The impact of ICT use in competitive advantage in SME-s within service sector in Albania

Prof. As. Albert Qarri, Ph.D Evelina Bazini
ertqarri@gmail.com; ebazini@mail.com
Faculty of Economy
University of Vlora "Ismail Qemali", Albania

Prof. As. Bujar Leskaj
Faculty of Economy
University of Tirana, Albania

Abstract

Information and communication technologies (ICTs) are recognized as key tools in management processes, having a remarkable potential to contribute to sustained competitive advantage for businesses. The ICT provides opportunities for firms of all sizes to innovate, increase efficiency and gain access to new market at home and abroad. This paper explores the relationship between the use of information and communication technology (ICT) and its impact on competitive advantage in SMEs within the services sector in Albania. The grounded theory method is used to generate a theory of effective utilization of ICT and its impact on competitive advantage in the context. The main tools of data collection were interviews. All theory elements extracted from literature were described in the form of the eight hypotheses.

Key words : Competitive Advantage, ICT, SMEs, Service Sector, Albania.

INTRODUCTION

The emergence of information and communications technologies (ICT) has changed the dynamism of many industries (E-Economy Conference 2001, OECD 2000g) and today information and communication technologies are recognized as key tools in management processes, having a remarkable potential to contribute to sustained competitive advantage for businesses. Competitive advantage is recognized as a continuous concern for all companies.

Changes in ICT are recognized as one of the important factors influences the success to SMEs within the service industry and its role to affect the competition in this industry in Albania.

RESEARCH METHODOLOGY

This paper is based on primary and secondary data. *Primary data* are results of a decision-maker survey about the effective utilization of ICT and its impact on competitive advantage among SMEs in service sector in Albania. *Secondary data* are results of literature review and other studies in this field.

The study consisted on face-to-face interview with decision-makers in 20 SMEs in service sector. The survey was carried out as an enterprise survey, that is data collection and reporting focus on the enterprise rather than on the establishment.

The sample drawn was a random sample of twenty enterprises (SMEs) from the service sector.

The method adopted is qualitative research that utilized the grounded theory method (Glaser & Strauss, 1967). All theory elements extracted from literature are described in the form of the following hypotheses:

- Hypothesis 1: There is an effective utilization of ICT tools in SMEs in services sector in Albania.
- Hypothesis 2: There is a relationship between the effective utilization of ICT tools and internal factors.
- Hypothesis 3: There is a relationship between the effective utilization of ICT tools and external challenges.
- Hypothesis 4: There is a relationship between the effective utilization of ICT tools and performance development.
- Hypothesis 5: There is an actual application of the competitive advantage issues in SMEs in services sector in Albania.
- Hypothesis 6: There is a relationship between the effective utilization of ICT tools and competitive advantage.
- Hypothesis 7: There is a relationship between the competitive advantage and internal factors.
- Hypothesis 8: There is a relationship between the competitive advantage and external challenges.

COMPETITIVE ADVANTAGE – A CONCEPTUAL FRAMEWORK

The concept of competitive advantage used by Porter (Porter's work - 1979, 1980, 1985, and 1990), is still the starting point for any discussion of competitive advantages even thought there are many economists who used the concept of competitive advantage before him (Jones 2003). Straub and Klein (2001) and Barney (2002) argue that the term of competitive advantage did not appear in Porter's work until the year 1985, whereas Caves (1984), Day (1984), Spence (1984) and Barney (1986) used the term around the same times as Porter while Penrose (1959) and Ansoff (1965) used the concept of competitive advantage before that time.

