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IBANESS
University of Agribusiness and Rural Development/Bulgaria
University "St. Kliment Ohridski" Faculty of Economics/Macedonia

PROCEEDINGS

Editors
Prof.Dr. Dimitar Kirilov DIMITROV
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FOREWORD

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We are delighted and honored to host the IBANESS Congress Series in Edirne / Turkey. Presented papers have been selected from submitted papers by the referees. Sincere thanks to those all who have submitted papers.

We hope that through exchange of the presented researches and experiences, the Congress will enhance communication and dissemination of knowledge in Balkan and Near Eastern Countries.

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Factors Affecting the Competitiveness of e-Commerce Firms: A Critical Appraisal

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Abstract: As the e-Commerce paradigm becomes a mainstream, there could be a number of additional companies getting ready to increase their online presence and make the most of this advantage over their traditional, 'brick-and-mortar' counterparts. However, nearly two decades after the explosion of e-Commerce 'bubble', claims have often been made that the mere online presence does not represent a decisive competitive advantage. Put differently, it is quite common to have not just two existing virtual stores, but a myriad of those offering the same gamut of products worldwide at the same time. Under these circumstances, without any prejudice, several questions naturally arise: What is it about a certain online company that makes it different to the rest of the business world?; Why anybody would want to buy something from that particular company and decide not to choose the others?; What makes some Internet firms so much popular and more attractive than others?; How leading online companies achieve a sustainable competitive advantage and manage to avoid the pitfalls?. Indeed, the complex and multidimensional construct of competitiveness is the ultimate answer to all these questions. Given the importance of this issue, this paper aims to provide a critical review of the literature on factors affecting the competitiveness of e-Commerce firms. The essential part is therefore devoted to developing and proposing a comprehensive framework for those dimensions that are crucial to the success of e-Commerce firms. Our framework also provides a solid base of evidence that might support academics conducting case studies, comparative overviews and further research on this and similar topics.

Keywords: Competitiveness, e-Commerce firms, e-Commerce Websites, critical success factors (CSFs).

1. Introduction

The rapid development of Internet technologies and the rise of the Web 2.0 paradigm have imposed a brand new era – the era of designing digital marketplaces for gaining competitive advantage. During the last twenty years, the majority of companies throughout the world, including both small-and-medium enterprises (SMEs) and large firms, aimed to build and run their own e-Commerce Websites, realizing the fact that the online presence itself brings many competitive gains over their traditional, 'brick-and-mortar' competitors. This includes, among others, accessibility to their products and services by anyone, from anywhere, anytime. Other prominent reasons why companies are turning to innovative e-Commerce solutions in order to establish and maintain high competitive edge include: ease-of-use of e-Commerce platforms; high accessibility and availability; enriched features and functionalities; effective, reliable and easy-to-follow payment methods and procedures; international presence; reducing staff and cutting down overhead costs; delivering and maintaining an effective product catalog; context-sensitive personalization; reliable and real-time links between the e-Commerce front-end and the back office; running business efficiently through facilitated supplier purchases and management as well as sell to e-Customers. As a direct consequence of such advantages, e-Commerce became the fastest growing industry all around the world during recent years. For instance, in 2016, the global retail e-Commerce sales grew 23.7% compared to the previous year, making up 8.7% of the total retail market worldwide (eMarketer.com, 2016; Statista.com, 2017). It is the only trillion-dollar industry growing at a double-digit percentage each year (Moore, 2014).

However, with the rapid, yet enormous proliferation of e-Commerce Websites during recent years, both the pace and the volume of virtual stores flourished, and the global market's competition became increasingly fierce. Online presence of enterprises solely does not guarantee competitive advantage anymore, since it became quite usual that not just two, but a myriad of virtual stores, offering the same gamut of products, exist online throughout the globe at the same time. To illustrate this, a recent research on the number of e-Commerce Websites showed that there are approximately 110,000 e-Commerce Websites generating revenue of a meaningful scale on the Internet, whilst the number of mid- and bottom-market e-Commerce companies is estimated to reach nearly a million (Moore, 2014). In addition, e-Commerce Websites make up approximately 10% - 12% of the total number of Internet Websites (Moore, 2014).

The profitability of e-Commerce companies depends solely on e-Customers' satisfaction. Satisfied e-Customers form the foundation of any successful online business since e-Customers' satisfaction leads to repurchasing, loyalty, and positive word of mouth. According to Hansemark & Albinson (2004), "satisfaction is an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfillment of some needs, goals or desire". E-Customers' satisfaction is a premise to repurchasing and e-Customers' loyalty, which refers to "a deeply held commitment to re-buy a preferred product or service in the future despite situational influences and marketing efforts having the potential to cause switching behavior" (Oliver, 2010). In addition, word-of-mouth advertising, being "an unpaid form of promotion in which satisfied customers tell other people how much they like a business, product or service", is highly important for every business, especially e-Commerce, as "each happy e-Customer can steer dozens of new ones" (Entrepreneur, 2017). This is completely in line with the popular slogans: "The purpose of a business is to create a customer who creates more customers" and "The purpose of a business is to make a customer, not a sale."

