company has to adjust. The latter is one of the most developed industries during the last years. The dynamics of this market are continuously converted since new competitors and technologies are emerged. Finally, Kanellakis Company operates in import of plumbing and sanitary industry. This industry is characterized by few changes since the products are standard and the competition basement is stable.

Based on the theory, many authors argue that the integrated strategy is one of the most successful strategies in electronic markets since these markets are quite unstable. However, Porter argues that a company will fail to reach higher performance if it combines elements of cost leadership and differentiation strategy. The results of this study were contradictory depending on the online business model in which each firm-case belongs. Specifically, the online firms-cases clearly supported Porter's argument while click-and-mortar cases partially supported the Porter's opponents' argument. One possible explanation for this conclusion may be the difference among companies' size. As I already mentioned, online firms-cases were a little bit smaller in terms of annual revenue than click-and-mortar firms-cases. So, the former had not high resources in order to financially support integrated strategy while the latter could more easily combine elements of cost leadership and differentiation strategies by providing huge financial support without thinking some possible loses.

Online Business Model	**Firms**	**Hypothesis 3 – Supported**
Click-and-Mortar Firms	Attica Media Group	Follows integrated strategy & Improve its performance
	Terna	Follows integrated strategy & Improve its performance
	Kanellakis	Follows integrated strategy & Improve its performance

Table 4: Results for Hypothesis 3 – Click-and-Mortar Firms

Online Business Model	Firms	Hypothesis 3 – Not Supported
Online Firms	Pixmania	Does not follow integrated strategy & Improve its performance
	Urban Fields	Does not follow integrated strategy & Improve its performance
	Technopneumatic	Follows integrated & Does not improve its performance

Table 5: Results for Hypothesis 3 – Online Firms

Hypothesis 4

The hypothesis 4 has to do with the impact which Internet-based activities of a firm's value chain have on the competitiveness of the business strategy. As I already mentioned, the activities are devised in three main categories: logistics, operations and Sales and Marketing. I asked the managers to rate the extent to which the company utilize the Internet for specific functions included in firm's value chain. Initially, I analyzed each firm-case separately in order to see in which extent they utilized the Internet for company's functions. After that, I concluded if these Internet-based activities influenced or not the business strategy.

To begin with Pixmania Company, it uses the Internet in high level extent in all activities of the value chain. More specifically, the manager claimed that the firm uses specific online project management tool (i.e. Scrum) for the product development. The strategic alliances in most of the cases take place through e-mails, teleconferences and Skype. However, when a strategic alliance is quite important, the negotiations take place via face-to-face meetings. For the trading activities, the company also uses the Internet in great extent since the placing of orders and the payments to suppliers occur via the Internet. For example, the payment happens through e-banking while the orders take place via an online system where the company enter its orders. As regards the operations, the use of the Internet depends on further activities. Concerning the access to database, the access from suppliers and customers to the firm's inventory database is not completely permitted. The customers can also see some key financial highlights of the company through its website while the suppliers have bigger access only after negotiation. There is also a moderate extent of the Internet use for manufacturing schedule and sales database access. In addition, the employees' trading, payroll, retirement and insurance are connected with the Internet. The same tactic is followed for newsletters, company policies, employment bulletin and manuals. They use the outlook express calendar for the organization of the meetings and the schedule of meeting rooms.

Moreover, it uses the Scrum, which is an online project management tool, for the workflow management and the project coordination. The last activities are related to Sales and Marketing. The manager claimed that the only way the company sells its products is via the Internet. He also argued that the product information is only posted in company's website and the advertising occurs with two ways. They use either online marketing by conducting marketing affiliation, Google display, SEO, sponsorships and/or off-line marketing by advertising the company through magazines, newspapers, radio spots, metro advertising, participation in conferences and expositions. Finally, as regards the consumer survey and suggestions, the firm has an extent customer service department which provides online different options such as complaints, suggestions for services and assessments for the quality of the products. In addition, the company follows a differentiation strategy and partially focuses on specific segments of the market. The use of the Internet technologies in process management, negotiation, operation and manufacturing provides the company with the competitive advantage. It also differentiates its products and shapes its competitive edge by organizing the business processes with the use of the online project management tool (i.e. Scrum). Its total turnovers also increased the last three years. This evidence demonstrated that the use of the Internet positively affects the company's strategy.

