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FACTORS THAT FACILITATE AND MOTIVATE THE ADOPTION AND IMPLEMENTATION OF ACTIVITY BASED COSTING IN GREEK COMPANIES

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Abstract

This study aims to assess ABC adoption in Greek companies and explore factors that facilitate and motivate its adoption and implementation. A survey via web-based questionnaires was conducted. The paper examined several organizational, environmental, technical, technological and behavioral, factors that were assessed in relation to ABC-adopters, firms that have implemented ABC, ABC-under consideration, firms that consider adopting ABC, and non-ABC users, firms that do not intend to adopt ABC. The study contributed to the current understanding of how contingency factors could reform the successful adoption of ABC in Greece. It filled a gap in the literature and reduced the ambiguity concerning the current state of ABC adoption and implementation in Greek firms, regarding all major sectors of the economy. It underscores the importance of adopting/utilizing the ABC regarding business processes and association with organization performance and confirmed results of existing studies.

Key Words

Activity based costing; business process; organizational performance.

INTRODUCTION

Activity-Based Costing (ABC) is a costing method that identifies activities and assigns the cost of each activity with resources to all products and services according to the actual consumption by each activity. ABC is important since it is impossible to manage something if it is not measured accurately. Hence, ABC improves decision-making by providing timely and accurate cost-related feedback that extends to all business functions (Shields., 1995). Cooper and Kaplan (1991), stated that ABC is a management accounting technique that assigns costs to products and services based on the resources consumed by those products and services.

However, regardless of the advantages of the ABC, its adoption rate is relatively low (Innes, et al., 2000; Pierce, Brown, 2004; Cohen, et al., 2005; Askarany, Yazdifar, 2007). A plethora of reasons has been indicated for this rather low adoption rate, which include the following: cultural, national and structure by (Shields., 1995; Gosselin, 1997; Brewer, 1998), technical variables, identifying and determining activities, assigning resources to activities and selecting cost drivers, by (Innes, et al., 2000; Clarke, et al., 1999; Innes, Mitchell, 1990; Innes, Mitchell, 1995; Chongruksut, 2002) contextual, organizational and behavioral factors such as top management support, firm sector, firm size, product diversity, type of competition, cost structure, internal resources, difficulty adapting to new costing system, resistance to change and training (Shields, 1995; McGowan, Klammer, 1997; Anderson, Young, 1999; Innes, Mitchell, 1995; Anderson, 1995). Thus, according to this research evidence contextual, behavioral, and organizational factors are very crucial in influencing and successfully adopting and implementing the ABC accounting system.

The main objectives of the present study were to determine the current state of ABC implementation among Greek companies. However, this research study was not restricted only to industrial shareholding companies, but it attempted to obtain a more comprehensive picture of various Greek companies regarding their costing system, and their perception of ABC in the major sectors of the economy. Other objectives were to identify the main factors that facilitate and motivate the decision to implement ABC (ABC-Adopters). Specifically, we evaluate companies that are currently using ABC identifying the problems, the challenges, and the benefits that have been encountered concerning the process of adopting and using ABC in Greek companies or firms that consider ABC adoption, while others did not intend to adopt ABC. These issues are examined through an investigation of four research questions:

RQ-1. What is the current state of ABC implementation among Greek companies?

RQ-2. What are the main contingent factors, including the reasons why some Greek companies implement and use ABC or consider ABC adoption, while others did not intend to adopt ABC at all?

RQ-3. What is the degree of success of the business processes that ABC contributes to an organization?

RQ-4. Is there any significant association between ABC and organizational performance?

Further, this research contributes to the existing literature by presenting new elements and contingency factors that can facilitate and motivate the adoption of ABC in Greek companies. The outcomes of this research promote scientific knowledge and complement the existing literature by linking ABC with specific business processes and organizational firm performance characteristics.

The remainder of this research paper is structured as follows: a review of the literature and the conceptualization of the model is presented in the next section, the following section is describing the methodology of this research. Next, the survey results are presented, followed by a discussion in this survey, and the last section is presenting the limitations, implications, and opportunities for future study.

LITERATURE REVIEW

Diffusion of ABC

ABC is claimed as one of the most important management accounting innovations of the twentieth century (Johnson., 1990; Krumwiede., 1998), even though, initially, the adoption of ABC was slow due to the high expenditure involved in employing, sustaining, and maintaining the ABC system. As a result, the ABC system has been used extensively in countries such as the United States of America (USA) (Brierly, 2011), the United Kingdom (UK) (Al-Omiri & Drury, 2007), and Canada (Quinn, et al., 2017). However, ABC has also gained international respect in not only developed countries but in developing economies such as Malaysia ((Ahmad, et al., 2017); (Ruhanita & Daing, 2006)), Taiwan Lou (2017), ((Gooneratne & Wijerathne, 2019); (Babu & Masum, 2019)), and Turkey (Özcan, 2020), since they gain competitive advantages in the pursuit of globalizing their economies. A summary of the research studies that have examined the adoption/diffusion of ABC spanning from 1997 to 2020, is shown in Table 1.

Table 1: A summary of previous research/studies that examined the adoption/diffusion of ABC

Study	Country	Population/Characteristics	Response Rate %	Period	Adoption/Diffusion Rate %
Bjørnenak (1997)	Norway	Manufacturing firms, (75) of the largest corporations	57%	1997	30% currently use ABC, 10% considering
Adler (1999)	New Zealand	Manufacturing firms with more than 20 employees (165)	26.2%	2000	4.8% currently use 19.4% considering,
Innes & Michell (2000)	United Kingdom	Firms listed in TIME 1000	22.8%	1999	17.5% currently use ABC, 20.3% are considering, 15.3% have assessed and rejected, and 46.9% have not considered
Chen (2001)	Hong Kong	Manufacturing and nonmanufacturing firms (90)	11.1%	2001	11.1% currently use ABC
Bescos et al. (2002)	Canada and France	Financial Post 500 in Canada and members of the Association of	21.2% in Canada and 4.7% in France	Spring and summer of	23.1% of firms had adopted ABC in Canada and 23% in France.

		Financial Directors and Management Accountants		1999	9.3% were examining the possibility of adopting ABC in Canada and 22.9% in France
Chongruksut (2002)	Thailand	Manufacturing and nonmanufacturing firms (101)	11.9%	2002	11.9% currently use ABC
Cotton, et al. (2003)	New Zealand	Corporate sector members of the Institute of Chartered Accountants of New Zealand (companies with more than 100 employees)	Manufacturing: 25.5% Nonmanufacturing: 18.8%	September 2001	20.3% currently use ABC, 11.1% are considering, 10.8 have assessed and rejected, and 57.8% have not considered
Kianni & Sangeladj (2003)	USA	500 Fortune largest industrial corporations	21.6%	Fall, 1999	40% recently started implementing, 11.8% are having ABC well established
Pierce & Brown (2004)	Ireland	Top 500 companies and top 50 financial services companies from the 2001 Business and finance listings of top Irish firms	23.2%	June 2002	27.9% currently use ABC
Manalo (2004)	Philippine	Top 500 companies	Telephone interviews	2004	17% currently use ABC, 28% are considering, and 55% have not considered ABC
Cohen, et al. (2005)	Greece	Leading Greek companies in the manufacturing, retail, and service sectors	31.1%	March to May 2003	40.9% adopters, 31.9% ABC deniers, 13.6% supporters, and 13.6% ABC unawares
Cinquini, Tenucci (2007)	Italy	Manufacturing firms with sales higher than 25 million euro from Business International Database	42.8%	Not available	28% of high adoption and 37% of low adoption
James, Elmezughi (2010)	Australia	Manufacturing & nonmanufacturing (199)	14.3%	2010	14.3% currently using ABC
Aldukhil (2012)	Australia	Manufacturing and nonmanufacturing firms (108)	28.7%	2012	28.7% currently use ABC
Askarany. (2016)	Oman	Medium, large, and very large (116)	22.6%	2011	12.9% currently use ABC 8.6% have implemented ABC on a trial basis
Ahmad, et al. (2017)	Malaysia	SMEs in manufacturing sector (108)	N/A	2017	16.7% currently use ABC & Adaptation 83.3 have not considered ABC
Pietrzak, et al. (2020)	Poland & Lithuania	Medium, large, and very large organizations (520)	52.50%	2020	21.5% using ABC, 21.1% consider using ABC, 52.5% didn't consider using ABC & 4.9% rejected ABC

Source: Own survey.

Companies that currently using ABC (ABC-adopters)

ABC-Adopters are companies that have adopted, implemented, and use ABC. Several companies have confronted obstacles trying to adopt and implement ABC. Top management is considered as the most critical factor in influencing the implementation of ABC (Chongruksut, 2002; McGowan & Klammer, 1997; Shields., 1995; Hoang, et al., 2020). Cooper & Kaplan, (1988a); Cooper, (1988b); Groot, (1999); Krumwiede (1998) stated that ABC is useful for organizations with large and growing expenses, increase overheads, it performs well with a large variety in products, and complex operations, customers, and processes. Similarly, several studies, (Bjornenak, 1997; Askarany, et al., 2010; Krumwiede., 1998) claimed that larger firms are more likely to adopt ABC. They argue that larger firms have the required resources and thus, they are more capable of adopting the ABC method. Gosselin (1997) indicated that the organizational structure and its strategy affect the adoption and implementation of ABC. Booth and Giacobbe (1997) found a significant positive association between the overhead level and ABC adoption. Thus, numerous researchers stated that organizations implement ABC as a method of measuring accurate cost

information for product costing (Ahmadzadeh, et al., 2011; Brierly, 2011; Al-Dhubaibi, 2021).

Moreover, Ahmadzadeh et al. (2011) found a positive association between cost structure and the importance of cost information, products and services, and ABC implementation. Cooper and Kaplan (1992) stated that the growing costs and product diversity are also major reasons for the adoption and implementation of ABC. Research also reveals (Pavlatos, 2009) that many companies proceed to the implementation of ABC because they want to modernize their cost accounting system in order to better depict costs or to improve their business processes (Kitsantas, et al., 2020). Also, in the Malaysian context (Zheng, Abu, 2019), researchers found that the ABC system provides actual cost information and increases a firm's profitability.

In addition, the decision to implement ABC is often driven by the need to improve customer profitability analysis, to gain more accurate cost information for pricing, or to prepare relevant budgets and thus presents a better management tool (Ahmadzadeh, et al., 2011; Al-Dhubaibi, 2021). Also, adequacy - internal resources, sufficient time, as well as employees' knowledge and understanding on how to implement influence ABC implementation effectively (Clarke, Mullins, 2001; Hasan, Akter, 2010).

Therefore, reasons that justify the ABC adoption are to improve cost control, cost reduction, cost information for product costing, more accurate allocation of indirect costs, identification of activity costs, improvement of operational efficiency, and thus, it furnishes managers with information for decision making, planning, and organizational performance.

Companies that consider adopting ABC (ABC-under consideration)

Besides ABC-Users, several companies may consider the ABC implementation as a future target or aim and are referred to ABC-Under Consideration. Research evidence indicates that companies that are considering ABC tend to have other priorities and projects (Chung, et al., 1997; Chongruksut, 2002), lack expertise (Chongruksut, 2002; Clarke, et al., 1999; Chung, et al., 1997; Cohen, et al., 2005), and have inadequate resources (Innes, et al., 2000; Chongruksut, 2002; Cohen, et al., 2005; Clarke, et al., 1999; Innes & Mitchell, 1995; Krumwiede., 1998).

A large number of research studies have been conducted to identify critical success factors that motivate and facilitate ABC consideration in companies (Shields., 1995; Brown, et al., 2004; Krumwiede., 1998). Findings show that the influence of ABC consideration is strongly related to behavioral and organizational variables, namely top management support (Hoang, et al., 2020; Abedalqader, 2017), adequate internal resources, and training, but not on technical variables such as the type of software or the nature of the system. Moreover, Krumwied (1998) indicated that various contextual and organizational factors might influence ABC consideration such as cost distortion, size of the firm, top management support, non-accounting ownership, and training.

Therefore, organizations that might include in their future plans the ABC implementation strive to comprehend and interpret the cost causation and behavior, improve accurate cost information for product costing, enhance customer profitability analysis in a more accurate way, improve cost control, more accurate cost information for planning and decision-making, reengineering their business processes and expect organizational firm performance.

Companies that never adopted or employed ABC (non-ABC adopters)

Regardless of the advantages of ABC over Traditional Cost Accounting (TCA) systems, the adoption rate of ABC remains low and several studies described the reasons for the non-adoption of ABC. Companies that do not employ ABC will be referred to as Non-ABC Users. Clarke et al. (1999) found that the major barriers to the adoption and implementation of ABC were the lack of adequate resources and experiences. Numerous studies (Cohen, et al., 2005; Innes, et al., 2000; Chongruksut, 2002; Cooper & Kaplan, 1988; Cooper & Kaplan, 1992), suggested that ABC is very complex to implement, and there are many barriers such as lack of top management support, employee resistance, lack of internal resources, lack of expertise to implement, and satisfaction with the current systems.

Likewise, Anderson and Young (1999), stated satisfaction with the current system, no human resource availability, and lack of resources such as a qualified workforce, time, effort, and resource-consuming. Further, ambiguous and unclear benefits of ABC (Booth & Giacobbe, 1998; Chongruksut, 2002; Cohen, et al., 2005), as well as costly implementation (Chongruksut, 2002; Chung, et al., 1997) can contribute to not adopting ABC.

The relationship between ABC adoption and organizational performance

According to Faeq et al., (2018), ABC implementation and organizational performance are significantly and positively related. The study provided evidence that ABC implementation acts as a mediator between competitive strategies and organizational performance. Elhamma (2015), examined the relationship between the implementation of ABC and the organizational performance among Moroccan firms. The study found that the use of ABC improved overall firm performance.

Zaman (2009) confirmed that the use of the ABC method results in a better overall performance for enterprises that have adopted it in Australia. Ittner et al. (2002) indicated that the ABC method can reduce the inexactitude about the cost allocation and improve the performance. According to McGowan (1998), ABC is considered an effective tool to underline efficiencies, increase innovation, reduce waste and improve relationships and communication across the department, and enhance focus on the attainment of the goals. Further, the use of ABC improves profitability,

performance, decision-making process, enhancing and simplifying the costing process (Kitsantas, et al., 2021).

Moreover, Al-Nuaimi et al. (2017) in their study demonstrated that the adoption of ABC as a sophisticated cost management system has a significant impact on organizational performance. The authors indicated that the adoption of ABC as a cost management system has a direct influence on organizational performance such as enhancing job effectiveness, efficiency, and waste reduction, assisting the firm to achieve their overall goal, enabling managers to make quality and productive decisions and making customer relationship management more effective and efficient.

Theoretically, based upon the literature review, ABC is a sophisticated cost management system and it has a significant impact on organizational performance. The use of ABC affects positively the organizational performance of an organization and it demonstrates superior performance and a high level of contribution to competitiveness, being an important strategic management tool.

THE CONCEPTUAL FRAMEWORK FOR THE RESEARCH

This section presents the conceptualization of the theoretical framework for this study, examining the association of organizational, environmental, behavioral, technological, technical, and contingent factors of the ABC adoption/implementation and investigating whether companies using ABC have a higher level of organizational performance.

According to the theoretical framework of the model, ABC adoption may depend also upon specific contingent factors such as: industry sector, industry size, firm structure, firm nationality (ownership) (Clarke, et al., 1999; Innes, et al., 2000; Pierce & Brown, 2004), product diversity, product complexity, (Clarke, et al., 1999; Pierce & Brown, 2004), type of competition, IT infrastructure/ERP systems, (Innes & Mitchell, 1995; Innes, et al., 2000; Sartorius, et al., 2007; Cohen, et al., 2005; Hoang, et al., 2020), top management support, adequate resources, cost structure (level of overhead), (Cooper., 1987; Bjornenak, 1997; Turney., 1989; Booth & Giacobbe, 1997; Brown, et al., 2004), employees resistance to change, user training and technical issues (identifying and selecting appropriate activities and cost) (Pierce & Brown, 2004; Cohen, et al., 2005; Booth & Giacobbe, 1998; Chongruksut, 2002; Clarke, et al., 1999; Chung, et al., 1997), high cost of procurement, (Chongruksut, 2002; Chung, et al., 1997), other priorities and goals, (Chung, et al., 1997; Chongruksut, 2002), satisfaction with the current system, (Anderson & Young, 1999).

Specifically, this study uses this theoretical framework to examine how “Critical Contingency Factors” and the “Organizational Impact” are associated with ABC success adoption which is defined as ABC-Adopters, ABC-Under Considerations, and Non-ABC Users. Specifically, the independent variables include five (5) groups of contingency variables: Organizational, Environmental, Technological, Technical, and Behavioral Characteristics and the dependent variable is the “Extend of ABC Success”

that is divided into three (3) groups: a) ABC-Adopters, b) ABC-Under Consideration, and c) Non-ABC Users, and the dependent variable, Organizational/Firm Performance Expected, which is divided into two dimensions, financial and non-financial performance.

METHODOLOGY

Participants

The sample of this research study consisted of entities from all major sectors of the Greek economy, including the companies listed on the Stock Exchange of Greece. The criteria used for the selection of the companies (entities) were as follows: a) The total assets must be $\geq 4,000,000$ euros, b) net turnover must be $\geq 8,000,000$ euros, and c) the average number of employees during need to be at least 50 employees in the last three years (2016, 2017, 2018) for two consecutive fiscal years. These criteria are also used by the Greek law 4308/2014 to classify companies (entities) as medium, large, or very large. Therefore, our study obtained the aforementioned information for the selected companies (entities) from the Nationwide Company Database (ICAP), which contains information from the register of legal business entities in the Greek Republic, only for medium, large, or very large.

Two hundred and twenty (220) web-based questionnaires were sent via email, and the addressee was the management from the economic, finance, or controlling departments, in the selected companies. To improve the response rate after the questionnaires were sent via email, they were followed up initially with email reminders and then by phone calls. The research was conducted between February 2020 to January 2021. A total of one hundred and two (102) usable anonymous questionnaires were received for this study. Thus, the response rate was 46%. This response rate is considered adequate for this type of survey which was conducted via email (Nulty, 2008) and it is similar to other studies (Al-Omiri & Drury, 2007; Brown, et al., 2004; Askarany, 2016). In addition, Krumwiede (1998), stated that the normal response rate for these surveys is approximately 20%, though many published surveys report lower response rates, such as 12.5%. Table 1 displays information on response rates from similar studies to this one.

In addition, a cover letter (e-mail letter) was sent along with the web-based questionnaire explaining that the research study was being conducted in cooperation with the University of Macedonia, Faculty of Information Systems in the Department of Applied Informatics. This was prepared in order to explain the purpose of the study and the ethical rules regarding this research and provided the participants with complete anonymity and assured that their responses would be treated as confidential according to Greek Law 3627/1956 and Law 22392/1996.

Data analysis

Quantitative data were processed using the Statistical Package for the Social Sciences (SPSS) program groups (Bryman & Cramer, 2001). Descriptive statistics were conducted to describe the sample characteristics. Proportions were computed for categorical variables, and means and standard deviations were used for continuous ones. The chi-squared test or the Fisher's exact test were utilized to tests for statistically significant associations between categorical measures. Any statistically significant differences in the average values of the continuous variables across the various groups of the categorical measures were tested using the t-test or analysis of variance (ANOVA). Post-hoc analysis was performed using the Bonferroni correction to determine any pairwise significant differences.

RESULTS

Table 2 depicts the survey respondent's position in the company and gender. Respondents within the company held various positions from chief executive officers (CEO; $n = 9$, 8.8%), internal auditors ($n = 6$; 5.9%), and costing managers ($n = 4$, 3.9%). The majority of the individuals held positions as chief accountants ($n = 39$; 38.2%) followed by accountants ($n = 23$; 22.5%), and chief financial officers ($n = 21$; 20.6%). In addition, over 84% ($n = 86$) of the respondents to the survey were males in comparison to females ($n = 16$; 15.7%).

Table 2: Respondent's Position in Company and Gender

	n (%) n=102
Position in Company	
Chief Executive Officer (CEO)	9 (8.8)
Chief Financial Officer (CFO)	21 (20.6)
Chief Accountant	39 (38.2)
Internal Auditor	6 (5.9)
Costing Manager	4 (3.9)
Accountant	23 (22.5)
Gender	
Male	86 (84.3)
Female	16 (15.7)

Source: Own survey.

RQ-1. what is the current state of ABC implementation among Greek companies?

The present study examined the current state of ABC-Adopters, ABC-under consideration, and Non-ABC Users among the Greek companies. Table 3 shows the diffusion of respondent companies across the three categories of ABC implementation. The findings showed that eleven ($n = 11$) companies or 10.8%, out of one hundred and two (102) companies were currently using ABC. Eight-eight 8.8% ($n = 9$) of the companies in this sample were under-consideration of implementing ABC in the future and eighty-two ($n = 82$) or 80.4% have not considered ABC as their costing method, and they were still using a different costing method. This indicates that most of these

companies may have been using variable, marginal, direct, by-product, order, full, absorbent, cost-per-production, or standard costing methods.

Table 3: Presents the current state of ABC implementation among Greek companies

Description of the Category	Number of the Companies n=102	n (%)	Cumulative %
ABC-Adopters	11	10.8	10.8
ABC-Under Consideration	9	8.8	19.6
Non-ABC Users	82	80.4	100

Source: Own survey.

RQ-2. what are the main contingent factors, including the reasons why some Greek companies implement and use ABC or consider ABC adoption, while others did not intend to adopt ABC at all?

The sample characteristics described in Table 4 include organizational (firm size, firm ownership, firm sector, product diversity, competition type, product complexity, short product cycle, and fully automated production), technological (required additional IT resources and integration problems with ERP and cost accounting systems), and behavioral (top manager involvement, adequacy resources, high overhead, accurate allocations of overheads for determining the costs, etc.) components.

