Универзитет "Св. Кирил и Методиј"
ЕКОНОМСКИ ИНСТИТУТ

ISSN 1857-7741 (on line)
UDC-338

Economic Development
Економски развој

JOURNAL OF THE INSTITUTE OF ECONOMICS - SKOPJE

Year. 23 No. 2-3/2021

Skopje, December, 2021

Economic Development
Published by:
Institute of Economics-Skopje, University "Ss. Cyril and Methodius",
Republic of North Macedonia

Technical editor: Cvetanka Stefanovska, (Institute of Economics-Skopje)
Cover design: Koco Fidanoski
Computer preparation and printing: MAR-SAZ, Skopje
UDC-CIP Catalogue record from National and University Library
"St.Kliment Ohridski"-Skopje
Address:
Institute of Economics- Skopje, University "Ss. Cyril and Methodius" -Skopje
Prolet 1 1000 Skopje, Republic of North Macedonia
Phone: ++ 389 23115 076; Fax: ++ 389 23226 350
E-mail: **EconomicDevelopment@ek-inst.ukim.edu.mk**
Published **three times per year**
Available on the websites: **www.ek-inst.ukim.edu.mk**
Abstracted/indexed in: *EBSCO Business Source Complete, EBSCO Discovery Service (EDS) in* **EBSCO** Publishing Database, (Ipswich USA); **CEEOL** Central and Eastern European Online Library, (Frankfurt, Germany)

CONTENTS

Dear reader,

"Economic Development", published by the Institute of Economics – Skopje, is an academic journal in the field of economic development and has been an important medium for 20 years. The main goal of "Economic Development" is to provide intellectual platform to the wider academic and professional publics, and to promote the development of economic thought in the country and the world.

The interest and need for publishing of the journal were continuously increased all these years. It covers theoretical and empirical researches in the field of economic and social development, demography, education, corporate governance, international economics, international management, administrative management, corporate and public finance, economics and tourism management, agricultural policy and agricultural management, marketing and marketing management, entrepreneurial management and other areas in the field of social sciences.

The journal "Economic development" has an open approach in accepting and publishing the papers reviewed by an international editorial board consisting of domestic and foreign experts from different countries. The journal is available in online form, through the database of academic papers published by the Institute. On the path of development of the economic thought and building a wide network of research and professional cooperation with other countries, new criteria has been implemented in order to improve the journal`s quality and it's recognition. In this regard, during last years, significant changes have been made in the design and editorial policy for it's international positioning among other scientific journals worldwide.

Skopje, December, 2021

Zoran Janevski, PhD
Editor-in-chief

UDK 334.72.012.63/.64:338.43/.45]:657.478.2:658.155(497.7)
(Original scientific paper)

BILJANA ANGELOVA*
BLAGICA KOLEVA**
MILA MITREVA***

COST MANAGEMENT-METHOD FOR INCREASING THE PROFITABILITY OF ENTERPRISES, WITH REFERENCE TO THE PRODUCTION SMEs IN THE REPUBLIC OF NORTH MACEDONIA

Abstract

The globalized world in which the companies operate, constantly changes the conditions under which the companies perform their activities, offer their products/services and manage their cost activities. This pressure affects the profitability of the enterprises and finding the right way to balance their cost-profit basis becomes one of the main factors for success. Hence, working towards being profitable, but keeping the costs at the lowest level are some of the challenges that many businesses face. Therefore, the aim of this paper is to analyze the cost management-method that N. Macedonian companies and the obtained results will further enhance the knowledge of other business entities in managing their business operations.

Keywords: cost management, profitability, SME, models, cost leadership
JEL Classification: M40, M41, P43

* PhD, Ss. Cyril and Methodius University in Skopje, Institute of Economics-Skopje, Republic of North Macedonia, E-mail: b.angelova@ukim.edu.mk
** PhD, University "Goce Delcev", Faculty of Economics-Shtip, Republic of North Macedonia, E-mail: blagica.koleva@ugd.edu.mk
*** MSc University "Goce Delcev", Faculty of Economics-Shtip, Republic of North Macedonia, E-mail: mila.mitreva@ugd.edu.mk

Introduction

In conditions of global economy, the realization of profit is still imposed as the primary business goal of every company. Although in recent years the opposite idea of social entrepreneurship has been developed, aimed at creating social value and improving the quality of life, profit still remains a basic movement, and at the same time the goal of modern business, because it is clear that without profit other goals can not be achieved.

According to Michael Porter, the company's profit is a result of its primary and secondary activities, and the increase in revenue in terms of costs, is achieved through more efficient performance of activities. Porter singles out two basic strategies for achieving competitive advantage in the market: product differentiation and cost leadership. The differentiation strategy seeks to create a consumer perception of the uniqueness of the product or service, usually of superior quality, which allows manufacturers to charge higher prices. The main weakness of this strategy is that it does not require companies to minimize operating costs, which in turn leads to greater inefficiency, which in combination with scheduling aggressive marketing can lead to a loss of market position. Unlike differentiation strategy, cost leadership puts costs first. The business goal of this strategy is to surpass competitors in the production of products and services at the lowest price. Because operating costs are a result of the productivity of production, distribution and overall "administration" of the company and form a category in which the company can have an impact, they are the best basis for increasing business activity or making a profit. Therefore, every organization should strive to balance its cost structure, eliminate the non-value added costs and keep its competitive position. However, cost control management is a necessity for every business that requires maximum profit and lower price for the products of services it offers (Akeem, 2017)[1].

1. COST MANAGEMENT

One of the most important management responsibilities include projection of costs and their control. According to Clough (1986)[2] the main components of project cost management include the costs required to complete the

[1] Akeem, L. B. (2017) Effects of cost control and cost reduction techniques in organizational performance. *International Business and Management.* Vol. 14, No. 3, p.19-26.

[2] Clough, R. H. (1986). Construction contracting. John Wiley & Sons, Inc.

project, labor, equipment-hours and the production quantities. Therefore, implementation of performance metrics is necessary, which will indicate whether the project is successful or not. Hence, for many companies one of the main driving success factors is successful cost reduction strategy. This is because cost reduction is a long-term strategy for creating a competitive advantage of the company to which competitors can hardly respond or cannot even respond in long run. Therefore, the effects of the cost reduction usually involve finding better working procedures and cheaper resources, which do not immediately provide noticeable results, but for long-term oriented companies are of crucial importance. Furthermore, when it comes to cost management, the share of the costs in the price of the product must be gradually reduced, hence, to become lower than the competition in a long run. The companies must maintain the relationship between the cash inflows and the cash outflows in a way that they will manage the flow of costs and the profits. In conditions of fierce competition, the short-term advantages of a particular production disappear over time and therefore constant improvements are needed by either lowering the costs or improving the quality of the product. Those parts of the enterprise that can no longer be competitive must be abandoned or replaced with new profitable programs, where the profitable products must take precedence over the best-selling products[3]. Notwithstanding, cost management is more of an evolutionary process rather that static one, which can take variety of forms, such as cost containment, cost avoidance and cost reduction. However, over the lifespan of the company, its costs can change for reasons, such as inflation, technological innovations, fluctuations in the demand and the supply or change in the production process. Nevertheless, depending on the characteristics of the industry in which the company operates, the characteristics of the product or service it provides, the strength and the weaknesses of the company itself and the opportunities and the threats in the environment are some of the factors based on which the manager should choose a specific management model for managing the costs [4].

Additionally, when reviewing and defining costs, as well as revenues, it is necessary to specify the existence of the economic and the accounting aspect. Considering the two aspects of defining costs, it is necessary to specify

---

[3] Agrawal, S.P., Mehra, S., Siegel, P.H. (1998). Cost Management System: An Operational Overview, *Managerial Finance*, Vol. 24, No. 1, p.60.

[4] Groth, J., Kinney, M. (1994). Cost Management and Value creation. *Management decision.* Vol. 32, No. 4, p. 52-57.

the difference in the classification and coverage of costs according to different characteristics that are significant and have an appropriate impact on cost auditing. The economic aspect of costs is broader than the accounting aspect. According to the economic aspect, costs are the price-financial sum of all factors of production: labor, capital, natural resources and entrepreneurship, which have their own price to be paid for their contribution to the creation of production. Unlike the economic aspect, the accounting aspect in defining costs starts from determining the cost price. Thus, the accounting aspect is narrower than the economic one, precisely because of the price of the entrepreneurship factor, because the cost price includes only purely economic costs of labor, capital and natural resources, i.e. means of labor and objects of labor, which directly participate in the production of effects or effects. Costs are determined and dependent on certain factors such as the type of activity, capacity, production and sales volume, cost-efficiency, cost-effectiveness, prices of production elements, etc. The importance of these factors, especially the dependence of costs on the volume of production contributes to achieving a comprehensive analysis of their movement, conducting business policy and proper management of the success of the business entity. The knowledge of the laws of cost issues, their variability and the negative impact on the financial result, enable management to make important decisions about the operation and development of the business entity. Only with timely data and information on the reasons and areas for the occurrence of costs and expenditures of factors of production, can faster influence the dynamics of their movement and the detection of centers of responsibility in order to reduce their growth. In that way, it can certainly influence the growth of their dynamics, both in the sphere of material production, and in the sphere of the sales market and the collection of the effects of the business entities[5].

1.1 Target cost management

The globalized and competitive world that we live in requires from the companies to be able to provide the right products with the right prices, while managing their costs and remaining profitable. This market pressure stimulates the companies to implement adequate competitive tools for managing their operations. Therefore, since 1970's many companies, especially the Japanese ones such as Komatsu, Topcon, Isuzu, Sony, Toyota, Nissan etc. have used the Target Cost Management (TCM), which is a form of Strategic Management Accounting

[5] Hilton, R. W., Michael W. M., Frank H. S. (2000). Cost Management, Strategies for Business Decisions, International Edition, Irwin & McGraw-Hill, Boston, p. 1.

(SMA). The purpose of TCM is to help the companies to maintain their strategies, while operating under a profitable margin. TCM assist the companies to set the right price, while making the right cost and obtaining sufficient profit. However, the development of TCM did not occur from a previously established theory, but mainly from practical applications. Its former names referred to 'Cost Planning', 'design to cost', 'basis net price', 'Target Costing', 'Cost Projection' etc.[6] Nevertheless, TCM cannot be defined as a costing system separately, neither as a system to set the target cost. Its basis lays in setting the target-selling price before designing the product and by subtracting the target-selling price from the target profit, then the target cost is determined. Therefore, companies that use this method improve their cost position and gain their target profit. Moreover, according to Mihm (2010), TCM is a good method especially for large new product development projects, because it provides efficient use of available information, while reducing development times and balancing the profit margins. Nevertheless, there have been some differences between TCM practices in Japanese companies compared to the European and the US companies. However, this differentiation cannot be explained in a satisfactory manner and this may be due to the various contextual and environmental factors. Furthermore, it is worth mentioning that for achieving the target cost, there has to be internal and external cooperation within all parties in the value chain. When a close supplier relationship exists, it can be said that those companies that implement TCM will reach the full integration stage[7].

2. COST MANAGEMENT MODELS IN MANUFACTURING ENTERPRISES

In the manufacturing business entities, the received sales revenues represent regular revenues arising from the basic activity of the entity. In addition to regular income, business entities also generate irregular or extraordinary income arising from the various non-weekly transactions of business entities. Hence, in any market economy, the basic rule of thumb is: in order to generate revenue, there must be costs. According to Lockey (2002)[8], cost control is very

[6] Yazdifar, H., Askarany, D. (2012). A comparative study of the adoption and implementation of target costing in the UK, Australia and New Zealand. *International Journal of Production Economic*, Vol.135, p. 382-392.

[7] Baharudin, N., Jusoh, R. (2015) Target Cost Management (TCM): A case study of an automotive company. *Procedia-Social and Behavioral Sciences.* Vol. 172, p. 525-532.

[8] Lockey, K. (2002). Factory and production (4th ed.). London: Dp Publisher.

important for every business because it helps the businesses to obtain their pre-determined objectives. However, there is a difference between cost reduction and cost control method. Cost reduction is considered successful when the overall cost of the entity are on an adequate level, while the cost control is applied in order to plan the budget. Therefore, cost control techniques refer to the methods that are applied for controlling the costs and they are composed of budgetary control, standard costing and material control[9].

Budgetary control refers to the efficient use of resources in order to achieve the goals that have been previously set. This technique uses the budgets as a source of planning and controlling costs. It is worth mentioning that budgeting should not be seen as a decision but rather as a process that includes all the management activities for budget preparation and execution. Budgeting is also a system that includes the formation of revenues, expenses and various other economic categories and without it there is no efficiency and effectiveness in managing the organization. Budgeting is also the basis of all management functions because it involves planning, resource allocation and enables the process of achieving the company's goals. Budgeting serves as an instrument of employee motivation, assist the company in terms of attribute and supports planning which leads to better performance of the entity[10]. Moreover, another cost control technique is the standard costing, which is used for overcoming the existing limitations of historical costing. According to Lucey (1996)[11], standard costing analyzes the standard cost of each product separately compared to the actual cost in order to determine the competence of the operation and if necessary, remedial actions to be taken. Standard costing is very useful in making accurate plans and forecasts, especially during the preparation of budgets. It is also used in controlling the organization and any difference between the budgeted costs and revenues with the actual results are sign that something has to be improved. Notwithstanding, standard costing is of crucial importance for the manufacturing companies because it assist them in inventory valuation, valuation of raw materials, work-in progress and finished goods inventory. Considering all the benefits of standard costing, various organizations use different types of standard costing, such as ideal standard, attainable current, loose, basic or historical standard. De-

[9] Akeem, L. B. (2017) Effects of cost control and cost reduction techniques in organizational performance. *International Business and Management.* Vol. 14, No. 3, p.19-26.

[10] Czerny, M. (2016). Budgetary control as a method of financial management on the example of housing community. Poznan University of Economics. No. 503, p. 179-194.

[11] Lucey, T. (1996). Management accounting (4th ed.). London: Contimium Publisher.

spite its advantages, standard costing has also some limitations because it is more of an internal rather than external cost measure. Today's focus of the companies is more related to the quality of the products and the customer satisfaction rather than minimization of costs. Because of the frequent, dynamic and continuous change of the companies, standards very quickly become out of date (Akeem, 2017). Furthermore, material control is also very important technique in cost control because it ensures economy in the cost of production. Its main objective is to ensure un-interrupted supply of materials for normal flow of production. When material control system is implemented, two techniques can be used 'Always Better Control' analysis and 'Vital Essential Desirable' analysis and both of them ensure minimal loss and wastages. The basis of these techniques is to avoid holding of idle stock and having available only the amount of raw materials that are needed[12]. To sum up, all these methods and techniques are vital for the operation of the business, planning the future, controlling the current activities and analyzing the prior effectiveness of the managers, the employees and all of the related segments to the business.

3. STRATEGIC COST MANAGEMENT

Changes in the business environment have led to the need to define a modern cost management system or strategic cost management. Unlike traditional cost management models that focus only on measuring and controlling the cost of producing products and services, this model provides a modern system of information needed to adapt to economic and technological developments. The goal of strategic cost management is to produce a continuous cycle of information on short- and long-term activities, all in order to increase value in the eyes of the consumers and to reduce costs. The benefits of using strategic cost management models are reflected in reduced business risk, increased benefits and reduced financial costs. The main purpose of cost management is to use a set of tools to generate information for planning, decision-making and control in the short and long term, to assist the management of the company by creating products and providing services in a more efficient way than competitors. Strategic cost management tools contain techniques necessary for successful implementation of the strategic cost management system, value chain analysis, competitive advantage analysis, SWOT analysis, accurate on-time inventory management system, balanced assessment and continuous improvement and

[12] Sikka, T. R. (2003). Fundamentals of cost accounting (5th ed.). India Viva Books. Private Ltd.

modern cost management models: activity-based cost management, targeted costs, total quality management, repetition and constraint theory. Regardless of the company's management, for successful implementation of the cost management model it is necessary to motivate all organizational units to act as a team for the company (top management, finance, accounting, production, marketing, etc.). When implementing a cost management model, the manufacturing company should define the objectives, identify the activities that result in benefit, define the indicators of financial and non-financial performance and each organizational department must carefully analyze its activities and costs[13].

4. TRADITIONAL MODEL OF PRODUCTION COST MANAGEMENT

The traditional cost management model is the oldest model for calculating and managing operating costs, and has been used in practice for over a hundred years. The main purpose of this model is reflected in the measurement of quantities of consumed inputs in relation to the number of individually produced product. This system is based on the division of production costs into the following basic groups:1. costs for direct material; 2. direct labor costs; 3. depreciation costs; 4. overhead costs for production; 5. administrative costs.

The traditional cost management model monitors and controls the costs of direct material and direct labor through each type of product, or per unit of product or service, while overhead and administrative costs are related to direct costs by applying a certain basis. Namely, for overhead and administrative costs, the place of the cost is known, but not the real effect, so the problem arises as to what should be determined as a basis for allocating the general costs to the holders. The cost that burdens the performance should be more precisely distributed, close to the actual overhead costs that this performance causes.

The traditional cost management model does not distinguish between the costs of different production and administrative activities that occur in a particular product group. If large parts of the operating costs are not included in the production volume and if the company produces a wide range of products in different quantities and at different degrees of complexity, the traditional model results in an inaccurate presentation of costs. It is also possible that the calculation of overhead and administrative costs based on the cost of direct labor distorts the realistic picture of the price of individual products, especially

[13] Temelli, F., Cinar, O. (2019). *Strategic cost management*. Cambridge Scholars Publishing

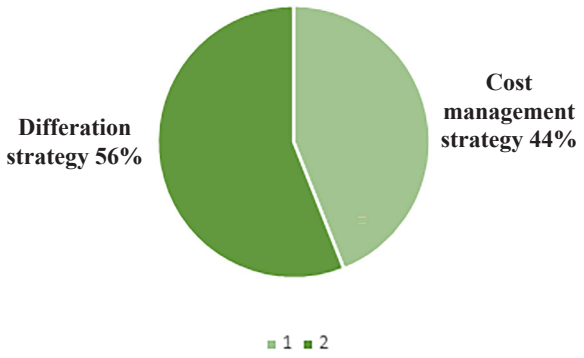
if the share of the cost of direct labor in total costs is small. These features are a big problem for business decision makers and are one of the biggest drawbacks of the traditional cost management model. Therefore, the application of this model is in a relatively stable business environment, where work is the dominant factor of production, technology is known, the quantity of products is limited and in companies that have several similar products or services or more customers. As the above production characteristics no longer correspond to a dynamic business environment, the traditional cost management model is increasingly abandoned and replaced by a strategic cost management system[14].