In the Urban Rivals case, the results were similar with those of Pixmania case. More thoroughly, the manager claimed that the firm uses a combination of two management tools (i.e. Prince 2 and Scrum) for the product development. The strategic alliances take place through mail, Skype and face-to-face meetings. A supplier has full access in firm's inventory via the Internet but only after negotiation. The orders occur either via the online insertion system or via fax. They also use the e-banking system in order to pay the suppliers. As regards the bidding, the firm uses the Internet for searching of information and appropriate exposition in which it may participate. The operations of the company are mainly based on the Internet. More specific, the customers have not access in firm's inventory while the suppliers may have this kind of access after negotiation. A big partner has full access in its manufacturing schedule only through the Internet. Moreover, the company uses a commission model where they give a link which the partner can use in order to have access in firm's sales but only after negotiation. The human resources operations are fully based on the Internet. There is also an Internet calendar system for newsletters. Most of the manuals are available in company's internal online system but some of them are shared by hardcopy. In addition, the teleconferencing comes about using Zimbia mail through personal calendar, phone calls and

Skype. The schedule of meetings and the workflow management occur in company's online calendar system while the coordination of the projects becomes by using the Prince 2 online management tool or with face-to-face meetings. Everything about company's sales is happened in the Internet, the product information are available only in company's website and the advertising takes place through the Internet, SMS campaigns, magazines, television and expositions. The company has also a online service client platform in which the customers make their suggestions and complaints. Urban Rivals Company uses the Internet technologies in high extent for the majority of the value-chain activities. It differentiates its products and services by using the combination of two online project management tools (i.e. Scrum and Prince 2). These help the company to better organize its business processes and offer higher quality product. In addition, it focuses on specific segments of the market by following different advertising tactics depending on the country in which it operates. All these Internet-based activities help the company to earn competitive advantage by affecting effectively its business strategy and improving its performance.

Furthermore, Technopneumatic Company does not use the Internet in great extent but only for few activities. According to its manager, the product development and the negotiations for the strategic alliances happen through face-to-face meetings. The supplier does not have any access to firm's inventory, the payment to suppliers takes place through checks and only for orders it uses an online system but mainly they occur by fax. Furthermore, the customers have the opportunity to see some key financial features in company's website and the manufacturing schedule is announced in company meetings. In addition, the manuals are mainly hardcopy while some of the newsletters are shared online. Moreover, the organization uses the Internet for the workflow management and project coordination in great extent via a project management tool. As regards, the sales and marketing activities, they use the Internet in a moderate extent. For example, the marketing of the company takes place mainly through word-of-mouth since one customer suggest to another one to buy products from Technopneumatic Company. It is clear that the company uses the Internet mostly for selling its products and project coordination. In conclusion, the Internet-based activities of firm's value chain are few and have no significant impact on company's strategy since they do not provide it with competitive advantage.

Moreover, Attica media Group Company uses the Internet in good level of extent in logistics activities while in operations and sales and marketing the level of extent is increased. As the manager told, the company's product development is a process where the Internet plays a key role. The use of e-mails between the columnists and editors is the way they develop the magazines each month. The strategic alliances with suppliers and advertising companies take place via e-mails as well, but when the alliance is a big deal they pursue face-to-face meetings. For example, when a company is going to advertise its products through Attica's magazines for a long period then there are many meetings for negotiations. In addition, the orders to the suppliers become either via e-mails or phone calls while their payment occurs basically by checks. The suppliers and customers have full access in company's inventory and sales. Employees' payroll, retirement and insurance are based on contracts and the payment occurs via banks. Furthermore, the company policies are posted in company's website and the newsletters are shared via emails. The schedule of the meetings takes place through word-of–mouth and emails while they use the Internet (i.e. emails) for the workflow management and project coordination in order to give briefs about the progress. There is also a platform in firm's website where the customer has the opportunity to place orders, make complaints and suggest corrections. The advertising is based mainly on online marketing through advertisements in websites related to magazines' subject. But, they also have advertisements in other magazines which belong in the company, newspapers, metro stations and television. I wrapped up that the company mainly follows a cost leadership strategy. The costs are decreased because not all the columnists work in company's office but there is distance coordination via e-mails. The company also has a variety of websites where it can advertise its products with very low cost. Thus, these Internet-based activities help the firm to decrease its cost and earn competitive advantage.