Knowing this, the key question all e-Commerce companies face with is how to generate satisfied e-Customers. In other words, the problem is how to attract and retain e-Customers by meeting their needs and expectations. The only way to do so is taking advantage of the weaknesses exhibited by other competing e-Commerce companies. However, this is multidimensional, yet a too complex problem to be solved at once. Rather, the process of finding a solution to this problem is a continuous and time-consuming, involving significant resources (e.g. people, money, assets …), experience, knowledge, and skills. Therefore, the assessment and evaluation of its own firm-level competitiveness have become an imperative for each e-Commerce company. In this context, the purpose of this paper is threefold: (1) to provide a theoretical overview regarding the concepts of firm-level competitiveness and competitive advantage, (2) to elaborate recent research findings made vis-à-vis the evaluation of firm-level competitiveness in e-Commerce, and (3) to identify some of the most prominent competitive advantages / critical success factors (CSFs), which are prerequisite to e-Commerce firms' competitiveness on a global scale.

The rest of the paper is organized as follows. Section 2 introduces the concepts of competitiveness and competitive advantage and provides some evidence of the most valuable resources dealing with them. Section 3 focuses on the competitiveness of e-Commerce firms and provides a general framework of the most important e-Commerce-related CSFs. Section 4 concludes.

2. Competitiveness and Competitive Advantage

The concept of competitiveness has become extremely popular among managers, politicians, as well as academics in the recent years, although it was almost unheard-of three decades ago. However, despite its popularity, it also became a controversial concept in terms of its definition and measurement, due to its multifaceted nature. The word 'competitiveness' originates from Latin words *competo*, *competere*, *competivi*, *competitus*, which all mean 'to strive together'. In the modern economy, there are, actually, a number of definitions describing the multidimensional concept of competitiveness, which can be looked at from three different levels of aggregation: country (macro) level, industry/cluster level, and firm (micro) level. However, regardless of the point of view, the term means involvement in a business rivalry for markets.

The World Economic Forum, which has been measuring competitiveness among countries on a global scale since 1979, defines it as "the set of institutions, policies, and factors that determine the level of productivity of a country" (WEF, 2016). Therefore, a competitive country (economy) is a productive one in terms that it leads to growth, which leads to income levels and hopefully, an improved well-being. Competitiveness of a country refers to its ability to sell (export) products or services in the international marketplace in relation to its competing countries.

Analogous to the concept of competitiveness applied to a country, the competitiveness of a company (i.e. firm-level competitiveness) can be defined as "the capability a company has, to achieve profitability in the market in relation to its competitors" (EconomicPoint, 2013) or "the ability of firm to design, produce and/or market products superior to those offered by competitors, considering the price and non-price qualities" (D'Cruz & Rugman, 1992). Competitiveness depends on the relationship between the value and quantity of the outputs offered and the inputs needed to obtain profitability (productivity), as well as the productivity of the other bidders that exist in the market. In that context, a given company is considered a competitive one if it achieves "increased profitability due to the use of production techniques that are more efficient than those used by its competitors and which allow higher quantity and/or quality in its products or services or lower production costs per unit of the product" (EconomicPoint, 2013). Competitiveness, especially firm-level competitiveness, gains its relevance mostly due to the fact that both the survival and the success of firms operating in the contemporary business world increasingly depend upon the competitiveness factor, since "competition is at the core of the success or failure of firms" (Porter, 1985, p. 1).

At a firm level, competitiveness is measured through both financial performance indicators (e.g. profitability, costs, productivity …) and non-financial performance indicators (e.g. market share, the percentage of loyal customers and loyal suppliers …). Generally, the term 'competitiveness' is considered synonymous with the term 'success', which can be defined as a fulfillment of company objectives. Hence, performance should be measured in terms of how an organization manages its critical success factors. Today, beyond financial or market-based indicators, measures of competitiveness increasingly include other variables, such as innovativeness, quality, and social ones like ethical standing, social responsibility, or working conditions of employees (Depperu & Cerrato, 2005).

It is also worthy to mention that one of the most utilized frameworks regarding firm-level competitiveness is the Asset-Processes-Performance (APP) framework, which integrates internal resources to performance through processes (Ambastha & Momaya, 2004). Other frameworks include, for instance, EFQM (European Foundation of Quality Model), BSC (Balanced Scorecard), IVM (Integrated Value Management), TSR (Total Shareholder's Return), VC (Value Curve), EVA (Economic Value Added), VP (Value Pyramid) etc., whose application depends on the firm's situation (Crisis/Survival vs Stable/Growth) and firm's capability (Low vs High).