5. COST MANAGEMENT ANALYSIS IN SMALL AND MEDIUM PRODUCTION ENTERPRISES IN REPUBLIC OF N. MACEDONIA

The cost management analysis in small and medium production enterprises is based on the results of the empirical research on cost management in production companies of the Republic of N. Macedonia conducted in December 2020. This research was conducted with a questionnaire for structural research of a sample of 50 small and medium production enterprises.

When choosing a strategy for gaining a competitive advantage, the research showed that SMEs prefer a cost management strategy (56%) to a differentiation strategy (44%) (Chart number 1).

Chart 1: SME strategy for gaining competitive advantage

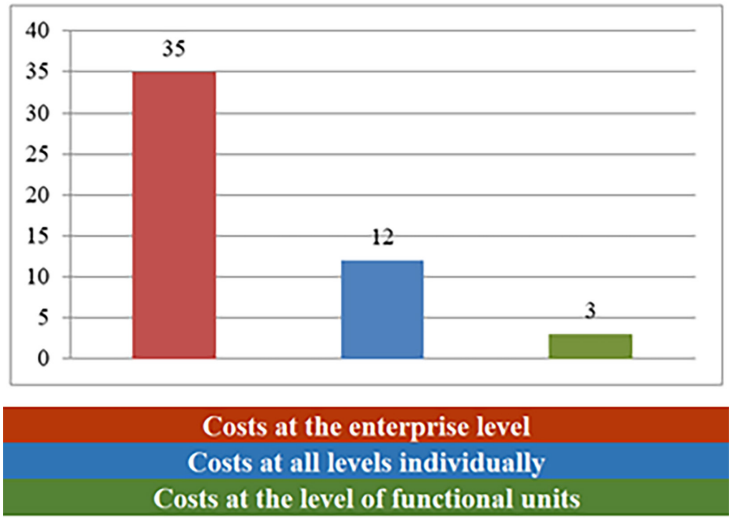


Source: Developed by the authors

[14] Agrawal, S.P., Mehra, S., Siegel, P.H. (1998). Cost Management System: An Operational Overview, Managerial Finance, Vol. 24, No. 1, p.60.

Every company that wants to achieve certain competitive advantages in the market by using a cost management model, should monitor costs at all levels, both organizationally and the company as a whole (Chart no. 2). The results of the empirical research showed whether small enterprises mostly follow the costs at the enterprise level (35%) and at all levels in the company individually (12%), while it is a very rare situation to follow the costs only at the level of functional units (3%).

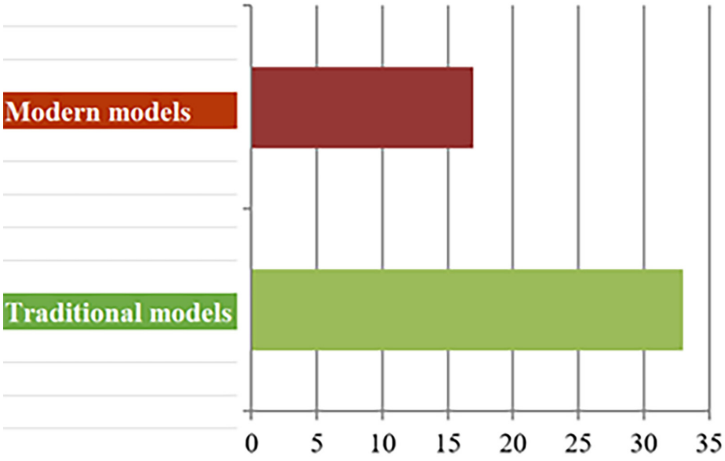
Chart 2: Cost management model



Source: Developed by the authors

Small and medium-sized businesses are best acquainted with the traditional cost management model (56%), while the rest know different modern models (Chart no. 3). Although at first glance it seems that N. Macedonian small entrepreneurs are very well acquainted with different models of cost management, a more detailed analysis shows that 60% know only one model of cost management.

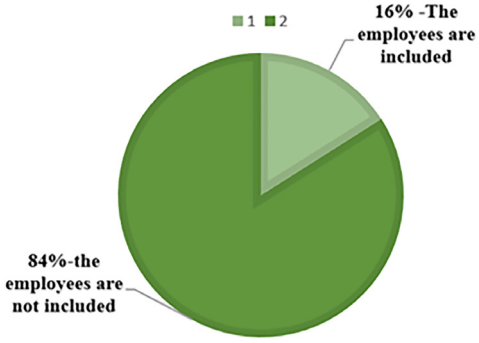
Chart 3: Familiarity and use of cost management models



Source: Developed by the authors

Unfortunately, N. Macedonian small and medium enterprises still do not realize that the implementation of any cost management model is a success and requires the support and involvement of all employees (Chart 4). Only 16% of small businesses involve all their employees in the cost management process, while as many as 84% believe that success in cost management alone is enough for the company owner or the company's management to commit.

Chart 4: Involvement of the employees in the process of managing the cost management model



Source: Developed by the authors

Considering the previously obtained results from the knowledge of the cost management model and the involvement of the employees in the cost management process, it can be expected that the owners of small and medium businesses do not pay too much attention to the cost management education, as for themselves., as well as for its employees. Only 13% of surveyed small businesses "send" their employees to additional cost management training.

Conclusion

Cost management enables the company to achieve a better competitive position in the market. In conditions of fierce competition, in the end the manufacturer with the lowest costs always wins. Thanks to cost management, the company can use a strategy to protect itself from competition by reducing the selling price of the product.

Cost management is a reliable set of methods that can be used at the individual level to support a particular decision or to manage the organization as a whole, called cost management systems or models. We distinguish between traditional method and strategic cost management.

The analysis of the cost management of small and medium production companies in the Republic of N. Macedonia showed that the majority of Macedonian owners and / or managers at the head of the production companies believe that cost savings can be achieved. The results showed that N. Macedonian manufacturing companies, in order to achieve a competitive advantage in the market, give priority to the cost management strategy over the differentiation strategy.

According to the above data, the vast majority of manufacturing companies use at least one of the cost management methods. Small and medium-sized businesses are mainly oriented towards traditional business cost management models that, as already mentioned, are not a good basis for achieving a competitive advantage in modern business conditions. This is because they assume a relatively stable business environment, work as a dominant factor of production and known technology.

Using explicit traditional cost management models involves thinking about costs only at the enterprise level, and it is known that at the enterprise level they intertwine different outcomes but also the costs of individual organizational units, so it is almost impossible to identify and remove the so-called "Bottlenecks". The data collected in this way is not a good basis for management to make strategic decisions.

References

1. Agrawal, S.P., Mehra, S. and Siegel, P.H. (1998). Cost Management System: An Operational Overview, *Managerial Finance*, Vol. 24, No. 1, p.60.
2. Akeem, L. B. (2017) Effects of cost control and cost reduction techniques in organizational performance. *International Business and Management.* Vol. 14, No. 3, p.19-26.
3. Baharudin, N. and Jusoh, R. (2015) Target Cost Management (TCM): A case study of an automotive company. *Procedia-Social and Behavioral Sciences.* Vol. 172, p. 525-532.
4. Clough, R. H. (1986). Construction contracting. John Wiley & Sons, Inc.
5. Czerny, M. (2016). Budgetary control as a method of financial management on the example of housing community. Poznan University of Economics. No. 503, p. 179-194.
6. Groth, J. and Kinney, M. (1994). Cost Management and Value creation. *Management decision.* Vol. 32, No. 4, p. 52-57.
7. Hilton, R. W., Michael W. M. and Frank H. S. (2000). Cost Management, Strategies for Business Decisions, International Edition, Irwin & McGraw-Hill, Boston, p. 1.
8. Lockey, K. (2002). Factory and production (4th ed.). London: Dp Publisher.
9. Lucey, T. (1996). Management accounting (4th ed.). London: Contimium Publisher.
10. Mihm (2010). Incentives in new product development projects and the role of target costing. *Management Science*, Vol. 56 No. 8, pp. 1324-1344.
11. Sikka, T. R. (2003). Fundamentals of cost accounting (5th ed.). India Viva Books. Private Ltd.
12. Temelli, F. and Cinar, O. (2019). *Strategic cost management*. Cambridge Scholars Publishing .
13. Yazdifar, H. and Askarany, D. (2012). A comparative study of the adoption and implementation of target costing in the UK, Australia and New Zealand. *International Journal of Production Economic*, Vol.135, p. 382-392.

UDK 334.722:37].025:338.121(497.7)
334.722:37].025:338.121(4-672EU)
(Original scientific paper)

ZORAN JANEVSKI*
ZAGORKA MITASHEVA**

ENTREPRENEURIAL LEARNING IN REPUBLIC OF NORTH MACEDONIA - A FACTOR FOR PERSONAL, SOCIAL AND ECONOMIC DEVELOPMENT

Abstract

Entrepreneurial learning is presented as a driving force for innovation in teaching, revitalization of culture, development of learning and enhancement of achievements that should provide young people with transfer skills related to active citizenship, employment opportunities, involvement in the business world and the wider social community, while establishing the necessary links between education systems and businesses. Encouraging and releasing the entrepreneurial energies of the people is an essential key to achieving greater economic prosperity in the country and to continuing to rebuild its economy over time. Skills and knowledge, which are developed through training and education, are one of the few areas in which a country can create a competitive advantage. The importance of entrepreneurial learning stems from the importance of the entrepreneur throughout the economic system.

The aim of the research is to show the need for education that creates personalities ready for creativity, innovation, encouraging change and later working on practical projects from generating ideas to full implementation of entrepreneurial processes. Research shows that entrepreneurial learning is a process in the education system, in which students acquire a wide range of competencies that have enormous individual social and economic benefits and can be applied in every aspect of life.

Keywords: entrepreneur, entrepreneurial learning, transfer skill
JEL Classification: I20, I25, F63

---

* PhD, Full-time professor, Institute of Economics - Skopje at Ss. Cyril and Methodius University in Skopje, Republic of North Macedonia, E-mail: zoran.janevski@ek-inst.ukim.edu.mk.

** MSc in Economics in the field of Entrepreneurship, primary school teacher, E-mail: zagorka_na@yahoo.com

Introduction

"Entrepreneurship is a driving force that encourages the creation of innovative jobs and stimulates economic growth. The power of education is in the development of competencies and skills that create an entrepreneurial mentality and prepare future leaders to solve more complex, interconnected and rapidly changing problems "(Penaluna A., Penaluna K., MS. Kallum, 2016) The European Commission has long supported and assisted the development of entrepreneurship education within the Education and Training Agenda, in order to achieve the strategic framework for Europe 2020, as its fourth long-term goal, and in order to improve creativity, innovation, and entrepreneurship, the European Commission includes these areas at all levels of education and training. The European Commission on entrepreneurship education means a system that develops and improves the individual's ability to be flexible, to develop capacity for recognition and networking (to solves complicated and interrelated problems), i.e. it is a system that guarantees that these is skills are in line with the needs of business and economic growth of the country. Education is needed not only to shape the way young people think, but also to provide the skills and knowledge that are key to developing an entrepreneurial culture.

Dynamic economies will need more young people who are capable and inspired to become entrepreneurs and start their own businesses. Therefore, reforming the education system to be more entrepreneurial is the key to society overcoming the challenges that lie ahead. In recent decades, there has been a growing interest in the concepts of economic development and entrepreneurship. There are many studies in the literature related to these important terms (Acset al., 2013; Szirmai et al., 2011; Naudć, 2011; Braunerhjelm, 2010; Caree and Thurik; 2010; Walzer, 2009; Wennekers, 2009; Audretsch et al., 2006, van Stel et al., 2005; Harper, 2003; Dejardin, 2000). The researchers concluded that while "economic development theory can still claim that there is no 'general theory' for entrepreneurship, one that could cover different development outcomes has made progress in expanding the concept and understanding of entrepreneurship in economic development" (Naudć, 2008). On the other hand, international organizations, governments and policymakers have paid more attention to the role that entrepreneurship plays in generating economic development.

The Government of the Republic of North Macedonia considers education, training, research and innovation as key factors for strengthening the national economy and the well-being of the citizens.

The subject of this research is through surveys and comparative analysis with other EU countries to get an answer whether entrepreneurship education and its greater integration in other subjects will improve the entrepreneurial spirit of the youngest population in the country, their creativity, teamwork, solving practical problems, innovation and later to start working on practical projects from generating ideas to full implementation of entrepreneurial processes. Entrepreneurial skills can be promoted through all areas of the curriculum and subjects, as well as through specific subjects related to entrepreneurship and innovation.

1. ENTREPRENEURIAL EDUCATION IN EUROPEAN SCHOOLS

1.1 Need, development, directions

Building an entrepreneurial culture and entrepreneurial spirit in EU policies over the last ten years has become increasingly important. The road to achieving this goal is recognized in the education and training of young people, which also results in intensive policy work in this area. The framework for the development of lifelong entrepreneurial learning at EU level (Lisbon Strategy 2000) is to make the EU the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more quality jobs and better social cohesion (Council of Europe union, 2000). In this strategy, the need for Europe societies to be "more entrepreneurial" is particularly emphasized. The Lisbon Strategy was accompanied by more precise documents and set out guidelines for the development of both entrepreneurship education and education as a whole. More important documents are:

- **The Concrete Future Objectives of Education Systems, 2001** - a report highlighting the need to create an appropriate environment for starting and developing an innovative business that requires skills such as education and training;

- **Green Paper on Entrepreneurship in Europe, 2003** - adopted for the regions in the pre-accession phase with the EU;

- **Recommendation of the European Parliament and of the Council on key competencies for lifelong learning, 2006** - which states that key competencies are necessary for personal achievement and development, social inclusion, active citizenship and employment;

- **Oslo Agenda for Entrepreneurship Education in Europe, 2006** - which provides frameworks for the political development of entrepreneurship education;

- **The Helsinki Communiqué on Enhanced European Cooperation in Vocational Education and Training, 2006** - introduces entrepreneurship in vocational education;

- Entrepreneurship 2020 Action Plan, 2013 - The action plan envisages all EU member states to integrate entrepreneurial competence into curricula at all levels of education - primary, secondary, higher and adult education.

According to the results of international research, all European and highly developed countries report on the importance of the development of entrepreneurship education and mention it in their educational policies, strategies, regulations or initiatives (European Commission, 2012).

1.2 Manner of integration of entrepreneurship in the education system

Examining the practice of integrating entrepreneurship education into education systems, it can be concluded that all EU countries are trying in some way to integrate entrepreneurship into the teaching process from an early age because the skills and knowledge that are developed through education are one of the few areas in which a country can create a competitive advantage. And they create the advantage by creating SMEs and their successful management that directly improves the economy and the overall cultural life in society. Two-thirds of European countries explicitly apply entrepreneurial learning at the *primary education* level, which is dominated by a transversal, horizontal and interdisciplinary approach based on learning outcomes. This is entrepreneurial learning: as an interdisciplinary approach integrated in teaching in Sweden, Norway, Iceland, Scotland, Bulgaria, France, Spain, Hungary, Cyprus, Estonia; as a separate compulsory course or integrated into other compulsory courses in Wales, Northern Ireland, Austria, Poland and Lithuania; as a separate elective or is integrated as a subject in other electives in England. In terms of teaching at the secondary school level, an integrated and interdisciplinary approach is widespread (in about two thirds of the countries), although the approach is integrated (entrepreneurship topics are integrated in different subjects) slightly more dominant in terms of the interdisciplinary approach. This is the case, for example, in Lithuania and Romania, entrepreneurial learning is a separate compulsory subject; in Bulgaria it is compulsory for students studying for technology profiles, while in Denmark and Spain there is entrepreneurship as an optional subject.

1.3 Programs and sources of funding

European countries use their own national and European sources of funding. Funding can be related to specific and broader strategies for entrepreneurship education, and can be given in another way. Countries have different ways of providing funding for entrepreneurship education. Providing a separate budget for the implementation of specific or broader Entrepreneurial education strategy is a good indicator of the importance of the strategy in a given country. In addition, countries can provide a separate budget for entrepreneurial education even if they do not have a strategy.

Whether there is a specific or broader entrepreneurial strategy education in a country, national funding for this topic can be provided by the general state budget and the Ministry of Finance. Private funds are a very important component of financing entrepreneurial education, but is underdeveloped and a more difficult way to access to finance. In some countries, in addition to national funding, there is the possibility of EU funding to support entrepreneurship education. Funding from the EU can be:

-directly, when the funds are provided directly from the European one's institutions to end users (mainly from EU programs, e.g. Erasmus +);

-indirectly, when an intermediary body between the EU institutions and the end users is responsible for managing assets and their distribution. The main source of indirect financing is the European Social Fund (ESF), which is one of the European structural investment funds (ESIF). ESIF is the EU 's main instrument for providing employment support, helping people get better work and equal conditions for starting businesses for all EU citizens. Works through investing in European human capital - helps workers, young people and all who are looking for a job. The European Commission and the EU countries jointly define and set ESF priorities and how it spends its funds. One priority is to increase employee adaptability by acquiring new one's skills and provide support to enterprises through different ways of working. The second priority is to increase the availability of employment by helping young people to move from school to the business world or helping insufficiently qualified job seekers, assistance in the form of training in order to improve the possibility of finding a job. EU countries manage assets on a decentralized basis. Operating programs review the comprehensive strategic goals agreed between Commission and EU countries on priority investments, specific objectives and further concrete measures.

Southeast European countries entrepreneurial learning support is used by SEECEL (South East European Center for Entrepreneurial Learning). It is

funded through EU funds, donors' agencies and the contribution of its member states. SEECEL 's main goal is to work on systematic approach to the development of entrepreneurial writing society in this region as well as to align national policies with EU recommendations and policies.