Additionally, Terna Company uses the Internet in very great extent for the main activities of its value chain. More specifically, the company uses the Internet for the development of its auctions conducting a variety of searches and contacting with partners. The strategic alliances negotiations are mainly based on online communication. Concerning the trading, the manager argued that they have full access to suppliers' websites where they can analyze their inventory and place orders. The payment occurs mainly via e-banking. On the other hand, suppliers and customers have access to its inventory and sales using company's website as well. The employees' payroll, retirement and insurance also take place only via e-banking. In addition, the operations connected to newsletters, manuals, company policies and employment bulletin are Internet-based in a very great extent. They have an internal online project management tool through which they manage the workflow and coordinate the projects. The schedule of meetings becomes through emails to organization's employees informing them for the time and place of the meetings. Finally, the costumer survey and suggestions occur via a platform in its website while the advertising is based on both online and offline tactics. The Internet based-activities of firm's value chain such as in the customer service, the product development and the relationship with suppliers help the company to improve its performance and pursue its business strategy more effective.

The last but not least company is Kanellakis Company. It does not use the Internet in high extent. According to its manager, the product development and strategic alliances take place mainly via face-to-face meetings. They place orders by phone or fax and few of their suppliers are paid by e-banking. They do not also have access to suppliers' inventory and suppliers do not have access to company's one. In addition, the employees' payroll takes place only via e-banking while their insurance and retirement is based on contracts. In firm's website someone can find the company policies and the majority of the newsletters are shared by email. The manuals are distributed either via hardcopy or emails. Moreover, the operations related to automation are based on the use of the Internet in small extent. The sales and the orders from customers occur by phone or fax and the advertising is mainly based on offline methods. Kanellakis Company, as I already mentioned, follows an integrated strategy which is supported in a certain degree by offline activities. So, the Internet does not significantly affect firm's business strategy.

Based on the data analysis above, I concluded that the hypothesis 4 is partially supported. The majority of the cases use the Internet in a great extent for activities of their value chain which in turn influence their strategies in a high level. Only two of the six cases do not operate their functions using the Internet in high extent but only in small or moderate extent.

All firms that I analyzed use the Internet either in high or in low extent for many of their business processes. It is a logical result of the Internet development. Companies, that managed to seek the benefits of the Internet use, improved their internal communication allocating the knowledge within the organization faster and more accurate, enhanced their sales and marketing results, established better relationships with their partners and, generally, improved their business performance. Moreover, the traditional value chain started to completely convert to virtual one. The companies, that will manage to move faster into this conversion, are going to develop more innovative business processes taking the first mover advantage.

Online Business Model	Firms	Hypothesis 4 – Partially Supported
Online Firms	Pixmania	Uses the Internet in high level extent in all activities of the value chain
	Urban Fields	Use the Internet in high level extent in all activities of the value chain
	Technopneumatic	Does not use the Internet in great extent but only for few activities
Click-and-Mortar Firms	Attica Media Group	Uses the Internet in good level of extent in logistics activities while in operations and sales and marketing the level of extent is increased
	Terna	Uses the Internet in very great extent for the main activities of its value chain
	Kanellakis	Does not use the Internet in high extent

Table 6: Results for Hypothesis 4

Brick-and-mortar cases

Brick-and-mortars are firms which have not added the Internet channel in their distribution channels. This means that they distribute and sell their products/services only via physical stores. They may have website but they use it as a way to advertise their products in order to attract customers. I interviewed two managers of brick-and-mortar companies: Frezyderm and Ez-dot. The reason why I did it is the verification of the hypotheses. I would like to see if there is any important difference in the business strategy between firms which use the Internet channel and brick-and-mortar firms.

To begin with the hypotheses 1a-1c, they do not follow a cost leadership strategy because their production costs and products prices are stable and unchangeable. So, their strategy is different from click-and-mortar firms but not from online firms. As regards the differentiation strategy, it is clear from the data that they partially pursue this kind of strategy since their design differentiation is almost the same with the competitors' but they have a little bit better product and service quality. Therefore, I concluded that they do not have any difference from online and click-and-mortar firms. Finally, they do not focus on specific segments of the market. The data showed that these firms either are on the average related to their competitors or try to focus their efforts based on cost and price but without having such a big difference from other companies which operate in the same industry. Thus, their strategic strength based on market focus strategy varies from online and click-and-mortar firms.

As it aforementioned, these two companies only partially pursue a differentiation strategy. But, Ez-dot has no improvement in its performance after investing in new technologies whereas Frezydorm has enhanced its performance. So, I cannot make any conclusion for the hypotheses 2a-2c considering them together but only if I consider them separately. Frezydorm tries to differentiate its products by offering higher quality products than competitors. Its strategy helped it to have a significant improvement in its performance. On the other hand, Ez-dot operates in an industry where the differentiation plays a crucial role. It is a small company but they try to offer better products and services than competitors. However, this strategy has not provided them with better results.