The notion of 'competitive advantage' is considered a fundamental premise to business success. This concept has been thoroughly exploited in discussions about business strategies lately. However, whilst statements about it abound, there is no a single precise definition. For instance, according to Barney (2001), competitiveness should be considered as a process of generating competitive advantages, based on both tangible (productivity, return, profits …) and intangible (education, reputation, human skills, knowledge …) resources. He also explores the impact of the recent global business changes in relation to the competitive context of firms and their ability to generate and sustain competitive advantages (Barney, 2010). Ma (2000, p. 53) interprets the term 'competitive advantage' as "the asymmetry or differential among firms along any comparable dimension that allows one firm to compete better than its rivals." Ehmke (2008) defines the term as "an advantage gained over competitors by offering customers greater value, either through lower prices or by providing additional benefits and service that justify similar or higher price". According to Pietersen (2010, p. 17), the term 'competitive advantage' means achieving a bigger Value/Cost gap than the competitors' one, i.e. a bigger gap between a product's value seen by customers and the total costs incurred in providing that product. This definition is in unison with Porter's views stating that "competitive advantage grows fundamentally out of value a firm is able to create for its buyers that exceeds the firm's cost of creating it" (Porter, 1985, p. 3).

According to Porter (1985), there are two basic types of so-called 'positional' competitive advantages, including: (1) the cost advantage (when the enterprise is able to deliver the same benefits as competitors, but at a lower cost), and (2) the differentiation advantage (when the enterprise is able to deliver benefits that exceed those of competing products, i.e. providing a variety of products, services, or features to consumers that competitors are not yet offering or are unable to offer). Thus, a competitive advantage enables the enterprise to create a superior value for its customers and superior profits for itself. Besides these, two other types of strategies have been increasingly been adopted by enterprises recently, including (3) innovation (introduction of completely innovative, new or notably better products or services), and (4) operational effectiveness (performing internal business activities better than competitors' ones, which improves the characteristics of the company while lowering the time it takes to get the products on the market).

Depperu & Cerrato (2005) develop a conceptual framework for the analysis of the competitiveness, by proposing a 2×2 matrix to define firm-level competitiveness, based on two dimensions. The first dimension, named 'Nature of competitiveness', is related to the way the term is intended to be used. In other words, competitiveness could either be considered as a driver of firm performance (a dependent variable, i.e. '*ex-ante*' competitiveness) or as an outcome of firm's competitive advantages (an independent variable, i.e. '*ex-post*' competitiveness). The second dimension, named 'Approach', distinguishes between static and dynamic analysis of competitiveness. The static analysis takes into consideration assets/resources, whilst the dynamic one is based on the processes involved.

3. Competitiveness of e-Commerce Firms

Despite the fact that competitiveness of e-Commerce companies is a relatively novel research area, there are an increasing number of research papers on this topic recently.

In general, there are two major courses: (1) investigation of competitiveness of e-Commerce firms, including the identification and classification of corresponding critical success factors (CSFs); and (2) evaluation of the competitiveness of e-Commerce Websites by the application of corresponding mathematical/statistical methods, including the assessment of e-Commerce Websites' quality. Both of these are usually made on a general level, on a national/international level, on a specific industry level, and possibly, on a combination of the previous ones. For illustration purposes, we hereby present some evidence on the recent research being made on this topic.

Sahin (2012) explores the factors affecting the competitiveness of e-Commerce companies, proposing an integrated approach based on the analysis of resources (tangible and intangible), capabilities (organizational and managerial), and knowledge (know-how). His approach was based on the findings made by Garelli (2006), who suggests a holistic approach in assessing firm-level competitiveness that covers assets, resources, as well as abilities, skills, and potentials.

Recently, Kai (2010) has proposed a method based on AHP (Analytic Hierarchy Process) entropy weights for objective and effective evaluation of the competitiveness of e-Commerce Websites. Similarly, Li (2015) proposes a method based on AHP and multi-level fuzzy evaluation of C2C e-Commerce Websites. Dumitrache (2010) gives an overview of the criteria used for evaluation of e-Commerce Websites and uses a ranking algorithm based on the AHP, which was then implemented and tested on several online stores in Romania. According to her, amongst the very important criteria are navigability, response time, personalization, telepresence, and security. Stanujkić & Magdalinović (2012) proposed a framework for performance evaluation of e-Commerce Websites, based on fuzzy compromise programming. This method, along with the AHP, belongs to the class of MCDM (Multiple Criteria Decision Making) methods, which also includes the following methods: SAW, ELECTRE, PROMETHEE, TOPSIS, COPRAS, VIKOR, and MOORA. Bezes (2009) distinguishes three major e-Commerce Website evaluation approaches, analyzing them as information systems, as communication channels, and as retailing channels. In addition, he proposes a synthetic approach that links these three concepts.

A body of research has been made on critical success factors (CSFs) on a national or international level. For instance, Sung (2006) identify critical success factors (CSFs) for e-Commerce and investigates the explanatory power of CSFs on firm performance among Korea, Japan, and the USA. Similarly, Wang et al. (2005) discuss e-Commerce-related CSFs to help Chinese enterprises in achieving successful e-Commerce implementations, and Laosethakul (2005; 2007) has analyzed CSFs for e-Commerce in Thailand.