2. ENTREPRENEURIAL LEARNING AS A PART OF THE CURRICULUM IN RNM

2.1 Overview of the situation in the country

The Republic of North Macedonia is a country with a high unemployment rate. Unemployment is particularly high among young people, the rural population, ethnic minorities and people with lower levels of education, so one of the main challenges of the Republic of North Macedonia is job creation. These challenges can be overcome only by creating new jobs, which will have a great impact on the increased entrepreneurial activities of all citizens. In connection with this high unemployment rate in the country, many institutions must be considered in creating policies related to entrepreneurship, innovation, increasing competitiveness and the development of the education system to meet future challenges. In particular, the need for improvements in the entrepreneurial learning process has been identified. In 2014, in the Republic of Macedonia, with the support of the European Training Foundation which is an agency of the European Union and helps countries in transition and development to use the potential of human capital through reforms in education systems, training and labor market in context of the EU foreign policy, the Strategy for Entrepreneurial Learning in the Republic of Macedonia 2014-2020 has been prepared. The implementation of this strategy is expected to address the shortcomings of the latest 2012 SME Policy Index report, in particular by establishing systematic links between formal education and more thorough integration of regional experience and best practices (through SEECEL) into reforms of the formal education system. On the other hand, the cooperation between formal and non-formal education and the business sector will enable the incorporation of the real needs for entrepreneurial skills in the education system itself.

2.2 Correlation with European Union documents

Entrepreneurship in education has been introduced by many initiatives at EU level, but one of the most important, in addition to various reports and research, is the Oslo Agenda for Entrepreneurship in Europe (2006), which

aims to accelerate progress in promoting the entrepreneurial way of thinking in society in a systematic way and with effective activities. An important part of the agenda is giving concrete proposals that can be adapted to the local context by EU member states.

-In the **Action Plan for Entrepreneurship Development in EU 2020** (Re-awakening the entrepreneurial spirit in Europe), entrepreneurial learning is part of the first pillar of activities: entrepreneurial learning and training are the basis for supporting growth and opening new businesses, and the main emphasis is committed to increasing the frequency and quality of entrepreneurial education, recognizing and validating entrepreneurial learning in non-formal learning systems, developing mechanisms for opening new businesses in universities and developing a fledgling university business ecosystem to address essential societal challenges .

-**Rethinking education**: Investing in skills for better socio-economic results is another key document, where one of the challenges facing EU member states and which should be given special attention is building skills for XXI century. Again, this challenge includes entrepreneurial learning: *"Attention should be particularly focused on the development of entrepreneurial skills, as they not only contribute to creating new businesses but also to increasing the employability of young people."*

- In addition, the **EU Small Business Act** (SBA) is recognized as one of the key policy drivers for this entrepreneurial learning strategy - it results in all strategic achievements in the field of entrepreneurial learning in the pre-accession region. In addition, the SBA is an integral part of the Europe 2020 Strategy for Smart, Sustainable and Inclusive Growth and the corresponding South East Europe 2020 Strategy - SEE 2020 - is a goal-oriented strategy for the pre-accession region that reflects EU 2020 growth and employment from the components of the EU (and the pre-accession region) efforts to meet the EU's competitiveness and employment objectives (economic growth and new jobs). Hence, this entrepreneurial learning strategy is part of the country's broader EU integration efforts. Enabling small and medium-sized enterprises to compete in the wider EU market will support the RNM in meeting the EU accession criteria (Copenhagen criteria).

-The Republic of North Macedonia, as a permanent member of the **Center for Entrepreneurial Learning for the countries of Southeast Europe - SEECEL**, shares the mission of SEECEL for harmonization of policies and practices for lifelong entrepreneurship with the policies and practices of the European Union. Therefore, the Macedonian strategy for entrepreneur-

ial learning is based on the key EU recommendations for the development of entrepreneurial spirit in the overall population (Macedonian-EL-strategy-2014-2020, 2014).

2.3 Entrepreneurial learning as part of the curriculum

The developed concept of entrepreneurial learning in primary and secondary education is part of the project "Capacity Development and Innovation Support", funded by the World Bank Office in Skopje, whose main goal was to develop a comprehensive methodology for reforming entrepreneurship and innovation subjects. The Macedonian educational system provides a highly structured, progressive and continuously connected curriculum, with a focus on experiential learning and practical application of acquired knowledge. The need for comprehensive reform / modernization of the existing curriculum and the relevant modules for innovation and entrepreneurship stems from the fact that in conditions of economic and political globalization, the highly competitive business environment brings rapid changes in opportunities, employment and the way the national economy operate. Therefore, the necessary skills that young people need to acquire in the process of education are becoming wider and moving further away from the "classic".

The methodology that was developed is comprehensive and of high quality, adapted to the needs of the Macedonian society and education system. In addition, the methodology envisages the integration of entrepreneurship education in other social spheres: business and the local community.

Table 1- Conceptual framework for developing entrepreneurial skills and innovative thinking among students in primary and secondary education in the RNM

Department/ year	IX grade primary education	I year of secondary education	II year of secondary education	III year of secondary education	IV year of secondary education
Subject	Innovations	Innovation and entrepreneurship	Innovation and entrepreneurship	Innovation and entrepreneurship	Business and Entrepreneurship
The focus will be on development	Basic entrepreneurial skills	Entrepreneurial experience related to the environment	Business-related entrepreneurial experience	Entrepreneurial management experience	Entrepreneurial leadership experience

Main goal to be achieved by the end of the school year	Students should make an event that shows the economic opportunities they have discovered in Macedonia and abroad	Students should develop a social project to solve a specific problem - social entrepreneurship	Students will develop a business project that reflects the global economic opportunities that students have discovered	Students will develop and apply their entrepreneurial and managerial skills by developing a business idea	Students will use all their knowledge gained so far to establish a real or virtual company

/ Source: Polenakovic, R, Shutevski, D, Business and Entrepreneurship for IV year for high school and art education, Skopje: National Center for Development of Innovation and Entrepreneurial Learning, 2017

The Ministry of Education and Science of the Republic of Northern Macedonia with the World Bank Office in Skopje and the project: "The Skills Development and Innovation Support Project" engaged the team led by Professor Andy Penaluna from the University of Wales "Trinity St. David" who together with the group of international and domestic experts prepared the above methodology which implements entrepreneurial education in primary and secondary education in the Republic of North Macedonia.

3.RESULTS OF THE EMPIRICAL RESEARCH

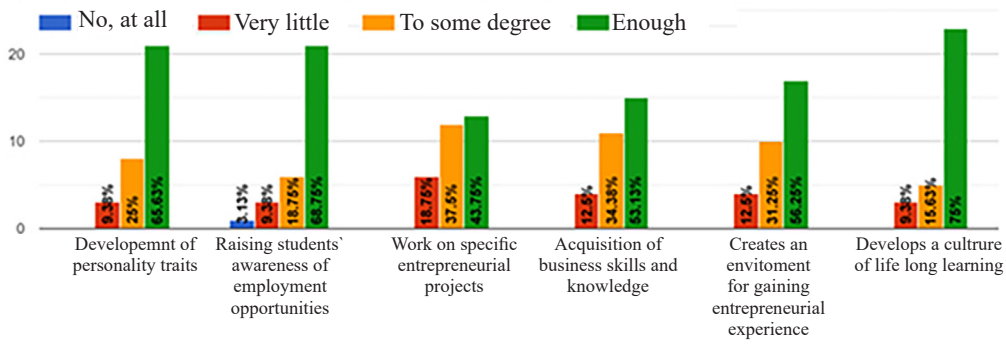
a) Methodological approach

A survey questionnaire was used as a method of empirical research. He has offered several answers to the questions and they should be answered with a rating scale of 1 - not at all, 2 - very little, 3 - to some extent and 4 - enough. The survey was conducted electronically, by sending the questionnaire via e-mail to employees of the relevant institutions. The questionnaire was sent to seventy respondents, but the survey was answered by 32 respondents, based on a randomly selected sample of teachers who teach the subject "Innovation" in primary education, the subject "Innovation and Entrepreneurship" and "Business and Entrepreneurship" in secondary education, teachers and professors who teach at the respective faculties as well as teachers who have attended trainings and educations on entrepreneurship and entrepreneurship education. The survey questionnaire was conducted anonymously in the period February / March 2021. The questionnaire was answered by 32 respondents. The received answers are graphically processed by the application itself and are presented in the next part of the paper.

b) Findings

This question represents the opinion of the respondents on what types of competencies students can acquire through entrepreneurial learning.

Graph 1. Entrepreneurial learning and acquired competencies



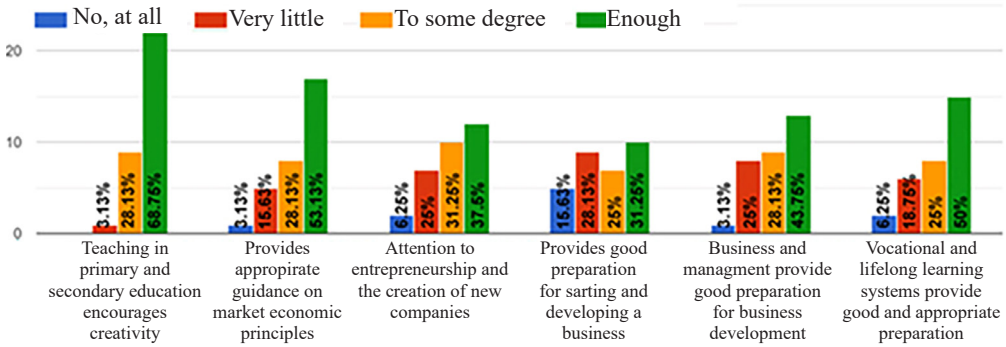
/ Source: Own research of authors'

To this question, satisfy the answers of the respondents to all offered answers about how much entrepreneurship education helps to acquire competencies such as developing the characteristics that form the basis of entrepreneurial spirit 65, 6 %, raising students' awareness of self-employment opportunities 68, 7 %, work on specific entrepreneurial projects 43, 7 %, acquisition of business skills and knowledge 53, 1 % and entrepreneurial experience 56, 2 % while most respondents agree that EL develops a culture of lifelong learning 75 %.

According to the purpose of the research, entrepreneurial learning helps students to acquire competencies such as development of personality traits, creativity, sense of initiative, risk readiness, independence, self-confidence, leadership, teamwork, raise awareness of self-employment and entrepreneurship as career opportunity, gain specific knowledge about starting a company and its successful management. Most of the respondents answered that they see EL as a key competence in modern education. This confirms the working hypothesis that EL is a process in the education system, in which students acquire a wide range of competencies that have a huge individual social and economic benefit and can be applied in every aspect of life and throughout life.

To next question, the respondents should answer to what extent they agree with the statement that entrepreneurial learning in primary, secondary and higher education is a factor for the development of entrepreneurship.

Graph 2. Entrepreneurial learning as a factor for entrepreneurship development



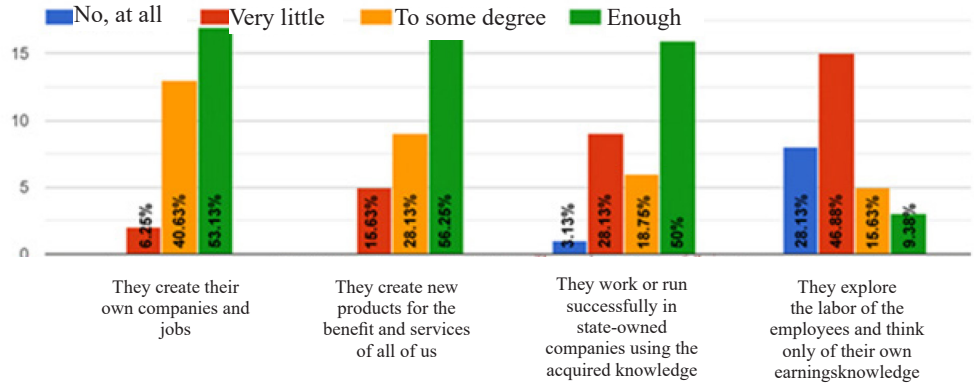
/ Source: Own research of authors'

On this question, most respondents think that teaching in primary and secondary education encourages creativity and independence – 68, 7 %, provides appropriate instructions for market economic principles 53, 1 % and pays due attention to entrepreneurship and the creation of new enterprises 37, 5 %, while starting and developing a business requires educational programs in the field of business and management 43, 7 %. 50 % of the respondents agree that vocational, vocational and lifelong education provide adequate preparation for business development and 25 % answered - to some extent.

From the conducted survey, most respondents answered that EL encourages independence and personal initiative, creation of new companies and appropriate instructions for market economic principles, while starting and developing a business requires educational programs in the field of business and management. According to the curriculum in RNM, the subjects related to entrepreneurship are compulsory from IX grade primary education to IV year of secondary education, which shows that our country is in step with European curricula. Most respondents also agree that vocational, vocational and lifelong learning provide adequate preparation for business development.

Third question should be given an opinion on what kind of people creates entrepreneurial learning.

Graph 3. Entrepreneurial learning in creating a person



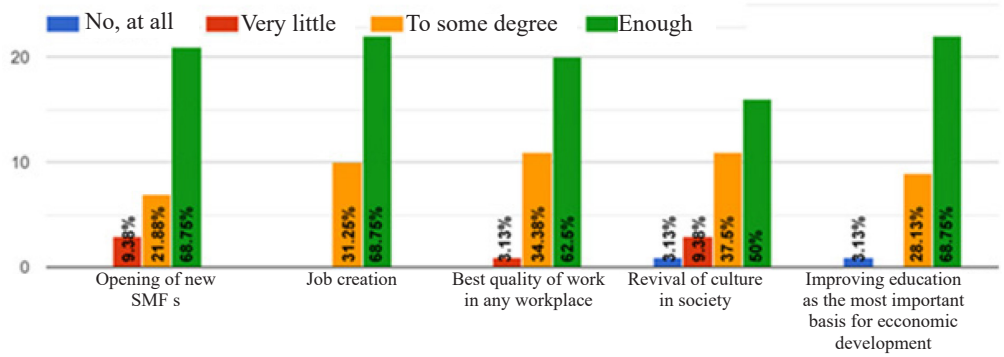
/ Source: Own research of authors'

Here the consent of the respondents is clearly expressed that PO creates persons who create their own companies and jobs, 53, 1 % agree and 40, 6 % to some extent. They create new products and services for the benefit of all, 56, 2 % agree while 28, 1 % to some extent. Successfully work in state-owned companies using the acquired knowledge answered 50 %. Most respondents to the claim that PO creates persons who exploit the labor of employees and think only of their own earnings answered with very little or not at all, i.e. 46, 6 % and 28, 3 %.

According to the research on what kind of people creates EL, most respondents answered that they are people who create companies and jobs, create products for the benefit and services of all of us and work successfully in state-owned companies using the acquired knowledge. According to all European definitions, entrepreneurship does not mean only the creation of new enterprises, but entrepreneurial behavior in all aspects of life, so the answers of the respondents correspond to modern theories of entrepreneurship. Most of the respondents to the claim that EL creates people who exploit the labor of employees and think only of their own earnings do not agree at all or do not agree at all.

This issue refers to entrepreneurship education as a factor for growth and development in a country. Respondents respond to the assessment scale.

Graph 4. Entrepreneurial learning would help the growth and development of the country



/ Source: Own research of authors'

On this issue, which is clearly visible, the majority of respondents agree that entrepreneurship education would help the growth and development of a country by creating new SMEs, new jobs or better quality of any job, reviving the culture in society and improving education as the most important basis for economic development. On all questions over 60 % of the respondents quite agree while the rest of the answers are to some extent. That EL would increase the culture in the society, 50 % of them answered with a lot and 37, 5 % to some extent.

Entrepreneurial learning would help the economic growth and development of a country by creating SMEs, new jobs and better quality of any job, reviving the culture in society and improving education as the most important basis for economic development is the answer given by the largest number of respondents from the conducted survey. As previously stated that SMEs are the backbone of the European economy, providing an opportunity for growth and development of the economy then the awareness in our country is on a par with countries with developed education system, stable economy composed of highly competitive and innovative enterprises that generate quality jobs and well-being for all citizens.

Conclusion

Entrepreneurial learning has long been neither a privilege nor a choice; it is more of a necessity and can be called a necessity in today's modern, modernized, dynamic society. In recent decades it has recorded and still records

constant growth and is already creating visible shifts and results that are reflected in all processes of human activities: life habits, ways of learning, work, behavior, culture, employment, which slowly changes the overall perspective of the education we knew so far.

The role of entrepreneurial learning means a system that develops and improves the ability of the individual to be flexible (to deal with rapidly changing problems), to develop capacity for recognition and networking (to solve complicated and interrelated problems), i.e. it is a system that ensures that these skills are in line with the needs of the business and the economic growth of the country. This education includes taking responsibility for one's own actions, positive or negative, developing strategic visions, setting goals and achieving them, ability to plan and manage projects, and motivation for success.

Examining the practice of integrating entrepreneurial learning into education systems, it can be concluded that all EU countries are trying in some way to integrate entrepreneurship into the teaching process from an early age because the skills and knowledge that are developed through education are one of the few areas in which a country can create a competitive advantage. And they create the advantage by creating SMEs and their successful management that directly improves the economy and the overall cultural life in society.

Reference

1. Acs, Z. J., Szerb, L., Autio, E., 2013. Global Entrepreneurship and Development Index", Edward Elgar Publishing, Chelthenham, p. 352.
2. Audretsch, D. B., 2007. The Entrepreneurial Society, Oxford University Press, New York.
3. Braunerhjelm, P., 2010. Entrepreneurship, Innovation and Economic Growth, Working Paper 2010:02, pp. 1-79.
4. Carree, M. A., Thurik, A. R., 2010. The Impact of Entrepreneurship on Economic Growth, in Acs, Z. J., Audretsch, D. B. (eds.), "Handbook of Entrepreneurship Research", Springer Science+Media, New York, pp. 557-594.
5. Dejardin, M., 2000. Entrepreneurship and Economic Growth: An Obvious Conjunction? ISSN 00-8, http://www.spea.indiana.edu/ids/pdfholder/IDSissn00-8.pdf. (approached on 30.1.2021).
6. European Commission, Entrepreneurship Education at School in Europe: National Strategies, Curricular and Learning Outcomes (2012). http://eacea.ec.europa.eu/ (approached on 30.1.2021).