Moreover, it is also clear that both Frezyderm and Ez-dot do not combine elements of cost leadership and differentiation strategy since they do not pursue cost leadership strategy at all. So, I cannot conclude if the integrated strategy leads to better performance in brick-and-mortar firms.

Both companies use the Internet for activities of their value chain in a small extent. More specifically, the functions of logistics are mainly based on face-to-face meetings and their partners do not have access to company’s inventory and financial highlights. Concerning the operation activities, the use of the Internet is almost something unknown. Frezyderm Company utilizes the Internet in a moderate extent regarding the sales and marketing activities while Ez-dot Company mainly adopts offline marketing methods. As the data showed, the activities of companies’ value chain are based on the Internet in small extent and thus I cannot sum up that the Internet affects their business strategy.

6. Discussion, Conclusions and Future Research

In this chapter, I will provide the reader with the key findings, the implications of the study for managers and researchers, the future research and the conclusion.

Key Findings

The most significant finding of the study is the distinction between the two online business models as regards the choice of the strategies that firms pursue in order to increase the level of their competitiveness and the competitive strategy which is performance predictor. Specifically, online firms are more likely to choose a differentiation strategy while click-and-mortar firms are more reliant to come with a strategy based on cost. The study suggests that the differentiation strategy has the strongest contribution to business performance. However, this incompatible finding is in line with the theory where larger firms as click-and-mortar cases of the study have more resources in order to be able to decrease the costs as much as possible.

One explanation of this finding is that in an unstable market environment, it is difficult to forecast a firm's strategic behaviour and how the market will react to this. So, many online firms opt for a competitive strategy without taking into account the impact that it could have on business performance. For example, many of them follow a price strategy disregard the losses. They may believe that earning the biggest market share at any cost is the best strategy for survival and success.

Another finding of the study is that click-and-mortar firms are more likely to combine elements of cost leadership and differentiation strategies than online firms. For click-and-and mortar firms, the fact that they follow an integrated strategy leads them to improve their performance. On the other hand, two of three online firms do not follow an integrated strategy whereas they enhanced their business performance. Nonetheless, it is contradictory to the theory since the majority of the online firms operate in unstable environment. According to the theory, firms which act in unstable environment are more likely to "stuck in the middle" because they have to be flexible. In the study, the results show the opposite result. One may speculate that there is no stable environment in which a firm can operate in the current globalized economy. The emergence of the Internet enhanced this point of view since it changed the dynamics of the market. It is difficult to make predictions and assumptions. The markets are converted very fast and the companies have to find ways to adjust to these environmental changes. A firm can do it either by combining different types of strategies or by following a main strategy with variations.

The value chain of a firm can give competitive advantage. The emergence of the Internet influenced the functions of the value chain. New players, new business processes and new tactics help a firm to earn and sustain competitive advantage. The last finding of the study is that virtual value chain affects the business strategy in a certain degree. The adoption of online management tools, the new ways of communication among the partners, the negotiations with suppliers and the online marketing are factors which have impacts on a competitive strategy. More and more companies adopt Internet-based activities which play either crucial or supportive role in their strategy.

Implications

This study contributes to existing research by suggesting that Porter's generic strategies and value chain concept are valid for companies which operated in an electronic marketplace. It also remarks the role of two online business models (i.e. online and click-and-mortar firms) as a variable inherent in competitive strategies and resulting business performance. It also recognizes the role of virtual value chain and how it affects the competitive strategies.

Several implications for practitioners can be drawn from the findings. A firm must effectively allocate its resources, earn and sustain competitive advantage in order to remain and succeed in a market. The emergence of the Internet and e-commerce influences the structure of the market. New strategies, new kinds of business models and new business processes emerge and affect business performance. A manager has to take all these changes into account before he formulates a business strategy. There are also other organizational variables which must be considered by the managers before they formulate a competitive strategy. Some of these variables are the nature of the industry in which the firm acts and the market conditions which affect the business strategy. Further, practitioners have to decide whether they are going to combine or not competitive strategies depending on the stability of firm's industry. Finally, they have to start using in high extent the Internet for the activities of firm's value chain. The Internet provides them with many benefits which help the firm either to decrease its costs or to differentiate its products and services.