Another course in investigating e-Commerce competitiveness issues is based on the pure identification of a certain number of CSFs that are fundamental to e-Commerce success in general. Here belongs the research made by Laosethakul (2007), who categorizes CSFs in eleven groups, and Jones & Field (2000), who identify twelve e-Commerce-related CSFs. In addition, Viehland (2000) describes six CSFs for developing e-Business strategy.

Yet another approach to study e-Commerce competitiveness is to take into consideration e-Commerce within a specific industry. To name a few, Liu et al. (2013) carried out a comprehensive evaluation of agricultural e-Commerce Websites, whilst Bodini & Zanoli (2011) have explored the competitive factors in the agro-food e-Commerce. Effendi & Alfina (2014) have performed a quality evaluation in the airline industry, by comparing two airlines' e-Commerce Websites.

Assessing the quality of e-Commerce Websites, which is an alternative approach to study e-Commerce competitiveness, has often been done in order to assess their usability, since the latter one is a prerequisite for e-Commerce success, whilst high quality is an intrinsic property of every competitive Website. In this context, Effendi & Alfina (2014) have lately developed a framework based on five quality aspects (information quality, service interaction quality, usability, Website design, and playfulness/enjoyment). In addition, Davidavičienė & Tolvaisas (2011) identify a comprehensive list of criteria for quality evaluation of e-Commerce Websites, which include: easy-to-use, navigation, security assurance, real-time help, and design. Aydin & Kahraman (2012) proposed a fuzzy multiple criteria decision making (MCDM) model for evaluation of e-Commerce Websites' quality. Their model includes five key criteria (i.e. ease-of-use, products, security, customer relationship, and fulfillment) and twenty sub-criteria. Rababah & Masoud (2010) provide a framework suitable for identifying, qualifying, categorizing, and ranking of quality factors.

4. E-Commerce Competitiveness Factors: A Critical Appraisal

In order to identify the possible sources of competitiveness for e-Commerce firms, we first take into consideration the differences between the traditional (i.e. 'brick-and-mortar') and e-Commerce-oriented (i.e. 'click-and-order') firms. Although the goals of both traditional commerce and e-Commerce are the same (i.e. selling products and services to generate profits), they do it quite differently. Table 1 sublimes the most prominent distinctions between the two firms' types vis-à-vis various aspects of comparison.

Table 1. Comprehensive list of distinctions between traditional and e-Commerce businesses

Basis for comparison	Traditional commerce	e-Commerce
Meaning	Buying, selling, transferring, or exchanging products, services, and/or information	Buying, selling, transferring, or exchanging products, services, and/or information via computer networks, including the Internet
Value creation	Product/Service	Information
Consumer behavior	Based on standardization and mass/one-way marketing	Based on personalization and one-to-one marketing
Processing of transactions	Synchronous and manual	Asynchronous and automatic
Time accessibility	Limited time during the days, not all days in a week	Round the clock service ($24 \times 7 \times 365$)
Physical inspection	Goods can be inspected physically before purchase	Goods cannot be inspected physically before purchase, customers have to rely on electronic images only
Interaction	Direct interaction between buyer and seller; Face-to-face; Seller influenced	Indirect interaction between buyer and seller; Screen-to-face; Self-service
Seller identity verification	Customer can verify the identity of the seller and its physical location	e-Customer cannot identify the seller, nor its physical location
Information exchange	No uniform platform, heavy dependency on person-to-person information exchange	Provides a uniform platform, little dependency on person-to-person information exchange
Resource focus	Supply side	Demand side
Scope of business	Limited to particular area	Worldwide reach
Business relationship	Vertical or linear	End-to-end
Marketing	One-way marketing; Traditional marketing	One-to-one marketing; Digital marketing
Marketing channels	Printed media (newspapers, magazine ads, newsletters, brochures); Broadcast media (TV and radio ads); Direct mail (flyers, postcards, catalogs); Telemarketing	Websites; Social Networking sites; Content marketing; Banner ads; Google ads; Video marketing
Payment	Cash, bank cheque, credit card	Credit card, fund transfer
Delivery of goods	Instantly	Takes time
Cost effectiveness	Not cost-effective. Costs have to be incurred for the role of middlemen, high total overhead costs	Very cost-effective. No costs incurred on middlemen, less total overhead costs
Time savings	Low. It takes a lot of time to complete a transaction	High. Saves a lot of valuable time for both the e-Customers and business
Convenience	Low. Customers have to move away from their workplaces or homes to locate and purchase the desired product	High. Convenient to both the e-Customers and the business, provides better connectivity for anyone, from anywhere, anytime
Geographical accessibility	Hard to expand the size of the market from regional to international level, have to incur a lot of additional expenses on investments	Easy to expand the size of the market from regional to international level, no additional expenses on investments
Introduction of new products	It takes a lot of time and money to introduce a new product and analyze the response of the customers	It is easy to introduce a product on the Website and get the immediate feedback of the e-Customers
Profit	The cost incurred on the middlemen, overhead, inventory and limited sales pulls down the profit	Helps to increase the sales and profits of the organization, in addition to cutting