7. Harper, D. A., 2003.Foundations of Entrepreneurship and Economic Development, Routledge, London, p. 280.
8. Lisbon European Council 23, 24 March 2000. Preparing the transition to a competitive, dynamic and knowledge -based economy.
9. Lisbon Strategy 2000. Development plan for the economy of the European Union;
10. Macedonian-EL-strategy-2014-2020-MK-version.pdf http://www.seecel.hr/UserDocsImages/Documents/Documents%20Section/SEECEL%20-%20Entrepreneurial%20Learning%20ISCED%20Level%202.pdf (approached on 22.1.2021).
11. Naudé, W. (ed.), 2011.Entrepreneurship and Economic Development", Palgrave Macmillan, New York, p. 304.
12. Naudé, W., 2008. Entrepreneurship in Economic Development, UNU-WIDER, Research Paper No. 2008/20, p. 47.
13. Penaluna, A., Penaluna, K. 2015. How to teach entrepreneurship? What is entrepreneurship education? Development Centre Opinkirjo, Finland http://www.oecd.org/cfe/leed/Entrepreneurial-Education-Practice-pt2.pdf (approached on 19.2.2021).
14. Polenakovic, R, Shutevski, D, 2017.Business and Entrepreneurship for IV year for high school and art education, Skopje: National Center for Development of Innovation and Entrepreneurial Learning.
15. Szirmai, A., Naudé, W., Goedhuys, M. (eds.), 2011.Entrepreneurship, Innovation, and Economic Development", Oxford University Press, Oxford, p. 256.
16. Van Stel, A., Carree, M., Thurik, R., 2005. The effect of entrepreneurial activity on national economic growth, Max Planck Institute for Research into Economic Systems, #0405, p. 22.
17. Walzer, N. (ed.), 2009. Entrepreneurship and Local Economic Development, Lexington Books, Lanham, p. 286.

UDK 338.486.2]:658.14:005.53}:30
3.4/.7(497.7)
(Professional paper)

BILJANA NIKOLOVSKA[*]
ZLATKO JAKOVLEV[**]
ZORAN NIKOLOVSKI[***]

FINANCIAL DECISIONS OF THE MANAGEMENT AND THEIR ROLE IN THE OPERATION OF THE ENTERPRISES IN TOURISM FIELD

Abstract

One of the essential things of management activities is making business decisions, including financial decision-making. Financial decision making in tourism management is characterized by the need for action and the existence of several guidelines for its realization. At the same time, the connection of the listed activities to the function of proper financial decision making is the basic requirement and task of the financial manager in tourism. Of course, all this is done in the direction of achieving the ultimate goal, increase in shareholder share price. In that sense, financial management in the enterprises in tourism field should give an answer to the optimal use, i.e., use of funds, provision of sources of financing, providing sources of financing, providing optimum cost of the engaged capital, deciding on the distribution of profits, as well as the dividend policy.

Key words: financial decisions, management, financial management, tourism, tourist enterprises,

JEL Classification: M5

[*] Ph.D., University Goce Delcev – Shtip, Faculty of Tourism and Business Logistic – Gevgelija, email: zlatko.jakovlev@ugd.edu.mk
[**] M.Sc., Public Secondary School for Tourism and Hospitality "Lazar Tanev" – Skopje, email: nikolovska.biljana@yahoo.com
[***] M.Sc., Public Secondary School for Tourism and Hospitality "Lazar Tanev" – Skopje, email: nikolovskizoran@yahoo.com

Introduction

When it comes to financial decisions of the management, it can be emphasized that this research has both scientific and practical objective. The scientific objective refers to certain theoretical knowledge that if quality financial decisions are made, the efficiency and effectiveness of enterprises in tourism field will increase. On the other side, the practical objective is related to a certain implementation of theoretical knowledge in practice. More specifically, the practical objective is closely related to the scientific one. The practical objective of the research is to implement the revealed theoretical knowledge so as to enrich the management process with quality financial decisions that will contribute to the dynamic tourism development. Therefore, the practical objective of this research has wide dimensions as it should mobilize all the factors that are both directly and indirectly involved in tourism, i.e., are interested in this issue.

The research subject of this paper is making quality financial decisions and their role for effective and efficient operation of tourism enterprises as well as tourism development. This paper is expected to create a clear picture of the reflection of financial decisions in companies in tourism field. Theoretical research and understanding of the role and importance of financial decision-making by management will determine the basic ways of tourism development. The complex treatment of the subject in the paper is expected to be a benefit from a theoretical and practical point of view. In that way, it would contribute to the dynamic tourism development and its adequate promotion.

1. THEORETICAL AND METHODOLOGICAL APPROACH IN RESEARCH

For efficient realization of any empirical research, it is necessary to first prepare a research project. The research project covers several basic phases:

determining the purpose and subject of the research;

- setting hypotheses;
- making the sample (selection of the sample);
- development of methodological instruments for data collection in the field;
- field data collection;
- data processing;

• interpretation of data, i.e., making the study.[1]

1.1. Research objectives

This research has a scientific and practical objective. The scientific objective refers to certain theoretical knowledge about the financial decisions of the management and their role in the operation of enterprises in tourism field, and the practical objective is related to the implementation of some theoretical knowledge in practice.

1.1.1. Scientific objective

The scientific objective is to reveal certain theoretical knowledge about the financial decisions of the management, their role and significance for the operation of companies in tourism field. The scientific objective of this research is to discover new knowledge about how if quality financial decisions are made, the efficiency and effectiveness of enterprises in tourism field will increase. Namely, through the method of analysis, through an interview with the representatives of the management team of several renowned tourist enterprises in the Republic of Macedonia, we determined the significance of the financial decisions for effectiveness and efficiency of the enterprises in tourism field.

1.1.2. Practical objective

This research also has a practical objective related to a certain implementation of theoretical knowledge in practice. It also aims to implement the revealed theoretical knowledge so as to enrich the management process with quality financial decisions that will contribute to the dynamic development of tourist enterprises, and thus tourism. Therefore, the practical purpose of this research has wide dimensions, because it should mobilize all factors that are directly and indirectly involved in tourism.

1.2. Subject of research

The subject of the research of this paper is the process making quality financial decisions and their role for effective and efficient operation of tourist enterprises as well as for tourism development. This paper is expected to

[1] Todorović, A., (1978), Metodologija istrazivanja liobodnog vremena, Savremena Administracija - Beograd, Beograd, 51, presented according to Buntasheski, B., (1994), Socio-psychological studies of the activities of the visitors in the tourist place, Prosvetno delo - Skopje, Skopje, 52

create a clear picture of the theoretical foundations of financial management in tourism. It is important to understand the perception of financial decisions in tourist enterprises that contribute to creating a foundation for understanding the key activities to expand the opportunities for creating an adequate tourism offer that will be based on the sophisticated desires of tourism demand.

The complex treatment of this issue in the paper would contribute to the dynamic development of tourism and its adequate promotion.

In the subject of this research three concepts that need to be operationalized are analysed:

- financial decisions
- management in tourism and
- enterprises in tourism field.

1.2.1. Financial decisions

The essence of managerial activities is decision making. Managerial decisions are made in situations that are characterized by needs for action and the existence of multiple directions of actions.[2] Simultaneous connection of the mentioned activities in order to make the right decisions is a basic condition and task of the financial manager.

In companies in tourism field, this goal (profit maximization) is achieved by creating value for employees (shareholders). This value is expressed by the market value of the price (share) of the tourist enterprise, which is the result of three main decisions:

1. investment decision (investment),
2. decision on financing and
3. decision on dividend and retained earnings.

1.2.2. Management in tourism

Management is incorporated into every segment of modern corporations. Hence, the need arises from the great search for competent persons, in order to present the most important key to success. The importance of management is also reflected in the permanent growth of managerial jobs. Those who have proven to have the necessary ability to be successful managers have done well in terms of their qualifications.[3] Within the business enterprises where the operation can not be imagined without the activities of the management, it is

[2] Dale, E., (1970), Ibid, 388

[3] Falmer, M., R., (1994), The New Management, Open Society Institute Macedonia, Skopje, 18

considered a kind of technology that enables efficiency and effectiveness in enterprises, especially in tourism.[4]

1.2.3. Enterprises in tourism field

Tourism is entering a period of transformation, in which only those tourism companies that are better managed and provide better services will survive. Such a statement also applies to tourist enterprises in the Republic of Macedonia. With its rich and diverse content, the offer presents a wide range of tourist services offered to consumers.

The human factor, the culture of the staff and their educational and professional preparation to serve the visitors with sincere pleasure, becomes a significant factor of effectiveness and a decisive moment in attracting the consumers of tourist services. The days when accommodation and food were the dominant segments of the tourist offer are far behind us. In fact, the free time of the visitors in the tourist place should be filled with various contents.[5] Those tourist enterprises that meet the needs of visitors with high quality services and a variety of animation activities will ensure not only survival, but also their growth and development.

1.3. Hypotheses

One of the most important issues in empirical research is the formulation and verification of hypotheses. "It is a claim that can be put to the test in order to prove its worth. The hypothesis may appear to be contrary to or consistent with ordinary understanding. It can be proven whether it is true or false. In any case, it leads to an empirical examination. Whatever the outcome, the hypothesis is a question posed in such a way that an answer can be obtained. "It is an example of organized skepticism of science, a refusal to adopt any claim without empirical verification".[6] Each hypothesis shows the relationship between independent and dependent variables.[7] In this empirical research, independent variable is the following: where is the position of the respondent in the tourist enterprise, and the dependent variables are the financial decisions of the management.

---

[4] Mojsoski, V., (2001), Fundamentals of Management, Faculty of Tourism and Hospitality - Ohrid, Ohrid, 17

[5] Jakovlev, Z., (2000), Animation in Tourism – the most important Segment of the Tourist Offer, Economics and Business, Journal of Theory and Practice, May, 21

[6] Gud, V., Het, P, (1966), Metodi socijalnog istraživanja, Belgrade, presented according to Buntasheski, B., (1994), Socio-psychological studies of the activities of the visitors in the tourist place, Prosvetno delo - Skopje, Skopje, 55.

[7] Buntasheski, B., (1994), Socio and Psychological Studies of the Activities of the Visitors in the Tourist Place, Prosvetno delo - Skopje, Skopje, 55.

1.3.1. General hypothesis

If managers make quality financial decisions, management will have a positive role for the successful operation of tourist enterprises and great importance for tourism development.

1.3.1.1. Special hypothesis

The special hypothesis is the following: it is assumed that making quality financial decisions increases the effectiveness and efficiency of enterprises in tourism field.

1.4. Research methods and organization

1.4.1. Research methods

General and special methods are used in the research of social phenomena. "All social sciences, in addition to general methods, apply and use special and specific methods that are appropriate for data collection in the relevant field".[8] Hence, this research is based on a certain methodology. In processing the data obtained from the research, we applied the method of analysis and the method of synthesis.

1.4.1.1. Method of analysis

The term "analysis" comes from the Greek word "analysis" which means the dismemberment of a whole in its constituent parts.[9] Therefore, breakdown is a basic feature of the analysis method. In fact, dismemberment means dividing a complex object into parts of which it consists in order to perceive their qualities, determine the quality of the complex object and indicate their effect on it.[10] Namely, on the tabulated data, we applied a breakdown of their content and gave an explicit explanation.

1.4.1.2. Synthesis method

The synthesis method is a procedure of scientific research and explanation of reality and by way of synthesis of simple judgments into more complex ones. Synthesis is a process of generalization in which all more abstract

[8] Todorović, A., (1978), Ibid, 58.
[9] Stojanovikj, T., (1990), Analysis of the Operation of Enterprises, Association of Accounting and Financial Workers of Macedonia - Skopje, Skopje, 21.
[10] Stojanovikj, T., (1990), Ibid, 156

notions are formed in comparison with the previous notions. Synthesis is a way of systematizing knowledge according to the legality of formal logic, as a process of creating theoretical knowledge in the direction from the specific to the general, i.e, from the type to the gender. We turned all the findings obtained through the method of analysis, using the method of synthesis, into conclusions from which we further gave recommendations for improving the financial decisions of management, as well as their role in the operation of enterprises in tourism field.

1.4.2. Research methodological techniques

In the defined subject of research we used the following methodological techniques:

- interview with representatives of the management team from several renowned enterprises in tourism field
- scaling method, and
- statistical method.

1.4.2.1. Interview

We applied the interview to representatives of the management team in several enterprises in tourism field. It aimed to get a clear picture of their views, in terms of the importance of financial decisions to ensure the growth and development of enterprises in tourism field. We conducted the interview with management teams from tourist enterprises in the Republic of Macedonia because in our view they are the most competent entities to ensure their business effectiveness and efficiency.

1.4.2.2. Scaling method

This method is used to obtain data from multiple questions in the interview. We applied the scaling to activate the possibilities for the significance of financial decisions to increase the effectiveness and efficiency of tourist enterprises. During the formulation of the degrees, the statistical processing of the data was taken into account, which was the next step.

1.4.2.3. Statistical method

This method is applied in this research because it achieves greater accuracy in the study of phenomena. We used the following statistical technique:

calculating percentages and calculating the statistical significance X^2 (XI - square). Statistical data processing was performed by a computer.

1.4.2.4. Sample preparation and selection

During the preparation and selection of the sample, its representativeness was taken into account. Representativeness depends on the size and the method of obtaining it. The size of the sample depends on the number of respondents taken for testing. The sample should contain at least 100 members of the population in order to be able to draw reliable statistical conclusions.[11] In this context, this research through an interview covered 200 managers of companies in tourism field, as the most competent in ensuring their business effectiveness and efficiency.

1.4.2.5. Realisation of the research

This phase of the research had an operational character. The research was conducted in the period from June 2016 to September 2017 in a number of companies in tourism field. We came across a full understanding and help from the management team of the tourist enterprises.

2. Analysis of the research data

This part is the most important part of the paper and is actually the final stage of the research.[12] By using the analysis method, we also analysed the empirical data obtained from the interview with the managers of several tourist enterprises, after we systematized them, tabulated them, determined the number of respondents, calculated the percentage according to the number of respondents and calculated the statistical significance X^2 (Chi square).

2.1. Respondents' views on the role of financial decisions for the effectiveness and efficiency of tourist enterprises

The foundation of this research is the analysis of the empirical data obtained from the interview with the managers of several tourist enterprises, after I systematised them, tabulated them, determined the number of respondents and calculated the percentage according to the number of respondents. In that connotation, on the tabular data, based on the answers of the respondents, I

[11] Buntasheski, B., (1994), Ibid, 60.

[12] Buntasheski, B., (1995), Psychology of Tourism and Catering, University "Ss. Kliment Ohridski "- Bitola, Faculty of Tourism and Hospitality - Ohrid, Ohrid, 238.

applied a breakdown of their content and gave a precise explanation.

Therefore, the special hypothesis reads: "It is assumed that making quality financial decisions increases the effectiveness and efficiency of tourist enterprises."

Table 2 presents the views of respondents on the role of financial decisions for the effectiveness and efficiency of tourist enterprises according to the function they perform in it, which were realized through an interview:

Table 1. Attitudes of the respondents on the role of financial decisions for effectiveness and efficiency of tourist enterprises according to the function they perform in the tourist enterprise

Ordinal Number	Do you consider that financial decisions are an important factor for the effectiveness and efficiency of the tourist enterprise?				
	Respondents according to the function in the tourist enterprise	Yes	No	I don't know	Total:
1.	President of the Board of Directors	13 (65.00%)	2 (10.00%)	5 (25.00%)	20 (100.00%)
2.	General Manager	25 (73.53%)	2 (5.88%)	7 (20.59%)	34 (100.00%)
3.	Manager	47 (85.46%)	4 (7.27%)	4 (7.27%)	55 (100.00%)
4.	Supervisor	86 (94.50%)	2 (2.20%)	3 (3.30%)	91 (100.00%)
Total:		171 (85.50%)	10 (5.00%)	19 (9.50%)	200 (100.00%)

Based on the analysis of the data in Table 2, which refer to the attitudes of the respondents about the role of financial decisions for effectiveness and efficiency of the tourist enterprises according to the function they perform in the tourist enterprise, two tendencies are characteristic. The first tendency refers to the respondents who hold the position of president of the board of directors, general manager, supervisor and the total number of respondents. The second tendency refers to the respondents holding managerial position. Namely, the first tendency refers to the attitudes of the respondents holding the position of president of the board of directors, general manager, supervisor and total number of respondents. Most of them emphasized that financial

decisions are important for the effectiveness and efficiency of the enterprises in tourism field. In that connotation, the presidents of the board of directors with a percentage of 65.00% emphasized that the financial decisions are important for the effectiveness and efficiency of the enterprises in tourism field, then general managers with a percentage of 73.53% share the same attitude. Also, the supervisors with a percentage of 94.50% and the total number of respondents with a percentage of 85.50% support this statement. In second place are the views of respondents who stated that they do not know whether financial decisions are important for the effectiveness and efficiency of tourist enterprises (the percentage of responses of respondents holding the position of president of the board of directors is 25.00%, for general manager it is 20.59%, for supervisor the percentage is 3.30% and for the total number of respondents it is 9.50%). Third place is for the opinions of the respondents who pointed out that financial decisions are not important for the effectiveness and efficiency of tourism companies (the percentage of respondents holding the position of president of the board of directors representing this position is 10.00%, for general manager it is 5.88%, for supervisor it is 2.20% and for the total number of respondents it is 5.00%).

The second tendency refers to the attitudes of the respondents holding managerial position. In fact, according to the second tendency, when asked in the interview: "Do you think that financial decisions are a significant factor for the effectiveness and efficiency of the tourist enterprise?", The majority of respondents or 85.46% said that financial decisions are an important factor for effectiveness and efficiency of the tourist enterprise, while with an identical percentage of 7.27% are the views of the respondents who pointed out that financial decisions are not a significant factor for effectiveness and efficiency of the tourist enterprise and the opinions of respondents who did not know that financial decisions are a significant factor for effectiveness and efficiency of the enterprise in tourism field.

The differences in the answers of the respondents according to the function they perform in the tourist enterprise and the role of the financial decisions for effectiveness and efficiency of the enterprises in tourism field, based on the calculated X^2 (Chi square), are statistically significant at the level of 0.01.

Conclusion

The topic covered in this paper is "Financial Decisions of the Management and their Role in the Operation of the Enterprises in Tourism Field".

The motivation for elaboration of this topic was the fact of the great importance of the management and business financial decisions for effective and efficient operation of tourist enterprises, and thus the development of tourism. It is also worth mentioning that there are a small number of researches in this field, within our area, so it should be further studied from a scientific and professional point of view given its relevance. According to the views of the respondents according to the function they perform, a general view can be drawn that by making quality financial decisions, the effectiveness and efficiency of enterprises in tourism field increases.