Competitive advantage is recognized as a continuous concern for all companies. According to Dussauge et al (1992) technology could be considered as the core element that enables the company to identify the two major generic strategies: cost leadership and differentiation. Porter defined competitive advantage as the heart of a company's performance and it's reflects companies' ability to offer consumers greater value, either by means of lower prices or by providing greater benefits and services that justifies higher prices (Porter, 2000). Order-winning criteria include rate of innovation, fitness for purpose, volume flexibility, variety, extreme customization and, above all, rapid responsiveness (Berawi, 2004; Porter, 2000). In addition,

companies can create competitive advantage by achieving or discovering new and better ways to compete in an industry and taking them to the market, which is ultimately an act of innovation (Abdul-Rahman & Berawi, 2002; Porter 2000). Moreover, Porter (2000) stated that, recently, companies try to build up distinctive strategies that result in realistic profitability. Thus, he recommended a continuous development in products and in approaches to competing by the innovative use of technology. Strategic innovation is considered as the basis for competitive advantage (Grant, 2005); it is recognized as a source of competitive advantage (Porter, 1980). Porter (1990) defined the most typical causes of innovations that help to achieve the competitive advantage, such as new technologies, changing or new buyer requirements, the appearance of a new industry segment, changing input costs or availability. Porter (1980) identified a different source for competitive advantage. Barney (1991) suggested some resources of competitive advantage, such as financial resources, physical resources, human resources, technological resources, reputation and organizational resources. However, Czerniawska & Potter (1998) argue that, to compete effectively, companies need knowledge more than they need financial capital; many companies use ICT to compete on equal terms with large scale multinationals that is by offering sufficient information for the company and customers. Furthermore, Porter (1990) stated that competitive advantage can be achieved by providing customers with what they want, need and better or more effectively than competitors. Examples of company characteristics that could constitute a sustainable competitive advantage include: customer focus, customer lifetime value, superior product quality, extensive distribution contract, accumulated brand equity and positive company reputation, low cost production techniques, patents and copyrights, government protection (Czerniawska & Potter, 1998).

SMALL AND MEDIUM SIZED ENTERPRISES (SMES) AND ICT

Definition of SMEs

According to Peterson et al. (1986), definition of SMEs is derived from the use of both quantitative and qualitative measures. Quantitative measures are the most popular tools to define the SMEs such as the number of employees and the annual turnover. Financial assets are also used to define the SMEs. Gunasekaran et al. (2000) suggest that the SMEs need to be defined within the context of the country in which they operate, as typically, the concept varies by the change of country.

Story (1994) defines the SMEs as follows: (a) enterprises with a relatively small share of their market; (b) managed by owners or part-owners in a personalized way, and not through the medium of a formalized management structure; and (c) acting as separate entities, in the sense of not forming part of large enterprise or group. In smaller firms, all the roles will either be performed by one manager or by a very narrow range of managers who may have been appointed because they are family members or friends rather than on the basis of ability or education. However, small firms generally have little commitment to research and development (R&D) and are highly dependent on external knowledge sources (Vossen 1998).

In order to improve the competitiveness of small firms, it is not only about understanding problems confronting businesses but also about better understanding of how to overcome these barriers. Although many factors are hypothesized to impact on business outcome, there is no consistent pattern to the characteristics, which contribute to business competitiveness, success and growth (Gibb 1996; Audretch 2001).

Competitiveness is the mean by which entrepreneurs can improve their firm's performance, and which can be measured according to a number of dimensions including market share, profit, growth, and duration. At the same time Man and Chan (2002) stress the importance of links between competitiveness and performance as having a long term rather than a short-term orientation.

Applications of the ICT and the SMEs

The SMEs tend to move into electronic business (e-business) in stages. The first step involves using the Internet as a tool for communicating and obtaining information. In a second phase, the SMEs consider basic electronic commerce activities such as buying and selling. Finally, the SMEs start conducting banking and financial transactions (OECD 1998, 2000f).

Competitive elements and ICT in SMEs within service sector

The ICT provides opportunities for firms of all sizes to innovate, increase efficiency and gain access to new market at home and abroad.

SMEs within the sector of services should use ICT because it provides many benefits at different levels (Love P. et al., 2004): operational level, tactical level and strategic level. The use of ICT in SMEs within the sector of services could improve communication, ability to exchange data, teamwork, customer relations, visibility of services, market share, and competitive advantage etc.