Based on the organizational characteristics, almost all of the companies 99% ($n=101$) were anonymous-public companies S.A, and only 1% ($n = 1$) Anonymous Industrial Commercial Company A.I.C.C. and 45.1% ($n=46$) were not a member of a business group, 6.9% ($n = 7$) were a member of a parent of the multinational group, 6.9% ($n=7$) were a member of group subsidiary, 7.8% ($n = 8$) were a member of a subsidiary of the multinational group. However, a number of companies 33.3% ($n=34$) were a member of a business group. Most of the companies surveyed were part of the stock exchange ($n = 41$; 40.2%). A small portion of the companies was owned by the Greek State ($n = 7$; 6.9%). A large portion of the companies surveyed were classified as industrial ($n = 24$; 23.5%), while 22.5% were trade companies, 10.8% were in the foodservice, and only 8.8% were in the construction/materials area. It was found that on average there was a large turnover ($M = 289,227,109.60$ euros, $SD = 958,646,573.00$ euros) in the past three years. The average value for assets in the past three years for this sample was 216,174,217.30 euros ($SD = 699,140,458.10$ euros) and the average number of employees across the different companies was 351.1 ($SD = 845.3$).

In regard to the organizational characteristics, most companies were operating in the same sector of 11-100 ($n = 51$; 50%), although product diversity was also valued high ($n = 35$; 34.3%); however, in the organizational characteristics, the least reported item by the respondents was having a fully automated production ($n = 6$; 5.9%). For the technological factors, we observe that approximately 37.3% ($n= 48$) of the sample indicated very to very much for required additional IT resources, and 37.3%

(n= 38) having integration problems with ERP and cost accounting systems of the sample indicated very to very much.

In examining the behavioral factors, we observe that over half of the sample (n= 57; 55.9%) reported very to very much for the involvement of top management. However, overall, the majority of participants indicated a lack of high overhead (n = 84; 82.4%). Accurate allocation of overheads in determining costs, better pricing of products and services as well as being important in analyzing the profit margin and for precise costing budgets was valued highly (very to very much) by approximately 78 to 81% of the respondents. Most of the sample (92.0%) had none to moderate difficulty in adapting to a new costing system. Over half of the sample (56.0%) indicated not at all to little significant user reaction while high-cost procurement was valued as very to very much by 65.7% of the companies. Most respondents (over 90.0%) indicated moderate to very much satisfaction with their costing system.

Table 4: Organizational, environmental, technological & behavioral sample characteristics

Characteristics	n (%)
Organizational	
The corporate type of the company	
Anonymous-Public Company S.A.	101 (99)
Limited Liability Company L.L.C.	1 (1)
Firm sector	
Industrial	24 (23.5)
Trade	23 (22.5)
Construction/material	9 (8.8)
Foodservice	11 (10.8)
Other	35 (34.3)
Environmental	
Product Diversity	
Yes	35 (34.3)
No	67 (65.7)
High level of competition	
Yes	20 (19.6)
No	82 (80.4)
Product complexity	
Yes	14 (13.7)
No	88 (86.3)
Short product cycle	
Yes	11 (10.8)
No	91 (89.2)
Technological	
Required additional IT resources	
Not at all to little	18 (17.6)
Moderate	46 (45.1)
Very to very much	48 (37.3)
Integration problems with ERP and cost accounting systems	
Not at all to little	14 (13.7)
Moderate	50 (49.0)
Very to Very Much	38 (37.3)
Behavioral	
Top Manager involvement	
Not at all to little	22 (21.6)
Moderate	23 (22.5)
Very to very much	57 (55.9)
Adequacy resources	
Not at all to little	3 (3.0)

Moderate	32 (31.3)
Very to very much	67 (65.7)
High overhead	
No	84 (82.4)
Yes	18 (17.6)
Accurate allocation of overheads is critical for better pricing of products/services	
Not at all to little	10 (9.8)
Moderate	14 (13.7)
Very to very much	78 (76.5)
Accurate allocation of overheads is important for analyzing the profit margin	
Not at all to little	5 (4.9)
Moderate	16 (15.7)
Very to very much	81 (79.4)
Accurate allocation of overheads is crucial for precise costing budgets	
Not at all to little	8 (7.8)
Moderate	15 (14.7)
Very to very much	79 (77.5)
Difficult to adapt to new costing system	
Not at all to little	47 (46.1)
Moderate	45 (44.2)
Very to very much	10 (9.8)
Significant user reaction	
Not at all to little	57 (55.9)
Moderate	29 (28.4)
Very to very much	16 (15.7)
High cost of procurement	
Not at all to little	3 (2.9)
Moderate	32 (31.4)
Very to very much	67 (65.7)
Other priorities/goals	
Not at all to little	62 (60.8)
Moderate	12 (11.8)
Very to very much	28 (27.5)
Costing system satisfaction	
Not at all to little	8 (7.8)
Moderate	34 (33.3)
Very to very much	60 (58.8)

Source: Own survey.

Moreover, analyses were also conducted to examine further associations between ABC status (ABC-Adopters, ABC-Under consideration, and Non-ABC users) and specific organizational, technological & behavioral characteristics. Thus, the results of these analyses were presented in Table 5. Overall, the bivariate associations indicated that none of the companies that adopted ABC-Adopters or ABC-Under consideration were owned by the Greek state. Most of the companies that adopted the ABC system were part of the stock exchange ($n = 7$; 63.6%) while Non-ABC Users were mostly not in the stock exchange (62.2%). A large portion of the ABC-Adopters and Non-ABC Users were industrial companies.

However, no significant associations were found between ABC status and organizational characteristics such as firm sector, firm size, corporate type, or firm ownership. We note that product diversity was particularly more evident among the ABC-Adopters (54.4%), indicating that the increasing product diversity may lead to the adoption of the ABC. ABC-Adopters were significantly more likely (45.5%, $p = 0.025$) to report high level of competition, and short product life (36.4%, $p = 0.019$) than the Non-ABC Users.

Investigating the technological characteristics, the research findings of this study showed that companies ABC-Under consideration were more likely to report moderate integration problems with ERP and cost accounting systems ($n = 7$; 77.8%) in comparison to those who adopted ABC and indicated very to very much ($n = 6$; 54.6%). However, none of these associations were statistically significant.

Examining the behavioral characteristics, this research revealed that most of the ABC-Adopters (81.8%) followed by the Non-ABC Users (53.7%) indicated that top management was very much involved. A significantly higher proportion of ABC-Adopters (36.4%) and those ABC-Under considerations (55.6%) reported as having “very to very much” difficulty adapting to a new costing system ($p = 0.01$). Adequacy of resources in this study was more likely to be reported as very to very much by those classified as being ABC-Under consideration (77.8%) and ABC-Adopters (63.6). ABC-Adopters were significantly more likely (27.3%, $p = 0.047$) to report high overhead compared to Non-ABC Users (7.3%). Furthermore, a significantly higher proportion (100%, $p=0.046$) of ABC-Adopters valued accurate allocations of overheads in better pricing of products/services relative to the other groups. However, Non-ABC Users were more likely to report “very to very much” for the high cost of procurement (68.3%), although this finding was not statistically significant.

A significant proportion ($p = 0.038$, 55.6%) of those ABC-Under consideration reported that other priorities and goals were very to very much important relative to the other groups. Satisfaction with the current system was higher among ABC adopters relative to the other groups, although, it was not a statistically significant finding ($p\text{-value}=0.972$).

Table 5: Bivariate Associations between ABC Status and Sample Characteristics of Organizational, Environmental Technological, Technical and Behavioral

Characteristics	ABC-Adopters $n=11$ (10.8%)	ABC-Under Consideration $n=9$ (8.8%)	Non-ABC Users $n=82$ (80.4%)	
	n (%)	n (%)	n (%)	P-value
Organizational				
The corporate type of the company				0.884
Anonymous-Public Company S.A	11 (100.0)	9 (100.0)	81 (98.8)	
Limited Liability Company L.L.C	0 (0.0)	0 (0.0)	1 (1.2)	
Firm sector				0.735
Industrial	3 (27.3)	4 (44.4)	17 (23.5)	
Trade	1 (9.1)	2 (22.2)	20 (24.4)	
Construction/material	1 (9.1)	1 (11.1)	7 (8.5)	
Foodservice	2 (18.2)	0 (0.0)	9 (11.0)	
Other	4 (36.4)	2 (22.2)	29 (35.4)	
Environmental				
Product complexity				0.142
No	8 (72.7)	7 (77.8)	73 (89.0)	
Yes	3 (27.3)	2 (22.2)	9 (20.0)	
Short product cycle				0.019
No	7 (63.6)	8 (88.9)	76 (92.7)	
Yes	4 (36.4)	1 (11.1)	6 (7.3)	
Product diversity				0.319

No	5 (45.5)	6 (66.7)	56 (68.3)	
Yes	6 (54.4)	3 (33.3)	26 (31.7)	
High level of competition				0.025
No	6 (54.6)	6 (66.7)	70 (85.4)	
Yes	5 (45.5)	3 (33.3)	12 (14.6)	
Technological				
Required additional IT resources				0.980
Not at all to little	1 (9.1)	2 (22.2)	15 (18.3)	
Moderate	6 (54.5)	4 (44.4)	36 (43.9)	
Very to very much	4 (36.4)	3 (33.3)	31 (37.8)	
Integration problems with ERP and cost accounting systems				0.372
Not at all to little	1 (9.1)	0 (0.0)	13 (15.9)	
Moderate	4 (36.4)	7 (77.8)	39 (47.6)	
Very to very much	6 (54.6)	2 (22.2)	30 (36.6)	
Behavioral				
Top management is involved				0.081
Not at all to little	1 (9.1)	1 (11.1)	20 (24.4)	
Moderate	1 (9.1)	4 (44.4)	18 (21.9)	
Very to very much	9 (81.8)	4 (44.4)	44 (53.7)	
Adequacy resources				0.636
Not at all to little	1 (9.1)	0 (0.0)	2 (2.4)	
Moderate	3 (27.3)	2 (22.2)	27 (32.9)	
Very to very much	7 (63.6)	7 (77.8)	53 (64.6)	
High overhead				0.047
No	8 (72.7)	7 (77.8)	76 (92.7)	
Yes	3 (27.3)	2 (22.2)	6 (7.3)	
Accurate allocation of overheads is critical for better pricing of products/services				0.046
Not at all to little	0 (0.0)	1 (11.1)	9 (11.0)	
Moderate	0 (0.0)	0 (0.0)	14 (17.1)	
Very to very much	11 (100.0)	8 (88.9)	59 (72.0)	
Accurate allocation of overheads is important for analyzing the profit margin				0.539
Not at all to little	0 (0.00)	0 (0.00)	5 (6.10)	
Moderate	0 (0.0)	1 (11.1)	15 (18.3)	
Very to very much	11 (100.0)	8 (88.9)	62 (75.6)	
Accurate allocation of overheads is crucial for precise costing budgets				0.093
Not at all to little	2 (18.2)	0 (0.0)	10 (12.2)	
Moderate	1 (9.1)	0 (0.0)	24 (29.3)	
Very to very much	8 (72.7)	9 (100.0)	48 (58.5)	
Difficulty adapting to new costing system				0.000
Not at all to little	3 (27.3)	1 (11.1)	43 (52.4)	
Moderate	4 (36.4)	3 (33.3)	38 (46.3)	
Very to very much	4 (36.4)	5 (55.6)	1 (1.2)	
Significant user reaction				0.000
Not at all to little	2 (18.2)	1 (11.1)	54 (65.9)	
Moderate	3 (27.3)	3 (33.3)	23 (28.1)	
Very to very much	6 (54.6)	5 (55.7)	5 (6.1)	
High cost of procurement				0.383
Not at all to little	1 (9.1)	0 (0.0)	2 (2.4)	
Moderate	5 (45.5)	3 (33.3)	24 (29.3)	
Very to very much	5 (45.5)	6 (66.7)	56 (68.3)	
Other priorities and goals				0.038
Not at all to little	5 (45.5)	2 (22.2)	55 (67.1)	
Moderate	2 (18.2)	2 (22.2)	8 (9.8)	
Very to very much	4 (36.4)	5 (55.6)	19 (23.2)	
Satisfaction with the current system				0.972
Not at all to little	0 (0.0)	1 (11.1)	7 (8.5)	
Moderate	4 (36.4)	3 (33.3)	27 (32.9)	
Very to very much	7 (63.6)	5 (55.6)	48 (58.5)	

Source: Own survey.

Furthermore, analyses were conducted to examine the behavioral, (changing the costing system is considered a time-consuming process, top

management, and the company's addresses supported its ABC adoption, top management provide sufficient resources for its ABC adoption, it is necessary to train users in its implementation stage, additional training provided for its successful operation and training helped to deal with problems that arise), technological (required additional IT infrastructure resources), and technical characteristics (difficulty identifying activities and cost drivers for ABC method and difficulty in planning activities and cost drivers for ABC method) for those companies that adopted ABC or are considering adopting the ABC system. Descriptive statistics are reported in Table 6.

Two-thirds of the sample indicated that the changing of the costing system was a time-consuming process ($n = 13$; 65.0%). The majority of the sample also reported that the top management supported ABC adoption ($n = 14$; 70%) and that the top management provided sufficient resources for its ABC adoption ($n = 14$; 70%). We note that 90% ($n=18$) of the sample found it “very” necessary to train users in its implementation stage while 85% ($n = 17$) indicated that it was “very” important to have additional training for its successful operation. The requirement of additional IT infrastructural resources ($n = 9$; 45%), identification of activities and cost drivers ($n = 8$; 40%), and the planning of activities and cost drivers for the ABC method ($n = 8$; 40%) were reported as important by less than half of the participants.

Table 6: Behavioral, technical and technological characteristics among companies with ABC utilization/consideration

Characteristics	n (%)
Changing the costing system is considered a time-consuming process	
Not at all to little	3 (15.0)
Moderate	4 (20.0)
Very to very much	13 (65.0)
The top management and the company's addresses supported its ABC adoption	
Not at all to little	1 (5.0)
Moderate	5 (25.0)
Very to very much	14 (70.0)
The top management provide sufficient resources for its ABC adoption	
Not at all to little	1 (5.0)
Moderate	5 (25.0)
Very to very much	14 (70.0)
It is necessary to train users in its implementation stage	
Moderate	2 (10.0)
Very to very much	18 (90.0)
Additional training was provided for its successful operation	
Not at all to little	2 (10.0)
Moderate	1 (5.0)
Very to very much	17 (85.0)

The training helped to deal with problems that arise	
Moderate	3 (15.0)
Very to very much	17 (85.0)
Required additional IT infrastructure resources	
Not at all to little	4 (20.0)
Moderate	7 (35.0)
Very to very much	9 (45.0)
Difficulty identifying activities and cost drivers for ABC method	
Not at all to little	6 (30.0)
Moderate	6 (30.0)
Very to very much	8 (40.0)
Difficulty in planning activities and cost drivers for ABC method	
Not at all to little	6 (30.0)
Moderate	6 (30.0)
Very to very much	8 (40.0)

Source: Own survey.

RQ-3. What is the degree of success of the business processes that ABC contributes to an organization?

Associations between ABC Status (ABC-Adopters, ABC-Under Consideration, and Non-ABC Users) and Business Process Management. An analysis of variance and post-hoc analyses (using the Bonferroni correction) were conducted to determine differences in these characteristics across the three levels of ABC status. These results are shown in Table 7.

The study findings show a significant difference in the average values of pricing policy [$F(2,99)= 4.473, p= .014$], accurate analysis of customer profitability [$F(2,99)= 5.647, p= .005$], precise budgeting [$F(2,99)= 4.544, p= .013$], better allocation of overheads [$F(2,99)= 5.98, p= .006$], better cost-effective design of new products and services [$F(2,99)= 9.251, p< .000$], and generally contributes to better cost decision-making [$F(2,99)= 13.571, p< .000$] between the three levels of ABC status.

In order to determine which pairwise differences were statistically significant, a post-hoc Bonferroni test was conducted. ABC-Adopters scored significantly higher on a number of business processes compared to Non-ABC Users, including pricing policy ($M_{ABC-Adopters}= 4.45, SD= .69; M_{ABC Non-Users}= 3.7, SD= .81; p= .014$). Accurate analysis of customer profitability was significantly higher on average among ABC-Adopters relative to Non-ABC Users ($M_{ABC-Adopters}= 4.55, SD= .82; M_{ABC Non-Users}= 3.45, SD= 1.06 p= .004$). Precise budgeting was significantly higher on average among ABC-Adopters compared to Non-ABC Users ($M_{ABC-Adopters}= 4.27, SD= .90; M_{Non-ABC Users}= 3.46, SD= .95; p= .025$). Better allocation of overheads was significantly higher on average among ABC-Adopters relative to Non-ABC Users ($M_{ABC-Adopters}= 4.36, SD= .92; M_{Non-ABC Users}= 3.33, SD= 1.07; p= .0106$).

In addition, better cost-effective designs of new products and services was significantly higher on average among ABC-Adopters relative to Non-ABC Users ($M_{ABC-Adopters} = 4.23, SD = .65; M_{Non-ABC Users} = 3.16, SD = 1.04; p = .002$). General contributions to better cost decision making was also significantly higher on average among ABC-Adopters relative to Non-ABC Users ($M_{ABC-Adopters} = 4.55, SD = .69; M_{Non-ABC Users} = 3.13, SD = 1.04; p < .000$). Those under ABC-Under consideration also scored on average significantly higher than Non-ABC Users in better cost-effective designs of new products and services ($M_{ABC-Under Consideration} = 4.11, SD = .78; M_{Non-ABC Users} = 3.16, SD = 1.04; p = .019$) and contributing to better cost decision making ($M_{ABC-Under Consideration} = 4.22, SD = .67; M_{Non-ABC Users} = 3.13, SD = 1.04; p = .006$).

Table 7: differences in business processes management by ABC-users, ABC-under consideration, and non-ABC users status

	ANOVA Comparison of Means			F-test	P-value	Bonferroni Test of Group Mean Differences		
	(1) ABC-Adopters n=11	(2) ABC-Under Consideration n=9	(3) Non-ABC-Users n=82			(1)&(2) P-value	(1)&(3) P-value	(2)&(3) P-value
	Mean (SD)	Mean (SD)	Mean (SD)					
Pricing policy	4.45 (.69)	4.0 (1.0)	3.7 (.81)	4.473	0.014	0.656	0.014	0.872
Accurate analysis of customer profitability	4.55 (.82)	3.78 (.97)	3.45 (1.06)	5.647	0.005	0.299	0.004	1.000
Precise budgeting	4.27 (.90)	4.0 (.87)	3.46 (.95)	4.544	0.013	1.000	0.025	0.316
Better allocation of overheads	4.36 (.92)	3.89 (1.05)	3.33 (1.07)	5.98	0.006	0.953	0.008	0.399
Eliminating Non-value-added products/services of those that Add Value	3.82 (.75)	3.44 (1.13)	3.18 (1.08)	1.888	0.157	1.000	0.191	1.000
Better cost-effective design of new products/services	4.23 (.65)	4.11 (.78)	3.16 (1.02)	9.251	0.000	1.000	0.002	0.190
Generally contributes to better cost decision-making	4.55 (.69)	4.22 (.67)	3.13 (1.04)	13.571	0.000	1.000	0.000	0.006

Source: Own survey.

RQ-4. Is there any significant association between ABC and organizational performance?

An analysis of variance and post hoc analyses using the Bonferroni test were conducted to determine any significant differences between ABC-Adopters, ABC-Under Consideration, and Non-ABC Users in organizational firm performance namely, profitability, return on investment, cost control, business processes, productivity, market share, satisfaction of the customers, satisfaction of the employees, competitiveness, and corporate reputation. These results are shown in Table 8.

We found statistically significant differences between these ABC groups in the average values of cost control [$F(2,99) = 7.759, p = 0.001$], business processes [$F(2,99) = 5.992, p = 0.003$], and productivity [$F(2,99) = 4.388, p =$

0.015]. In order to determine any pairwise significant differences, a post-hoc analysis with Bonferroni correction was performed.

The study findings show that there was a significant difference between ABC-Adopters and Non-ABC Users in the means for cost control ($M_{ABC-Adopters} = 4.64, SD = .50; M_{Non-ABC-Users} = 3.76, SD = .82; p = 0.002$). In addition, on average, ABC-Adopters scored higher on productivity compared to Non-ABC Users ($M_{ABC-Adopters} = 4.09, SD = .70; M_{Non-ABC Users} = 3.43, SD = .80; p = .031$). The findings of this study in regards to business processes being significantly higher on average among those with ABC-Under Consideration compared to Non-ABC Users are also in agreement with previous research findings ($M_{ABC-Under Consideration} = 4.22, SD = .44; M_{Non-ABC Users} = 3.49, SD = .82; p = 0.024$).

Differences in organizational performance were also assessed and the findings are displayed in Table 8. Overall, the ABC-Adopters scored significantly higher on average than the Non-ABC Users for cost control, business process, and productivity. This indicates higher levels of satisfaction with organizational performance in regards to these components among ABC-Adopters relative to Non-ABC Users.

Table 8: Differences in organizational performance of ABC-users, ABC-under consideration, and non-ABC users status

ANOVA Comparison of Means						Bonferroni Test of group mean differences		
	(1) ABC-Adoters n=11	(2) ABC- Under Consideration n=9	(3) Non-ABC-Users N=82	F- test	P- value	(1) & (2) P- value	(1) & (3) P- value	(2) & (3) P- value
	Mean (SD)	Mean (SD)	Mean (SD)					
Profitability	3.82 (.98)	3.78 (.83)	3.43 (.90)	1.369	0.259	1.000	0.545	0.818
Return on investment	3.55 (1.29)	3.78 (.67)	3.33 (.90)	1.101	0.337	1.000	1.000	0.524
Cost control	4.64 (.50)	4.33 (.50)	3.76 (.82)	7.759	0.001	1.000	0.002	0.110
Business processes	4.09 (.54)	4.22 (.44)	3.49 (.82)	5.992	0.003	1.000	0.050	0.024
Productivity	4.09 (.70)	3.89 (.78)	3.43 (.80)	4.388	0.15	1.000	0.031	0.297
Market share	3.55 (1.04)	3.56 (.88)	3.11 (.94)	1.734	0.182	1.000	0.466	0.551
Satisfaction of the customers	3.45 (1.13)	3.44 (.53)	3.05 (1.05)	1.223	0.299	1.000	0.667	0.828
Satisfaction of the employees	3.18 (.98)	3.44 (.88)	3.11 (.93)	0.532	0.589	1.000	1.000	0.926
Competitiveness	4.0 (1.0)	3.89 (.60)	3.43 (.90)	2.798	0.066	1.000	0.145	0.431
Corporate reputation	3.36 (1.12)	3.78 (.44)	3.34 (.96)	.866	0.424	0.997	1.000	0.576

Source: Own survey.