In our opinion, the proposals for improving the financial decisions and their role in the operation of the companies in tourism field are the following:

- Transfer of new and positive ideas from the management and financial management from the developed tourist countries having in mind the specifics of our tourism economy;
- Preparation of professional reports and international standards for management and financial management, undertaking activities for education of managers, including financial managers through permanent education (participation in various management courses, seminars, symposia, use of management literature, encyclopedias, etc.), readiness especially by the top managers to accept and realize certain creative ideas and to hire young management teams that have more modern insights and that will implement modern methods of work, especially in making financial decisions;
- Financial management should have an engineering approach in its profession. Most banking economists have not mastered managerial techniques and methods. Financial transactions should be approached with engineering precision, and not on the basis of conceptual, executed and final projects based on statics, dynamics, resilience and profit. An element of trade should be present in the method of financial work. The financial manager should first be a trader, then a banker, then an economist;
- Financial management should strive for the employees in tourism to have an economic approach in their work. This repeatedly valorises the effects of providing tourism services;
- Financial management in tourism should know that income is not as important as wisdom in spending money;
- Financial management in tourism should keep a daily review of all costs in the tourist enterprise. Based on that review, it can be concluded

where the money is wasted unnecessarily. The review will also show the justification of individual costs;

- Financial management in tourism should know that the use of other people's funds should be permanently analysed. The biggest problems with the financial sector arise in connection with the use of other people's funds. The price of the borrowed capital is often analyzed and on the basis of that element a decision is made on the justification of its use. If the profit is greater than the cost of borrowed capital, the use of other people's funds is justified, and vice versa.
- Financial management in tourism should pay special attention to cheap loans and categories of other costs or expenses. Cheap loans often have high costs; in decentralized tourist enterprises, each organizational unit should remain a profit center. At the level of each profit center, financial management should follow: income, expenditure and financial result. Research shows that those tourist enterprises that measure results are successful, and vice versa.
- Financial management in tourism should strive as much as possible to simplify the system of payment for tourist services. It is especially important for the payment to be made with credit cards and other means of payment.

After all that, the great importance of financial decisions of the management and their role in the operation of the tourist enterprises, as well as tourism development is reaffirmed. Unfortunately, it is concluded that not enough attention is paid to this issue in the companies in tourism field in the Republic of Macedonia and it is high time to make fundamental changes in the attitudes of managers involved in tourism being part of the management as the most important segment of the tourist offer, and as an important factor for quality services. However, there is a strong impression that there is no adequate readiness of the top managers in the Republic of Macedonia, with certain exceptions, to implement that initiative. New professional staff should be promoted who would overcome the indifference of the current managers in tourism. They would completely accelerate the development of tourism. It is necessary to make maximum use of and valorize the tourist values that our country has at its disposal by including professional management, because it has a crucial role for effective and efficient operation of enterprises in tourism field, by making quality financial decisions. In this context, we must not forget the fact that one of the most important factors for rapid tourism development and greater competitiveness in the domestic and international tourism market is the management in tourism.

References

1. Buntasheski, B., Socio and Psychological Studies of the Activities of the Visitors in the Tourist Place, Prosvetno delo - Skopje, Skopje, 1994;
2. Buntasheski, B., Psychology of Tourism and Catering, University "Ss. Kliment Ohridski "- Bitola, Faculty of Tourism and Hospitality - Ohrid, Ohrid, 1995;
3. Gud, V., Het, P., Metodi socijalnog istraživanja, Belgrade, 1966, presented According to Buntasheski, B., Socio and Psychological Studies of the Activities of the Visitors in the Tourist Place, Prosvetno delo - Skopje, Skopje, 1994;
4. Dale, E., Readings win Management: Landmarks and New Frontiers, MacGraw - Hill Book Company, New York, 1970;
5. Jakovlev, Z., Animation in Tourism - the most important Segment of the Tourist Offer, Economics and Business, Journal of Theory and Practice, Euro - Mak - Company, Skopje, April, 2000;
6. Mojsoski, V., Fundamentals of Management, Faculty of Tourism and Hospitality - Ohrid, Ohrid, 2001;
7. Stojanovikj, T., (1990), Analysis of the Operation of Enterprises, Association of Accounting and Financial Workers of Macedonia - Skopje, Skopje, 1990;
8. Todorović, A., Metodologija istrazivanja slobodnog vremena, Savremena Administracija - Belgrade, Belgrade, 1978, p. 51, presented according to Buntasheski, B., Socio and Psychological Studies of the Activities of the Visitors in the Tourist Place, Prosvetno delo - Skopje, Skopje, 1994;
9. Falmer, M., R., The New Management, Open Society Institute Macedonia, Skopje, 1994;

UDK 331.5-055.2:303.721(497.7)
(Original scientific paper)

MARIJA ANDONOVA*

DETERMINANTS OF FEMALE ACTIVITY IN MACEDONIAN LABOR MARKET

Abstract:

Female participation in the labor market is very important for the economic and social growth of countries. Many studies show that economically active females have an important role to reduce poverty by assuring welfare of households. Female participation in the labor market is also important for women's relative economic and social status compared to men and for their economic empowerment.

The aim of this research is to investigate the determinants which have influence on the female participation in the labor market in North Macedonia, in the context of the traditional literature and studies in this area, but also to add a new approach by including the effect of the overall cultural context on women's decision whether to supply their labor. The latter represents a major contribution of the paper to current knowledge. The methodology is based on previous research by Contreras and Plaza (2010). We found that the cultural context is an important determinant of the females' labor market activity which is important in designing government support and policies for promoting females' activity.

Keywords: Female labor force participation, social norms, culture
JEL Codes: D1, J2, B54

Introduction

Activity rates in Macedonia for both genders are significantly below the activity rates for EU28. This is especially true for the activity rates of women in Macedonia which are very low compared to the activity of women from EU28 as well as compared to man in Macedonia. Widest gender gap in participation rates in Macedonia is recorded in 2009 (27.6 pp.) and narrowest in 2013 (24.1

* Ph.D., University American College Skopje, Republic of Macedonia, nacova@uacs.edu.mk

pp.). In 2018, the gender gap in participation rates in Macedonia is 26.1 pp. Analysing activity rates by gender and age group showed that gender gap in participation rates increases with age, from 17.4 pp. (pp.) for young individuals aged 15-24 to 35.4 pp. for age group 55-64. Analysing participation rates with respect to educational level and gender revealed that low participation rates of individuals with primary education or less are mainly due to very low participation rates of females with primary education or less. Both genders have highest participation rates for completed tertiary education. According to the data from Eurostat, 14.5% of the inactive females in Macedonia reported that they would like to work but they are not seeking employment whereas 85.5% of the inactive females reported that they do not want to work. Main reasons not searching for a job for females in Macedonia are due to reported family/caring responsibilities and other personal responsibilities. 53.5% of the females in Macedonia reported that they are not looking for employment because of family/caring responsibilities. Even more, additional 43% of the inactive females in Macedonia reported that they are not looking for job due to other family and personal responsibilities.

Researchers have tried to provide possible explanations for differences in female participation rates across the world. The focus of the studies is on different sets of factors that may affect a woman's decision to participate in the labor force. Those can be grouped into: i) individual factors (age of a women, education, marital status, number and age of children, etc.), ii) household-related factors (employment of the spouse, education of the spouse, household income, etc.), iii) macro-factors which stem from the level of development of a country, growth of the economy, overall unemployment rate, etc. Beside the standard socio-economic approach there are other perspectives from which it is possible to interpret female labor force participation. These perspectives include social and cultural aspects of the population (Fortin, 2005; Contreras and Plaza, 2010; Blau et al, 2013, Camussi, 2013; Hosney, 2016). An integrated approach which includes multiple variables related to family and individual social context along with economic settings can reveal which items have a major influence on female labor force participation. The aim of this study is to examine the factors that have an influence on women's participation in the labor market in North Macedonia, with a focus on the cultural context and its impact on women's decision to supply labor. Apart from the standard factors used in this type of literature, like the individual characteristics of women, and characteristics of the household we add an additional factor that is the culture of women as a factor that may affect female labor force participation. Following the method developed by Contreras and Plaza (2010) we measure the culture trough two indexes. First, the Female

Perception of Machista Cultural Context Index which measures whether women have internalized machista cultural values or not and the Female Conservative Index which measures whether women possess conservative culture values towards family, marriage and children. Therefore, the main contribution of our study is twofold: i) we provide a quantitative analysis of the female labor supply in North Macedonia, and ii) we add an additional set of factors to the traditional ones, that are related to the cultural context.

This paper is organized as follows. After a brief review of the current knowledge on the factors affecting female supply, to meet the aim of this paper, we empirically assess the main determinants of female inactivity by using data from North Macedonia. The final section concludes the paper.

1. LITERATURE REVIEW

Findings from Macedonia indicate that increase in educational attainment of women increase the probability of participating in the labor market (World Bank, 2008; World Bank, 2015; Abazi and Atanasovska, 2016). Age of the female increases the probability of participating in the labor market (Abazi and Atanasovska, 2016; Mojsoska-Blazevski, 2017) and children reduce the probability of participation in the labor market (World Bank, 2008, Mojsoska-Blazevski, 2017). Findings are mixed when marriage and its influence on FLFP is examined (Abazi and Atanasovska, 2016; Mojsoska-Blazevski, 2017). Traditional role of the women in the household is recognized as significant factor of female labor force participation (World Bank, 2008, World Bank, 2015, Mojsoska-Blazevski, 2017).

In the report from World Bank (2008) in which the profile of the labor market in Macedonia is investigated for the period between 2004 and 2008, a probit model is used in order to estimate the effect of several demographic characteristics on the probability of participation in the labor market for males and female. Results regarding the examined factors which influence female labor force participation are following: if a head of the household is female then she has 5 percent lower probability to participate in the labor market compared to female who is not a head of a household; each child present in the household who is younger than 7 years reduces female labor force participation by 3 percent; females with completed secondary of tertiary education have between 24 and 50 percent higher probability of participation in the labor market compared to females with completed primary education or less. Females with non-Macedonian origin have 35 percent lower probability of participation in the labor market than females with Macedonian origin.

The study found that household duties are most important determinant of females' inactivity in Macedonia. Around 55 percent of females who were not participating in the labor market were housewives. This proportion varied by educational level: 68 percent of females with finished primary education or less were not participating in the labor market due to household duties and 21 percent of females with secondary or tertiary education were not participating in the labor market for the same reason. The quantitative analysis of this report was followed by qualitative analysis that also revealed interesting findings. Female from non-Macedonian origin older than 35 who have never participated in the labor market claimed that her age restricts her of participation in the labor market. Mother of small child found her marriage as a barrier of hers participation in the labor market claiming that there is a high level of discrimination toward married females with small children. Many females mainly from non-Macedonian origin reported the discouraged worker effect. A large part of females from non-Macedonian origin reported that their responsibilities as caregivers to children or the elderly in the household restricts them to participate in the labor market.

According to report from World Bank (2015) education is found to have influence on female labor force participation and yet, 51 percent of them do not go beyond primary education. Females with primary education or less are 2.5 times less likely to participate in the labor market compared with males with same educational level. This gender gap does not exist when females with tertiary education are compared with males with same educational level. When background characteristics are controlled, education have greater impact on female labor force than on male; this effect is almost four times bigger for completion secondary and tertiary education. In this report is explained that such effect could arise from the fact that females without education have less prospects to find job and those females usually accept traditional gender norms. Traditional norms especially among the low educated females are preventing them to enter the labor force in Macedonia (World Bank, 2015). Traditional gender norms have strong influence on the labor market activity among ethnic minorities in Macedonia. Qualitative research of the World Bank (2015) revealed that females in Macedonia face several barriers to participate in the labor force like: social norms especially for ethnic minorities, limited care options for children and elderly in the household and a lack of flexible working arrangements. Discouraged worker effect is present in older married females of Macedonian ethnicity. Limitation of child-care options is explained trough enrolment rates in preschool: only 25 percent of children in Macedonia are enrolled in preschool compared to 75 percent in Europe and Central Asia.

Part-time working arrangements are rare in Macedonia and this affects females in particularly. Lack of this type of working arrangement females find as a barrier of their labor force participation.

Abazi and Atanasovska (2016) were investigating female labor force participation in Macedonia using household data survey in cooperation with UNDP Macedonia in 2009. Their empirical approach relies on the neoclassical economic theory extended with some contextual factors of the Western Balkans. Abazi and Atanasovska (2016) found that an increase of the level of educational attainment by one level increases the probability of participation in the labor market by 9.5 percent. Age is also found to be significant following the inverted U-curve where maximum participation is reached at the age of 39. Opposite to other findings from the literature, marriage is found to positively affect female labor force participation. The probability that married female participate in the labor market is 10 percent higher compared to unmarried females. They explain such result with the economic situation in Macedonia such that the low living standard of the population is boosting the female labor force participation. The probability of females from Macedonian ethnicity to participate in the labor market is 15 percent higher than females from other ethnicities.

Mojsoska-Blazevski et al. (2017) investigates female inactivity in Macedonia. Their research is based on data collected from 2, 456 respondents-females. In their research, age is found to be significant and each additional year of age increases the chances for inactivity for 0.7 percent. They found that females from Albanian ethnicity have 15 percent higher probability of being inactive relative than females from Macedonian ethnicity. Single females have lower probability of 5.6 percent to become inactive than married females. Regarding education they found that females with secondary education have 10 percent lower probability to become inactive than females with primary education and females with tertiary education have 23 percent lower probability to become inactive than females with primary education. Employment status of the husband is also found to be significant for female inactivity. Females with employed husbands have lower probability to become inactive in the labor market. The number of children in the household is found to increase the probability of female inactivity. They also explored the influence of the culture on female inactivity and found that there is a rather strong relationship between the culture, norms and traditions and the female labor supply. Females that hold conservative perception towards the culture and social norms are more likely to stay inactive. In other words, based on significance of the cultural index, social norms, tradition and stereotypes have strong influence

on female inactivity. Using econometric technique, these authors were able to profile the typical inactive female in Macedonia. Based on their research, the inactive females in Macedonia are over 50 years, from Albanian ethnicity, usually married or have partner, with finished primary education, living in low-income households, living in the capital or other large town in Macedonia.

2. DATA AND METHODOLOGY

1.1 Methodology

To meet the aims of this research we will use data from the World Value Survey (WVS). The WVS is a large-scale, cross-national, and longitudinal survey research program on basic human values. It provides insights into the ideas, beliefs, preferences, attitudes, values and opinions of citizens all over world.

We use dataset from WVS North Macedonia. We regress the dependent variable (dummy variable 1=active female, 0=inactive female in the labor market) on a set of variables grouped into: i) individual factors (age of a women, education, marital status, number and age of children, etc.), ii) household-related factors (household income, type of habitat) based on the findings of the literature review.

The econometric specification is as follows:

$$P(Y_i=1)=\alpha+\beta A_i+\gamma B_i+ \gamma C_i +\mu i,$$

where Y_i takes value of 1 if the woman participates in the labor market and 0 is she is inactive regarding participation in the labor market., A is a matrix of individual factors as variable, B is a matrix of household characteristics, while C is a matrix that represents cultural and values-related variables.

To explain how culture influences female labor force participation, we will follow the model of Contreras and Plaza (2010). These authors argue that economic models are not taking into account cultural variables and their influence on female labor market participation. In order to examine the influence of the culture they have developed two indexes. Female Perception of Machista Cultural Context (FPMCC) Index measures whether women have internalized machista cultural values or not. Female Conservative Index measures whether women possess conservative culture values towards family, marriage and children.

Female Perception of the Machista Cultural Context Index identifies whether women demonstrates a tendency to approve or disapprove the machista

cultural aspects and behaviors consistent with a machista view. Table 1 shows how Female Perception of the Machista Cultural Context Index is built within the available data set from WVS. This variable assigns value of 1 when the woman surveyed is at least in agreement with statement one, and is at least in disagreement with statement two and three. Otherwise, the variable takes a value of 0.

Table 1: Female Perception of Machista Cultural Context (FPMCC) Index

	Agree/ Moderately agree	**Disagree/ Moderately disagree**
Man should have more right to a job than female	**X**	
Both the husband and wife should contribute to household income		**X**
Men should take as much responsibility as women for the home and children		**X**

Source: Based on Contreras and Plaza, 2010.

The Female Conservative Index has a value of 1 if women tend to agree with statement one and disprove statements two and three. Otherwise it has value of 0.

Table 2: Female Conservative Index

	Agree/ Moderately agree/approve	**Disagree/ Moderately disagree/ Disapprove**
If someone says a child needs a home with both a father and a mother to grow up happily, do you tend to agree or disagree?	**X**	
If a woman wants to have a child as a single parent, but she doesn't want to have a stable relationship with a man, do you approve or disapprove?		**X**
It is alright for two people to live together without getting married		**X**

Source: Based on Contreras and Plaza, 2010.

Variables used in this research are presented in Table 3.

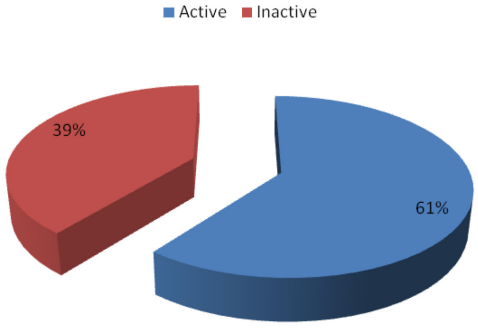
Table 3: Description of variables

Activity of the female in the labor market	**1=active** **0=no active**
Age of the female	Continuous variable
Age squared	Continuous variable
Marital status	1=married 0=otherwise
Level of education of the woman	Edu1: 1=primary or less, 0 otherwise Edu2:1=completed secondary education, 0=otherwise Edu3: 1=tertiary education or higher, 0=otherwwise
Number of children	Discrete variable
Religious person	1=yes; 0=otherwise
Income scale of the household	Inc1: 1=poor, 0 otherwise Inc2: 1=working class, 0 otherwise Inc3: 1=middle class, 0 otherwise Inc4: 1=upper class, 0 otherwise Inc5: 1=owning class, 0 otherwise
Rural/Urban	1=female lives in urban area 0=female lives in rural area
Female Perception of the Machista Cultural Context (FPMCC) Index	1=female have internalized machista cultural values 0=otherwise
Female Conservative Index	1=female have conservative cultural values 0=otherwise

1.2 Descriptive statistics of the sample

This research is based on responses of 965 women from North Macedonia, from which 39% reported that they are inactive on the labor market while 61% reported that they are active on the labour market (Figure 1).