This statement is based on the fact that ICT allows companies to obtain, to process, to accumulate and to exchange information. Furthermore, in a knowledge management context, ICT can support transformation within and between tacit and explicit knowledge. Successful knowledge management initiatives could transform the small business innovation capacity into a sustainable higher performance (Ruiz-Mercader J. et al., 2006). Another benefit of adopting e-business could be the higher efficiency obtained in business transactions due to a fast and accurate processing of information. Web-enabled services increase the competitiveness of SMEs because they change the relationship with customers by creating a stronger link between firms and its clients (Lal. K., 2005).

Using ICT in SMEs within the sector of services could also facilitate cooperation within the company and between the company and other firms. SMEs could use tools and Internet technologies such as business modeling tools, service development tools, discussion groups, training tools etc. As Lal K. (2005) stated, e-business has the potential to redefine the existing business infrastructure organizations and to re-evaluate the way in which they do business. It has

capabilities in re-engineering business processes across the boundaries that have traditionally separated suppliers from their customers. Previously separated activities such as order processing, payments, and after sales services may be merged into a single process. As a result, the costs of creating, moving, processing, and managing documents are reduced.

Use of ICT in small and medium enterprises management within the sector of services could improve the competitive advantage and the performance of firms. The entrepreneur's demographic, psychological and behavioral characteristics, as well as his/her managerial skills and technical know-how are some of the factors that could influence the performance of an SME. The relationship is also affected by many characteristics of the services sector, environmental, firm-specific features and firm strategies.

Competitiveness of an SME is revealed by the long-term performance of the company related to its competitors, which is the result of being competitive (Man W. Y. T. et al., 2002).

ICT technical skills are essential in ICT use and application, but they are not a source of competitive advantage, due to their availability and mobility. In order to obtain benefits from using ICT, both ICT technical skills and managerial skills related to ICT are needed. Managerial skills involve management's ability to develop ICT applications to support and contribute to other business functions. Such skills could be real sources of sustainable competitive advantage because of their nature and development. Therefore, effective ICT capabilities could be reached through aligning or fitting ICT resources (particularly managerial skills) with each other and with other important organizational resources (Celuch K. et al., 2007).

The competencies in ICT business process integration could be defined as their ability to integrate ICT and business knowledge to create and develop new business processes. Eikebrokk T. R. and Olsen D. H. (2007) have examined the competencies that affect e-business success in European SMEs and their empirical analysis identified three competencies associated with e-business success: e-business strategy, IT-business process integration, and systems and infrastructure. Competencies in strategic planning and IT management were not found to be significant predictors. E-business success in terms of efficiency, complementarities, lock-in and novelty were explained by competencies in e-business strategy, IT and business process integration, and systems and infrastructure. The results showed that the type and extent of competency in SMEs were important determinants for success.

The competitiveness of SMEs depends on the basic role of the owner/manager, intangible investment (intellectual capital), tangible investment in information and communication technology, and strategic capability, meaning the ability to be innovative and adaptive to change (Love P. E. D., Irani Z., 2004).

SMEs within the sector of services must understand how they can gain and add value through developing their ICT capability. Smaller firms often lack a coherent ICT investment strategy or the related skills, partly because most SMEs cannot afford to employ ICT practitioners, and for that reason ICT strategy and implementation critically depends on respective skills of the

management (E-Business W@tch, 2006). We could argue that SMEs within the sector of services could combine their services with those of other SMEs or large firms in order to achieve performance. As a result the market area could be expanded through the use of ICT and the customer satisfaction could be improved.

RESEARCH RESULTS

Based on the analysis of the qualitative data the following summary of the most important findings and conclusion were explored.

The current application of ICT within SMEs in services sector in Albania - According to the data which were collected and analyzed, ICT diffusion and application within SMEs in services sector in Albania is still in the early stage and ICT diffusion is still slow. Some of the main reasons are: cost of implementation of ICT within the firm, security concern, customers are not familiar with this mode of trade, willingness of trading partners to participate, shortage of well-trained staff, lack of e-Business competences; inadequate financial resources, company is too small with no staff or technical capability.