		costs, and streamlining operating processes
Product suitability	Suitable for perishables and 'touch and feel' items, and for products that needed to persuade to the customers	Not suitable for perishable goods and high valuable items; Suitable for intangible products, and digital products
Overheads	High administrative and management overheads	Low administrative and management overheads
Workflows	Manual and document-based	Paperless
Human resources	No special requirements	Requires technically qualified staff with an aptitude to update themselves
Fraud	Less present, due to personal interaction between the buyer and the seller	More present, due to lack of physical presence and unclear legal issues
Product presentation	Magazines, flyers	Websites, online catalogs
Communication	Synchronous, through regular mail, phone; Requires manual intervention; Personal	Asynchronous, through e-Mail; Automatic handling; Technology-mediated channels
Checking product availability	Phone, fax, letter	e-Mail, Websites
Orders and invoices	Printed forms	e-Mail, Websites
Product acknowledgements	Phone, fax	e-Mail, Websites, EDI
Clerical errors	Maximized, due to manual processing	Minimized, due to automatic processing
Standardization	Difficult to establish and maintain standard practices	A uniform strategy can be easily established and maintain
Doing business	Heavy dependence on individual skills	No human intervention
Technology usage	Low	Extensive usage of Internet, wireless and network technologies
Type of business processes	Private business processes and systems for self-usage, not intended for use by customers, vendors and business partners	Public business processes and systems, used by e-Customers, vendors and business partners
Business process cycles	Inflexible, rigid, and long	Flexible, agile, and highly responsive
Level of competition	Low, in general	Relatively high

Table 1 clearly shows that there are numerous fundamental differences between the two types of businesses, which all make a significant influence on their intrinsic processes of how competitive advantages are generated. For instance, regarding the interaction with customers, there is no personal touch between the seller and the buyer in e-Commerce (i.e. there is a 'screen-to-face' interaction), thus online companies need to establish somehow an intimate relationship with potential e-Customers as much as possible, to win over their loyalty. Therefore, they have to be highly customer-oriented, by delivering customized (i.e. personalized) service to each particular e-Customer. Besides, they have to be extremely flexible and innovative regarding the gamut of products offered, their presentation and prices, delivery methods, safety and security issues of payment transactions, and shipping speed, in order to keep current e-Customers and attract new ones. At the same time, they have to deliver high Quality-of-Service (QoS) levels to their e-Customers regarding Website performances, availability, reliability, dependability, and safety, in order to create satisfied e-Customers and retain their loyalty on a long run. In addition, e-Commerce companies have to keep a constant pace with actual technological advances vis-à-vis their e-Commerce platforms, plan their capacities in continuity, and be ready to upgrade their underlying hardware and software infrastructure to successfully meet the increased levels of e-Customers arrivals during peak periods, regardless of their intensity and frequency. On the other hand, all basic back-office operations that are present with traditional businesses are also present with e-Commerce businesses, as well. These include, for instance, administration, human resources, accounting, finances, and shipping of purchased goods. In fact, the biggest mistake in setting up an e-Commerce business is paying too much attention to the technicalities of the Web site and ignoring the other 'details', which could easily lead to unfilled orders, irritated customers, and finally, lost business.

E-Commerce Websites are now recognized as mission-critical counterparts of every online business. At a first glance, all e-Commerce platforms seem pretty straightforward and almost commoditized regarding their basic functionalities, i.e. they all have product catalogs, they all offer ways to browse, search for, and navigate to desired items, they all have shopping carts, and they all provide secure online transactions. So, what makes a certain e-Commerce Website more competitive than another one? Moreover, what are the most relevant factors affecting the competitiveness of e-Commerce firms? The aim of this paper is to give a clear and insightful answer to these questions, utilizing an integrated, inclusive, yet holistic approach, which takes into account all organizational and technical issues, regardless of a specific industry or a country.

To answer these questions, we first identify the main areas that have to be systematically taken into consideration in the phases of building, deploying and managing any successful e-Commerce Website. Laudon & Traver (2009, p. 202) identify six crucial areas, including (1) Hardware architecture, (2) Software, (3) Telecommunications, (4) Site design, (5) Human resources, and (6) Organizational capabilities.

Next, by analyzing each area, we identify corresponding critical success factors comprising the key aspects underlying the competitiveness of e-Commerce firms. These include:

(1) Hardware architecture;
- ➢ Scalability;
- ➢ Performability:
  - ✓ Performance;
  - ✓ Availability;
  - ✓ Reliability;
  - ✓ Dependability;
- ➢ Safety;
- ➢ Security;
- ➢ Maintainability;

(2) Software;
- ➢ Functionality;
- ➢ Performance;
- ➢ Scalability;
- ➢ Integration;
- ➢ Synergy;
- ➢ Agility;
- ➢ Support for different business models;
- ➢ Business process modeling tools;
- ➢ Business user control;
- ➢ Analytics;
- ➢ Interoperability and connectivity to existing business systems;

(3) Telecommunications;
- ➢ Internet connection speed;
- ➢ Internet connection availability;
- ➢ Safe and secure communications (financial transactions);