DISCUSSION

This research study revealed that adopting the ABC method could be very challenging. ABC requires a large amount of adequate resources, commitment among employees, top management support, and sufficient user training. Further, several issues were recognized in identifying activities and cost drivers, such as being costly to implement, requiring additional IT infrastructure, and being time-consuming.

Regardless of the above limitations, ABC has been widely identified as a sophisticated tool that can be used to manage and reduce costs as well as improve organizational and financial performance. ABC provides more accurate costing information for products and services, enhances cost control, and provides managers with relevant and timely information in today's competitive business environment.

The rate of ABC-Adopters was 10.8% in this research study and it was lower than the rate found in previous research studies. This is primarily due to the ten years of economic recession in Greece and covid-19. These two factors may have impacted the ability of Greek companies to invest in new technologies regarding accounting and ERP systems leading to low rates of ABC adoption. For instance, Cohen et al. (2005) conducted an empirical survey in Greece from March to May in 2003 among the Greek leading companies in the manufacturing, retail, and service sectors to investigate the current state of ABC and they revealed that 40.9% of the sample companies were ABC adopters.

We examined associations between ABC status (ABC-Adopters, ABC-Under Consideration, and Non-ABC Users). ABC-Adopters were significantly more likely (45.5%, $p = 0.025$) to report high level of competition, and short product life (36.4%, $p = 0.019$) than the Non-ABC Users. The findings of this study support the results of previous studies between the high level of competition and ABC adoption. According to Copper, (1988b), and Ittner, Lanen W.N., & Larcker (2002) claimed that increasing levels of competition in relation to the shorter life cycle of manufactured products require a change in managing costs.

Examining the behavioral characteristics, this research study revealed that most of the ABC-Adopters (81.8%) followed by the Non-ABC Users (53.7%) indicated that top management was very much involved. According to the literature, one of the first prerequisites for the success of an ABC implementation is top management support for the project ((Hasan, Akter, 2010), sponsorship from top management is a must for the ABC initiative (Gunasekaran, Sarhadi, 1998).

A significantly higher proportion of ABC-Adopters (36.4%) and those ABC-Under considerations (55.6%) reported as having "very to very much" difficulty adapting to a new costing system ($p = 0.01$). Argyris and Kaplan (1994) stated that implementing ABC as a new system may engender resistance. Moreover, the research highlighted that ABC-Adopters (54.6%) and those ABC-Under Consideration (55.7%) were significantly more likely to indicate user reaction as "very to very much" ($p \leq 0.01$).

Adequacy of resources in this research was more likely to be reported as very to very much by those classified as being ABC-Under consideration (77.8%) and ABC-Adopters (63.6). Adequacy of resources has been claimed

as one of the critical factors for the successful implementation and adoption of ABC (Innes, et al., 2000; Clarke & Mullins, 2001). ABC-Adopters were significantly more likely (27.3%, $p = 0.047$) to report high overhead compared to Non-ABC Users (7.3%). Several researchers (Cooper., 1987; Bjornenak, 1997; Turney., 1989; Cooper., 1987) stated that the level of overhead costs is one of the major factors predisposing organizations towards ABC adoption. Moreover, a significantly higher proportion (100%, $=0.046$) of ABC-Adopters valued accurate allocations of overheads in better pricing of products/services relative to the other groups. The results of the study indicated that the accurate allocations of overhead costs played an important reason in adopting the ABC method and also managing a firm regarding costs of products and prices.

However, Non-ABC Users were more likely to report “very to very much” for the high cost of procurement (68.3%) although, it was not a statistically significant. Similarly, Innes and Mitchell (1995) stated several problems are associated with the high costs of ABC implementation and maintenance. A significant proportion ($p = 0.038$, 55.6%) of those ABC-Under consideration stated that other priorities and goals were very to very much important relative to the other groups. Satisfaction with the current system was higher among ABC-Adopters relative to the other groups, although, it was not a statistically significant finding (p -value=0.972).

According to the findings of this study, ABC-Adopters scored significantly higher on a number of business processes compared to Non-ABC Users, including pricing policy ($M_{ABC-Adopters} = 4.45$, $SD = .69$; $M_{Non-ABC Users} = 3.7$, $SD = .81$; $p = .014$). Research evidence reveals that ABC provides better profitability measurements and better-informed strategic decisions about pricing, product lines, and market segments (Blocher, et al., 2013; Dubihlela & Rundora, 2014). Accurate analysis of customer profitability was significantly higher on average among ABC-Adopters relative to Non-ABC Users ($M_{ABC-Adopters} = 4.55$, $SD = .82$; $M_{Non-ABC Users} = 3.45$, $SD = 1.06$ $p = .004$). Ahmadzadeh et al. (2011); Al-Dhubaibi (2021) stated that the decision to implement ABC is often driven by the need to improve customer profitability analysis, to gain more accurate cost information for pricing, or to prepare relevant budgets and create a better management tool. Precise budgeting was significantly higher on average among ABC-Adopters compared to Non-ABC Users ($M_{ABC-Adopters} = 4.27$, $SD = .90$; $M_{Non-ABC Users} = 3.46$, $SD = .95$; $p = .025$). Better allocation of overheads was significantly higher on average among ABC-Adopters relative to Non-ABC Users ($M_{ABC-Adopters} = 4.36$, $SD = .92$; $M_{Non-ABC Users} = 3.33$, $SD = 1.07$; $p = .006$). Krumwiede (1998) stated that ABC is useful for organizations with large and growing expenses, increase overheads, performs well with a large variety in products, and complex operations, customers, and processes. Hence, the ABC method is adopted when the overheads of an organization are high and there are large numbers of products.

In addition, better cost-effective designs of new products and services was significantly higher on average among ABC-Adopters relative to Non-ABC Users ($M_{ABC-Adopters} = 4.23$, $SD = .65$; $M_{Non-ABC Users} = 3.16$, $SD = 1.04$; $p = .002$). ABC is a strategic tool that ensures accurate product costs, eliminating

Non-value-added activities and providing reliable costing information (Cooper & Kaplan, 1988; Johnson., 1990; Turney., 1989). General contributions to better cost decision making was also significantly higher on average among ABC-Adopters relative to Non-ABC Users ($M_{ABC-Adopters} = 4.55$, $SD = .69$; $M_{Non-ABC Users} = 3.13$, $SD = 1.04$; $p < .000$). ABC is a modern costing methodology developed to meet the demand of businesses to provide critical information for decision-making (Almeida & Cunha, 2017). Those under ABC-Under consideration also scored on average significantly higher than Non-ABC Users in better cost-effective designs of new products and services ($M_{ABC-Under Consideration} = 4.11$, $SD = .78$; $M_{Non-ABC Users} = 3.16$, $SD = 1.04$; $p = .019$) and contributing to better cost decision making ($M_{ABC-Under Consideration} = 4.22$, $SD = .67$; $M_{Non-ABC Users} = 3.13$, $SD = 1.04$; $p = .006$).

Moreover, the study findings show that there was a significant difference between ABC-Adopters and Non-ABC Users in the means for cost control ($M_{ABC-Adopters} = 4.64$, $SD = .50$; $M_{Non-ABC Users} = 3.76$, $SD = .82$; $p = 0.002$). In addition, on average, ABC-Adopters scored higher on productivity compared to Non-ABC Users ($M_{ABC-Adopters} = 4.09$, $SD = .70$; $M_{Non-ABC Users} = 3.43$, $SD = .80$; $p = .031$). McGowan (1998) stated that if ABC is implemented successfully, individuals may perceive ABC results in improvements in the quality of their work, accomplishing tasks more quickly, increasing job productivity, improving job productivity, and results in more improved organizational processes. The findings of this study in regards to business processes being significantly higher on average among those with ABC-Under Consideration compared to Non-ABC Users are also in agreement with previous research findings ($M_{ABC-Under Consideration} = 4.22$, $SD = .44$; $M_{Non-ABC Users} = 3.49$, $SD = .82$; $p = 0.024$). According to Pavlatos (Pavlatos, 2009) enterprises proceed to the implementation of ABC because they want to modernize their cost accounting system, to better represent costs, and to improve their business processes (Kitsantas, et al., 2020). Thus, ABC emphasizes the continuous improvement of the business process, solves bottlenecks, provides opportunities to redesign and develop new products and services.

Overall, the findings of this research study revealed that although there are several obstacles in the adoption and implementation of ABC, companies that adopt ABC have significantly more accurate allocation of overhead costs, better business processes, and higher levels of organizational performance relative to the Non-ABC Users.

LIMITATIONS AND IMPLICATIONS

This study promotes scientific knowledge and complements the existing literature in several ways. In terms of the theoretical implications, this study contributed to the current understanding of how certain contingency factors could reform successfully the adoption of ABC in Greece. It spanned across streams of literature mainly, management accounting literature with a focus on ABC, concepts from psychology, business strategy, organizational performance, and human resources management literature. Moreover, it

involved diverse and major economy sectors such as manufacturing, service, finance sector, etc. As a result, it filled a gap in the literature and reduced the ambiguity concerning the current state of ABC adoption and implementation in Greek firms in major sectors of the economy.

Furthermore, the holistic analysis of the present study added to existing research by comparing TCA and ABC systems and their effects on organizations. It also examined the role of several organizational, environmental, technical, technological, and behavioral factors on ABC-Adopters, ABC-Under Consideration, and Non-ABC Users and highlighted the importance of the integration and assessment of the success of ABC adding new knowledge to the existing literature. Further, it underscores the importance of adopting/utilizing the ABC connection to business processes and association with organization performance, which also filled research "gaps" in this field, since a few studies had examined the role of ABC and its organizational performance. Finally, the current study confirmed the results of existing studies that also emphasized the importance of adopting the ABC method.

However, some limitations should be noted when interpreting the results of this study that can be also highlighted as opportunities for future study. The size of the sample that was obtained in this research study. Covid-19 was a major factor for not obtaining a larger sample, which would allow for more robust results to be obtained. The scope of the study is limited to large and medium size of companies only. Therefore, this limitation may restrict the generalizability of the findings to medium and large and not to small companies. Consequently, future research may increase the range of the selected companies that can allow for more robust results.

Moreover, even though the response rate of this survey was high relative to other similar studies that have examined ABC, the number of firms in each category of ABC-Adopters, ABC-Under Consideration was small, except the Non-ABC Users. Hence, it was difficult to conduct meaningful statistical tests and obtain robust results. However, this research was not restricted only to industrial shareholding companies but obtained a more comprehensive picture of all Greek companies regarding their costing system, having a better perception of ABC in all sectors of the economy. Therefore, the findings and the results of this study may have been different, if a restricted range of companies had been selected within the Greek industrial sector. Hence, more in-depth case studies should be undertaken to explore why some companies have used ABC, have considered using ABC, or why other companies use other suitable cost accounting systems.

At last, future research may use different methodological approaches, both quantitatively and qualitatively to further explore this topic. Large-scale survey questionnaires may allow for large samples of observations in assessing the diffusion stage of ABC.

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HOW FINANCING DIFFERENT INDUSTRIES INFLUENCES THE ISLAMIC BANK PROFITABILITY? UAE AND KSA IN FOCUS

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Abstract

One of the most important roles in Islamic banking operation today is profitability and its performance. Islamic banks use the different modes of financing in order to achieve its profitability. The aim of this paper is to test the effects of Islamic financing in different sectors in KSA and UAE. Paper shows investing in which sector can lead to more profitable investment and positive impact on the profitability of Islamic banks. By using OLS multiple regression analysis paper shows that possibility of investment diversification is the highest in the United Arab Emirates. Particularly in investments in the sector mining and quarrying can cause losses in profitability. While investments into agriculture, forestry, hunting and fishing, construction, financial and insurance activities and real estate activities have positive impact on the profitability in United Arab Emirates. Similarly regarding to investment in KSA paper shows that the most profitable sectors are agriculture, forestry, hunting and fishing.

Key Words

Islamic banking; profitability; profit; investment; industrial sectors.

INTRODUCTION

Since Islamic banks are free of interest financial services, the financial arrangements between customers and the Islamic bank should be free of charge of interest financial contracts and it should adhere to the values of Sharia. The banking industry typically plays a vital role in the growth and progress of the improving the economic state, if not all, by financing most of enterprises. Islamic banks follow Islamic values that could be declared as banks compliant with the Shariah. Islamic banks in KSA are the largest in Islamic financing, in this way commercial banks operate easy with Islamic banks. Most of commercial banks has Islamic windows that enables to the conventional banks deal with Islamic modes of financing. Similarly, majority of commercial banks in GCC have a dual system of banking that includes both Islamic and conventional banking system. United Arab Emirates is the first country who entered dual banking system. First Islamic bank is established in UAE in 1973. This was one of the reasons why now in UAE there is 8 banks that operate as Islamic banks. Saudi Arabia is pioneer of Islamic banking but when it comes the expansion United Arab Emirates are lead country. Moreover, both Islamic and secular banks have the biggest assets of Saudi Arabia and best amongst Gulf Cooperation Council States (GCCs) Arab countries level. In Saudi Arabia traditional and Islamic banks operate side by side for the sake of optimizing benefit, the Arab industry. Fast technological changes and globalization had a positive impact on the banks size and its needs to finance different industries. The present study discusses both internal and external factors leading to the viability of Islamic banks in the area of Saudi Arabia and UAE in the period between 2013 and 2019. In determining the viability of Islamic banks, banking characteristics, industry characteristics and macroeconomic variables are significant. Empirical findings show that both indicators of profitability reflect the solid financial position of UAE and Saudi banks. In addition, the study highlights optimal bank policies that help policymakers, bank managers and managers boost overall performance and sustain sound profitability in Islamic banks in Saudi Arabia and UAE.

LITERATURE REVIEW

Islamic banking today is not a new phenomenon and with all its features it is tightly related to sustainable economic development show in their research (Osmanovic et al., 2020). Countries of Middle East represents heart of Islam and hence they are one of the strongest with Islamic finance industry including Islamic insurance and Islamic bonds or sukuk.

When we talk about the profitability of Islamic banks, in the literature we can find two ways of measurements: profitability of Islamic banks or comparison with conventional banks. One of the most important factors for the profitability of Islamic banks is environment. If the environment is not supporting the Islamic banking system what is the case of some countries, the banks will not be profitable. Bashir and Hassan (2004), study the

economic condition and its impact on the profitability of Islamic banks. He concluded that good economic condition has a positive impact on the Islamic banks' profitability.

Al-Kayed et al. (2014) in his research observed 85 Islamic banks and investigated the impact of capital structures on Islamic banks. He came to know with results that there is positive relationship between Islamic banks and profitability. Similar research has been done by Zarrouk (2014) he investigated the impact of financial crisis on 43 banks of MENA countries. His research shows that Islamic banks in GCC seems to be less profitable compared to the rest of MENA countries. Financial crisis had a negative impact on the profitability of Islamic banks in GCC. Kader and Asarpota (2007) in their research compared performance of Islamic and conventional banks in the United Arab Emirates. According to the results of the research Islamic banks show more profitability, they were less liquid and more efficient.

Moin (2008) conducted research about profitability, liquidity, risk, and efficiency for the period of 2003-2007 between Islamic bank in Pakistan that is Meezan Bank Limited (MBL) and five conventional banks. His results show that Islamic bank is less profitable compare to conventional banks. Further in his research he found that Islamic bank is less risky than conventional banks.

Parashar and Venkatesh (2010) examined the performance of Islamic and conventional banks in GCC countries in the period of from 2006 to 2009. They conducted ratios analysis and concluded that financial crisis had more impact on Islamic banks taking capital ratio, leverage, and return on average equity, and conventional banks was affected more in terms of return on average assets and profitability.

Ferhi and Chkoudali (2015) in their comparative study between Islamic banks and conventional banks in MENA region in the period of 2007-2010, revealed the results that Islamic banks showed more stability in terms of profit efficiency results compared to the conventional banks. Ahmed and Khababa (1999) conducted the research about the banking sector determinants in Saudi Arabia. They used the percentage of change in earnings per share, ROE and ROA in order to show the profitability of the banks. The research shows that the main determinants of banks in KSA are business risk and the size of the banks.

Kocherlakota (1998) in his research investigated money with a constraint cash in advance, he released that zero nominal interest are very much important if we need the optimal allocation of resources. If that is the case, where interest rate is zero, investors will try to manage real resources with a money or cash, and it will boost investment. In this way, Islamic banks will operate based on Islamic modes of financing, like Musharaka, Mudaraba or Murabaha. All this will lead to increase profitability of Islamic banks.

Zaki (2012) in his research investigated determinants of the UAE's financial market and measured the impact of government bailouts of United Arab Emirates in its Economy. UAE government protected the banks who were in the loss through government activity. He concluded that there was significant development in the banking sector in UAE, and Islamic banks

shows noticeable profitability.

Loghod (2008) investigated the performance of Islamic banks compared to the conventional in the period from 2000 - 2005. His results show that there is no significant difference in the way of profitability both conventional and Islamic banks. His finding shows that Islamic banks has less chance to be impacted by liquidity risk while conventional banks depend more on external liabilities then Islamic banks.

ISLAMIC BANKING IN UAE AND KSA FOLLOWED BY PLS MODEL

During last years in MENA region Islamic banking has been growing rapidly, Osmanovic and Stojanovic (2019). The main impact on the growth of Islamic banking was a fast increase in the price of oil of these countries and it has a positive impact on wealth of the nation through their salaries and income per capita. Nation saving capacity resulted in the development of the modern Islamic banking and its profitability. Modern banking follows the theory of traditional interest. The theory of free interest is based on Islamic banking and Profit-and - Loss (PLS) output distribution theory. Islamic finance in theory varies considerably from traditional finance. Sharia-compliant banking, in fact does not allow interest rates to be paid. Although the price is permissible only for goods and services, does not encourage speculation and forbids precise financing operations. This indicates strong funding gaps Islamic and secular banks' operation systems. Many countries in the world are seeing what has happened known as dual banking, in which banks are free of interest using traditional banks side by side. Like every other traditional, this bank performs regular business, but the bank is not investing or collecting interest. It acts on it Principles of profit-sharing under Islamic rule (known as Shariah), barring any sort of involvement transaction. The Dubai Islamic Bank was founded the formation of a large number of banks followed working on the same in different parts of the world principles. The UAE as a key region of the GCC is explained by the experience of these countries. A large growth rate of the number of banks Global financial reserves compliant with Shariah, and decent financial stability leads to boost banking sector of UAE.

The government of Saudi Arabia does not levy tax payments on local citizens and national corporations. Banking system of Saudi Arabia is monitored by Saudi Arabian Monetary Agency, SAMA, that is established 1952. Saudi Central Bank is monitored by the law of SAMA. With the fast growth of the oil sector in 1970s banking sector of Saudi Arabia shows more expansion. Nowadays banking sector of Saudi Arabia represents the largest market for Islamic finance when it comes to the size of assets, concluded in his research Melaty (2008). Instead of zakat is a discretionary duty that is to be withheld from dividends of shareholders. Thereby, Zakat does not tax nor is excluded from the combined financial statement of profits Gross dividend paid or charged as an appropriation of net profits to shareholders revenue without allocation of a dividend (NCB Financial Report 2009). On the other side, joint International bank projects must pay both zakat and taxes on an

undisclosed capital budget.

According to Kamco-Invest, profitability and top lines of Islamic banks are projected to be reduced in the KSA and UAE relative to traditional lenders in the country. In its latest study the UAE-based institution said that the rise in the reserves and deposits of Islamic banks was roughly 8 per cent in 2019 vs. 2018, compared to 10 per cent in conventional banks. "In the short term, the downturn in economic activity led by Covid-19 would influence traditional banks more in terms of growth rates than Islamic banks. In comparison, the earnings of Islamic banks are projected to be less than traditional banks based on their higher loan-to - deposit relationships.

This refers to Saudi Arabia, which use deposits far more than the UAE banks, which have a higher ratio to traditional banking. In addition, the loan-to - deposit ratio of the GCC-based banks is considerably conservative in relation to global levels at the overall regional level. This allows them the opportunity to provide extra buffers to cope with tension in the industry in times of crisis. Stressing that the Gulf Islamic banks continue in many indicators to outweigh their traditional peers, the Shariah-based banks in Saudi Arabia has a higher asset use, with loans-to-deposit ratios greater than conventional banks. The profitability of Islamic banks in the area also reflected a higher loan-to - deposit ratio. As regards total lending operation in the country, the Covid-19 pandemic will impact both traditional and Islamic banks. In other words, the extent of influence will be determined by the performance of the individual banks. In addition to the pandemic, it was said that traditional banks will be more dominant than Islamic lenders as regards growth rates than GCC banks in a comparatively stronger position to withstand the short-term effect of the Covid-19 because of the enough capital and liquidity buffer. It was reported that the (regional) banking industry would play a key role in the recovery from this crisis and would benefit from the expanded presence of the private sector in the overall economy. In the first quarter of this year, GCC banking posted healthy lending growth, as Covid-19's economic effects were felt close to the end of the quarter.

Islamic lenders have retained good income in all GCC participants thanks to low borrowing costs and marginally increased in 2017, due to higher prices and good cost controls.

OPERATING PROCESSES FOR P/L OF GCC BANKS

In describing Islamic banks operating procedures of UAE and KSA Islamic banks, the theoretical models of Islamic banking focused attention to the rules regulating the profit-sharing relationships between banks and deposit holders and between banks and banks' customers. Equity and Mudarabah deposits were considered in earlier models to be the Islamic bank's only two payable liabilities and the holders of Mudarabah deposits to be regarded as one homogeneous group. In the following directions, the benefit share agreements were envisaged between the two large capital groupings. It shall split the bank's aggregate benefit from the overall money concluded Ariff (2012). After such a split, the Bank will keep a negotiated share of the

benefit, and holders of Mudarabah deposits will receive the remainder. In the shared consensus of the parties involved, the share of the benefit portion is decided.