Future Research

The present study provides a starting point for the future research in this area. Specifically, one may address the relationships between various organizational and market variables in order to increase the knowledge of competitive strategies in electronic marketplaces. Another dimension for the future research is related to performance measurement. Some of the interviewees did not have the knowledge to answer about the company's specific performance indicators in this study. This fact leaded me to a more theoretical question in order to understand each company's performance level. One may have access to all these performance indicators by interviewing only CEO of each firm. The generalizability issue of the results based on case studies is an inherent nature for the case method. Therefore, the current theoretical model can be further validated by a large-scale survey.

Conclusion

The internet is not the future of the business world. It is the present. It affects every player and the rules of the game. The majority, or not all, of the firms use the Internet for a variety of activities. However, the extent of the Internet use varies among the firms. It depends on many variables such as the resources, the competitive strategy and the type of the firm. The internet also influences how the firms operate, its choice of competitive strategy, its business performance and its value chain. Based on prior literature and studies, I examined the compatibility of Porter's generic strategies in e-commerce, the inter-relationship between competitive strategies and business performance and the influence of the Internet-based activities of firm's value chain on the competitiveness of the business strategy. The results pointed out the crucial role of the Internet in business world. The Internet technologies are increasingly developed and no one can foresee the future. Therefore, firms have to closely watch and adjust to this development.

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Appendix

Case Study Protocol (Yin, 2003)

1. An Overview of the Case Study Project

In my study, I am going to investigate how both different online business models (i.e. online and click-and-mortar firms) and internet-based activities of firm's value chain affect firm's competitive strategies (i.e. cost leadership, differentiation and market focus). In addition, I will examine how each business strategy affects business performance and if the integrated strategy (i.e. stuck in the middle) combining elements of cost leadership and differentiation is more effective than three generic strategies individually.

I am based on Porter's (1980) framework regarding the generic strategies and on the value chain concept (Porter, 1985). I also adopt the classification of online business models as suggested by Koo et al (2004). Furthermore, I use Koh and Nam (2004) internet utilization taxonomy with three categories of primary activities of the Internet value chain (i.e. logistics, operations and sales and marketing). These three major categories are classified into nine sub-categories of support activities (i.e. alliance, trading, database, human resources, communication, automation, sales, advertising and marketing).

Moreover, I will make an attempt to answer to the following research questions:

- *Does Internet-based activities of the value chain affect the competitiveness of firm's business strategy (i.e. cost leadership, differentiation and market focus)?*
- *Which business strategy is a performance predictor for two different online business models?*
- *From the aspect of business performance, is the integrated strategy (i.e. 'stuck-in-the-middle') combining elements of cost leadership and differentiation more effective than the separate cost leadership and differentiation strategy?*

I formulated the following four hypotheses in order to answer to the above questions:

- ***Hypothesis 1a:*** *The choice of cost leadership strategy varies significantly between online firms and click-and-mortar firms.*
- ***Hypothesis 1b:*** *The choice of differentiation strategy varies significantly between online firms and click-and-mortar firms.*
- ***Hypothesis 1c:*** *The choice of market focus strategy varies significantly between online firms and click-and-mortar firms.*

- ***Hypothesis 2a:*** *Cost leadership strategy followed by online and click-and-mortar firms is significantly related to business performance.*
- ***Hypothesis 2b:*** *Differentiation strategy followed by online and click-and-mortar firms is significantly related to business performance.*
- ***Hypothesis 2c:*** *Market focus strategy followed by online and click-and-mortar firms is significantly related to business performance.*
- ***Hypothesis 3:*** *Integrated strategy combining elements of cost leadership and differentiation (i.e. stuck in the middle), which is followedby Internet-based firms, will result in better business performance than cost leadership and differentiation individually.*
- ***Hypothesis 4:*** *Internet-based activities of firm's value chain (i.e. logistics, operations, sales and marketing) have impacts on the competitiveness of firm's business strategy.*

In other words, there is a combination of earlier studies in order to formulate our hypotheses. More specifically, I use Koo et al (2004) for hypotheses 1 and 2 and Kim et al (2004) for hypothesis 3. As regards hypotheses 4, I use the Koh and Nam (2004) study for the internet utilization taxonomy of value chain and many other studies regarding the relationship between value chain and business strategy (Rayport and Sviokla, 1995; Porter, 2001; Evans and Wurster, 1997; Hackney et al, 2002; Rahman, 2004; Malone et al, 1987; Sarkar et al 1995).