(4) Website design;
- ➢ Unique design;
- ➢ Simplicity;
- ➢ Functionality;
- ➢ Accessibility;

- Privacy;
- Extensive usage of informational links (rich content);
- Personalized content;
- Value-added content;
- Easy navigation and usage;
- Redundant navigation;
- Ease of making online purchases;
- Support for multiple brands of Web browsers;
- Usage of simple graphics and sounds;
- Readable text;
- High content (information) quality;
- High accuracy of the content;
- Multi-language support;
- Easy-to-follow check-out process;
- Good quality images;
- Short page load time (high responsiveness);
- Support for multiple payment options;
- Option to save product for later;
- Check for stocks availability;
- Unique detailed descriptions;
- Support for multiple shipping options;
- Tracking of shipped products;
- Flexibility of the product catalog;
- Regular and continuous updates of the Web shop content;
- Support for differentiation, personalization, and customization;
- M-Commerce support and optimization;
- Optimization:
  - ✓ Search engine optimization (SEO);
  - ✓ Pay-per-click (PPC) optimization;
- Compliance with national and international standards;
- Global and multicultural capabilities;
- Support for local sales taxes;
- Support for trade and shipping rules & regulations;
- Tracking and analyzing e-Customers' online shopping behavior;
- Website management and reporting tools;

(5) Human resources;

- Technical expertise;
- Highly qualified/skilled personnel;

- ➢ Knowledge of Internet culture, e-Customers' culture, and language;

(6) Organizational capabilities;

- ➢ Strategy:
  - ✓ Integration of online and offline strategies;
  - ✓ Clear strategic goals;
  - ✓ Specific e-Commerce-related business plans/strategies;
  - ✓ Clear value proposition;
  - ✓ Choice of business model;
  - ✓ Strategic partnerships and alliances;
  - ✓ Outsourcing;
  - ✓ Supply chain value creation;
- ➢ Marketing:
  - ✓ Branding:
    - o Utilization of social networks for brand promotion;
    - o Running multiple display advertising campaigns;
    - o Active participation in online conversations and Q&A Websites;
    - o Showcase the testimonials, e-Customers' reviews and feedback across the Website and networks;
  - ✓ Pricing;
  - ✓ Selection of products/services to sell online;
  - ✓ Targeting and segmentation;
  - ✓ Multi-channel marketing:
    - o e-Mail marketing;
    - o Search engine marketing (SEM);
    - o Affiliate marketing;
    - o Referral marketing;
    - o Social media;
    - o Offline campaigns;
  - ✓ Online and offline promotion/advertising;
  - ✓ Unique selling proposition (USP), especially country-specific ones;
- ➢ Logistics:
  - ✓ Efficient supply chain;
  - ✓ Efficient order fulfillment:
    - o Prompt shipping;
    - o High speed of products/services' delivery;
- ➢ Customer relationships:
  - ✓ e-Customer/supplier support & service;
  - ✓ Constant connection/interaction with the existing e-Customers/suppliers for their retention:

        - Newsletters;
        - Blogs;
        - Surveys;
        - Online chatting;
        - e-Mail;
    - ✓ Personalized approach;
    - ✓ Real-time help;
    - ✓ Policy of withdrawal/substitution of returned products;
    - ✓ Refunding policy;
- ➢ Management:
    - ✓ Reputation (brand name, awareness);
    - ✓ Managerial skills and capabilities;
    - ✓ Top management leadership, commitment, and support;
    - ✓ Intensive R&D;
    - ✓ Innovativeness;
    - ✓ Experience;
    - ✓ Implementation of quality principles and standards (Deming's PDCA cycle: plan-do-check-act);
    - ✓ Resource allocation;
    - ✓ Monitoring and measurement of firm performance using key performance indicators (KPIs);
    - ✓ Strategic planning;
    - ✓ Control/supervision on all levels;
    - ✓ Monitoring industry developments and global trends;
    - ✓ Monitoring competitors' activities;
- ➢ Business processes:
    - ✓ Flexibility and adaptability to external changes;
    - ✓ Intra- and inter-organization integration of back-office processes (inventory, sales, logistics, customer service) with the front-office (e-Commerce) system;

All above mentioned CSFs have a direct and a serious impact on the effectiveness, efficiency, and viability of any e-Commerce firm. Activities associated with these CSFs must be performed at the highest possible level of excellence to achieve the ultimate objective - the e-Customers' satisfaction. On the other hand, this inevitably leads towards increased popularity, increased sales and increased profits. No matter of the number of CSFs being addressed and/or the success level of their implementation, their cumulative effect always affects, in a rather positive way, the overall competitiveness of e-Commerce firms.

5. Conclusion

During the recent few decades, globalization processes have imposed the emergence of a hyper-competitive era. The Internet and mobile computing have changed people's buying behavior all over the world, forcing most companies to provide online sales channels to their potential customers. To facilitate this process, businesses of all sizes have invested considerable amounts of money and resources into their e-Commerce strategies without taking into account all the key success factors related. As a result, many of them did not manage to survive the fierce competition on the global market. This fact has created the need for an explicit management of competitiveness, primarily firm-level competitiveness. Consequently, a considerable research has been done on competitiveness issues at different levels, using different approaches and frameworks.