The loss shall be shared by the two parties in strict proportion to the money given by each party if the bank experiences a loss. The overall amount of loss suffered in a loss scenario for a holder of the Mudarabah deposit is restricted to the amount of its investment. Later contributions in Islamic banking literature accept that agreements for benefit sharing within an Islamic bank's payable liabilities might take different forms and stay within the Shari'ah parameter. It was thought that versatility in benefit share percentages was highly justified based on the amount of liability at which different forms of financial liabilities were subjected according to Al-Arabi (2016).

In the profit-sharing agreements, the Mudarabah deposits of longer maturity might be reduced to deposits of shorter maturity. Likewise, the allocation of a higher return to the non-returnable equity supplier may be distinguished from the non-returnable capital provider. With regards to the arrangements for profit-sharing between the bank and bank fund users, Muslim banking models adhere to the basic concept developed in the Shari'ah that the income from the Mudarabah company will be divided between the money supplier (the bank) and the bank fund user on the pre-settled basis of proportions. For any entity, no set fee should be charged. The supplier of funds shall accept damage, if any, unless the recipient of the bank funds has incurred error or breach of the terms of the contract. For the purpose of a profit / loss share in Musharakah market, a common denomination would be rendered by a multiplication of sums by the number of days in which each component, such as a company's equity capital, its current cash surpluses, the suppliers and the bank's funding, would be the capital commitment of the parties used for different purposes. Profit / loss sharing has been the core feature of almost all previously established Islamic banking models. Some researchers show that production of credit cannot be used by Islamic banks. They claim that making loans makes it possible for banks to produce unwarranted income that exploit a small community. There are those who see no objection to Islamic banks providing credit and think that it is necessary to find ways to guarantee a fair sharing of the profits from complete banking operations. For some researchers it is important that small, localized entities operate in the Islamic spirit for the Islamic banks.

Islamic banks should be compelled to share some of their demand deposits for the government to offer interest-free lends to support projects of social value that cannot obtain the required funds on a profit-sharing basis. As the funds made available to a bank through demand deposits are held by the public and banks do not refund those deposits, part of them can be used to serve the government's financial needs. It was also proposed that a portion of the demand deposits could be used to provide interest-free loans to satisfy the real needs of people's consumption in both the countries (KSA and UAE). Others claim that the central bank of the country should offer interest-free lending to the government rather than exchange banks.

RESEARCH METHODOLOGY

The paper shows how using the Sharia’s-compliant financing impact the level of profit of Islamic banks. Paper shows the analysis of conventional and Islamic banks in UAE and KSA and its realized profit in these two countries. In order to see which sector is more profitable to invest, we used a quantitative method of linear regression in two steps. To examine the effect of bank investment on the profitability we applied linear regression analysis.

Paper uses the data from secondary sources of UAE and KSA in the interval period from 2013 until 2019 and apply OLS multiple regression analysis. In order to test research hypotheses, we set up our linear regression model used within both steps for overall and partial regression analyses:

$$Y_{(a; a1)} = \alpha + \beta_1(X_1) + \beta_2(X_2) + \beta_3(X_3) + \beta_4(X_4) + \beta_5(X_5) + \beta_6(X_6) + \beta_7(X_7)$$

Table 1: Research variables

Independent variable	
$Y_{(a; a1)}$	profit in full regression; profit in partial regression
Dependent variables value (or percentage) of Sharia’s-compliant financing by economic activity	
X_1	agriculture forestry hunting and fishing
X_2	manufacturing
X_3	construction
X_4	wholesale and retail trade
X_5	financial and insurance activities
X_6	financial and insurance activities
X_7	real estate activities

Source: Own survey.

RESULTS OF THE RESEARCH

During the research, two countries were observed, Table 1 presents the ratio of Islamic and conventional banks operating in these countries.

Table 2: Islamic and conventional banks in UAE and KSA

Country	Islamic banks	Conventional banks	Total
UAE	8	41	49
KSA	4	20	24

Source: Own survey.

Islamic finance operations in UAE and KSA will be monitored by the profit. In the Table 2 it can be seen the data movement of profit in the period of the fourth quarter of 2013 to the third quarter of 2019. By the realized profit observation, it can be seen that the highest realized average profit are having banks in Saudi Arabia (with the mean = 11022.79), while the lowest realized average profit have banks in UAE (mean = 9215.38).The largest total profit

in the individual observation period came by Islamic banks operating in the UAE (max. 18333.90). The value of the standard deviation shows the dispersion of the realization of average incomes in the observed countries. The highest observed dispersion in realized revenues shows Islamic banks operating in UAE (St. Dev. = 3934.58), while the smallest dispersion is with Islamic banks in KSA (St. Dev. = 2179.19).

Table 3: Descriptive analysis of realized profit

Country	Realized Profit		Min	Max	Mean	St. dev.	Min	Max
	Mean	St. dev.						
KSA	11022.79	2179.19	4692.40	15268.00	17406.41	9731.28	10132.00	35684.00
UAE	9215.38	3934.58	3869.90	18333.90	15037.95	3397.52	10754.20	25423.00

Source: Own survey.

Research shows how investing in different economic activity will impact the profit. Hence, the variable realized profit is dependent variables in this model. The activities listed in the models of multiple regression analysis were taken as independent variables. During testing the first hypothesis of this research, the realized profit was taken as a dependent variable. The test results of this hypothesis showed that there is a positive impact that the observed activities have on the movement of realized profits (F (test) = 41.499, sig. = .000). The model explained 76.70% of the dependent variable, which shows the coefficient of determination ($R^2 = .767$). There is large correlation of the observed variables and shows the coefficient of multiple correlation ($R = .876$).

Results of the research shows that investing in these activities affects the realization of profits. For manufacturing sector (Beta = .925, t-test = 6.329, p = .000), financial and insurance activities (Beta = .385, t-test = 3.745, p = .000) and agriculture forestry hunting and fishing sector (Beta = .287, t-test = 3.170, p = .002) there is a positive influence on the direction of the regression function. These activities contribute to the growth of the realized profit. However, this is not the case for all activities. In the construction activity, there is a significant negative impact on the direction of regression analysis (Beta = -.639, t-test = -3.743, sig. = .000). By investing in this industrial activity, banks have negative effect on the realized profits. In addition to this, the activity of mining and quarrying (Beta = -.155, t-test = -1.889, sig. = .062), and wholesale and retail trade (Beta = -.012, t-test = -.080, sig. = .937), but in these activities there is no significant statistical impact on the increase in the profit.

Table 4: Regression analysis - testing the impacts of industrial sector on the profit

Model Summary: $R = .876$, $R^2 = .767$, Adjusted $R^2 = .749$, F(test) = 41.499, sig. = .000			
	Beta	t-test	Sig.
Agriculture forestry hunting and fishing	.287	3.170	.002
Mining and quarrying	-.155	-1.889	.062
Manufacturing	.925	6.329	.000
Construction	-.639	-3.743	.000
Wholesale and retail trade	-.012	-.080	.937
Financial and insurance activities	.385	3.745	.000

Real estate activities	.082	.922	.359
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Source: Own survey.

In order to examine the impact that these economic activities have on the realized profits, a partial analysis of this impact will be performed for each country individually. Observing the results of Islamic banks operating in UAE, it can be noticed that there is a significant impact of these activities on the realized profits (F (test) = 74.563, sig. = .000). In two sectors of the economy there is a significant negative impact on the direction of the regression function in mining and quarrying (Beta = -.163, t-test = -3.264, p = .004) where the real estate activities has (Beta =.276, t-test = -5.433, p = .000), we could see that there is significant negative influence on the direction of the regression function. In two other sectors, agriculture forestry hunting and fishing (Beta = .535, t-test = 2.213, p = .038) and wholesale and retail trade (Beta = .110, t-test = 1.973, p = .61) there is a positive impact on the direction of the regression function. Partial results for Islamic banks in Saudi Arabia show that there is a significant impact of the observed sectors of the economy on the realized profits (F (test) = 4.544, sig. = .006). In two sectors there is a significant impact on the direction of the regression function, namely in the sector of agriculture forestry hunting and fishing (Beta = 1,069, t-test = 4,094, p = .001) where there is a positive significant impact on the direction of the regression function and in the wholesale and retail trade (Beta = -1.223, t-test = -2.337, p = .033) in which there is a negative influence on the direction of the regression function. The specificity for this country is that there are more negative effects than the positive effects of the sector on the direction of the regression function.

The results obtained for studying the impact of the observed sectors of the economy on the realized profits of Islamic banks in the UAE show that there is a significant impact of these sectors (F (test) = 74,563, sig. = .000). It is this impact that is strongest in relation to other observed countries. In six sectors there is a significant impact on the direction of the regression function, namely in the sectors of agriculture forestry hunting and fishing (Beta = .535, t-test = 2.213, p = .038), manufacturing (Beta = .733, t-test = 3.586, p = .002), construction (Beta = .125, t-test = 2.177, p = .041), financial and insurance activities (Beta = .309, t-test = 2.351, p = .028) and real estate activities (Beta = .276, t-test = 5.433, p = .000) where there is a significant positive impact on the direction of the regression function and the mining and quarrying sector (Beta = -.163, t-test = -3.264, p = .004) in which there is a significant negative impact on the direction of the regression function.

Table 5: Partial Regression Analysis - Examining the impacts of industrial sector on the Profit

Country Industry	KSA			UAE		
	Beta	T-test	Sig.	Beta	T-test	Sig.
Agriculture, forestry hunting and fishing	1.069	4.094	.001	.535	2.213	.038
Mining and quarrying	-.358	- 1.248	.230	- .163	- 3.264	.004
Manufacturing	.507	.350	.731	.733	3.586	.002

Construction	1.442	1.088	.293	.125	2.177	.041
Wholesale and retail trade	-	-	.033	.110	1.973	.061
	1.223	2.337				
Financial and insurance activities	-.302	-	.151	.309	2.351	.028
		1.506				
Real estate activities	-.280	-.657	.520	.276	5.433	.000
Model Summary:	F(test) = 4.544, sig. = .006			F(test) = 74.563, sig. = .000		

Source: Own survey.

After the testing hypothesis of this study, research shows observation of the individual impact of the economic sector on the direction of the regression function in three sectors, there is a significant statistical impact on the direction of the regression function, namely: construction (Beta = .522, t-test = 3.478, p = .001) and real estate activities (Beta = .478, t-test = 6.118, p = .000) in which there is a positive significant impact on the direction of the regression function and the sector of financial and insurance activities (Beta = -.185, t-test = -2.045, p = .044) which negatively significantly affects the direction of the regression function.

CONCLUSION

In the MENA region we can see very fast development of Islamic finance industry today. This development can be seen in United Arab Emirates and Kingdom of Saudi Arabia. Very fast increase in the oil price since 1970's impacted nation saving and big rise in per capita income, what led the high increase of the development of banking sector, particularly in GCC countries. Followed by the development of Islamic finance sector. Islamic investors are very much encouraged to invest in different industrial sectors and to get profit allowed by Islamic way of financing. Islamic finance is based on a basic rule that forbids trading present at the premium for future capital. This essentially removes debt servicing, although it does not preclude the availability of voluntary interest-free loans. Financing is given in exchange for equal or share rights in negotiated benefit proportions by equity or profit and loss sharing (PLS). It is also supplied in exchange for the obligation to refund the valuation and its usufruct later via the sales and leasing of properties. It is also toward an obligation to import or produce products. The paper shows in which way investing in different activities effect profitability of Islamic financing. The highest investment diversification is greatest in the United Arab Emirates, while in Saudi Arabia research shows different way of profitability that is impact of Sharia's-compliant financing.

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INTERACTION EFFECTS OF ENTREPRENEURIAL CURIOSITY AND CREATIVITY OF THE ENTREPRENEUR ON COMPANY GROWTH

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Abstract

In this research, a model including relationships between entrepreneurial curiosity, the creativity of the entrepreneur, the curiosity-creativity interaction term and company growth was conceptually proposed and empirically tested on data from entrepreneurs in three European countries. The purpose of the research was to investigate the connections between the psychological constructs of the entrepreneur and growth of the company. The authors' intention with the research was to ascertain how entrepreneurial openness and creativity of the entrepreneur are connected either individually or together with growth of the company. The aim was to determine whether entrepreneurial curiosity interacts with creativity to positively influence business growth. The models and hypotheses were tested with structural equation modelling. The interaction effects in the structural model were examined in two ways (with both an interaction construct and a new interaction variable). This study adds to what is known about entrepreneurship by providing supporting empirical evidence concerning the relationship between the creativity of the entrepreneur and company growth, and some empirical evidence on the non-existence of relationships between entrepreneurial curiosity and growth and between the curiosity-creativity interaction term and growth. The growth of a company can in some countries be developed based on the creativity of the entrepreneur. Interaction effects may need to be given more emphasis in future research.

Key Words

Entrepreneurial curiosity; creativity; interaction effects; entrepreneur; growth.

INTRODUCTION

Entrepreneurship makes an important contribution to economic development and growth (Carree and Thurik, 2010; Carland et al., 2015; Rietveld et al. 2016), which means job creation, unemployment reduction, and economic development (Audretsch et al., 2001; Thurik, 2003; Audretsch et al., 2006; Georgiou, 2006; Buddelmeyer et al., 2009; Roig-Tierno et al., 2015). Growth in entrepreneurship is studied as an element of company performance (Kiviluoto, 2013).

It makes sense to study entrepreneurs as the main engine of development and growth (e.g., Carland et al., 2002; Jayawarna et al., 2013; Amit et al. 2015). Entrepreneurs have distinct personality traits (Cooper and Dunkelberg, 1987). Still, the authors' literature review showed that researchers have studied certain determinants with an influence on entrepreneurial behaviour, for instance:

- innovativeness (Mueller and Thomas, 2001; Marcati et al., 2008; Tikkamäki et al., 2015);
- creativity (Shalley, 1991; Ward, 2004; DiLiello and Houghton, 2006);
- the Big Five personality factors (extraversion, agreeableness, conscientiousness, neuroticism, openness to experience) (Zhao et al., 2010; Ciavarella et al., 2004; Antončič et al., 2015);
- entrepreneurial curiosity (Jeraj and Antončič, 2013; Jeraj and Marič, 2013; Jeraj 2014a, 2014b);
- entrepreneurial intentions (Krueger et al., 2000; Boyd and Vozikis 1994; Crant 1996);
- optimism (Fraser and Greene 2006; Dushnitsky 2010; Liang and Dunn, 2008); and
- stress (Cardon and Patel, 2015; Jensen, 2012; Baron et al., 2013).

Entrepreneurial success is typically revealed in company growth (Gupta et al., 2013), which may be regarded as a crucial concept in entrepreneurship or even as a synonym for entrepreneurship (Davidsson et al., 2006) and a key element of company performance (Antončič and Hisrich, 2001). Entrepreneurship studies focus on entrepreneurial success as well as the entrepreneur's behavioural patterns or personality traits (Antončič et al., 2015; Duman, 2015; Lussier and Corman, 2015). The personality determinants of firm growth have been studied separately or together in models, while the interactions have mostly been ignored. This research fills this gap by addressing the effect of the interaction of two personality determinants (entrepreneurial curiosity and creativity) on company growth.

The purpose of this research was to investigate the links between the psychological constructs of the entrepreneur and growth of the company. The authors' intention with the research was to establish how entrepreneurial openness and creativity of the entrepreneur are connected individually or together with growth of the company. The aim was to determine whether entrepreneurial curiosity interacts with creativity to positively influence business growth. The primary goal was to fill a gap in the literature concerning the connection of the studied constructs of the entrepreneur with

growth of the company; the aim was to obtain data for a sample of entrepreneurs, analyze it with statistical methods and interpret the results in a relevant way.

THEORY AND HYPOTHESES

Curiosity is represented by the cyclical acquisition of ever more information due to the emergence of ever more knowledge gaps (Harvey et al., 2007) and motivates research behavior with the desire for new information, as aroused by new, complex or ambiguous stimuli (Litman et al., 2005). Entrepreneurial curiosity is a positive emotional-motivational system considered in research into the entrepreneurial framework, learning tasks related to entrepreneurship, and incorporating new experiences in the direction of improving business (Jeraj, 2014b). Entrepreneurial curiosity is stimulated when an entrepreneur is confronted by various stimuli in the environment related to entrepreneurship (Jeraj and Antončič, 2013).

Ulhøi (2005) states that to be successful an entrepreneur must develop a special understanding or possess special information that enables them to discover and develop entrepreneurial opportunities. Peljko et al. (2016) found that entrepreneurial curiosity positively influences innovativeness. Jeraj and Antončič (2013) note that entrepreneurial curiosity impacts the entrepreneur's search for new opportunities and the expansion of the company's business.

On the other side, Ardichvili et al. (2003) contend that developing opportunities requires the entrepreneur to engage in creative work. From this viewpoint, it seems reasonable to assume that both entrepreneurial curiosity and entrepreneurial creativity are necessary for the development of entrepreneurial opportunities, which are a condition for a company's growth. Raine and Pandya (2019) argued that curiosity, creativity and commitment are the key drivers of entrepreneurship success. In a survey of entrepreneurial curiosity, Jeraj et al. (2015) found that entrepreneurial curiosity directly affects a company's growth because entrepreneurial curiosity (and entrepreneurial openness) can affect entrepreneurs in their everyday jobs as well as their company's growth. This leads to the following hypothesis:

H1: Entrepreneurial curiosity has a positive effect on company growth.

Creativity means establishing new ideas and commercializing new ideas in terms of innovation (Basadur, 2004). Creativity is an indicator of genius (Perry-Smith and Mannucci, 2015) and an incentive for an entrepreneurial culture (Edwards-Schachter et al., 2015). Originality, usefulness, flexibility and mobility can be the main criteria for creativity (Štemberger, 2013). The imaginative recombination of elements from the past into new configurations needed in the present means creativity (Torrance, 1988). Activities (mental and physical) that lead to original tangible or intangible useful and desirable outcomes determine creativity (Kampylis et al., 2009). Creativity arises from

the basis of the mutual relationship between the individual and society (Trstenjak, 1981). Creativity is what separates humans from other species (Ko and Butler, 2007). Creativity and entrepreneurship tend to be closely related (Tiwari and Verma, 2020). The focus in this study is on creativity on the individual/entrepreneurial level. Entrepreneurs tend to be creative because creativity is related to the nature of their work (Antonio et al., 2014). The entrepreneurial role demands individual creativity and imagination that lead to the creation of business concepts and products/services and seizing of opportunities (Amabile, 1997; Zhou, 2008; Nisula and Olander, 2020).

Entrepreneurial creativity and opportunity recognition tend to be positively linked to entrepreneurs' career success (Chang and Chen, 2020). Peljko et al. (2017) found a positive relationship between the entrepreneur's creative abilities and growth of the company in a combined sample from Slovenia and the United States of America but not in a sample from Serbia, possibly making it important to re-examine this relationship. Entrepreneurs are constantly faced with uncertainty and encounter questions for which they have no clear answer. New ideas lead to the identification of new and better ways and bring the planned positive results (Zhou and George 2001). A creative entrepreneur thinks of something else despite seeing the same things as everyone else (Krueger and Brazeal, 1994). The authors operationalise the above in the hypothesis:

H2: Entrepreneurial creativity has a positive effect on company growth.

Steinmetz et al. (2011) emphasize that the effects of the interaction between explanatory constructs are an important part of many theories in the social sciences. Studying the interaction effects can shed considerable additional light on the impact of different elements on a company's growth (Antončič, 2002). Perry-Smith and Mannucci (2015) found that great curiosity is the reason for studying different creative individuals and discovering why they have become so successful. Curiosity is important for explaining the connection between personality traits, life experiences and the development of creative abilities, and the results that flow from creativity (Kashdan and Fincham, 2002).

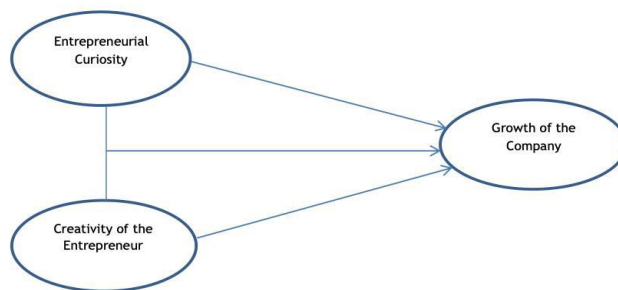
Entrepreneurial curiosity and creativity of the entrepreneur can influence the company's growth, as stated while developing H1 (Entrepreneurial curiosity has a positive effect on company growth) and H2 (Entrepreneurial creativity has a positive effect on company growth). Curiosity may be seen as the guiding vision in the process of creativity (Pusca and Northwood, 2018). If curiosity exists alone without creativity, then no creative process is started or taking place and outcomes do not follow. Curiosity is a self-regulatory mechanism that facilitates intrinsic goal efforts, persistence, personal growth, and creativity in the right circumstances (Kashdan and Fincham, 2002). If creativity is present without curiosity, success might not follow because creativity alone cannot be enough to motivate a person to consistently put in long workdays at the expense of developing work-life balance (Kashdan and Fincham, 2002). The authors expect the two studied

constructs to have a positive impact in their interaction on growth of the company ((++) -> company growth):

H3: Entrepreneurial curiosity in interaction with the entrepreneur's creativity has a positive effect on growth of the company.

The structural model dealt with partially and tested in this study, along with the scope of hypotheses H1, H2 and H3 presented above, are shown in Figure 1.

Figure 1: Model of the interaction curiosity-creativity of the entrepreneur and growth of the company



Source: Own survey.

RESEARCH METHODS

The survey instrument contained the following measures: (1) entrepreneurial curiosity (Jeraj and Antončič, 2013; 16 questions); (2) creativity on the level of an entrepreneur (Puhakka, 2005; 5 questions); (3) growth of the company (Antončič and Hisrich, 2001; Auer Antončič and Antončič, 2011; 3 items on the company level: growth in the number of employees, sales growth, and market share growth). The survey was conducted before the COVID-19 pandemic in the winter and spring months of 2019. The items for company growth referred to the last 3 years (2016-2018).