All the firms included in the research have computers, which are considered as a main component of ICT tools. However, there is a difference among the companies in terms of the quantity (number) of personal computers (PCs). That number depends on many factors. For example, company size in term of employees' number and the company's need and work nature. Furthermore, there a difference between the companies in terms of advanced software level and the extent of how to utilize them. According to the interview analysis, in general, the amount of money that is spent on training programs, motivation and wages is still low. Also, the result indicated that the use of networks is still low in most companies because it is still expensive for them to connect all the people with networks which require them to combine it with a landline which has to be pay for. Most of them use ICT for the micro office, such as word processing and presentations. A few number of the companies use advanced ICT tools for design, quality control, manufacturing, data base system, and so on.

The factors that influence ICT application in within SMEs in service sector in Albania – The data collected we can divided the factors influencing the firms into two groups:

- Internal factors - involve financial ability, human factors (demographic and behavioral characteristics), and organizational factors. Also, according to the result, the financial ability plays a role for ICT application in the companies. Organization policy and culture are also considered as essential factors for ICT utilization.
- External factors - it is important, but it plays a lower role than the internal factors in ICT application. These factors include two main elements; business environment and indirect factors which include development of external technology.

The challenges of ICT applications within SMEs in service sector in Albania – The first challenge is consider the increasing cost investment of ICT tools at the same time increasing

maintenance cost of tools; The second challenge is considered the increasing demand for expertise and skilled ICT people; finally employees' and managers' resistance to apply new ideas.

The extent of application of the competitive advantage issue within SMEs in service sector in Albania and factors that affect it - The results show that competitive advantage is a matter of concern for companies which use ICT. Most companies follow four strategies to achieve competitive advantage: cost strategy, speed strategy, quality strategy and flexibility strategy.

The relationship between ICT and competitive advantage within SMEs in service sector in Albania - The result indicated that there is a positive relationship between ICT applications and competitive advantage. Effective utilization of ICT is considered as a source of competitive advantage within SMEs in service sector in Albania . The implementation of ICT is viewed as a benefit in various ways, from product quality to organizational, performance. In more detail, the availability of information decreases the uncertainty in the business environment and ICT tools, like the internet, help the company to be on line with business environment including customers, suppliers and competitors. The availability of such information facilitates and helps the company to build its strategy on this information. In addition new ICT helps the company to improve the product quality and design. Also, using new ICT (software and new equipments) improves and controls the company's activities and production processes by using some systems such as order entry systems, capacity planning system and inventory systems. Moreover, competitive advantage can be measured by market share, profitability and customer satisfaction.

The result of qualitative data indicated that there are modifying factors related to ICT and competitive advantage that are performance factors. The company has to achieve performance improvement by using ICT tools.

Conclusions

The study reveals that ICT should be used more in SMEs within the sector of services in Albania. This conclusion is based on several premises:

1. Within the knowledge-based economy, SMEs from the sector of services are facing both opportunities and challenges due to the information and communication technologies development;
2. ICT are today key tools in management processes;
3. ICT could improve managerial practices of SMEs within the sector of services and can serve a good tool for competitive advantage;
4. SMEs could use ICT in order to grow and to become more innovative;
5. ICT provides many benefits for SMEs within the sector of services;
6. The costs of ICT adoption in SMEs within the sector of services have a good potential to decrease.

These findings can give good reasons for intensifying the efforts of promoting the use of ICT in SMEs within the sector of services and attempting to change mentalities. SMEs within the sector of services should change their managerial practices by integrating ICT in their day-to-day activity. Otherwise, they will not be able to benefit from the opportunities that knowledge-based economy offers and moreover, they will face the risk to be eliminated from the services market.

The final outcome of this research was to develop a model that explains the relationship between ICT and competitive advantage in SMEs within service sector ion Albania. This suggested model can be used to analysis and test the effective utilization of ICT and its impact on competitive advantage across other sectors. Furthermore, researchers could successfully apply this research within two or more sectors to gain more information and to compare between them. Further research could focus on collecting and analysing empirical data from the SMEs within the sector of services, comparing the results with the findings of this study, and developing a model for the integration of ICT in SMEs management within the sector of services.

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