In this paper, we put the focus on the firm-level competitiveness of e-Commerce companies. The key questions we strived to answer were: Why do we buy a product from a particular e-Commerce Website? What are the factors which motivate us to choose that Website and not others? The answers to these questions are the key factors which help a particular e-Store to stands higher in the crowd and sell more. Based on the findings originating from previous research, and having minded the basic differences between the traditional and e-Commerce businesses, we have compiled and proposed a framework - a comprehensive list of CSFs that have to be taken into consideration by any e-Commerce firm that tries to improve its competitiveness level. These CSFs underpin six major e-Commerce areas, including hardware architecture, software, telecommunications, Website design, human resources, and organizational capabilities. As such, this study provides valuable insights for e-Commerce businesses. The proposed framework also provides a solid base of evidence that might support academics conducting case studies, comparative overviews and further research on this and similar topics.

References

Ambastha, A., & Momaya, K. (2004). "Competitiveness of Firms: Review of Theory, Frameworks, and Models". *Singapore Management Review*, 26(1), 45–61. Retrieved from http://www.faracididattica.it/files/dott_-_ajitabh_et_al_2004.pdf

Aydin, S., & Kahraman, C. (2012). "Evaluation of e-commerce website quality using fuzzy multi-criteria decision making approach". *IAENG International Journal of Computer Science*, 39, 64–70. Retrieved from http://www.iaeng.org/IJCS/issues_v39/issue_1/ IJCS_39_1_07.pdf

Barney, J. B. (2001). "Resource-based theories of competitive advantage: A ten-year retrospective on the resource-based view". *Journal of Management*, 27(6), 643–650. doi: 10.1177/014920630102700602

Barney, J. B. (2010). *Gaining and Sustaining Competitive Advantage* (4th ed.). Essex: Pearson Education Ltd.

Bezes, C. (2009). "E-COMMERCE WEBSITE EVALUATION: A CRITICAL REVIEW". Paris: Université Panthéon Assas, Laboratoire de recherche en sciences de gestion Panthéon-Assas. Retrieved from https://hal.archives-ouvertes.fr/hal-00611008

Bodini, A., & Zanoli, R. (2011). "Competitive Factors of the Agro-Food E-Commerce". *Journal of Food Products Marketing*, 17(2-3), 241–260. doi: 10.1080/10454446.2011.548696

Davidavičienė, V., & Tolvaisas, J. (2011). "Measuring quality of e-commerce web sites: Case of Lithuania". *Economics and Management* [*Ekonomika ir vadyba*], 16, 723–729.

D'Cruz, J., & Rugman, A. (1992). "New Concepts for Canadian Competitiveness". Toronto: Kodak Canada.

Depperu, D., & Cerrato, D. (2005). "Analyzing International Competitiveness At The Firm Level: Concepts And Measures". Piacenza: Università Cattolica del Sacro Cuore. Retrieved from http://dipartimenti.unicatt.it/dises-wp_azzurra_05_32.pdf

Dumitrache, M. (2010). "E-Commerce Applications Ranking", *Informatica Economică*, 14(2), 120–132. Retrieved from http://revistaie.ase.ro/content/54/ 12%20Dumitrache.pdf

EconomicPoint (2013). "Competitiveness". EconomicPoint.com. Retrieved from http://economicpoint.com/competitiveness

Effendi, F. S., & Alfina, I. (2014). "Quality Evaluation of Airline's E-Commerce Website, A Case Study of AirAsia and Lion Air Websites". *Proceedings of The International Conference on Advanced Computer Science and Information Systems (ICACSIS 2014), Jakarta, Indonesia*, 125–128. doi: 10.1109/ICACSIS.2014.7065833

Ehmke, C. (2008). *Strategies for Competitive Advantage*. Laramie, WY: Department of Agricultural and Applied Economics, University of Wyoming. Retrieved from http://ag.arizona.edu/arec/wemc/nichemarkets/ 05competitiveadvantage.pdf

eMarketer.com (2016). "Worldwide Retail Ecommerce Sales Will Reach $1.915 Trillion This Year". eMarketer Inc. Retrieved from https://www.emarketer.com/Article/Worldwide-Retail-Ecommerce-Sales-Will-Reach-1915-Trillion-This-Year/1014369#sthash.zAE9EXMW.dpuf

Entrepreneur (2017). "Word-of-Mouth Advertising". Small Business Encyclopedia. Entrepreneur Media, Inc. Retrieved from http://www.entrepreneur.com/encyclopedia/word-of-mouth-advertising

Garelli, S. (2006). Top Class Competitors: How Nations, Firms and Individuals Succeed in the New World of Competitiveness (1st ed.). West Sussex: John Wiley & Sons Ltd.