The sample included usable responses from entrepreneurs of SMEs with up to 250 employees and had 3 samples based on countries (Slovenia, n=359; Serbia, n=154; Latvia, n=338). The authors selected a group of three European post-transition countries because of their relative comparability (similar in transitions from a planned to a market economy and similar in size – smaller countries): (1) Slovenia is the first in this group to have adopted the euro as its payment currency and have held the presidency of the Council of the European Union; Slovenia has a relatively solid economy and well-developed entrepreneurship; (2) Serbia is economically different or less developed than Slovenia yet shares cultural similarities with Slovenia since for decades they were both part of the same country; Serbia suffered a war after its transition to a market economy, the economy has poorer credit

ratings and a higher unemployment rate. (3) Latvia has a greater cultural distance to the first two countries and underwent a peaceful transition to a market economy.

The survey questionnaire was sent to companies (SMEs) with up to 250 employees with a request they be filled out by entrepreneurs (owners and/or founders). The on-line survey of SMEs was found to be sufficiently representative after comparing the size structure of the companies with up to 250 employees in each country between the total population and the sample. The sample companies were generally small (up to 50 employees, up to EUR 4 million in annual sales) and middle-aged (operating in business for between 11 and 50 years in Slovenia and Serbia and between 6 and 20 years in Latvia) from various industries (with services prevailing). The sample entrepreneurs were well represented in terms of gender and age (a slight majority of females in Slovenia and Latvia and males in Serbia; the majority over 40 years of age, younger also well represented). The first sample (Slovenia) was used to develop the model while the second and third samples (Serbia and Latvia) were used to validate the models.

The constructs were analyzed for internal consistency and validity (Cronbach's alpha reliability analysis, and exploratory and confirmatory factor analysis). SPSS and EQS were used to assess the constructs, which showed adequate results. The constructs were first tested using exploratory factor analysis (method: ML, rotation: Oblimin) on the three samples (Slovenia, Serbia, Latvia). Second, the constructs were tested using confirmatory factor analysis (method: ERLS) on the three samples. The confirmatory factor analysis confirmed the results of the exploratory factor analysis. All items had high, positive and significant coefficients. The constructs showed good internal consistency (Cronbach alpha reliability) and good convergence (model goodness-of-fit indices: NFI, RMSEA, CFI).

Four items were retained in the analysis for the entrepreneurial curiosity construct (based on the size of the communalities and factor loadings): (1) I am interested in other entrepreneurs' interests. (2) In my business, I must have information about marketing that is as complete as possible. (3) I simply must know how a certain business system works. (4) I continuously delve into entrepreneurship matters. Four items were retained in the analysis for the creativity of the entrepreneur construct: (1) I am good at modifying normally used ways of doing things. (2) New solutions come to my mind even if they are not especially needed. (3) I invent exceptional and surprising solutions for problems. (4) I have plenty of ideas. All four items were retained for the company growth construct.

The models and hypotheses were tested with structural equation modelling (EQS, method: ERLS). Structural equation modelling was selected as an appropriate analysis method because it has many strengths (Tomarken and Waler, 2005: 34-35): (1) the ability to specify latent variable models that provide separate estimates of the relationships among latent constructs and their manifest indicators (the measurement model) and of the relationships among constructs (the structural model); (2) the availability of measures of global fit that can provide a summary evaluation of even complex models that involve a large number of linear equations; (3) it allows

researchers to directly test the model of interest rather than a straw-man alternative; and (4) an exceedingly broad data-analytic framework that is associated with unique capabilities relative to the statistical procedures traditionally used by clinical scientists. In addition, structural equation modelling is able to develop interaction terms and include them in models (Ping, 1995). The structural equation model included latent constructs of entrepreneurial curiosity, creativity of the entrepreneur and growth of the company, and the curiosity-creativity interaction.

The interaction effects in the structural model were examined in two ways. First, by making an interaction construct determined by the interactions of the combinations of individual elements of both constructs in interaction, in a similar way as Antončič (2002) did, and connecting this interaction construct with the company growth construct. Second, the authors calculated a new interaction variable based on both interacting constructs (++ , + - or - + , and --) and related it in the model with the company growth construct.

EMPIRICAL RESULTS

The hypothesized relationships were first tested in models with the interaction construct with structural equation modelling on the three samples (results shown in Tables 1 and 2). The models were found appropriate in all three countries (model goodness-of-fit indices: NFI: Slovenia 0.83, Serbia 0.67, Latvia 0.99; RMSEA: Slovenia 0.08, Serbia 0.09, Latvia 0.10; CFI: Slovenia 0.87, Serbia 0.78, Latvia 0.99; internal consistency: Cronbach alpha reliability: Slovenia 0.80, Serbia 0.75, Latvia 0.78).

Hypothesis 1 predicted a positive relationship between entrepreneurial curiosity and company growth. The coefficients were close to zero in all three countries and the results are not in support of H1.

Hypothesis 2 predicted a positive relationship between the creativity of the entrepreneur and company growth. Coefficients were found positive and significant (at the 0.10 level) in two countries (standardized coefficients: Slovenia 0.23, Serbia 0.31) and close to zero in the third country (Latvia). The results mostly act in support H2, except for Latvia.

Hypothesis 3 predicted a positive relationship between the interaction (entrepreneurial curiosity x creativity of the entrepreneur) and company growth. Coefficients were found to be non-significant in all three countries (standardized coefficients: Slovenia -0.01, Serbia 0.17, Latvia 0.07). The results do not support H3. Variance explained (R-squared) of growth was found moderate in Slovenia (5%) and in Serbia (9%), and low in Latvia (1%).

Second, the hypothesized relationships were tested in models with the interaction variable with structural equation modelling on the three samples (results shown in Tables 3 and 4). The models were found appropriate in all three countries (model goodness-of-fit indices: NFI: Slovenia 0.97, Serbia 0.92, Latvia 1.00; RMSEA: Slovenia 0.05, Serbia 0.06, Latvia 0.04; CFI:

Slovenia 0.98, Serbia 0.97, Latvia 1.00; internal consistency: Cronbach alpha reliability: Slovenia 0.84, Serbia 0.79, Latvia 0.73).

Table 1: Structural equation modelling results (interaction construct included, standardized coefficients and variance explained)

Sample (n)	EC-GR	CE-GR	ECxCE-GR	EC-ECxCE	CE-ECxCE	R2GR
Slovenia (359)	-0.02	0.23	-0.01	-0.16	-0.38*	0.05
Serbia (154)	-0.05	0.31	0.17	-0.29*	-0.32*	0.09
Latvia (338)	0.07	-0.03	0.07	-0.01	-0.07	0.01

EC-GR: the entrepreneurial curiosity-growth relationship coefficient

CE-GR: the creativity of the entrepreneur-growth relationship coefficient

ECxCE-GR: the entrepreneurial curiosity and creativity of the entrepreneur interaction-growth relationship coefficient

EC-ECxCE: the entrepreneurial curiosity-the entrepreneurial curiosity and creativity of the entrepreneur interaction correlation

CE-ECxCE: the creativity of the entrepreneur-the entrepreneurial curiosity and creativity of the entrepreneur interaction correlation

R2GR: the variance explained (R-squared) of firm growth

* sig.<0.05 (two-sided), · sig.<0.10 (two-sided)

Source: Own survey.

Table 2: Structural equation modelling results (interaction construct included, goodness-of-fit and reliability)

Sample (n)	Chi	df	Sig.	NFI	RMSEA	CFI	Cronbach alpha
Slovenia (359)	1,083.45	321	0.000	0.83	0.08	0.87	0.80
Serbia (154)	744.85	321	0.000	0.67	0.09	0.78	0.75
Latvia (338)	1,358.84	322	0.000	0.99	0.10	0.99	0.78

Source: Own survey.

Hypothesis 1 predicted a positive relationship between entrepreneurial curiosity and company growth. Coefficients were found non-significant in all three countries. The results thus do not support H1.

Hypothesis 2 predicted a positive relationship between the creativity of the entrepreneur and company growth. Coefficients were found positive and significant in Slovenia (standardized coefficient 0.33) and close to zero in Serbia and Latvia. The results provide mixed support for H2 (only supported in Slovenia and not in the validation samples).

Hypothesis 3 predicted a positive relationship between the interaction (entrepreneurial curiosity x creativity of the entrepreneur) and company growth. Coefficients were found non-significant in all three countries (standardized coefficients: Slovenia -0.19, Serbia 0.41, Latvia -0.10). The results do not support H3. Variance explained (R-squared) of growth was found moderate in Slovenia (6%) and in Serbia (10%), and low in Latvia (1%).

Correlations between the independent variables and the interaction term were calculated in the models. In the models with the interaction construct, the correlations were low to moderate (Table 1), while the correlations were high in the models with the interaction variable (Table 3). These results indicate that the interaction construct may be more appropriate than the interaction variable because the interaction construct may be more

independent of the interaction defining variables than the interaction variable.

Table 3: Structural equation modelling results (interaction variable included, standardized coefficients and variance explained)

Sample (n)	EC-GR	CE-GR	ECxCE-GR	EC-ECxCE	CE-ECxCE	R2GR
Slovenia (359)	0.07	0.33*	-0.19	0.75*	0.74*	0.06
Serbia (154)	-0.35	0.06	0.41	0.76*	0.73*	0.10
Latvia (338)	0.13	0.02	-0.10	0.65*	0.62*	0.01

EC-GR: the entrepreneurial curiosity-growth relationship coefficient

CE-GR: the creativity of the entrepreneur-growth relationship coefficient

ECxCE-GR: the entrepreneurial curiosity and creativity of the entrepreneur interaction-growth relationship coefficient

EC-ECxCE: the entrepreneurial curiosity-the entrepreneurial curiosity and creativity of the entrepreneur interaction correlation

CE-ECxCE: the creativity of the entrepreneur-the entrepreneurial curiosity and creativity of the entrepreneur interaction correlation

R2GR: the variance explained (R-squared) of firm growth

* sig.<0.05 (two-sided), · sig.<0.10 (two-sided)

Source: Own survey.

Table 4: Structural equation modelling results (interaction variable included, goodness-of-fit and reliability)

Sample (n)	Chi	df	Sig.	NFI	RMSEA	CFI	Cronbach alpha
Slovenia (359)	96.17	51	0.000	0.97	0.05	0.98	0.84
Serbia (154)	79.38	51	0.007	0.92	0.06	0.97	0.79
Latvia (338)	80.79	52	0.006	1.00	0.04	1.00	0.73

Source: Own survey.

DISCUSSION, CONTRIBUTIONS AND IMPLICATIONS

In this study, the authors found mixed or limited support for the proposed hypotheses. The authors had predicted a positive relationship between entrepreneurial curiosity and company growth and found no significant effects.

First, this finding contradicts Jeraj and Antončič (2013: 432) when stating that »motivated individuals with a relatively high level of entrepreneurial curiosity could be involved in the entrepreneurial process and contribute to the innovativeness and growth of the company«. Perhaps motivation would have to be assessed in order to show the effects on company growth.

Second, in some respects this finding is different and yet similar to the empirical findings of Jeraj et al. 2015, who established that entrepreneurial curiosity was positively related to growth of the company for a sample from the USA and Slovenia, with a low and a statistically significant influence, while the entrepreneurial curiosity-growth relationship was very low and not significant on a sample from Serbia.

Jeraj et al. (2015: 383) offered a rationale for this finding: “Serbia is going through transition and high levels of corruption and monopoly are detected, which are the legacy of the previous period of drastic economic instability.

The Serbian economy has been affected by embargos and wars, and is not as developed as markets in Slovenia and the USA. For this reason, other factors, like political connections, access to sources of capital, social status or social power of an entrepreneur, may influence the growth of the companies in such an environment more than openness and entrepreneurial curiosity". Therefore, certain other factors, like environmental ones, might be more important, or entrepreneurial curiosity might be indirectly related to growth via particular other elements, for example innovativeness.

The authors had predicted a positive relationship between the creativity of the entrepreneur and company growth and found mixed evidence: a positive and significant (0.10 level) relationship in two countries (Slovenia and Serbia) and close to zero in Latvia in the model with the interaction term construct, and a positive and significant (0.05 level) only in Slovenia and not in the validation samples of Serbia and Latvia in the model with the interaction term variable. This result is somewhat similar to the findings of Peljko et al. (2017): the entrepreneur's creative abilities and growth of the company being related in the sample from Slovenia and the USA and not in the sample from Serbia. However, the authors wish to emphasize that in their study the results based on the interaction term construct could prove more relevant than the results based on the interaction term variable because multicollinearity effects might exist while using the interaction term variable since high correlations of the interaction variable with the creativity of the entrepreneur were detected. This allows the authors to conclude that company growth (in Slovenia and Serbia) can benefit from the creativity of the entrepreneur, who possesses plenty of ideas and new solutions and is good at modifying ways of doing things.

The authors had predicted a positive relationship between the interaction term (entrepreneurial curiosity x creativity of the entrepreneur) and company growth and found no significant evidence in support. It may be that the examined interaction term does not matter for company growth, or that some other intermediary variables may need to be included (such as innovation), through which the examined interaction could affect the growth.

The contribution to science made by this study is the conceptually developed and empirically tested model of entrepreneurial curiosity, the creativity of the entrepreneur, with their interaction and the relationships to company growth. This study makes a theoretical contribution by developing the model hypotheses and by indicating through the empirical analysis that the creativity of the entrepreneur may be important for company growth (in two countries) and that entrepreneurial curiosity and the interaction term may be less important. The study empirically contributes by using two variants of the entrepreneurial curiosity-creativity of the entrepreneur interaction terms in models based on data drawn from three countries.

This study holds implications for research and practice. Researchers can to a larger extent use the creativity of the entrepreneur while composing models of company growth. Although this study did not show significant effects of the interaction on company performance, it revealed that the interaction construct may be more appropriate than the interaction variable and thus researchers may like to consider using interaction constructs

instead of interaction variables. Practitioners and policymakers must take into account that the entrepreneur's creativity can be important for company growth. Therefore, education, personal development, and training need to focus more on developing the entrepreneur's creativity through general and specific (entrepreneurship targeted) creativity trainings.

LIMITATIONS AND FUTURE RESEARCH POSSIBILITIES

The main limitations are: (1) A partial model was developed in this study, only two individual-level constructs of the entrepreneur were considered. (2) The use of perceptual measures in the questionnaire. (3) Inferences about causality in the hypotheses were developed based on the literature and not directly verified (cross-sectional data and not longitudinal data). (4) The data were collected in three countries and the results may prove to be more relevant for these countries.

The authors propose some future research avenues: (1) The interaction construct employed in this study could be upgraded and various interaction constructs (based on constructs other than those used in this study) could also be used in future research. (2) The relationships between the constructs entrepreneurial curiosity, creativity of the entrepreneur on the individual level, as well as their interaction construct, and the growth construct (firm level) might be further examined in other countries. (3) In-depth interviews or learned experiences-based research may yield additional insights into relationships between entrepreneurial curiosity and creativity, and their interaction, and their role in company growth.

CONCLUSION

This study has expanded what is known about entrepreneurship by providing supporting empirical evidence on the relationship between the creativity of the entrepreneur and company growth, and some empirical evidence on the non-existence of relationships between entrepreneurial curiosity and growth and between the curiosity-creativity interaction term and growth. The growth of the company in some countries can be developed on the basis of the entrepreneur's creativity. Interaction effects may warrant greater emphasis in future research.

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RELATION BETWEEN CUSTOMER-FOCUSED CORPORATE SOCIAL RESPONSIBILITY INITIATIVES AND CUSTOMER LOYALTY INTENTIONS IN THE CONTEXT OF THE COVID-19 PANDEMIC

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Abstract

The number of research concentrating on the implementation of social responsibility initiatives in the context of extraordinary circumstances, e.g., the COVID-19 pandemic, has increased. This paper examines the links between the customer-focused corporate social responsibility initiatives (in the period of COVID-19 pandemic) and customer loyalty intentions, focusing on whether customers' age or gender has any effect in this regard. Research results have shown that social responsibility initiatives with respect to customers carried out during the period of the COVID-19 pandemic are related to their loyalty intentions towards the company. It is worth to emphasize that no data has been obtained to support the statement that customers' age and gender are proper moderators affecting the relation between customer-oriented social responsibility initiatives carried out in the period of the COVID-19 pandemic and the customers' loyalty intentions.

Key Words

Social responsibility initiative; customer loyalty intention; COVID-19.

INTRODUCTION

The effectiveness of social responsibility initiatives is often analysed from the viewpoint of customers' behaviour, loyalty to the company, satisfaction with the company's products, etc. Most studies confirm the connection between customers' behaviour, their decision to buy or repeatedly buy and corporate social responsibility initiatives (Castaldo et al., 2009). The study commissioned by the Ministry of Social Security and Labour of the Republic of Lithuania Public Opinion Research on Corporate Social Responsibility in 2020 revealed the attitude of most respondents that companies should not only seek profit but also take into consideration the principles of social responsibility such as responsible treatment of employees and customers, protection of natural environment, etc. Most customers of the modern market perceive corporate social responsibility initiatives as necessity (Onlaor and Rotchanakitumnuai, 2010). The existing and potential clients expect that business companies will operate in accordance with standards of ethical conduct and should a company adopt a socially irresponsible business approach customers can "punish" the company (Joyner and Payne, 2002). Only appropriate, proactive initiatives improve consumers' attitude towards company's products or services and boost their buying intentions; for this reason, it is important that customers realize initiatives as necessary and reasoned (Becker-Olsen et al., 2006). One must understand that social responsibility initiatives shall match not only the company's main activities but also consumers' values (Chuah et al., 2020). Customers' buying intent, assessment of a company and its activity (products) are affected by a subjective level of consumers' perception which becomes important in pursuance of customers' loyalty and long-lasting connection with the company (Marin et al., 2009). The perception of social responsibility initiatives is based on values and is influenced by demographic characteristics of customers; therefore, the author(s) of the paper chose to analyse the factors of customers' age and gender as moderators.

As regards research on connections between social responsibility initiatives and customer loyalty and loyalty intents, it should be noted that regardless of the many existing evidence of relationship between social responsibility initiatives carried out by companies and customer loyalty or loyalty intents, this field of research is still limited. Research on the potential benefits of social responsibility initiatives in the hard times, under the conditions of unfavourable external environment, is insufficient and lacking. According to Liu et al. (2020), the COVID-19 pandemic has some unique aspects. First of all, it implies a long period and a large area of coverage. Secondly, the COVID-19 pandemic has compelled many small and medium-sized companies to suspend their activities to certain extent and to tackle the encountered difficulties. There is little research into social responsibility initiatives carried out during the COVID-19 pandemic as a measure of combating the problems the present crisis has posed and at the same time promoting customers' loyalty intents. There have been little studies with the research of the benefits of individual social responsibility initiatives (focused

on customers, employees, natural environment, etc.) in the period of crisis either. The impact of social responsibility initiatives in the segments of different customers (e.g., of different age, gender, education), particularly in moments of crisis, has not been much analysed either.

The research of this paper examined the attitude of customers of a specific company, products of which have become popular and relevant during the COVID-19 pandemic, towards social responsibility initiatives focused specifically on customers and carried out during the said period of the pandemic. This decision was determined by the fact that the authors wanted to analyse the advantages of social responsibility initiatives implemented during the crisis in the real-world context. Thus, customers of this company were asked to provide their attitude on responsible actions of the company aimed at customers in time of crisis and the researchers explored whether such social responsibility initiatives had an impact on customers' loyalty intents with respect to the company. The purpose of the article is to analyse the links between customer-oriented corporate social responsibility initiatives and clients' loyalty intents in the context of the COVID-19 pandemic focusing on a specific example of wholesale and retail sale of personal protective equipment company.

The article starts with the theoretical aspects of social responsibility initiatives and customer loyalty as well as the development of a conceptual research model. The methodological part describes the sample of the respondents and the measurement scales; afterwards, a discussion on the results of the research is presented. Finally, the theoretical and managerial benefits of the research are highlighted; limitations of the research and potential future research are outlined.

LITERATURE REVIEW

Social Responsibility Initiatives

Social responsibility initiative is a characteristic or an obligation (of a company) to perform in a responsible and ethical manner both within the organisation and outside it (Blenkhorn and MacKenzie, 2017) or a concept of running business with a voluntary contribution of a company to the improvement of the environment and processes taking place in the society (Mello et al., 2020). As McWilliams and Siegel (2001) put it, corporate social responsibility initiatives demonstrate that a company strives to not only safeguard its interests but to also engage in activities that would promote social welfare. Numerous authors (Maignan, 2001; Maignan and Ferrell, 2000; Simanaviciene et al., 2012; Seifert et al., 2003) emphasise the diversity of social responsibility and its manifestation through different forms, however, Dimitriadis and Zilakaki (2019) state that most often the true goal is a positive corporate image and reputation. Corporate social responsibility initiatives foster ethical balance between the profit seeking and the benefits

for the society and may be related to the problems of employment of people with disabilities, production and use of nature-friendly products and other environmental problems, communication with the public, employees and customers about initiatives carried out. Espasandin-Bustelo et al. (2021) stress employee-focused corporate social responsibility initiatives which increase the level of staff motivation and satisfaction with work. According to Lo and Kwan (2017), a company, which implements social responsibility initiatives, operates on the basis of a sustainable financial model, develops innovation, re-invests part of its profit in specific selected social activities, offers its employees favourable opportunities, acts in accordance with the existing laws, also promotes other companies to implement social responsibility initiatives. Qiu et al. (2021) also support the latter statement claiming that social responsibility initiatives may be linked to the development of employees' benefits, consumption of renewable resources, protection of nature, charity, volunteerism or cooperation with local communities.