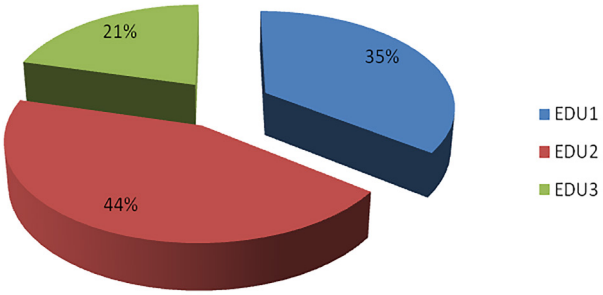
Figure 1: Share of females based on labour market status



Source: Authors own presentation based on data from WVS

The average age of the females in the sample is 41, 24 years with variation around the mean of 14.93 years. Youngest female in the sample is 18 years old, while the oldest one has 83 years. The average number of children is 1.67 with standard deviation of 1.26. Maximum number of children reported is 8. 71.7% of the females are married, 34.1% live in rural area and 77% reported that they are religious. 35% of the females from the sample reported that they have finished primary education or less, 44% finished secondary education, while 21% have tertiary education (figure 2).

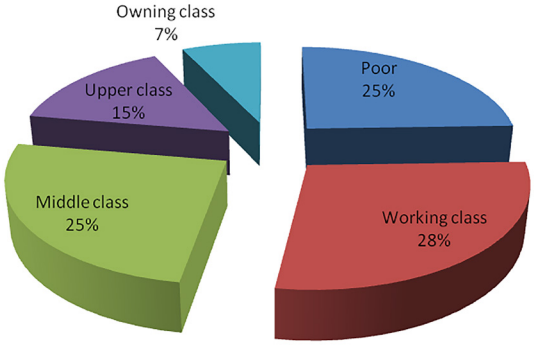
Figure 2: Share of females based on level of education



Source: Authors own presentation based on data from WVS

Based on self reported income class, 25% reported poor, working class 28%, middle class 25%, upper class 15% while owning class reported 7% 9 (figure 3).

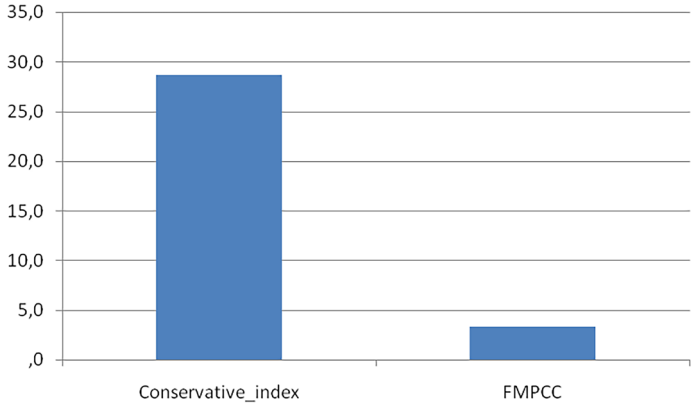
Figure 3: Share of females based developed cultural indexes



Source: Authors own presentation based on data from WVS

Based on cultural values, only 3.3% of the females from the sample reported tendency to approve the machista cultural aspects and behaviors consistent with a machista view. On the other hand, 28.7% reported conservative culture values towards family, marriage and children.

Figure 4: Share of females based on developed cultural indexes



Source: Authors own presentation based on data from WVS

3. RESULTS

In order to test whether cultural norms and beliefs have an influence on female labor market participation, first we run the regression on the set of individual and household characteristics to which we add the cultural variables. This allows us to check stability of the parameters.

The first model explained 45.5% (Nagelkerke R^2) of the variance in activity of women on the labor market and correctly classified 77.8 % of cases. In other words, the model has relatively high explanatory power of the female activity. Below we present the main findings of the econometric analysis.

Table 4: Results from the regression

Variable	sign	Exp(B)
AGE		1, 430***
AGEsq	(-)	0, 995***
Number_of_children	(-)	0, 855*
EDU2		4, 24*

EDU3		4, 975*
Marital_status		1, 407
INC1	(-)	0, 462***
INC2	(-)	0, 478***
INC3	(-)	0, 548**
INC4	(-)	0, 753
Rural_Urban_area		1, 427*
religious	(-)	0, 698
Note: *, ** and * indicate significance at the 10, 5 and 1% level, respectively.**		

Analyzing individual factors we found that women with a finished tertiary level of education or more are 4.975 times more likely to participate in the labor market than women with a finished primary education or less, other things being equal. Results from the influence of education on female labor force participation are in line with the findings from Contreras and Plaza (2010) and Liu and Noback (2010). Women whose highest level of education is finished secondary education tend are 4.24 times more likely to participate in the labor market than women with a finished primary education or less, other things being equal. Oposite from the findings in the literature reviews (Contreras and Plaza, 2010; Daviogly and Kirdar, 2010; Hosney, 2016), being married is not statistically significant. Number of children is found to be statistically significant and it is negatively associated with the activity of women, an increasing number of children will reduce the likelihood of being active on the labor market by 0.855, other things being equal.

Evidence suggests that the increase in age is associated with an increased likelihood of activity on the labor market by 1.43 times, other things being equal. We were able to capture the non-linearity of this variable i.e. we find evidence of an inverted U-shape relationship between age and activity, which is in line

with results from other researchers presented in the literature review. From the regression, the likelihood of activity increases with age until women turn 35.8 years. Afterwards, the activity declines. Income level is also found to be significant variable. Females who classified their income level as poor are 0.462 time less likely to participate in the labor market than females who classified their income level as owning class, other things being equal. Females who classified their income level as working class are 0.478 times less likely to participate in the labor market than females who classified their income level as owning class, other things being equal. Similar, females who classified their income level as middle class are 0.548 times less likely to participate in the labor market than females who classified their income level as owning class, other things being equal. In line with the findings from Oruc (2017) females who live in urban areas are 1.427 times more likely to participate in the labor market compared with females from rural areas, other things being equal.

Adding the cultural variables to the regression revealed that women with conservative values and norms are much less likely to participate in the labor market.

Table 5: Cultural indexes

Variable	sign	Exp(B)
FMPCC	(-)	0, 828
Conservative_index	(-)	0, 751*

Note: *, ** and * indicate significance at the 10, 5 and 1% level, respectively.**

In particular, women who demonstrate conservative values are 0.751 times less likely to participate in the labor market than women not demonstrating conservative cultural values and norms toward family, children and marriage, the rest being equal. Opposite to the findings from Contreras and Plaza (2010) we have found that female female perception of machista cultural context index is not statistically significant.

4. CONCLUSION

Participation of the women in the labor force is a crucial ingredient in the socio-economic development of a country since it promotes efficiency and equity. Therefore, increasing the rate of the women who participate in the labor market is one of the long-term goals that developing countries try to achieve.

In order to understand the environment in which woman shape their decision whether to participate in the labor market or not, this paper has tried to identify how personal and household characteristics along with cultural dimension might stimulate or hinder female labor force participation in Macedonia.

Concerning the personal characteristic of the women in Macedonia and their impact on labor force participation results suggest that age and level of education have strong influence. Increase of the age of the women increase the likelihood of their participation in the labor market until they reach 38.5 years. After that age, the positive effect of age on the labor market participation turns into negative effect. Regarding the level of education, results suggest that higher level of education is related to higher labor force participation of women. This is expected since wages of females with little or no schooling are low and the opportunity cost of staying at home taking care of the children or elders is higher than entering the labor market. On the other hand earnings of high educated females are higher thus participation is higher. Women with tertiary education have 4.975 times higher likelihood of being active relative to women with primary education.

Oposite from the findings in the literature reviews being married is not statistically significant. As expected, living in urban areas in Macedonia have positive effect and increasing number of children of a woman has negatively affects her participation in the labor market. Job opportunities are higher in urban areas in Macedonia since: (i) rural areas are faced with low job opportunities outside of the agricultural sector and (ii) rural areas are faced with decrease in population because of migration of the people in the urban areas in Macedonia or moving abroad. Lack of child care facilities and traditional role of the women primarily as caregiver constrain her participation in the labor market. Although private kindergartens and similar day care institutions exist (mainly in the capital) they are not affordable for majority of the households. On the other side, public kindergartens are not expensive but in urban areas where there is a higher density of population, access to this type of childcare facilities is restricted. Women in Macedonia whose household income is on the lower scales have higher incentives to participate in the labor market than women whose household income was identified as wealthy. Women in Macedonia who tend to have conservative values toward family, children and marriage participate less in the labor market than women who don't share the same values and norms. This finding is in line with the traditional role of the women in the families as well as division of the household duties with respect to gender.

References

- Abazi, H. and Atanasovska, V. (2016) Female Labour Force Participation: The Case of Macedonia, The 2016 WEI international Academic Conference Proceedings, Vienna, Austria
- Adekeye, S.D. (2011) Women Participation in Modern Labor Force, *International Journal of Human Resources Development and Management Review*, 1(2), pp. 91-105, Available from http://www.serialsjournals.com/serialjournalmanager/pdf/1332418708.pdf, [Accessed date 10.07.2016]
- Aguero, M. and Marks, M. (2008) Motherhood and Female Labor Force Particiption: Evidence from Infertility Shocks, American Economic Review, 92(8), pp. 500-504
- Blau, F. D., Ferber, M.A., and Winkler, A.E. (2013) The economics of women, men, and work. Boston, Mass.: Pearson.
- Becker, G. (1965) A Theory of Allocation of Time, *The Economic Journal*, 75(299) pp. 493-517, Available at http://links.jstor.org/sici?sici=0013-0133%28196509%2975%3A299%3C493%3AATOTAO%3E2.0.CO%3B2-N, [Accessed date 25.01.2018]
- Becker, G. (1981) A treatise on the family. Cambridge, Mass.: Harvard University Press, Available at https brunofvieira.files.wordpress.com/2012/12/gary-becker-a-treatise-on-the-family.pdf, [Accessed date 23.02.2018]
- Camussi, S. (2013) Female labor market participation and cultural variables, *Occasional Papers-Bank of Italy*, Available online at www.bancaditalia.it
- Chevalier, A and Viitanen, T. (2002) The Causality Between Female Labor Force Participation and the Availability of Childcare, *Applied Economic Letters*. 9, pp. 915-918, http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.477.513&rep=rep1&type=pdf, [Accessed date 05.07.2018]
- Cipollone, A., and Carl D'Ippoliti, C. (2011), "Women's employment: joining explanations based on individual characteristics and on contextual factors", *The American Journal of Economics and Sociology*, 70 (3), pp. 756-783, Available from http://library.pcw.gov.ph/sites/default/files/womens%20employment%20joining%20explanations.pdf, [Accessed date 20.11.2017]
- Cipollone, A., Patacchini, E. and Vallanti, G. (2014) Female labor market participation in Europe: novel evidence on trends and shaping

factors, *IZA Discussion Paper No 7710*, Available at SSRN: http://ssrn.com/abstract=2363197,

- Contreras, D. and Plaza, G. (2010) Cultural factors in women's labor force participation in Chile. *Feminist Economics,* 16(2): pp. 27–46.
- Daviogly, M. and Kirdar, M.G (2010) Determinants of and Trends in Labor Force Participation of Women in Turkey, *Welfare and Social Policy Analytical Work Program, Working Paper Number 5*
- Euwals, R. (2001), Female labor supply, flexibility of working hours, and job mobility, *EconomicJournal,* 111(471), pp.C120-134.
- Fitzenberger, B., Schnabel, R., Wunderlich, G (2004) The gender gap in labor market participation and employment: a cohort analysis for West Germany, *Journal of Population Economics*, 17(1), pp. 83–116, Available from http://ftp.zew.de/pub/zew-docs/dp/dp0147.pdf, [Accessed date 18.06.2018]
- Fortin, N. (2005), Gender role attitudes and the labor market outcomes of women across OECD countries, *Oxford Review of Economic Policy*, Vol. 21, No. 3, pp. 416-38, Available from https://www.economics.ubc.ca/files/2013/05/pdf_paper_nicole-fortin-gender-role-attitudes-OECD.pdf, [Accessed date 27.06.2018]
- Genre V, Gómez Salvador R, Lamo A (2010) European women: Why do (n't) they work?, *Applied Economics*, 42(12), pp: 1499–1514
- Heckman, J.J. (2015) Introduction to a theory of allocation of time by Gary Becker,
- *The Economic Journal*, 125 (583), pp. 403-409, Available at http://agecon2.tamu.edu/people/faculty/capps-oral/agec%20635/Readings/A%20Theory%20of%20the%20Allocation%20of%20Time.pdf, [Accessed date 17.012.2017]
- Hosney, S.H (2016) Factors Influencing Female Labor Force Participation in Egypt and Germany: A Comparative Study, *SOEP papers on Multidisciplinary Panel Data Research at DIW Berlin*
- Jankiewicz, J. (2015) Time allocation of people not working in the market: how does unemployment differ from economic inactivity in Central Eastern Europe?", *Journal of International Studies*, 8(3), pp. 201-209, Available from https://www.researchgate.net/publication/292305516_Time_Allocation_of_People_not_Working_in_the_Market_How_does_Unemployment_Differ_from_Economic_Inactivity_in_Central_Eastern_Europe, [Accessed date 11.01.2018]

- Jaumotte, F (2003) Female Labor Force Participation: Past Trends and main Determinants in OECD Countries, *Economic Department Working Papers No. 371*
- Khadim, Z., & Akram, W. (2013). Female Labor Force Participation in Formal Sector: An Empirical Evidence from PSLM (2007-08).Middle-East Journal of Scientific Research, 14 (11), pp. 1480-1488
- Lechman, E., Kaur, H. (2015), Economic growth and female labor force participation – verifying the U-feminization hypothesis. New evidence for 162 countries over the period 1990-2012, *Economics and Sociology*, 8(1) pp. 246-257.
- Liu, A. and Noback, I. (2010) Determinants of Regional Female Labor Market Participation in the Netherlands, The Annals of Regional Science, 47(3), pp. 641-658, Available from https://www.researchgate.net/publication/227581843_Determinants_of_regional_female_labor_market_participation_in_the_Netherlands, [Accessed date 10.01.2017]
- Mattila-Wiro, P.(1999) Economic Theoris of the Household. A Critical Review, *Working Paper No. 159*, UNU World Institute for Development Economics Research, Finland, Available at https://www.wider.unu.edu/sites/default/files/wp159.pdf, [Accessed date 12.12.2017]
- Mincer, J. (1962) Labor Force Participation of Married Women: A Study of Labor Supply, Princeton University Press, pp. 63-105, Available at www.nber.org/chapters/c0603.pdf*, [Accessed date 30.04.2017]*
- Mojsoska-Blazevski, N., Petreski, M., Oayhan, O. (2017) Investigating Female Labor Market Inactivity in Macedonia, Skopje: UN Woman Mojsoska-Blazevski, N. (2018) Trends in Labor Markets in FYR Macedonia: A Gender Lens, World Bank
- Mujahid, N. (2014). Determinants of Female Labor Force Participation: A Micro Analysis of Pakistan, *International Journal of Economics and Empirical Research*, 2(5)
- Olivetti, C. (2013) The female labor force and long-run development: the American experience in comparative perspective, *NBER Working Paper 19131,* Available from https://www.bu.edu/econ/files/2012/11/olivetti_chapter_November2013_complete.pdf, [Accessed date 16.05.2017]
- Patimo, R.(2015) Culture and Labor Market Participation, *Rivista Italiana di Economia Demografia e Statistica*, 69 (1): pp. 159-166

- Patimo, R., Pereiro, T, G., Calamo, R., (2015) The Determinants of Activity Rates in some Southern European Countires, *Rivista italiana di economia, demografia e statistica*, 69(1), p 167-174, [Accessed date 25.09.2016]
- Pena-Boquete, Y. (2016) Further developments in the dynamics of female labor force participation. *Empirical Economics*, 50(2): pp 463–501.
- Pollak, R.A., (2002) Gary Becker's Contribution to Family and Household Economics, *Review of Economics of the Household*, Springer, 1(1), pages 111-141, Available from http://www.nber.org/papers/w9232, [Accessed date 15.01.2018]
- Seguino, S. (2007) Plus c ̧a Change? Evidence on Global Trends in Gender Norms and Stereotypes. *Feminist Economics*, 13(2): pp. 1–28, Available from https://www.uvm.edu/~sseguino/pdf/plus_ca_change.pdf, [Accessed date 10.07.2018]
- Schultz, T. P. (1991) Testing the neoclassical model of family labor supply and fertility, *Journal of Human Resources*, vol. 25 (4), pp. 599-634
- Tam, H. (2011) U-shaped female labor participation with economic development: Some panel data evidence, *Economics Letters* 110(2), pp.140-142.
- Tsani, S., Paroussos, L., Fragiadakis, C., Charalambidis, I., Capros, P. (2013), Female labor force participation and economic growth in the South Mediterranean countries, *Economics Letters*, 120(2), pp.323-328.
- Verick, S. (2014) Female labor force participation in developing countries, *IZA World of Labor No 87*, Available at https://ideas.repec.org/a/iza/izawol/journly2014n87.html,
- Vlasblom, JD & Schippers, JJ 2004, Increases in female labor force participation in Europe: similarities and differences, *European Journal of Population***,** vol. 20, no. 4, pp. 375-392, https://www.uu.nl/sites/default/files/rebo_use_dp_2004_04-12.pdf, [Accessed date 05.07.2018]
- Women at Work: Trends 2016 (2016), *International Labor Office – Geneva*, ISBN 978-92-2-130796-9 (web pdf), Available at http://www.ilo.org/gender/Informationresources/Publications/WCMS_457317/lang--en/index.htm, [Accessed date 25.09.2016]

UDK 336.77:334.72.012.64]:004.031.4(5/6)
(Original scientific paper)

BORJANA STOJKOVA*
KLIMENTINA POPOSKA**
ISKRA STANCEVA - GIGOV***

MICROFINANCE AND MOBILE MONEY: DIFFERENT REGIONS AND INCOME LEVEL

Abstract

Microfinance and mobile money have recently become very popular globally. There is hardly a country in the world that is not using the benefits of microfinance and mobile banking. Digitization increasingly intensify their use. However, the different degree of development of economies and digitalization level determinate the use of these categories in the various regions and in the countries with different income levels. Hence, the purpose of this paper is to explore whether there are statistically significant differences in the level of microfinance and mobile money between regions, but also between grouped countries based on different income levels. The research is based on the various available data and indicators regarding microfinance and mobile money that are used as observation in the one-way ANOVA analysis. The analysis indicates significant differences in the level of microfinance and mobile money according to the income levels of the countries. Namely, the countries with higher level of income have higher level of microfinance and mobile money. Also, no evidence was found of differences in microfinance levels between the regions proposed for testing as groups.