The rationale behind the selections of the companies as case studies is the business model that they follow. My purpose is to interview managers of companies that are either online (i.e. online companies are firms which operate distributing their products only online via their web-sites) or click-and-mortar (i.e. Click-and-mortar firms are traditional businesses that have supplemented their brick-and-mortar operations with online channels either in response to the threat posed by emerging online firms or in search of the opportunities afforded by the Internet).

2. Field Procedures

The data will be collected after interview with managers of the selected companies. I will use my public relations in order to find a specific number of companies which follow the online business models with regard to the theory. After a selection of the companies, I will have a first contact with the companies via e-mail or call phone. If the manager accepts to participate in the research representing his/her company, the interview will take place through call phone or Skype. I will construct and do the interview. The thesis supervisor will provide the necessary assistance and guidance for the construction of the interview as well as for emergency problems before or during the interview. MY target is to have the participation from as many companies as I can.

A clear schedule of the data collection activities is the following:

9-12 June: The selection of the potential companies that could participate in my research.

13-19 June: The first contact with the company in order to see which of them are able to participate in the research. If I have positive answers from some of them, we will arrange a specific date and time for the interview.

20-30 June: The realization of the interviews with the managers who have accepted my invitation.

Prior to interview, I will have collected important information relative to company's financial highlights, the industry where the company operates, company's products and services as well as the external environment of company (e.g. competitors, suppliers etc).

3. Case Study Questions

Obviously, I conduct a multiple case studies where the source of data collection is an individual-manager who is going to answer questions related to how the firm operates. The case study questions are derived from questionnaires that Koo et al (2004) and Koh and Nam (2004) used in their research. There are four main categories of questions; the distribution channel that the company uses, the extent to which each company utilizes the internet for given functions, the company's business performance over the past three years relative to its competitors and some demographic questions. The case study questions are the following:

1. **The company's distribution channel**
    - Which distribution channel does your company use to sell its product/services? Does it use only its website, only its physical stores or both its website and physical stores?
2. **The extent to which company utilizes the internet for given functions**
    - To which extent does your company utilize the Internet for the product development and strategic alliance?

- To which extent does your company utilize the Internet for the supplier inventory access, placing order with suppliers, payment to suppliers and bidding?
- To which extent does your company utilize the Internet for the inventory database access by customers and suppliers, manufacturing schedule and sales database access?
- To which extent does your company utilize the Internet for the employees' trading, payroll, retirement and insurance?
- To which extent does your company utilize the Internet for the newsletters, company policies, employment bulletin and manuals?
- To which extent does your company utilize the Internet for the schedule meetings, teleconferencing, workflow management and project coordination?
- To which extent does your company utilize the Internet for the sales and order placement?
- To which extent does your company utilize the Internet for the product information and advertising?
- To which extent does your company utilize the Internet for the customer survey and customer suggestions?

3. **The company's business performance over the past three years relative to its competitors**
   - How was company's business performance over the past three years related to your competitors based on the price competitiveness, cost advantage and cost consciousness?
   - How was company's business performance over the past three years related to your competitors based on the design differentiation, product/service quality and breadth of product/service line?
   - How was company's business performance over the past three years related to your competitors based on the uniqueness of products/services, business processes and technology?
   - How was company's business performance over the past three years related to your competitors based on the market focus on price and cost and on the market focus based on innovative process and geography?
   - According to your view, how has your company's business performance or the competitive advantage has been enhanced by electronic commerce or the investment on IT/EC?
4. **Demographic questions**
   - In which industry/industries does your company operate?
   - How many years does your company operate in this/these industries?
   - Which is the size of your company in terms of annual revenue? (You do not need to tell me the specific annual revenue. You can rate it; less than 5 million euro, between 5 and 10 million euro, between 10 and 20 million euro, between 20 and 30 million euro or 30 million euro and more)
   - How many employees does your company have?

- Which is your position into the company?
- How many years are you working for the company?
- Which is your age (almost) and your education level?

4. A Guide for the case study report

The outline of the case study report is the following:

- The selection of the firms-cases based on their distribution channel
- The extent to which company utilize the Internet for given activities of its value chain
- The business performance of the company relative to its competitors with regard to Porter's generic strategies
- The analysis of the collected data
- The results of the analysis which will support or not the hypotheses
- The data collection will finish at the end of June
- The analysis will take place from the beginning of July
- The studies of Koo et al (2004) and Koh and Nam (2004) will have the role of guide during the collection of data