Welford (2005) analyses twenty different aspects of social responsibility starting with the commitments to local community and finishing with the improvement of the rules of ethics and support for sustainable development. Other authors analyse customer focus, natural environment, ethics-moral, and charitable dimensions of social responsibility (Gonzalez-Rodriguez, et al., 2015). Aspects, which are most often accentuated in relation to social responsibility, are the following: environmental, community (society), interested parties, economic and free will or volunteerism (Dahlsrud, 2008), also workplace and a distinct individual (Lacey and Kennett-Hensel, 2010). Carroll (1991) suggested that social responsibility be made of economic, legal, ethical and philanthropic aspects which were later elaborated on by many other authors (e.g., Burton et al., 2000). Most studies involve an analysis of social responsibility initiatives which is based on a few aspects, for instance, Gonzalez-Rodriguez et al. (2015), Martinez et al. (2014) measure social responsibility initiatives in terms of social, environmental and economic dimensions. Salmones et al. (2005) examined service customers' attitude towards social responsibility initiatives from the point of view of three (economic-financial, ethical and philanthropic) dimensions. The research dwelled on in the article analyses corporate social responsibility initiatives with the focus on the aspect of customers.

Customer-focused Corporate Social Responsibility Initiatives

Studies on social responsibility initiatives conducted by a number of authors (Gonzalez-Rodriguez, et al., 2015; McDonald and Hung Lai, 2011; Yusof et al., 2011), who assessed different aspects, confirm the impact of customer-

oriented initiatives on clients' loyalty or satisfaction with the products bought (services provided). Results of the research by Yusof et al. (2011) revealed that customer-oriented social responsibility initiatives, specifically, have the biggest effect on customers' loyalty. McDonald and Hung Lai (2011) approved of the latter idea stating that social responsibility initiatives focused on customers are more significant in terms of customers' behaviour and attitude compared to philanthropic initiatives and environmental ones as they give direct functional benefit to the customer. Conclusions of the study carried out by Saleem and Gopinath (2015) also demonstrated that the environmental aspect of social responsibility initiatives has no significant impact on the customers' behavior (trust in company, loyalty to the brand, desire to pay the price). This was acknowledged by Auger et al. (2006) who identified greater significance of customer-focused social responsibility initiatives compared to environmental initiatives.

Social Responsibility Initiatives in the Context of the Covid-19 Pandemic

During the COVID-19 pandemic, various corporate social responsibility initiatives and projects have become even more important in the area of public relations and image development (Tworzydło et al., 2021), and this, undoubtedly, is oriented towards the existing and potential consumers. To tackle the challenges of the crisis and operate under new conditions of the pandemic, it is important for the companies to carry out customer, employee and other interested parties-oriented social responsibility initiatives and secure their profitability as well as to manifest social sensitivity in the context of the COVID-19 pandemic (Panagiotopoulos, 2021). As He and Harris (2021) put it, the COVID-19 pandemic has given the companies the opportunity to actively carry out their social responsibility initiatives (especially, in relation to the efforts to fighting the virus) to strengthen their relationship with customers, to develop a more durable connection with customers and the general public. Conclusions drawn by Vătămănescu et al. (2021) following the research into the attitude of fashion company clients towards social responsibility initiatives in the period of the COVID-19 pandemic (the authors also analysed the pre-pandemic period) have revealed that consumers put a great emphasis on various actions by companies in relation to circle economy, respect to employees' rights and well-being, and usage of reusable, renewable resources, as well as targeted initiatives aimed at reducing the spread of the virus. Although there is plenty of evidence of the importance of social responsibility during the COVID-19 pandemic, it should be stressed that the skill to be a sustainable and responsible company cannot be expanded within a brief period of time (Hassan et al., 2021). According to the authors, it is very likely that companies which have managed to overcome the negative impact of the COVID-19 pandemic, had acted in a socially responsible way before the crisis and had presented their attitude to social responsibility to the customers.

Customer Loyalty Intentions

A considerable number of studies on correlation between corporate social responsibility initiatives and customers' behaviour (buying or repeated buying, buying intents, and loyalty intents) have been carried out (Amatulli et al., 2018; Brown and Dacin, 1997; Ellen et al., 2000; Folkes and Kamins, 1999; Sen et al., 2006; Sen and Bhattacharya, 2001). The significance of such studies is substantiated by the fact that social responsibility is one of the key components which may shape customers' attitude towards a brand, its evaluation and intents to buy products or services of that brand (Luo and Bhattacharya, 2006), which, in turn, evolves into customers' loyalty intents. Akbari et al. (2020), Choi and La (2013), Lacey and Kennett-Hensel (2010), Markovic et al. (2018), Stanaland et al. (2011), Yusof et al. (2015) highlight the impact of social responsibility initiatives on the increasing customers' loyalty to the company, development of a long-lasting connection with the company and its build-up in the course of time. Social responsibility initiatives, in particular, form a company's reputation, view in the eyes of customers, which may positively affect customers' loyalty to the company (Aramburui and Pescador, 2019). For example, an image of a socially responsible service provider may boost customer satisfaction and loyalty through emotions which are generated by the company and through emotions and feelings evoked by products or services the company offers (Perez and Rodríguez Del Bosque, 2015a). Dimitriadis and Zilakaki (2019) emphasize the mediating function played by company image and client satisfaction for developing the relationship between social responsibility initiatives and client loyalty. The latter conclusion is approved of by Walsh and Bartikowski (2013) who state that a positive customers' opinion about a company as a result of socially responsible performance of a company is closely related to customers' loyalty. Corporate social responsibility initiatives visible to customers shape their attitude and feelings and, certainly, their behaviour and tendency to buy repeatedly or recommend to others (Perez and Rodríguez Del Bosque, 2015a). The tendency of customers to maintain their consumption habits forms their loyalty to the company (Nguyen and Leblanc, 2001). The same was concluded by Mercadé-Melé et al. (2018) whose research illustrate positive causal relation between the understanding of social responsibility and customer loyalty intentions or buying intents.

Customer Age and Gender as Moderators

Social responsibility initiatives are frequently analysed taking into consideration customers' demographic aspects, such as age, gender, and education (Diamantopoulos et al., 2003; Perera and Hewege, 2016; Perez and Rodríguez del Bosque, 2015b). Outcomes of the studies which examine social responsibility initiatives in terms of demographic aspects turn out to be very different. For instance, the results of research conducted by Perez and Rodríguez del Bosque (2015b) in the bank segment unveiled that customers' demographic characteristics (gender, age and education) are not

good moderators for shaping customers' attitude towards social responsibility initiatives. Meanwhile, the conclusions by Youn and Kim (2008) show that female as well as higher education and higher income customer groups tend to support social responsibility initiatives more.

Age is often indicated as one of the most important factors to have effect on the customers' perception of the corporate social responsibility initiatives (Quazi, 2003). According to Arlow (1991) customers' age is reflection of their knowledge, attitude towards social responsibility initiatives and a factor that determines their behaviour. An increasing amount of scientific research is carried out with a focus on the viewpoint of a younger generation representatives (Millennials and Gen Zers) to sustainable products and corporate social responsibility initiatives (Vătămănescu et al., 2021). There is considerable evidence that younger customers pay more attention to social responsibility initiatives than older customers and put more effort in trying to behave responsibly (Diamantopoulos et al., 2003); younger customers seem to be more interested in social responsibility initiatives (Arlow, 1991). Studies by Tian et al. (2011) revealed that persons born around 1970, whose standpoint was affected by both traditional and modern world values with regard to the purchase of goods or services, tend to have a neutral attitude towards social responsibility initiatives. However, some contrary conclusions may also be found, for instance, as claimed by Carrigan et al. (2004), older consumers tend to pay more attention to ethical issues when buying goods or services.

In the opinion of most authors (Arlow, 1991; Burton and Hegarty, 1999; Juscius and Dargienė, 2015; Quazi, 2003), clients' gender is also one of the key factors which influence customers' understanding of social responsibility initiatives, which, undoubtedly, has an effect on their behaviour and loyalty. Arlow (1991), Burton and Hegarty (1999) noticed a trend that women value business ethics and social responsibility more than men. The existing different results of research with regard to the impact of customers' demographic factors on their attitude towards social responsibility initiatives determine relevance of such research. Especially for the fact that today the analysis of social responsibility initiatives becomes important in the context of extraordinary external environment (the COVID-19 pandemic).

HYPOTHESES DEVELOPMENT

The literature review indicated that correlation between social responsibility initiatives (oriented towards customers, in particular) carried out during the COVID-19 pandemic and customer loyalty intentions, also given customers' demographic aspects, is highly relevant but has still been little examined.

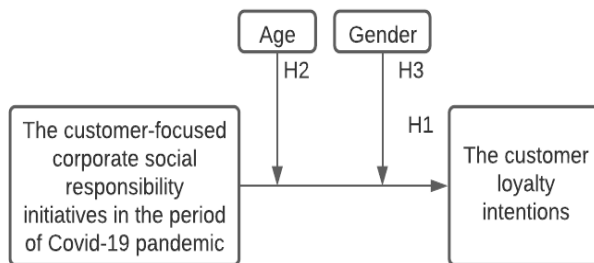
H1: Customer-focused corporate social responsibility initiatives during the Covid-19 pandemic are positively related to customer loyalty intentions.

H2: Customer age moderates the relationship between customer-focused corporate social responsibility initiatives during the Covid-19 pandemic and customer loyalty intentions.

H3: Customer gender moderates the relationship between customer-focused corporate social responsibility initiatives during the Covid-19 pandemic and customer loyalty intentions.

Figure 1 represents the conceptual model of the paper in which the hypotheses made are summarised.

Figure 1: The conceptual model



Source: Own survey.

METHODOLOGY

Sample and Data Collection

The empirical research was carried out focusing on the company, which has operated since 2007 in Lithuania. The company engages in wholesale and retail sale of personal protective equipment (it offers the range of over 15,000 items from a variety of countries: work clothing and footwear, glasses, gloves, hearing protection devices, helmets, products for working at height, respirators and face masks, fire-extinguishers).

During the COVID-19 pandemic, when the lockdown was imposed in Lithuania (March 2020 – April 2021), the company carried out numerous social responsibility initiatives focused on customers: actively produced textile face masks and face shields, not only sold but also donated them; publicised information on the situation with regard to illegal respirator sellers in the market; taught people how to choose proper respirators, face masks, and check certificates of the goods offered in the market, etc. Products offered by the company were particularly in demand during the first lockdown when the emergency situation was declared in Lithuania (16 March –16 June 2020) and there was a shortage of protection (face masks, respirators, liquid disinfectant, etc.) against the coronavirus (COVID-19) in the market, and its social responsibility initiatives oriented towards customers were of high relevance.

Respondents of the quantitative survey were the persons who first time bought goods/services offered by the company during the first lockdown (16 March –16 June 2020) and later decided to purchase products of the company repeatedly for the second time in 2021. The research is aimed at identifying whether loyalty intents of the respondents (to buy repeatedly) might be linked to active customer-focused social responsibility initiatives which were carried out by the company in the time of crisis. The number of the respondents totalled to 204; they were customers of the company of wholesale and retail sale of personal protective equipment. The survey was carried out in the period from April to September 2021.

Research Instrument

Evaluations of social responsibility initiatives involving the customer aspect were measured according to the adapted scale referring to Oberseder et al. (2014). This scale was adapted for the period of the COVID-19 pandemic according to the scale applied by Glavas and Godwin (2013), Liu et al. (2020). Customer loyalty intents were measured using a modified scale composed with reference to Dagger et al. (2011) and Iglesias et al. (2020). Respondents indicated their opinions on scale items on a five-point Likert scale of 1 (strongly disagree) to 5 (strongly agree). The Cronbach’s alpha values for the overall scale is 0.957, while those for each construct are between 0.902 and 0.923 (calculated using SPSS 23). The composite reliability (CR) value is between 0.76 and 0.81 (Table 1).

Table 1: Construct validity for scales

Factors	Items	Cronbach's Alpha	Average variance extracted (AVE)	Composite reliability (CR)
The customer-focused corporate social responsibility initiatives in the period of COVID-19 pandemic (6 items)	I consider that the company I use its production (buy second time), at the pandemic, does... <ol style="list-style-type: none"> 1) ...implement fair sales practices. 2) ...label products clearly and in a comprehensible way. 3) ...meet quality standards. 4) ...set fair prices for products. 5) ...offer safe (not harmful) products. 6) ...offer the possibility to file complaints 	0.902	0.44	0.81
The customer loyalty intentions (3 items)	<ol style="list-style-type: none"> 1) I consider the company my first choice when I purchase the production or services the company supplies. 2) I am willing to maintain my relationship with the company. 	0.923	0.52	0.76

	3) I want to be loyal to the company.			
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Source: Own survey.

DATA ANALYSIS

Descriptives

The analysis is based on the sample of 204 respondents (customers of the company of wholesale and retail sale of personal protective equipment). The sample included 44.6 per cent men and 55.4 per cent women; 44.6 per cent of the respondents were up to 50 years old. The average mean scores of each of the constructs and items are shown in Table 2. Correlation between the constructs (the customer-focused corporate social responsibility initiatives in the period of COVID-19 pandemic and the customer loyalty intentions) is 0.796 (significant at the 0.01 level, 2-tailed).

Table 2: Descriptive statistics (the average mean scores and standard deviations)

Constructs	Mean	SD	Items	Mean	SD
The customer-focused corporate social responsibility initiatives in the period of COVID-19 pandemic (6 items)	4.20	0.584	I consider that the company I use its production (buy second time), at the pandemic, does...		
			1) ...implement fair sales practices	3.98	0.775
			2) ...label products clearly and in a comprehensible way	4.32	0.696
			3) ...meet quality standards	4.29	0.695
			4) ...set fair prices for products	4.14	0.695
			5) ...offer safe (not harmful) products	4.33	0.691
			6) ...offer the possibility to file complaints	4.15	0.721
The customer loyalty intentions (3 items)	4.33	0.660	1) I consider the company my first choice when I purchase the production or services the company supplies	4.24	0.683
			2) I am willing to maintain my relationship with the company	4.37	0.721
			3) I want to be loyal to the company	4.39	0.725

Source: Own survey.

Tests of hypotheses

The regression coefficient of the main effect is significant at p-levels less than 0.05, in support of the positive impact of the customer-focused social responsibility initiatives in the period of COVID-19 pandemic to the intention of customers loyalty (on the table 3). The customer-focused social

responsibility initiatives in the period of COVID-19 pandemic significantly and positively influences the customer loyalty intentions in support of the hypothesis H1.

Table 3: Basic model effect

Customer loyalty intentions	Coefficient	t-statistic	p-value	R ²	Adjusted R ²	F Ratio
Constant	0.514	2.553	0.011	0.645	0.643	367.207
Customer-focused social responsibility initiatives in the period of COVID-19 pandemic	0.909	19.163	0.000			

Source: Own survey.

The table 4 shows that with the inclusion of the interaction effect of age in the relationship between the customers loyalty intentions and customer-focused social responsibility initiatives in the period of COVID-19 pandemic, the value of R² has increased from 0.652 to 0.656, the adjusted R² has increased from 0.648 to 0.651. Adjusted R² value shows that about 65,1% of the variation in the customers loyalty intentions is represented by customer-focused social responsibility initiatives in the period of COVID-19 pandemic wherein age works as a moderator. However, the model with moderation effect (on the table 4) has the p-value of 0.121 for interaction effect which shows that the hypothesis H2 of having moderating effect of age on the linkage between the customers loyalty intentions and customer-focused social responsibility initiatives in the period of COVID-19 pandemic is not supported (0.121>0.05). However, the p-value of age shown in model without moderation effect (on the table 4) is less than the significance level (0.049 < 0.05). Thus, age works as an independent variable in influencing the customers loyalty intentions instead of a moderator.

Table 4: Moderated regression (Age)

Customer loyalty intentions	Coefficient	t-statistic	p-value	R ²	Adjusted R ²	F Ratio
Model without moderation effect						
Constant	0.765	3.231	0.001	0.652	0.648	188.201
Customer-focused social responsibility initiatives in the period of COVID-19 pandemic	0.898	18.922	0.000			
Age	-0.005	-1.977	0.049			
<i>Moderation Effect</i>						
Constant	1.858	2.511	0.013	0.656	0.651	127.170
Customer-focused social responsibility initiatives in the period of COVID-19 pandemic	0.890	18.733	0.000			
Age	-0.030	-1.839	0.067			
Interaction	0.067	1.559	0.121			

Source: Own survey.

The model with moderation effect on the table 5 is explaining the customers loyalty intentions with three predictors which are customer-focused social responsibility initiatives in the period of COVID-19 pandemic,

gender and interaction term between customer-focused social responsibility initiatives in the period of COVID-19 pandemic and gender (male or female). The table 5 shows that with the inclusion of the interaction effect of gender in the relationship between the customers loyalty intentions and customer-focused social responsibility initiatives in the period of COVID-19 pandemic, the value of R^2 is same 0.646, but the adjusted R^2 has decreased from 0.642 to 0.640. The model with moderation effect (on the table 5) has the p-value of 0.738 for interaction effect which shows there is no indication of moderating activity ($0.738 > 0.05$). The result in the regression not supported the hypothesis H3 of having moderating effect of gender on the linkage between the customers loyalty intentions and customer-focused social responsibility initiatives in the period of COVID-19 pandemic. Gender is no good moderator for the relationship between customer-focused social responsibility initiatives in the period of COVID-19 pandemic and customer loyalty intents. In addition, customers' gender as an independent variable has no statistically significant effect on customer loyalty intentions (model without moderation effect, p-value of 0.630).

Table 5: Moderated regression (Gender)

Customer loyalty intentions	Coefficient	t-statistic	p-value	R^2	Adjusted R^2	F Ratio
Model without moderation effect						
Constant	0.523	2.584	0.010	0.646	0.642	183.023
Customer-focused social responsibility initiatives in the period of COVID-19 pandemic	0.910	19.132	0.000			
Gender	-0.027	-0.482	0.630			
Moderation Effect						
Constant	0.590	2.078	0.039	0.646	0.640	121.514
Customer-focused social responsibility initiatives in the period of COVID-19 pandemic	0.908	18.957	0.000			
Gender	-0.161	-0.398	0.691			
Interaction	0.016	0.335	0.738			

Source: Own survey.

THEORETICAL CONTRIBUTIONS

This research fills in the gaps of theoretical insights about the influence of customer-oriented social responsibility initiatives on customer loyalty intents during a crisis – the COVID-19 pandemic, in the given case. The paper expands the list of literary sources on social responsibility initiatives and substantiates the importance of customer-oriented social responsibility initiatives during a crisis. The main conclusion resulting from the research is that customers' age and gender is not a significant moderator to strengthen the impact of customer-oriented social responsibility initiatives on their loyalty intents during the crisis (in this case, during the COVID-19 pandemic). This outcome echoes previous conclusions (drawn by Perez and

Rodriguez del Bosque, 2015b), which illustrate that clients' age and gender are not good moderators to have the potential of changing the relationship between two other variables – customer-oriented social responsibility initiatives and customers' loyalty intentions with regard to a company.

MANAGERIAL IMPLICATIONS

The findings of this research also provide several practical implications for the company under consideration as well as other business entities that carry out customer-oriented social responsibility initiatives (in particular, the companies which implement customer-focused social responsibility initiatives during a crisis under the operation of unfavourable factors of external environment, e.g., the COVID-19 pandemic). The research results confirm the conclusions made by Yusof et al. (2011) who stated that customer-oriented social responsibility initiatives is a significant element that influences customer loyalty intents (even during the COVID-19 pandemic). It should be noted that, nevertheless, neither customers' gender, nor their age are the factors that would successfully moderate the connection between the customer-focused social responsibility initiatives during the COVID-19 pandemic and customer loyalty intents, i.e. they are not the factors that might increase or reduce the intensity of this correlation. Customers' gender and age are not the factors that intensify the effect of customer-oriented social responsibility initiatives carried out in the time of crisis on customers' loyalty intents. Companies which seek to enhance customer loyalty through social responsibility initiatives during a crisis should bear in mind that customers' gender and age are not the factors which are important in trying to promote the desired changes. This leads to the conclusion that during a crisis it is not reasonable for a company to implement social responsibility initiatives which focus more on men or women as well as on younger or older persons.

LIMITATIONS AND FUTURE RESEARCH

The generalizability and applicability of the research conclusions are limited by a few aspects. The first limitation is the fact that the research takes into consideration solely the attitude towards social responsibility initiatives of customers of one particular company and includes examination of their loyalty intents. For instance, the influence of social responsibility initiatives on customer loyalty intentions may be very different in companies which operate in different economic areas. It is worth to mention that products of the company under consideration was necessary and in demand by most customers during the coronavirus pandemic (e.g. respirators, face masks), also the customer-oriented social responsibility initiatives carried out by the company were of high relevance, for this reason, these aspects might have affected their desire to buy the products offered by this particular company. In the future, it would be reasonable to examine customer-focused social

responsibility initiatives carried out by the companies whose products are dispensable and inessential during a hard time such as the COVID-19 pandemic (under unfavourable external factors) and their connection with the customer loyalty intentions. The second limitation is related to the moderators involved in the research. It would be reasonable to investigate other moderating variables in the future, for instance, customers' education and income, previous shopping experience, also loyalty programmes run by a company. The third limitation was that the research involved only one aspect, i.e. customer-oriented social responsibility initiatives, therefore, it would be useful to analyse the impact of other social responsibility initiatives (environmental or employee-oriented) on customers' loyalty, particularly, in the time of crisis (when unfavourable factors of external environment act).

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REGIONAL ECONOMIC COOPERATION IN THE WESTERN BALKANS: PROMOTER OR INHIBITOR OF EU INTEGRATION OF THIS REGION

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Abstract

The purpose of this paper is to analyze the impact of regional economic cooperation between Western Balkans countries on their European Union (EU) integration processes. This paper explores this very important topic for the Western Balkans through a review of the literature, the history of the region and various tabular statistics. Economic cooperation between these countries is the main element influencing rapid integration into the EU, but political obstacles continue to hamper regional economic cooperation. This paper concludes that the EU should be more proactive in expanding regional economic cooperation between these countries through brokering peaceful negotiations. The EU has the authority to minimize all political disagreements with a view to expanding economic cooperation. Without resolving longstanding issues and conflicts, this region will never integrate into the EU and experience economic development.

Key Words

Economic cooperation; Western Balkan; EU; integration.