Key words: microfinance, mobile money, microfinance institutions, regions, income level
JEL classification: G21, E51

* PhD Student at Ss. Cyril and Methodius University in Skopje, e-mail: borjana.stojkova@gmail.com
** Ph.D., Ss. Cyril and Methodius University in Skopje, Institute of Economics - Skopje, Republic of North Macedonia, e-mail: klimenti@ ek-inst.ukim.edu.mk
*** Ph.D., Ss. Cyril and Methodius University in Skopje, Institute of Economics - Skopje, Republic of North Macedonia, e-mail: iskra@ ek-inst.ukim.edu.mk

Introduction

Microfinance is part of the revolutionary changes within the financial industry, with a significant increase in clients over the past years. Along with the technological development in the banking and financial sector, it has expanded beyond traditional financing practices.

Over the past three decades, microfinance has given millions of people access to financial services for the first time. As such, it is interesting to observe how mobile money lenders and microfinance institutions (MFI) are beginning to work together to further improve the quality and range of financial services available to the poor. It is becoming increasingly clear that the assets and capabilities of microfinance institutions and mobile money service providers are complementary.

As the entire financial world goes digital and there are no "borders" left, the process of microfinance digitalization can no longer be avoided. Microfinance institutions are taking progressive steps towards embracing digital finance, often starting with digitization of existing products, services and operations, either by using mobile devices, partnering with a digital financial service provider or developing a proprietary agency network.

Providing financial services through digital platforms allows the user to borrow, save and transfer money relatively easily. In addition, the digitalization of financial services has become particularly important in accelerating financial inclusion. Globally, low-income people remain financially excluded, without access to institutionalized financial services, in part because of delivery costs but also because of distance barriers.

Hence, it is quite remarkable to understand if there are differences in in the level of microfinance and mobile money between regions, but also between grouped countries based on different income levels.

1. MICROFINANCE AND MOBILE MONEY IN A CONTEMPORARY DIGITAL WORLD

The expansion of mobile money, the rise of FinTech and the introduction of blockchain, the super platforms and artificial intelligence have all changed the traditional forms of financial services. Traditional financial services and channels have evolved from brick and mortar into digital. The expansion of digital financial services (DFS) meant more financial assets and easier access to financial inclusion for everyone. The global Findex 2017 de-

termined that 3, 8 billion people (69% of the adult population) possess a financial account (bank and mobile money), which is an increase of 1, 2 billion people with regard to 2011. In Sub-Saharan Africa, one in five adults now has a mobile money account, more than double as in 2014.[1]

Digital transformation is also changing the manner of operation within the microfinance sector. Within the last 10 years, the providers of microfinance are engaged with new participants in the field, who are using technology to enable a facilitated access to financial services intended for the low income population. Nowadays, the providers of microfinance must adjust by adaptation, starting with digitalisation of the existing products and services up to full digital transformations of the processes for introducing new products and services. Information and communications technology/ies (ICT) are defined as, , technologies that facilitate communication and the processing and transmission of information by electronic means".[2] Over the last years, practitioners have hoped that ICT will become a powerful tool for economic growth, by facilitating the generation of income and by elevating poverty in the developing countries.[3]

This attitude is shared by many in the microfinance sector. The revolutionary form of application and expansion of ICT on global level, such as mobile phones and tablets represent microfinance institution with endless opportunities for improving efficiency and productivity, as well as for improving customer service by providing a range of affordable, convenient and secure financial services.[4] The providers of financial services through digital platforms enables the user to borrow, save and transfer money relatively easily.[5] Furthermore, the digitalisation of financial services has become particularly significant for accelerating financial inclusion.[6]

---

[1] The Global Findex Database 2017, available at: http://globalfindex. worldbank.org/

[2] Marker, P., McNamara, K. and Wallace, L. The Significance of Information and Communication Technologies for Reducing Poverty, DFID, London., 2002

[3] Warschauer, M. Technology and Social Inclusion: Rethinking the Digital Divide. MIT Press, Cambridge, MA., 2004

[4] Radev, K. "Face the New Reality: the World has Changed", in *Microfinance Barometer 2015,* pg. 6, Convergences, Paris, 2015

[5] Wensley, M. "The Challenge of Digital Finance: Moving from Initial Take-up to Regular Usage" in Microfinance Barometer 2015, Convergences, Paris, 2015, pg. 5.

[6] Klapper, L. and Singer, D. "The Opportunities of Digitizing Payments" World Bank Development Research Group, Washington, DC., 2014

Globally, two billion people remain financially excluded, without access to institutionalised financial services, [7] partly due to shipping costs, given the small amount of transactions as well as distance obstacles.[8] The inability to develop effective ways to deliver products and services to these low-income, and financially excluded customers prevents microfinance institutions from reaching more people.

Such high transaction costs and regulatory constraints are particularly present in Africa, where population density is relatively lower than in Asia.[9] As a result, the microfinance institutions in this region are currently investing in digitalisation of financial services. Further accelerated adoptation of ICT in banking and microfinance should be expected in the future. Nonetheless, it can be argued that given the current state of continuous progress in ICT, a new wave of technological innovation in the microfinance industry is inevitable and that in order to be able to compete and prevail, all MFI at one point shall have to digitalize their process of gathering information and their delivery channels.[10]

In the microfinance sector, digitalisation takes place in two different forms. The first may take the form of automation of the process for gathering information, also known as DFA[11] and the second may take the form of automation of the channels through which the financial services are delivered.[12] Some of these innovations include the use of tablets or other smart devices by loan officers to collect and handle customer information, mainly in the early stages of the loan process. With regard to the latter, the cutting-edge innovation that has revolutionized the providing of microfinance services is the use of mobile phonse, M-Pesa pioneers in Kenya, who are considered as founders of the non-banking approach.

---

[7] Demirgüç-Kunt, A., Klapper, L., Singer, D. and Van Oudheusden, P. "The Global Findex Database 2014: Measuring Financial Inclusion around the World." Policy Research Working Paper 7255, Washington, DC: World Bank, 2015

[8] Sharma, A. "Developing Sustainable Microfinance Systems", in Rejuvenating Bank Finance for Development in Asia and the Pacific, UN Economic and Social Commission for Western Asia and Asian Development Bank, 2002, 123-135.

[9] Mokaddem, "Concept Note on Microfinance Scaling Up In Africa: Challenges Ahead and Way Forward", African Develoopment ank. Available, 2009

[10] Kauffman and Higgins, "Information and Communication Technology and the Sustainability of Microfinance", Electronic Commerce Research and Applications, 2012, p: 450–468.

[11] Accion, Channels and Technology Digital Field Applications: Case Study, Boston, 2015

[12] Breul and Tar, "The New Digital Experience of Microfinance Clients", in Microfinance Barometer 2015, Convergences, Paris, 2015, pg. 8

2. THE DIFFERENCES IN MICROFINANCE AND MOBILE MONEY WITHIN DIFFERENT REGIONS AND COUNTRIES GROUPS WITH DIFFERENT LEVEL OF INCOME

Microfinance and mobile money have recently become very popular globally. There is hardly a country in the world that is not using the benefits of microfinance and mobile banking. The purpose of this research is, based on the available data regarding microfinance and mobile money, to examine whether there are statistically significant differences in the level of microfinance between regions, but also between countries grouped together based on different income levels.

For the purposes of the analysis, data from Global Findex for 2017 have been used as the last available year for selected indicators that represent microfinance and mobile money in several regions and groups of countries by income level. The application of the remaining indicators in this research is limited by the lack of data for certain indicator with regard to selected groups and regions.

Table 1. Microfinance and mobile money indicators - Data in percentage of the total population, including persons over 15 years by region and income level

Region	Open accounts	Accounts in financial institutions	Withdrawal of funds during the last year of the financial institution (by persons who own accounts)	Loans for staring, current operations or expanding of farm or business	Loans from financial institutions	Using telephone or internet to access a financial institution account (by persons who own accounts)
East Asia and Pacific	0.74	0.73	0.78	0.12	0.11	0.44
Europe and Central Asia	0.81	0.81	0.89	0.19	0.15	0.45
High income	0.94	0.94	0.92	0.27	0.19	0.55
Low income	0.35	0.24	0.55	0.06	0.07	0.17
Lower middle income	0.58	0.56	0.51	0.05	0.08	0.10

Middle East and North Africa	0.48	0.47	0.78	0.09	0.09	0.25
High income: OECD	0.95	0.95	0.93	0.28	0.20	0.57
Sub-Saharan Africa	0.43	0.33	0.65	0.05	0.07	0.24

Source: https://globalfindex.worldbank.org/ retrieved on 17.01.2021

The basic assumption of the analysis is that the different selected indicators for microfinance and mobile money and the data, homogeneously and unilaterally represent the impact of microfinance and mobile money in different regions, but also per groups of countries with different income levels. Further in the analysis, these indicators are used as observation in the one-way ANOVA analysis.

The one-way analysis of variance (ANOVA) is used to determine whether there are any statistically significant differences between the means of three or more independent (unrelated) groups of data. The analysis determines whether the differences between the mean values were the result of coincidence or whether they are significant differences in the observation of different groups. The purpose of this ANOVA analysis is to determine whether there are statistically significant differences in microfinance and mobile money between different categories of countries with respect to their income and their regional position.

In all the cases of comparison the following hypotheses will be tested:

H0: Mean values are equal between groups

H1: Mean values are different between groups

Essentially, the hypotheses test for differences in microfinance and digital money between the groups that are tested. If the H0 hypothesis is accepted and the mean values are equal, then we can say that there is no difference between microfinance and mobile money in the groups of countries being tested. If the H1 hypothesis is accepted and the mean values are different, then it can be said that the differences in the values of the indicators by groups are of an essential nature and are not the result of random variations in the values.

One reference value for accepting the null hypothesis is when the F test value of the ANOVA statistic is lower than the F critical value. The reference value for accepting the H0 hypothesis in the case of p-value is when it is higher than 0.05. This means that the null hypothesis is accepted and that the means are equal

between the groups, i.e. that there are no significant differences between the values of the groups. Hereinafter is the overview of the values of the indicators and the calculations of the ANOVA statistics at the level of significance of 0.05 (alpha = 0.05) of the microfinance and mobile money indicators by level of income and by regions. In the first case, the H0 hypothesis of non-existence of differences in microfinance and mobile money at different income levels is tested.

Table 2. Overview of the indicator values by income level with OECD countries

Groups	*Middle*	*Variance*
High income	0.6345	0.1213
Low income	0.2395	0.0348
Low-middle income	0.3126	0.0674
High income: OECD	0.6440	0.1210

Source: Authors' calculations

Table 3. ANOVA statistics of indicators by income level of OECD countries

Sources of variations	*F*	*P-value*	*F crit*
Between groups	3.126785	0.048686	3.098391

Source: Authors' calculations

This means that there are statistically significant differences in microfinance and mobile money between different groups. If we take into account the mean values in different groups of countries, we can conclude that the mean values are higher in high-income countries, while they are lower in lower-income countries. According to this, one of the conclusions is that microfinance is largely dependent on the income level of countries. This practically means that countries with higher income levels have higher levels of microfinance and mobile money, while those with lower income levels have lower levels of microfinance and mobile money. This shows that despite the availability of microfinance and mobile money in low-income countries, it is still not at the same level as in high-income countries.

Hereafter are presented the ANOVA statistics with the microfinance and mobile money indicators in different regions. The idea of such a distinction is to determine the impact of regional affiliation based on the differences in the level of development of microfinance and mobile money. In the this case, the H0 hypothesis of non-existence of differences in microfinance and mobile money at different regions, is tested.

Table 4. Overview of value of indicators per regions

Groups	*Middle*	*Variance*
East Asia and Pacific	0.4865	0.0979
Europe and Central Asia	0.5524	0.1103
Middle East and North Africa	0.3588	0.0709
Sub-Saharan Africa	0.2931	0.0518

Source: Authors' calculations

Table 5. ANOVA statistics of indicators per regions

Sources of variations	*F*	*P-value*	*F crit*
Between groups	1.009886	0.409013546	3.098391

Source: Authors' calculations

The results of ANOVA statistics F (1.009886)< Fcrit (3.098391) and p value of 0.409013546 show that the H0 hypothesis of equality of the mean values between the groups of countries is accepted. This means that there are no statistically significant differences in microfinance and mobile money between different groups per presented regions. Based on such findings it can be concluded that microfinance is not dependent on the country's affiliation in a particular region. This practically means that the level of development of microfinance and mobile money according to the proposed regional grouping is almost equal for all regions.

Conclusion

The digitalisation of financial services is very important for the entire discourse of financial inclusion. Despite the joint efforts to provide access to financial services to people with low-income over the past two decades, the fact that two billion people still have no bank accounts is troubling. Hence, a need to promote digital finances arises as a key to tackling financial exclusion. This paper analysed the differences in the level of microfinance and mobile money between regions and between countries grouped together based on different income levels.

The empirical part of this paper consisted of an ANOVA analysis on selected financial indicators with special importance for microfinance and mobile money. With regard to the first case where differences in microfinance and mobile money were tested at different income levels, it was concluded that

there were significant differences in the level of microfinance and mobile money according to the income levels of the countries. In practice it was shown that the countries with higher level of income have higher level of microfinance and mobile money. In the latter case, no evidence was found of differences in microfinance levels between the regions proposed for testing as groups.

References

- 1. Accion, Channels and Technology. Digital Field Applications: Case Study, Boston: Accion, 2015a
- 2. Breul, P. and Tar, M-S. "The New Digital Experience of Microfinance Clients", in *Microfinance Barometer 2015,* Convergences, Paris, 2015
- 3. Demirgüç-Kunt, A., Klapper, L., Singer, D. and Van Oudheusden, P. "The Global Findex Database 2014: Measuring Financial Inclusion around the World." Policy Research Working Paper 7255, Washington, DC: World Bank, 2015
- 4. Institute for Money, Technology and Financial Inclusion, IMTFI, Trust and Money: It's Complicated, a synthesis report for the IMTFI blog, posted by Ursula Dalinghaus on April 11, 2016
- 5. Kauffman, R.J. and Riggins, F.J. "Information and Communication Technology and the Sustainability of Microfinance", Electronic Commerce Research and Applications, 2012.
- 6. Klapper, L. and Singer, D. "The Opportunities Of Digitizing Payments" World Bank Development Research Group, Washington, DC, 2014
- 7. Marker, P., McNamara, K. and Wallace, L. The Significance of Information and Communication Technologies for Reducing Poverty, DFID, London, 2002
- 8. Mokaddem, L. "Concept Note On Microfinance Scaling Up In Africa: Challenges Ahead and Way Forward", African Develoopment ank. Available, 2009
- 9. Radev, K. "Face the New Reality: the World has Changed", in *Microfinance Barometer 2015,* Convergences, Paris, 2015
- 10. Sharma, A. "Developing Sustainable Microfinance Systems", in Rejuvenating Bank Finance for Development in Asia and the Pacific, UN Economic ad Social Commission for Western Asia and Asian Development Bank, 2002

- 11. Warschauer, M. *Technology and Social Inclusion: Rethinking the Digital Divide*. MIT Press, Cambridge, MA, 2004
- 12. Wensley, M. "The Challenge of Digital Finance: Moving from Initial Take-up to Regular Usage" in Microfinance Barometer 2015, Convergences, Paris, 2015
- 13. Wright, G. (2015). "A Question of Trust Mitigating Customer Risk in Digital Financial Services", MicroSave, Uttar Pradesh, India.
- 14. The Global Findex Database 2017, available at: https://globalfindex.worldbank.org/, retrieved on 17.01.2021
- 15. https://datacatalog.worldbank.org/dataset/mix-market, retrieved on 17.01.2021

UDK 334.72:005.336.2]:35(497.7)
(Original scientific paper)

PETAR BOGOJESKI*

PREVALENCE OF ENTREPRENEURSHIP IN THE MACEDONIAN PUBLIC SECTOR

Abstract:

This paper explores entrepreneurship and the advancement of entrepreneurial skills of the employees in the public sector in North Macedonia, i.e., in the public enterprises. The primary goal of public enterprises is to increase social welfare and protect the public interest, unlike private sector companies whose main goal is to profit. Mayor findings of the paper revealed that employees in the public sector in North Macedonia have a high degree of advancement in entrepreneurial skills, such as creative thinking, planning, and research, decision making, etc. On the one hand, the respondents' level of education in the survey significantly impacts the knowledge and use of entrepreneurial skills. In contrast, on the other, the restraint that employees have from managers and superiors in the public sector is an essential factor in limiting the use of entrepreneurial skills. Consequently, this is reflected in the unsatisfactory quality of services of the Macedonian public administration, for which many recommendations and reforms were proposed in the past.

Keywords: public entrepreneurship, public administration
JEL classification: H11, H83

Introduction

Citizens' satisfaction as users of public services is crucial for institutions that offer public services. Changing the entrepreneurial skills in the operation of public enterprises reflects on the quality of public services and the satisfaction of the citizens as users. In this way, the trust in the public institutions is significantly improved, while the level of satisfaction of the citizens from the

* State advisor at the Ministry of Defense of Macedonia

use of public services is increased. Therefore, the promotion of entrepreneurial skills in the operation of public enterprises is of particular importance.

Public services are primarily related to local self-government and the quality of life of citizens. The role and importance of entrepreneurial skills are crucial in advancing civil society, creating local policies, improving public services, and citizens' quality of life. The effects arising from the services provided by the public administration are challenging to assess according to their quality and imply a high level of staff training and education, which contributes to improving cooperation with its target users to improve their satisfaction. According to Kotler and Lee[1], the benefits of incorporating public entrepreneurship can lead to improved services and increased satisfaction, which then leads to increased revenue, improved business efficiency, and performance, and support future funding needs.

For almost 30 years, the Republic of North Macedonia has made continuous efforts and reforms in public administration; however, the situation is far from satisfactory, lacking harmonization with European standards. The increased number of employees in the public sector and the constant politicization do not fulfill the European standards and the pace of economic development in North Macedonia. This paper researches the topic of public entrepreneurship and the need for implementation in Macedonian public administration. The methodology used in the article is a survey on the knowledge and use of entrepreneurial skills of public administration employees, which shows the personal development and the level of usage of these skills in the daily work responsibilities.