Hansemark, O. C., & Albinsson, M. (2004). "Customer satisfaction and retention: the experiences of individual employees". *Managing Service Quality: An International Journal*, 14(1), 40–57. doi: 10.1108/09604520410513668

Jones, N., & Field, R. (2000). *ecommerce: Critical Success Factors That Will Make or Break Your Online Business*. Toronto: CDG Books Canada, Inc. / Macmillan Canada.

Kai, G. (2010). "The Competitiveness Evaluation of e-Commerce Website Based on AHP-Entropy", *Proceedings of The International Conference on E-Business and E-Government (ICEE 2010), Guangzhou, China*, 392–394. doi: 10.1109/ICEE.2010.107

Laosethakul, K. (2005). "Critical Success Factors For E-Commerce in Thailand: A Multiple Case Study Analysis". PhD Thesis. Auburn University, Auburn, AL. Retrieved from http://etd.auburn.edu/bitstream/handle/10415/803/LAOSETHAKUL_KITTIPONG_20.pdf?sequence=1

Laosethakul, K., & Boulton, W. (2007). “Critical Success Factors for E-Commerce in Thailand: Cultural and Infrastructural Influences”. *The Electronic Journal of Information Systems in Developing Countries (EJISDC)*, 30(2), 1–22. Retrieved from http://www.ejisdc.org/Ojs2/index.php/ejisdc/article/view/389/203

Laudon, K. C., & Traver, C. G. (2009). *E-commerce: Business, Technology, Society* (5th ed.). Upper Saddle River, NJ: Prentice Hall / Pearson Education, Inc.

Li, M. (2015). “A Study on Comprehensive Evaluation of C2C e-Commerce Website Competitiveness”. *Proceedings of The International Conference on Education Technology and Economic Management* (ICETEM 2015), Beijing: Atlantis Press, 600–603.

Liu, H., Wang, Y., & Xie, K. (2013). “Agricultural E-Commerce Sites Evaluation Research”. *International Journal of Business and Social Science*, 4(17), 138–143. Retrieved from http://ijbssnet.com/journals/Vol_4_No_17_Special_Issue_December_2013/17.pdf

Ma, H. (2000). “Of Competitive Advantage: Kinetic and Positional”, *Business Horizons*, 43(1), 53–64.

Moore, R. J. (2014). “How Many Ecommerce Companies Are There?”. RJMetrics.com, Philadelphia, PA. Retrieved from https://blog.rjmetrics.com/2014/06/18/how-many-ecommerce-companies-are-there/

Oliver, R. L. (2010). *Satisfaction: A Behavioral Perspective on the Consumer* (2nd ed.). New York, NY: Routledge/Taylor and Francis.

Pietersen, W. G. (2010). Strategic Learning: How to be Smarter than Your Competition and Turn Key Insights into Competitive Advantage. Hoboken, NJ: John Wiley & Sons, Inc.

Porter, M. E. (1985). Competitive Advantage: Creating and Sustaining Superior Performance. New York, NY: The Free Press.

Rababah, O. M. A., & Masoud, F. A. (2010). “Key Factors for Developing a Successful E-commerce Website”. *Communications of the IBIMA*. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.643.3978&rep=rep1&type=pdf

Sahin, C. (2012). “Competitiveness of e-Commerce Companies: An Integrated Approach”. *International Journal of eBusiness and eGovernment Studies*, 4(1), 13–22. Retrieved from http://www.sobiad.org/eJOURNALS/journal_IJEBEG/arhieves/2012_1/ cigdem_sahin.pdf

Stanujkić, D., & Magdalinović, N. (2012). “A Model for Evaluation E-Commerce Web Sites Based on Fuzzy Compromise Programming”. *Proceedings of The Contemporary Issues in Business, Management and Education 2012 Conference, Vilnius, Lithuania*, 532–544. doi: 10.3846/cibme.2012.44. Retrieved from http://old.konferencijos.vgtu.lt/ cbme.vgtu.lt/public_html/index.php/cbme/cbme_2012/paper/viewFile/38/68

Statista.com (2017). “Annual retail e-commerce sales growth worldwide from 2014 to 2020”. Hamburg: Statista GmbH. Retrieved from https://www.statista.com/statistics/288487/ forecast-of-global-b2c-e-commerce-growt/

Sung, T. K. (2006). “E-commerce critical success factors: East vs. West”. *Technological Forecasting and Social Change*, 73(9), 1161–1177.

Viehland, D. W. (2000). “Critical Success Factors for Developing an e-Business Strategy”. *Research Letters in the Information and Mathematical Sciences*, 1, 1–8. Retrieved from http://www.icsb2012.org.nz/massey/fms/Colleges/College%20of%20Sciences/ IIMS/ RLIMS/Volume01/Critical_Success_Factors_for_Developing_an_e-Business_Strategy.pdf

Wang, H., Huang, J., & Lee, C. (2005). “Critical Success Factors for Electronic Commerce in Chinese Electronic Information Industry”. *Tsinghua Science and Technology*, 10(S1), 746–752. Retrieved from http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber= 6075741

WEF (2016). “What is competitiveness?”. World Economic Forum. Retrieved from https://www.weforum.org/agenda/2016/09/what-is-competitiveness/