INTRODUCTION

Integrating into Europe is an open process which involves a country implementing the European Treaties, aligning national legislation with that of the European Union (EU) and embracing the fundamental values on which the EU was created. Since the fall of communism, the EU has drawn the attention of Eastern countries, including those in the Western Balkan region. The integration process for these states is a difficult one. To achieve this objective these countries must further develop their democracy and economics, and the rule of law (Qorraj and Jusufi, 2019b).

The integration of the Western Balkan countries into the EU is a political and economic goal which aims to guarantee stability and development in this troubled region. The EU has demonstrated its readiness for the Western Balkan countries to be admitted to the EU, but with the rigorous implementation and adherence to well-known reforms and standards, such as the Copenhagen political criteria. There are several elements that must be in place before the Balkan countries will be accepted into the EU, including: The Stabilization and Association Process (SAP), the process of accession, regional economic cooperation, and visa-free travel (European Parliament, 2020).

At the 2000 Zagreb Summit, one of the key discussion points was the inclusion of the Balkan countries into the EU. The SAP was established at this summit, as a precondition for the Balkan integration into the EU (Milori, 2010). But, despite various developments, the Western Balkans has not been able to join the European family as a whole. This slow-moving journey is due to several factors, but especially influenced by the history of the Balkans. Since the launch of this expansion process in Zagreb in 2000, it has been characterized by elements that have nothing in common with previous EU enlargements in other regions.

Factors such as the lack of regional cooperation between these countries, economic crises and slow steps in political developments, coupled with “enlargement fatigue” after the major expansion period between 2004 and 2007, have created an increasingly unfavourable environment for further EU expansion (Fouéré, 2019; Qorraj and Jusufi, 2019). The EU, therefore, aims to support economic cooperation between the countries of this region until the conditions for the accession are met. Regional economic co-operation is considered by researchers to be the key to integrating Western Balkan countries into the EU. However, others consider this cooperation as an obstacle to integration, taking into account ethnic conflicts, bad neighbourly relations, etc. The objectives of this paper are as follows:

1. Review the regional economic developments in the Western Balkans region from a historical perspective.
2. Analyze regional economic cooperation as the first phase of the process of integrating the Western Balkan countries into the EU.
3. Review areas of regional cooperation in the Western Balkans.
4. Review the comparative method of integration performance of the Western Balkan countries.

REGIONAL DEVELOPMENTS IN THE WESTERN BALKANS FROM A HISTORICAL PERSPECTIVE

The term “Balkans” is accepted as a narrower concept of Southeast Europe. Defining the borders of this region, even today, is not straight forward. This region has several characteristics. Historically, this region has been known as the crossroad of different cultures. It was the destination of pagan Slavs, and it was also the intersection of Orthodox and Catholic Christianity, and Islam and Christianity (Zöpel, 2018).

This region has been heavily influenced by the Western Roman and the Byzantine Empires and since then all countries in this area have been at odds with one another. Europe was not able to save or protect the Balkans from the Ottoman influence. Europe was itself divided, so it lacked the capacity to influence the divided Balkans. As a result of all of these developments, the Balkans has become a region with linguistic, religious, cultural and other differences. Throughout history, the Balkan nations have co-existed between the conflicts and the differences that characterize them.

It was only during the 19th century that the countries in this area gained independence from Ottoman rule, largely due to nationalist movements. One of the first attempts to become independent involved the liberation alliances formed by some Balkan countries (Lopandić and Kronja, 2011). Cooperation between Balkan countries has historically been regulated via international agreements. However, these agreements have never resolved all of the problematic issues between them and there have been a number of successive conflicts as a consequence. During the 1930s, the Balkan Pact, or Balkan Entente, was formed. According to Lukasik (1998), this was intended to ensure peace and security in the Balkans. The Balkan League (1912-1913) is another notable alliance that occurred between Bulgaria, Serbia, Greece and Montenegro when they came together to fight the First Balkan War against Turkey.

Ostensibly created to limit increasing Austrian power in the Balkans, the League was formed at the instigation of Russia in order to expel the Turks from the Balkans. The years between the two World Wars were difficult for the Western Balkan countries. All countries within this region experienced internal economic difficulties and increased tensions between majority populations and minority groups. The entire Balkans were occupied by Germany after World War 1, meaning that there was no let up from the horror of war for the Balkans. During this period, two important political views were born in the Balkan region: Communism and Nationalism.

According to Yenigün (2010), Albania and Bulgaria adopted very strict communist systems that led to many economic and social consequences, affecting people in faith, culture and well-being. Decades later, The Cold War next dictated the politics of the Balkan countries. Following the collapse of the Soviet Union in 1989, countries in this region began their democratic policy-making efforts. These efforts were not easy due to the many problems that had accumulated during the preceding periods. In the

early 1990s, Yugoslavia became the political centre of the Balkans, but internal problems caused its collapse.

The economic disparity between the economically developed northern part of the former Yugoslavia (Croatia, Slovenia, Serbia and Vojvodina) and the economically regressive southern part (Montenegro, Macedonia, Bosnia and Herzegovina, and Kosovo) had a significant impact on the whole region. According to Belloni (2009), the EU failed in its mission to bring peace and end the inter-ethnic war in the Balkans in the 1990s. This shows the powerlessness of this entity in ensuring peace and prosperity in this region. Anderson (1995) argued that although the political literature states that ethnic and religious differences were the factors that caused the terrible wars in Yugoslavia, these were only two of several causes – Yugoslav society also suffered from financial and economic instability. Main characteristics of the inter-ethnic conflicts in the Balkan countries are shown in Table 1.

Table 1: Main characteristics of the inter-ethnic conflicts in the Balkan Countries

Country	Duration of the conflict	Nature of the conflict	Involved Parties	Conflict resolution	International involvement
Croatia	1991–1995	Inside and outside the country	Croatian Serbs; Croats, Serbia	Military victory and Erdut agreement	UN military mission, and foreign aid
Bosnia and Herzegovina	1992–1995	Intrastate and interstate	Bosnia and Herzegovina (BiH): Croats, Serbs and Bosniaks; Croatia, Serbia	Dayton agreement	European Union (EU), Office of the High Representative (OHR), United Nations (UN), NATO, Organization for Security and Cooperation in Europe (OSCE) missions, and institution building
Kosovo	1998–1999	Intrastate	Serbs, Albanians	Military victory and Ahtisaari plan	UN, NATO, EU, OSCE missions, and state-building
North Macedonia	2001	Intrastate	Macedonians, Albanians	Ohrid Framework Agreement	NATO and EU missions, and foreign aid

Source: Taleski, 2011.

Once the Balkans broke up into separate countries and authoritarian rule weakened, the transition process became a major issue. This process brought new challenges to the region. Spurring economic growth, building a liberal democracy, strengthening a weak civil society capacity, and

addressing corruption and organized crime were among the major challenges for these countries (Jano, 2008).

As can be seen from the review of regional cooperation, Balkan countries have historically been more cooperative in combating other countries outside the region, even other countries within this region, than cooperating to enhance trade, improve neighbourliness or enhance overall well-being. Unlike other regions or countries in Europe, a hostility mentality has always prevailed in this region, rather than an environment that stimulates the development, cooperation and growth of well-being. The “war for territories” has always been the objective of most of the peoples of this region (Jusufi et al., 2021). Based on this historical evidence, it can be stated that regional economic cooperation between the Western Balkans countries continues to remain hostage to the historical past.

REGIONAL ECONOMIC COOPERATION AS THE FIRST STEP OF INTEGRATION

After each conflict or war, the Western Balkan region has always re-emerged integrated into a somewhat different form and always functioning as part of a larger political structure. These structures have had the potential to hold the region together and guarantee stability; however, in the case of the Balkans, geography and history have been important determinants of the level of regional integration. According to Delevic (2007), countries have not been advantaged by being part of the Balkan Peninsula, because this region has always been characterized by instability, both political and economic. Tradition, scepticism, prejudice and stereotyped practices in the region’s inter-ethnic relations have consistently inhibited openness with one another. These elements present, in one form or another, danger and uncertainty and have hampered the development of any regional cooperation strategy.

The first attempts to develop multilateral cooperation in the Western Balkans date back to the late 19th and first half of the 20th century. In 1991, with the dissolution of the Council for Mutual Economic Assistance, new initiatives for cooperation in Southeast Europe were launched. This council was founded in Moscow in 1949 by Romania, Poland, Hungary, Bulgaria, Czechoslovakia, and the Soviet Union. Albania and Eastern Germany also joined later. This council encouraged national self-sufficiency, not necessarily full economic integration (Bokoff, 2010).

Therefore, there was an urgent need to replace the council’s initiatives with new ways of cooperation in order to promote integration into a European Community of Eastern Countries. Other cooperation initiatives arose with the dissolution of the former Yugoslavia. The process of regional cooperation has been characterized by a number of obstacles: limited resources for cooperation, old and unresolved regional conflicts, and populist governments which were not very interested in furthering relations with their neighbours, etc. As such, the prospects for inter-Balkan cooperation were limited (Qorraaj and Jusufi, 2021).

The Dayton Peace agreement was very important because, in addition to laying the foundations for peace in Bosnia and Herzegovina, it opened up opportunities for the stabilization of this region. This agreement was one of the first to take steps towards future cooperation between countries in this troubled region. The Good-neighbourlines and the Process of Stability initiative in Southeast Europe (The Royaumont Process) was the successor to the cooperation that was established in the Dayton Peace agreement. The meeting which led to the inception of the Royaumont Process was held in Paris on 14–15 December 1995 in the margins of the Peace Conference on Bosnia-Herzegovina.

Participants debated whether the ideas of the Stability Pact could be applied in Southeast Europe or in the Western Balkans. Successful application of the Stability Pact ideas and principles could bring long-term peace and integration to the region (Çeviköz 1998). Regional cooperation lies at the foundation of the EU structure. This is a model that has proven success, especially in a diverse environment such as Europe. Therefore, regional cooperation and EU integration are two complementary processes and regional cooperation should be in line with the increasing integration of this region into the EU.

In 1996, the EU determined that countries that have border problems with their neighbours and problems with minorities cannot join the EU. The European Commission also determined that the Copenhagen Criteria, the SAP, and good regional cooperation and neighbourhood relations will be the criteria for assessing candidate countries. This cooperation has two objectives: conflict resolution and the integration of the Western Balkan region into the EU. At the core of regional cooperation is the Stability Pact, which aims to keep this troubled region out of wars, ethnic tensions, and various conflicts (Qorraj, 2010, Jusufi et al., 2020). It can be argued that this pact, in place from 1999 onwards, has contributed greatly to the growth of regional cooperation, with the exception of regional cooperation between Kosovo and Serbia (Petričušić, 2005).

The Stability Pact was welcomed in the region as it was an opportunity to strengthen political ties with Western Europe. It was also seen as a financial backup to cope with the aftermath of conflict and the tumultuous transition of the Western Balkans. The SAP facilitated inter-regional trade agreements. Regional cooperation is a specific requirement of the Stabilization and Association Agreement. This element is recognized as a qualifying indicator for countries aspiring to integrate into the EU (Jusufi and Bellaqa, 2019).

Since 2007, following the signing of the Stabilization and Association Agreements, the Instrument for Pre-Accession Assistance (IPA) has become the only program through which countries in the process of joining the EU can benefit from EU funding. IPA funds replaced other programs such as the Community Assistance for Reconstruction, Development, and Stabilization (CARDS), and Poland and Hungary: Assistance for Restructuring their Economies (PHARE). The IPA II was particularly important because it aided further cooperation in this region from 2014 to 2020. The most important feature that distinguished IPA II from other

programs is the fact that it supported issues specifically related to the integration of these countries into the EU, including good governance, democracy, rule of law and competitiveness (European Commission, 2020).

For the first time in 100 years, the Western Balkans countries have been able to identify a common goal around which they feel united and closer to one another. The Western Balkan countries have understood the importance of regional cooperation as a necessary condition for their EU integration. The peoples of the Western Balkan countries are trying today to build and strengthen the rule of law, build sustainable economic development, and establish peace, etc. This is happening as a result of their intention to integrate into the EU.

These countries are leaving behind the old ways of functioning which were aimed not at a shared regional development but a form of hegemony over the neighbouring country. If the Western Balkan countries want to enjoy the same benefits as full members of the EU, they must have greater understanding among themselves. Due to the special characteristics they possess, such as small economies and low production capacities, there is no alternative but intensive regional cooperation. This is the only way forward, so it is in their interest to unite their economic and political potentials and act as a region rather than as individual entities.

EU institutions have always supported and continue to support the peace and development of Western Balkan countries. EU institutions have a major role to play in the Western Balkans region, especially in the economic, trade and political spheres – 75% of the Western Balkans trade is with the EU countries. The EU has made continuous efforts to Europeanize this region as much as possible (Jović, 2018; Jusufi and Ramaj, 2020). However, despite these efforts, the regional economic cooperation between these countries is still unsatisfactory. Without reconciliation between countries still locked in legal disputes, such as the case of Serbia with Kosovo, and Northern Macedonia with Greece and Bulgaria, the greatest economic cooperation between the countries of this region cannot be achieved.

AREAS OF REGIONAL COOPERATION IN THE WESTERN BALKANS

The goals of the EU programs are to facilitate regional cooperation between Western Balkan countries, support education systems and infrastructure development, and finance local enterprises, etc. This cooperation is of great importance for both Western Balkan countries and the EU, because regional cooperation is the only hope for lasting political and economic stability. Regional cooperation is also the key to integrating these countries into the EU. The deeper this cooperation, the sooner the integration of the Western Balkan countries into the EU. Countries of this region cannot integrate into the EU without resolving their ethnic and political disputes (Tošović-Stevanović and Ristanović, 2016). Following are some of the areas of focus during the last 30 years or so.

An economically open region: According to Qorraj (2018), the Western Balkans countries' markets are small and fragmented; therefore, the political and economic successes of these countries depend entirely on stronger regional cooperation. All of these countries must be open to collaboration and communication. As a result of joint efforts and EU projects, several free trade agreements have been reached between Western Balkan countries. The Central European Free Trade Agreement (CEFTA) is a good example of this type. The original CEFTA agreement was signed by the countries of the Visegrád Group, namely Czechoslovakia, Hungary and Poland on 21 December 1992 in Kraków/Poland.

The Agreement entered into force on 1 July 1994. The free trade area gradually expanded into other countries. Slovenia joined CEFTA in 1996, followed by Romania in 1997, Bulgaria in 1999, Croatia in 2003, and North Macedonia (FYR Macedonia) in 2006. CEFTA membership ends once a country joins the EU. Because the founding countries joined the EU in 2004, and Bulgaria and Romania were set to join in 2007, it was decided to expand CEFTA to the Balkan states: Albania, Bosnia and Herzegovina, Montenegro, Serbia and Kosovo (Šiljak, 2019). The process of bilateral market liberalization is increasing competition and stimulating national reforms to increase quality.

But according to Qorraj and Jusufi (2018), the importance of trade liberalization between the EU and the Western Balkans countries has been overestimated. The latter have a low level of economic development and produce lower quality goods compared to those of the EU, so we cannot expect accelerated economic development of these countries as a result of trade liberalization with the EU. These countries will benefit more from institutional reforms than from trade creation. Regional trade between the Western Balkans countries is shown in Table 2.

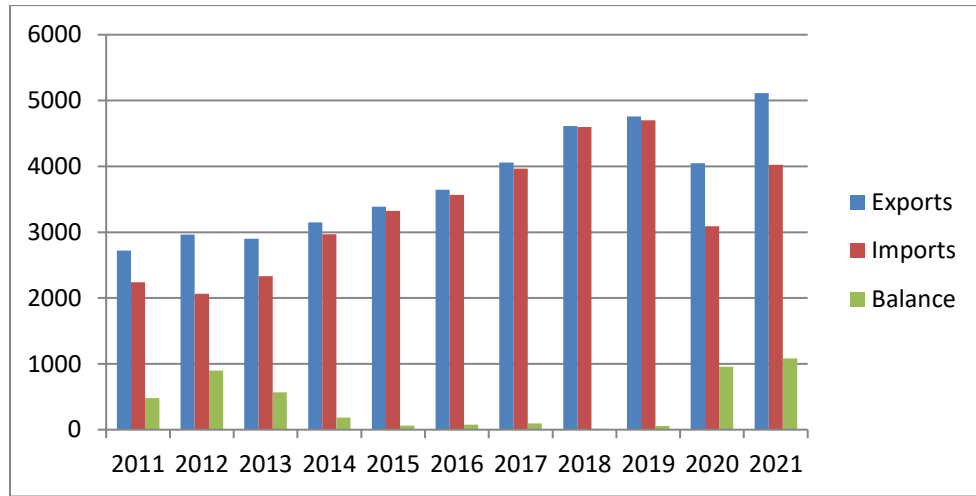
Table 2: Trade between Western Balkan countries in Euros (millions) and as a percentage (import/export)

Countries		Albania	Bosnia and Herzegovina	Kosovo	North Macedonia	Montenegro	Serbia	TOTAL
		Imp	Imp	Imp	Imp	Imp	Imp	Exp
Albania	Exp		3	134	38	25	12	214.3
	%		0%	34%	6%	3%	1%	
Bosnia and Herzegovina	Exp				48	150	409	1096
	%			0%	7%	16%	34%	
Kosovo	Exp	43	3		27	17	15	107.4
	%	16%			4%	2%	1%	
North Macedonia	Exp	56	70	174		24	195	590.2
	%	21%	3%	44%		3%	16%	
Montenegro	Exp	15	32	21	3		80	184.9
	%	6%	1%	5%	0%		7%	
Serbia	Exp	96	994		454	568		2455.2
	%	36%	43%	0%	67%	62%		
TOTAL	Imp	267	2322	399	674	912	1219	6735.6
	%	100%	100%	100%	100%	100%	100%	

Source: Jusufi and Bellaqa, 2019.

Meanwhile, trade between the EU and Northern Macedonia is shown in Figure 1. Statistics show that there is a significant imbalance between exports and imports, always in favour of the EU.

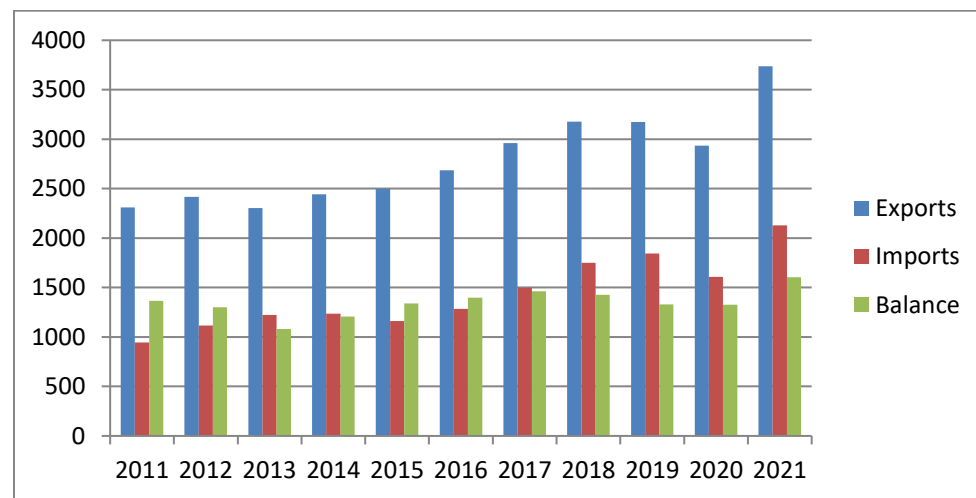
Figure 1: EU–North Macedonia Trade 2011–2021 in Euros (millions)



Source: European Commission, 2022a.

Trade between the EU and Albania is shown in Figure 2, where EU exports dominate.

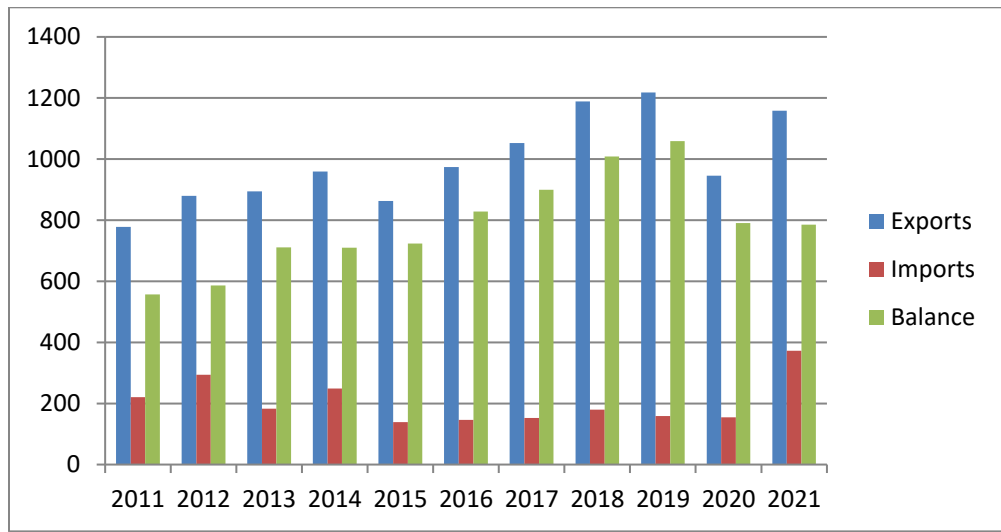
Figure 2: EU–Albania Trade, 2011–2021 in Euros (millions)



Source: European Commission, 2022b.

Figure 3 shows that EU exports dominate when compared to Montenegro's exports. This proves that these countries have not yet managed to produce quality products that can prevail in the EU market.

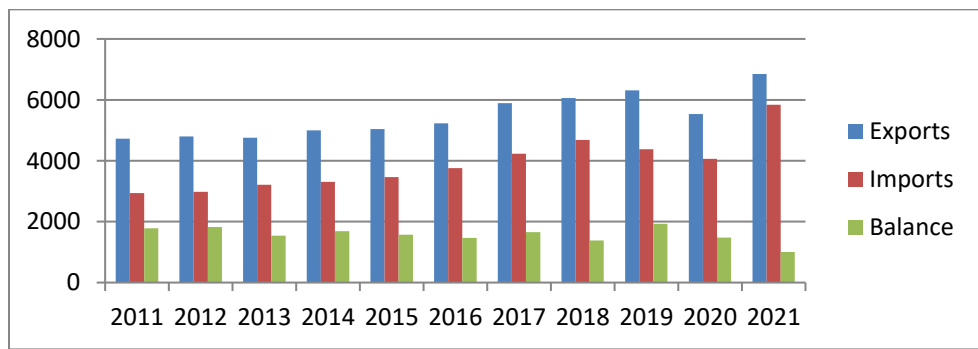
Figure 3: EU–Montenegro Trade, 2011–2021 in Euros (millions)



Source: European Commission, 2022c.

Figure 4 shows the developed trade between the EU and Bosnia and Herzegovina, where EU exports are higher than the exports of this Western Balkan country.

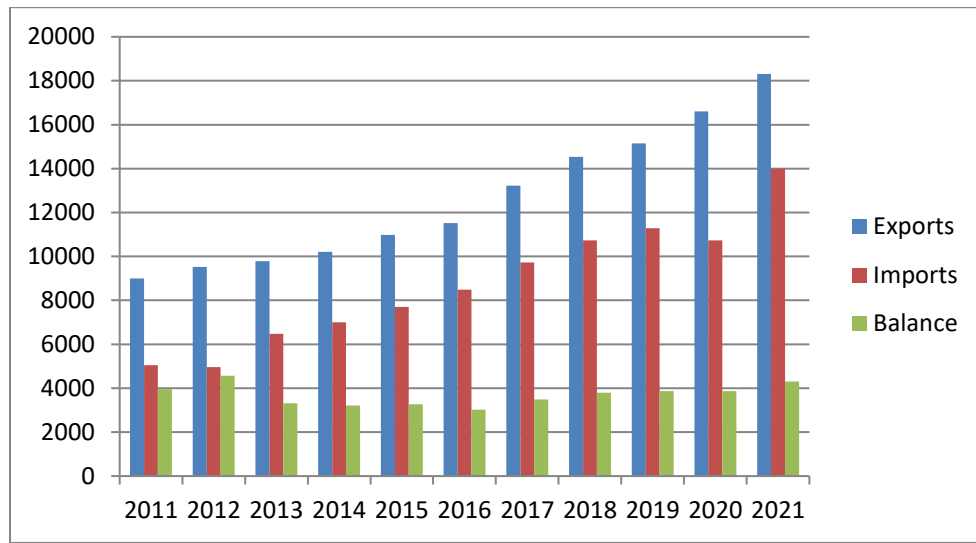
Figure 4: EU–Bosnia and Herzegovina Trade, 2011–2021 in Euros (millions)



Source: European Commission, 2022d.

Figure 5 shows that in the trade between Serbia and the EU, EU exports prevail. Serbia has a negative trade balance in relation to the EU.

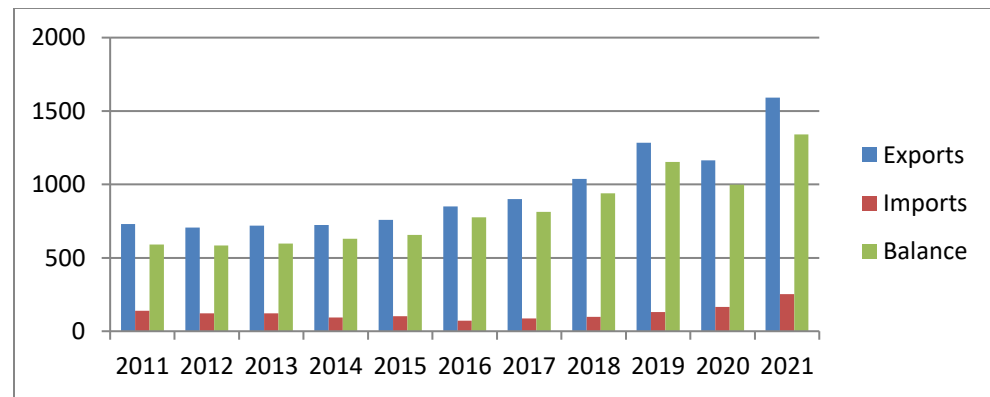
Figure 5: EU–Serbia Trade, 2011–2021 in Euros (millions)



Source: European Commission, 2022e.

Kosovo, as can be understood from Figure 6, is facing a negative trade balance, in particular trade with the EU. This proves that Kosovar products are not preferred by EU consumers.

Figure 6: EU–Kosovo Trade, 2011–2021 in Euros (millions)



Source: European Commission, 2022f.

Infrastructure and transport: The Western Balkans Investment Framework (WBIF) is a financing initiative that provides grants and loans to Western Balkans countries. These loans and grants are provided by the European Commission, financial institutions of regional countries and bilateral donors, for infrastructure, and social and economic development projects in Balkan countries. Transport represents the most developed sector of regional cooperation in the Western Balkans. There is already a great deal of cooperation in this area, via many regional forums and agreements, mutual insurance and consultations on transport policies. The South East European Transport Observatory (SEETO) is a forum created to promote transport development.

Energy: The Energy Community Treaty between the EU and the Western Balkan countries has specific goals, including the following:

- attract investment from the energy field and thus eliminate dependence on Russian energy sources;
- support integrated energy markets;
- provide energy safely;
- develop sustainable and climate-friendly energy sources;
- boost competition at the regional level to exploit economies of scale (European Commission, 2020).

Public administration: In this area, the Regional School of Public Administration (ResSPA) is an institution that aims to improve and modernize public administration in this region. Its main goals are to strengthen the capacities of the public administration as required by the EU integration process, and to help improve regional cooperation in public administration, etc. ResSPA members include North Macedonia, Albania, Serbia, Bosnia and Herzegovina, and Montenegro. Kosovo is currently a beneficiary and observer (Djurovic and Stojanovic, 2016).

Climate change: The Regional Environmental Network for Accession (RENA) is the EU's framework for Western Balkan countries and Turkey. RENA enables cooperation at the political and expert level. This program aims to:

- facilitate closer cooperation between member and potential countries on issues related to different experiences and practices;
- provide a forum to communicate developments in the EU's environmental policy (European Commission, 2019).

Justice: Increasing regional cross-border cooperation between law enforcement institutions and judicial institutions in the fight against crime and corruption is the main goal in this area. This will be achieved through:

- networking;
- mutual legal assistance;
- transfer of proceedings;
- requests for extradition;
- joint investigation teams;
- witness protection programs.

Meanwhile, the projects that are currently being developed address the following issues:

- police cooperation;
- criminal justice cooperation;
- fight against organized crime and corruption (European Commission, 2020).

Education: The Erasmus Mundus Programme, implemented by the Executive Agency for Audio-visual Education and Culture (EACEA), facilitates student and academic staff exchanges. For approximately 30 years, students and academic staff have moved between and exchanged ideas with European universities through the Erasmus program. The budget for the Western Balkans is quite large and enables 1,313 projects in

bilateral partnerships that organize mobility for about 27,000 researchers, students and academic staff (European Commission, 2019).

In the Western Balkans, regional co-operation has been a future-oriented common goal that does not take into account issues related to the region's complicated history. Regional forums and initiatives deal with general issues related to economic and social development but there is a lack of cooperation and consensus on key political issues. Issues arising from past wars and conflicts remain the main challenges to the stability of the Western Balkans. These affect regional cooperation between countries that have unresolved problems, and how individual countries function internally, and so on.

According to the EU (2011), conflicts over inter-ethnic or status issues in Kosovo and Bosnia and Herzegovina continue to hamper the functionality of institutions in these countries and, consequently, hamper the European reform process and agenda, etc. It is important to resolve these problems in order to establish permanent peace in this region. One such challenge is the Kosovo–Serbia dialogue. Despite EU efforts, disputes between the two countries are hindering the definitive establishment of normalcy in the Western Balkans (RIDEA and BPRG, 2018). The conflict between Russia and Ukraine best demonstrates that all political and economic disputes, besides those of the Western Balkans countries, should be resolved as soon as possible in order to have long-term economic stability and peace in this region.

A COMPARATIVE OVERVIEW OF THE INTEGRATION PERFORMANCE OF THE WESTERN BALKAN COUNTRIES

A precondition for EU integration of the Western Balkan countries is evidence of economic cooperation amongst themselves. Those countries that with good performance in regional economic cooperation are also more likely to perform better in EU integration assessments. As for the enlargement of the Western Balkan countries, they are at different stages of EU accession, and their success in this process depends on their individual achievements (TG-WeB, 2018). This process consists of the specific problems of each country in this region. All unresolved disputes have consequences on the region's stability and neighbourly relations. According to the Balkans in Europe Policy Advisory Group (2015) the various problems or disputes related to the integration of these countries into the EU can be summarized into four groups:

- Border disputes: This concerns the disputes between countries, especially those which were formed as a result of the dissolution of the Yugoslav federation. Kosovo and North Macedonia, and Serbia and North Macedonia are the only countries that have resolved the disputes between them. The issue of border disputes is not the biggest problems for countries in this region and this area of concern remains relatively stable.

- Political disputes: These issues relate to ethnic minority problems, specifically to disputed nationalities, such as the dispute between Kosovo and Serbia. The name issue between Greece and Macedonia has already been resolved with both agreeing to recognize Macedonia as North Macedonia.
- Minority rights: Each of the countries of the Western Balkans has ethnic minorities within it, so this issue is about recognizing and guaranteeing the rights of minorities under international conventions. This issue has recently progressed and almost all Western Balkan countries have implemented laws governing minority rights.
- Dissolution of Yugoslavia: This includes problems that have arisen as a result of the break-up of Yugoslavia, such as the return of refugees, the clarification of the fate of missing persons, and so on.

Unresolved bilateral issues not only have strong potential to destabilize relations between the countries of the Western Balkans but will continue to hinder the process of EU membership. EU institutions, member states and other international actors must be committed to avoiding threats to regional stability. The introduction of bilateral dispute resolution on the membership agenda would facilitate the process of these countries' integration into the EU (Jusufi and Ukaj, 2020).

North Macedonia was formed without armed violence in the former Yugoslavia. The problems of this country can be summarized into three groups: the problem with Greece over the name issue, with Bulgaria over the language issue, and with Albanians in terms of respecting their national rights. Officials from Macedonia and Bulgaria resolved their language disputes by signing a reconciliation agreement in 2017. However, despite this disagreement, there are different personalities in history claimed by both Bulgaria and Macedonia, and this may continue to be a contentious issue in the future (Synovitz, 2019).

Table 3: Comparison of the accession progress of Western Balkan Countries

	Albania	North Macedonia	Montenegro	Serbia	Bosnia & Herzegovina	Kosovo
SAA entered into force	April 2009	April 2004	May 2010	September 2013	June 2015	April 2016
Current status	It has been a candidate country for the EU since June 2014	It has been a candidate country for the EU since December 2005	It has been a candidate country for the EU since December 2010	It has been a candidate country since March 2012	Potential candidate	Potential candidate
Membership negotiations	-	-	June 2012	January 2014	-	-
Negotiations status: chapters opened	-	-	28	8	-	-
Negotiations status:	-	-	3	2	-	-

chapters provisionally closed						
Ranking	4	3	1	2	5	6

Source: Kittova and Steinhauer, 2018.

The 2001 civil war between ethnic Albanians and Macedonians in North Macedonia jeopardized the stability and security of the Western Balkans region. The conflict ended with the signing of the Ohrid Agreement, which formulated the basic principles of a multi-ethnic state. The successful implementation of this agreement and the SAA enabled the Macedonian authorities to apply for EU membership in 2004. After Croatia, North Macedonia were the fastest through the EU integration process. But it was not able to sufficiently meet membership requirements due to internal blockages in the political process.

Compared to other countries in the region, Albania has two advantages:

- there are no inter-ethnic conflicts and
- there are no religious conflicts.

After the fall of communism in 1991, Albania established diplomatic relations with the EU. In the following years, Albania signed several important agreements on trade, political issues, etc. During the 1990s, the EU offered financial assistance, then trade preferences, thus strengthening economic and diplomatic ties with Albania. After 1999, bilateral relations were established between the EU and Albania with the signing of the Stabilization and Association Agreement (Zahariadis, 2007).

The proliferation of pyramid systems, the collapse of the state and the general chaos severely damaged Albania's path to EU integration. In 2001 the EU Council of Ministers adopted the European Commission's report on the progress made by Albania and asked the Commission to prepare a draft directive for the SAA negotiation. Negotiations were officially opened in 2003 due to weak state capacities and the conflicting political culture of Albania. The SAA was signed in 2006 and became the basis of Albania's relations with the EU as well as the unit of measure of its progress. Albania faced similar challenges to others in the region during the implementation of the SAA. After 2009, with the entry into force of the SAA, Albania applied for EU membership, a request that has been rejected for several consecutive years because Albania has failed to meet the political criteria.

In 2014, Albania was granted Candidate Status after the EU recognized progress in reforming institutions in line with their standards. This EU decision is seen as a political decision because of geopolitical developments. In 2006, Montenegro became independent from Serbia and began to establish relations with the EU. In 2007, the EU Council adopted the European Partnership for Montenegro, which was followed by the signing of the SAA. The SAA entered into force in 2010. Montenegro applied for EU membership in 2008 and, at the end of 2010, was granted candidate status without any precise date for the start of accession talks.

In 2012, Montenegro began EU membership negotiations, despite objections from Sweden, Germany and Austria. It also joined NATO, promoting its EU integration. Today, Montenegro's EU integration depends

on its commitment to meet the criteria and requirements of the relevant institutions. Further democratization of society remains one of the key criteria required to be met by Montenegro's institutions. Bosnia and Herzegovina is progressing very slowly, partly due to ethnic conflicts and the legacy of Yugoslav wars and economic devastation, and partly due to the ethnically-based fragmented state structure. In 1995, with the Dayton Agreement, two basic ethnic units were established in Bosnia: the Muslim-Croat Federation (Federation of Bosnia and Herzegovina) and the Bosnian Serb Republic.

Bosnia and Herzegovina's integration into the EU will not solve all the economic and political problems of this country. This country's integration into the EU can simply not be expected to work wonders. However, the EU will seek to harmonize the laws of Bosnia and Herzegovina with those of the EU. Parliamentary democracy and a market economy will be organized according to EU requirements. This will provide an equal economic and political space for the EU and Bosnia and Herzegovina (Hadzikadunic, 2004). It took eleven years from the signing of the Dayton Peace Accords for Bosnia and Herzegovina to open negotiations on a contractual relationship with the EU.

Bosnia and Herzegovina is behind all other countries in the region and the factors that inhibit its EU integration process are as follows:

- Impunity for war criminals: The war in this country lasted from 1992 to 1995. This war destroyed the economy and infrastructure and left severe consequences on the local population. Human rights were violated in the most brutal way. Due to the weak justice system, war crimes in Bosnia and Herzegovina remain largely unpunished (Human Rights Watch, 2019).
- The lack of a constitution that guarantees the rights of both citizens and ethnic groups.
- The slow progress of reforms due to the opposite aspirations of ethnic groups.
- Politicians from Republika Srpska still depend on Belgrade and are not loyal to the state in which they live.

One achievement of Bosnia and Herzegovina is the visa-free movement of its citizens in 2010. Despite some achievements in the field of regional cooperation, the nationalist spirit in Bosnia and Herzegovina is still high. In the current situation, the EU will find it difficult to fight nationalism in this country, and it is likely that it will be a long time before Bosnia and Herzegovina achieves candidate status. Serbia's problem of citizenship stems not from internal ethnic divisions, but from the incomplete process of dissolution of the Federation of Yugoslavia. In 1995, after economic sanctions were eased, the EU expanded trade relations with the rest of Yugoslavia. But bilateral relations again reached crisis levels during the Kosovo war and relations with the EU degenerated. Kumanovo's agreement with NATO, the withdrawal of Yugoslav army troops from Kosovo in 1999, and the victory of the opposition in 2000 marked important political changes for the country.

These changes marked the beginning of the country's EU integration process, but the problem of nationalist views pose a barrier to Serbia's foreign policy. These views have, from time to time, blocked the country's progress towards regional and EU integration structures. Negotiations on the signing of the SAA began in 2005 but these negotiations were interrupted because Serbian authorities refused to co-operate with The Hague war crimes tribunal. 2008 was a crucial year for Serbia–Kosovo unilaterally declared its independence. This increased the support of nationalist forces in parliamentary elections but the new government decided that EU integration would be a foreign policy priority.

The SAA was signed in 2008 and in 2009 Serbia applied for EU membership. Serbian citizens immediately benefited from visa-free travel to the EU. The non-recognition of Kosovo's independence and lack of good neighbourly relations are the main obstacles hindering Serbia's EU integration process. In 2012, at the Brussels Summit, leaders of the EU gave Serbia candidate status. Following several agreements reached between Kosovo and Serbia, accession negotiations between the EU and Serbia were launched in 2014. Despite improvements in regional co-operation, Serbia has stalled heavily in the EU integration process. The expectations of Serbian citizens have been high, taking into account the promises of all post-Milosevic governments. The main reasons are as follows:

- First, after the Milosevic period, Serbian governments focused on addressing the fallout of this period. Even without clear state borders, Serbia was unable to meet EU requirements related to its EU integration process.
- The second reason has to do with the attitude of Serbia and the Serbian people towards war crimes. This stance has hampered Serbia's rapid EU integration.
- The third reason is the lack of a clear strategic vision and the accompanying consensus that would place Serbia's EU integration at the top of the list of priorities of Serbia and the Serbian people (Rupnik, 2011).

Kosovo is more complex than other regional countries in terms of EU integration. Prior to 1989, the EU was not involved in the political and economic situation in Kosovo. From 1999 to 2007, relations between Kosovo and the EU intensified as a result of radical political changes (Qorraj and Ajdarpašić, 2017, p. 76). The EU helped Kosovo tremendously with its post-1999 economic recovery through CARDS and the IPA. In 2008, Kosovo was declared an independent and sovereign state. Kosovar institutions, through several important documents, expressed their commitment to the country's integration into the EU (Jusufi and Ajdarpašić, 2020). Since the declaration of independence, several actions have been taken, as follows.

In 2008, to ensure the rule of law, the EU established the Rule of Law Mission in Kosovo (EULEX). This mission supports the establishment of a stable legal order in Kosovo that is always based on the rule of law.

Second, the EU organized a donors' conference aimed at boosting Kosovo's economic development. This donor rally was organized immediately after Kosovo's declaration of independence. Third, the EU proposed the opening of negotiations for the signing of a SAA and visa liberalization for Kosovar citizens. Despite the fact that five EU countries still do not recognize Kosovo as an independent state, the EU institutions have tried to find a consensus regarding the provision of financial and economic assistance to Kosovo (Nezaj, 2015).

Kosovo faces some problems that hinder its EU integration process. Serbia does not recognize the state of Kosovo and claims that Kosovo is its territory. The Republic of Kosovo does not control the northern part of its territory (Jusufi and Ukaj, 2021; Jusufi and Gashi-Sadiku, 2020). The Serb-majority northern part of Kosovo is not controlled by the Pristina authorities. EU member states have conflicting opinions about Kosovo's independence with five EU countries refusing to recognize the state of Kosovo. These problems make Kosovo's path to EU integration very difficult. Therefore, Kosovo, along with Bosnia and Herzegovina, are considered "unfinished states". These two countries have the worst standing in the process of European integration compared to other Western Balkan countries.

According to Babuna (2014), Bosnia and Herzegovina, despite the Dayton Accords, still has security problems, which may be reflected in the entire Balkan region. Meanwhile Ađir (2009) thinks that Kosovo and Bosnia and Herzegovina are still weak states, both neo-institutionally and ideologically. As a result, these states could slow down the process of democratization and economic development in the Balkans, causing political and economic instability.

CONCLUSION AND IMPLICATIONS

This theoretical review has provided evidence that regional cooperation in the Western Balkan countries is still low. Trade, in particular, still needs to progress – countries of this region still trade more EU products than products from neighbouring countries. Among the reasons for this is the fact that the Western Balkan countries lack a common identity, due to the hostilities of the 1990s. This is despite the fact that these countries have forged alliances and common goals throughout history.

Real integration can only happen if there is a significant shift in the region's perception of a national identity. The scientific contribution of this paper can be summarized in several points. As can be seen from reviewing the historical aspect of cooperation in this region, being divided between several empires with great power has prevented the Balkans from becoming a prosperous region culturally, economically or politically. Apart from the ethnic crises, the economy, in particular trade, has had different levels of development. After 1999, despite many inherited challenges, trade began to grow rapidly, so, despite the hostilities, Western Balkans countries have found ways to cooperate in the field of trade and business.

One of the EU's first conditions for integration is evidence of deeper regional cooperation between these countries. The study of the level of regional cooperation between Balkan countries is important because it shows their stage in the Euro-Atlantic processes. This paper is one of the few papers that has addressed the regional cooperation between the countries of the Western Balkans, both from the historical and economic perspectives.

According to the theoretical evidence of this paper, in some Western Balkans countries pride of nation and nationalism still reigns, in others the desire to join the large EU family is strong. For countries like Serbia, regional cooperation is an obstacle to EU integration, while for other countries such as Kosovo, North Macedonia and Albania, which are committed to developing good neighbourly relations, the desire to further the EU integration process is a strong impetus for regional cooperation.

Trade, energy, transport, and free movement are areas that require regional cooperation in order to gain the support of international investors.

Another scientific contribution of this paper is that, based on the review of theoretical sources, it can be concluded that regional cooperation within the EU integration process could be smooth as long as it does not involve difficult issues of the past. There are some issues that the Western Balkan countries do not see as appropriate for regional economic cooperation. These issues include the conflict between Serbia and North Macedonia over the Orthodox Church, Serbia's persistent reluctance to recognize Kosovo as a sovereign and independent state, and problems of national minorities in Serbia.

Also, the statistical evidence of this paper shows that trade between the Western Balkans countries is still low, and that they trade more with the EU than between themselves. However, despite the fact that trade is conducted with the EU, EU exports dominate compared to the exports of the Western Balkan countries. This shows that, despite the fact that the EU has liberalized its market to include Western Balkans products, due to the low quality of their products, the Balkans have not managed to increase exports to the EU.

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