1. THEORETICAL BASIS

Public entrepreneurship is defined by Leyden and Link (2015)[2] as terminology for promoting innovative public policy initiatives that generate greater economic prosperity by transforming the economic environment into a more conducive environment. In today's economy, entrepreneurship in the public sector affects that transformation primarily by increasing the effectiveness of knowledge networks, i.e., by increasing the heterogeneity of experiential links

[1] *Social Marketing: Influencing Behaviors for Good* By Philip Kotler and Nancy R. Lee. Los Angeles: Sage Publications, 2009, 446 pp

[2] Leyden, D. P., & Link, A. N. (2015). Public sector entrepreneurship: U.S. technology and innovation policy. New York: Oxford University Pres, p.10.

between economic units and their ability to exploit such diversity. It needs to be recognized by the political authorities to allow the application of new technology and thus more innovation in the economy.

Otherwise, the relationship between the private and public sectors is theoretically highly exploited, especially by Reinhart and Rogoff[3]. In light of the recent global financial crisis, they recognize the numerous entrepreneurial opportunities of public authorities and bodies. Calls for entrepreneurship and innovation in the public sphere are causing increasing attention, both in theory and practice.

Public entrepreneurship is enabled and limited by the political system and the institutional context (Maguire et al., 2004; Henisz and Zelner, 2005[4]). That is why it is intertwined with the theory of management, political science, international business, entrepreneurship, and so on.

In this context, we can mention the importance of social entrepreneurship, which is a process of creating socio-economic structures, relationships, institutions, organizations, and measures, which result in sustainable social benefits. It is a model of using entrepreneurial behavior more for socially beneficial than for-profit purposes; in other words, profit or generated profit is used to benefit certain socially excluded or socially disadvantaged groups, creating innovation, environmental protection, or improving certain social conditions[5].

The importance of entrepreneurship in the public sector is an area of growing interest. The issue of management is of great importance for any organization because good management is essential for the progress of any company and its success in the market. However, entrepreneurship and the functions of management: planning, organizing, managing, and controlling public enterprises are conditioned by the state, which owns these enterprises. The specificity of the entrepreneurial operation of public enterprises arises from the

[3] M. Reinhart & Kenneth S. Rogoff, This Time Is Different Eight Centuries of Financial Folly Carmen, 2009, p. 15.

[4] Maguire, S. Hardy, C. & Lawrence, T. B. (2004). Institutional Entrepreneurship in Emerging Fields. Academy of Management Journal, 47: 657-679; Henisz, W. J. & Zelner, B. A. (2005). Legitimacy, Interest Group Pressures and Change in Emergent Institutions: The Case of Foreign Investors and Host Country Governments. Academy of Management Review, 30: 361-382

[5] Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and The Committee of the Regions (2011), Social Business Initiative Creating a favorable climate for social enterprises, key stakeholders in the social economy and innovation Brussels, 25.10.2011 COM(2011) 682 final.

opposing commercial and non-commercial goals, which are set before these enterprises.

In general, public and private entrepreneurship share the essential characteristics but differ in terms of defining and measuring objectives, which arise from the different objectives that public sector enterprises have concerning private enterprises. The main element of entrepreneurship in a given organization and environment is the management[6], but also the other employees in different positions. In a dynamic environment, it is essential for entrepreneurs to have the ability to think creatively, i.e., to constantly find new solutions to the problems arising from everyday work. As entrepreneurs in public enterprises, which are vital for improving the social welfare of the country, they need to constantly come up with new ideas and make good decisions about opportunities and potential projects.

An important skill that builds on the ability to think creatively, which entrepreneurs in public enterprises should possess, is communication. Their success as entrepreneurs is determined mainly by their ability to communicate to be able to successfully present their ideas to others. Communication skills will help them share and clearly present their ideas and projects. It is also essential for public sector employees to have entrepreneurial skills related to the ability to face and manage risks, which are an integral part of the operation of all companies. Successful entrepreneurs are not only willing to take risks, but they are also able to identify and assess risks and come up with alternative plans in the event of the worst-case scenario.

Planning, on the other hand, as the next skill or ability that entrepreneurs in the public sector should possess, means setting goals and defining when each of them will be achieved, but also identifying alternative courses of action to achieve the goals. After evaluating the various alternatives, entrepreneurs must decide the best course of action to achieve the goals. They must then formulate the necessary steps and ensure the effective implementation of the plans. Finally, entrepreneurs who have the planning skills need to constantly evaluate the success of their projects and take corrective action when needed.

In order to be able to make decisions correctly, entrepreneurs need to have the ability to create and implement an appropriate strategy, to make decisions in public enterprises, but also the ability to timely change or adjust as a result of new or changing environmental factors.

---

[6] Jarna Heinonen, ENTREPRENEURSHIP IN PUBLIC SECTOR ORGANISATIONS, Turku School of Economics and Business Administration, Small Business Institute, Turku, Finland, p. 5.

The skill of entrepreneurs to manage human resources is characteristic of entrepreneurs in private enterprises, whose goal is to maximize the productivity of the enterprise by optimizing the effectiveness of employees. But it is also vital for entrepreneurs in public enterprises to successfully manage human capital. Their goal is to maximize employee productivity, to manage employees within organizations, to take care of their training and development, but also to evaluate and reward their activity. The ability to manage human capital may be one of the most critical skills and abilities that entrepreneurs should possess, given that human resources are the most vital assets of an organization, and a business cannot be successful without the effective management of this resource.

Entrepreneurs in public enterprises, as well as entrepreneurs in the private sector, need to have the ability to organize employees. Organizing is a function of management which means developing an organizational structure and allocating human resources to ensure the achievement of goals. Organizing at a certain level of work means how best to design individual jobs to make the most effective use of human resources. In doing so, decisions must be made about the duties and responsibilities of individual jobs, as well as how the responsibilities should be performed. Like private companies, public sector companies need employees with entrepreneurial skills who know how to build and manage a team. Teamwork is the ability to lead and manage many people who need to work together. Given that the team has been proven to be able to make better decisions than an individual, team unity is crucial to the success of any organization.

Open communication is needed to build a successful team with clear roles and responsibilities, an appropriate team leader, authority for team members, and a reward system. In this context, it is necessary for entrepreneurs to build the team first, motivate the team members, manage the team, and get maximum results from it. Entrepreneurs need to apply creative and practical solutions to overcome communication barriers, enable the exchange of ideas and harmonize differences within the team. Entrepreneurs should also motivate their members to perform work responsibilities. Promising entrepreneurs need to research what motivates employees and then try to create conditions in which they will be motivated to work.

Finally, it is essential to note that although the primary goal of public enterprises is not to maximize profits, entrepreneurs in these enterprises should have the ability to manage the financial resources of the institution. They need to manage cash flows, assess financial needs, and identify sources of capital, just like entrepreneurs in private enterprises.

2. RESEARCH AND RESULTS

In order to determine the level of application of entrepreneurial skills in the Macedonian public enterprises, as well as the result of the reforms in the public administration in the last two years, research was conducted through a survey throughout the country. The research was conducted on a sample of 184 (107 men and 77 women) respondents employed in public administration, where most of the respondents are in the age category of 36-45 years. For the needs of the research, an appropriate questionnaire has been developed that covers all aspects of entrepreneurship and the most essential skills that define the entrepreneur. The purpose of the questionnaire is self-assessment and evaluation of the entrepreneurial abilities of the employees in the public administration. In the questionnaire, each entrepreneurial skill is presented through 4 levels of use of the appropriate skill in the daily work responsibilities of the randomly selected employees in the Macedonian administration, with different work responsibilities. Thereby, the analysis shows the level of development of entrepreneurial skills in public administration employees, as well as the experience gained for each skill. At the same time, the questions allude to the application of these techniques and skills in the performance of the day-to-day tasks in the work of public administration. The data obtained from the analysis of the entrepreneurial skills are presented in charts.

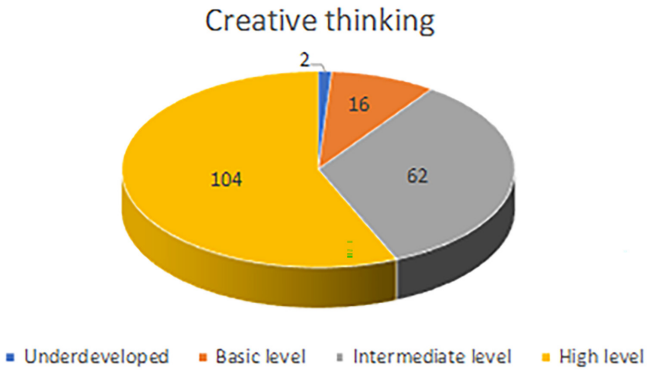
The questions in the survey refer to and cover the use and knowledge of the following entrepreneurial skills:

- Creative thinking (innovation in the implementation of work responsibilities that lead to the more efficient and effective completion of work responsibilities)
- Planning and research (planning and research of work tasks in order to increase the success of work responsibilities)
- Decision making (making decisions vital for the work of the sector under given conditions)
- Organizing (organizing work and work responsibilities in order to be more efficient)
- Oral communication (presentation of ideas and opinions to others, in order to concisely perform the tasks)
- Written communication (clear and concise written communication at a business level)
- Team building and management (the process of creating a team and demonstrating leadership skills in its management)

- Marketing (using the methods and process of marketing and market analysis for the needs of the public sector in the performance of work tasks)
- Storage and maintenance of information (the process of keeping an archive of data of the work through the use of information technology)
- Project management (using the methods of project management for project execution for the needs of the public sector when fulfilling work tasks)
- Risk analysis (knowledge of methods for risk analysis and their use in performing and managing work tasks and projects)
- Financial management (use of techniques and tools of financial management in performing work tasks)
- Human resource management (application of methods for recruitment, selection, management, and motivation of human resources in the performance of work tasks).

In addition, an analysis was made on the received answers to the questions from the survey.

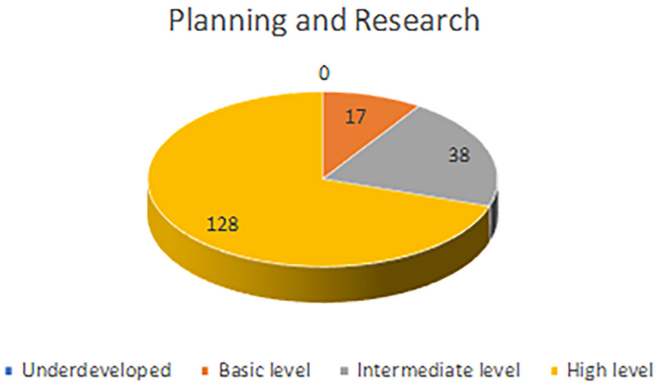
Chart n. 1: Knowledge and use in daily work responsibilities of creative thinking as an entrepreneurial skill among public sector employees in North Macedonia



Source: Individual research

The first question, regarding the knowledge and use of creative thinking in the daily work responsibilities of employees, the most significant percentage of respondents answered that they have a high level of creative thinking. In contrast, the smallest number of respondents consider it to be underdeveloped **(see Chart 1).**

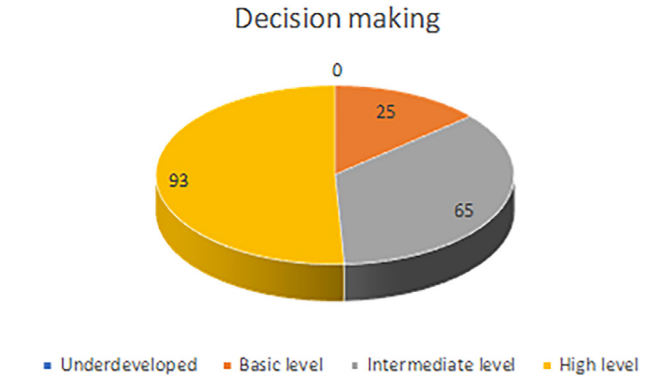
Chart n. 2: Knowledge and use in daily work responsibilities of planning and research as an entrepreneurial skill among public sector employees in North Macedonia



Source: Individual research

In terms of knowledge and use in the daily work responsibilities of planning and research, 70% of respondents consider it to be at a high level. In contrast, the smallest number of respondents consider it to be at a basic level. This shows that the planning and research of work tasks in order to increase the success of work responsibilities are deemed appropriate and applied **(see Chart 2).**

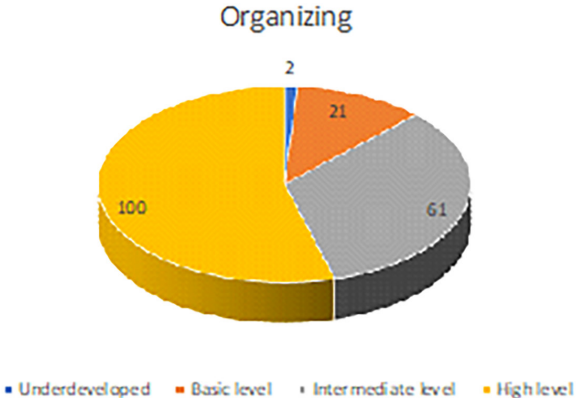
Chart n. 3: Knowledge and use in daily work responsibilities of decision making as an entrepreneurial skill among public sector employees in North Macedonia



Source: Individual research

For the decision-making process, 51% of respondents believe that their knowledge is at a high level, while 14% of respondents believe that it is at a basic level **(see Chart 3).**

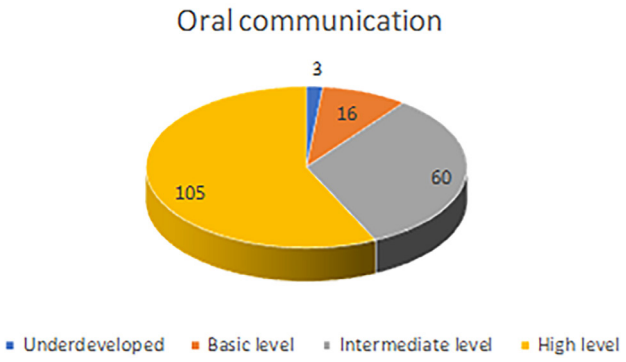
Chart n. 4: Knowledge and use in daily work responsibilities of organizing as an entrepreneurial skill among public sector employees in North Macedonia



Source: Individual research

For the organization of work and work responsibilities in order to be more efficient, most of the respondents consider that it is at a high level. In contrast, the least number of the respondents consider that it is still undeveloped as a skill **(see Chart 4).**

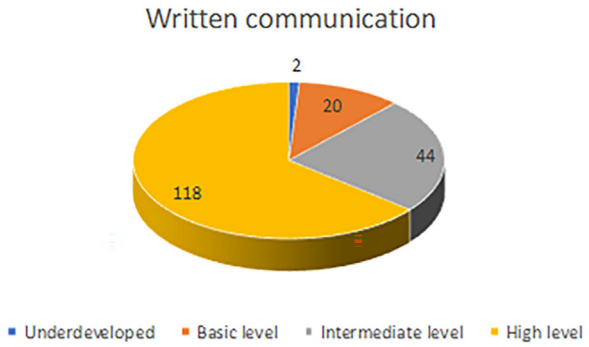
Chart n. 5: Knowledge and use in daily work responsibilities of oral communication as an entrepreneurial skill among public sector employees in North Macedonia



Source: Individual research

Regarding the knowledge and use of oral communication in the daily work responsibilities, it can be concluded that the most significant percentage answered that this activity is at a high level. In contrast, 33% of the respondents answered that it is intermediate-level **(see Graph 5).**

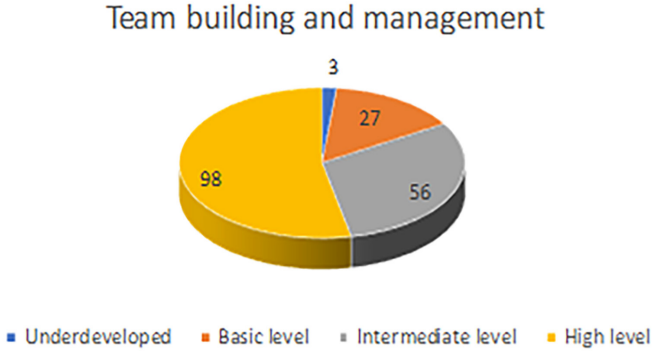
Chart n. 6: Knowledge and use in daily work responsibilities of written communication as an entrepreneurial skill among public sector employees in North Macedonia



Source: Individual research

In terms of written communication, the most significant percentage of respondents answered that it is at a high level. In contrast, the smallest number of respondents answered that it is underdeveloped **(see Chart 6).**

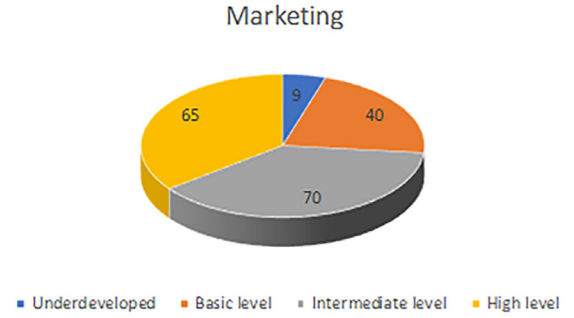
Chart n. 7: Knowledge and use in daily work responsibilities of team building and management as an entrepreneurial skill among public sector employees in North Macedonia



Source: Individual research

In terms of team building and management (the process of creating a team and demonstrating leadership skills in its management), the most significant percentage of respondents answered that it is at a high level **(see Chart 7).**

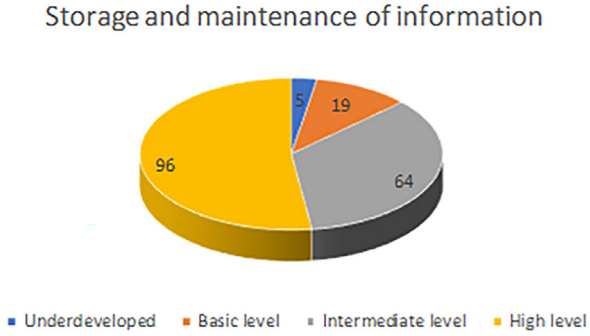
Chart n. 8: Knowledge and use in daily work responsibilities of marketing as an entrepreneurial skill among public sector employees in North Macedonia



Source: Individual research

One of the critical issues is the application of marketing in public sector organizations, which is essential for both the internal and external environment. For this, the most significant percentage of respondents answered that this activity is at an intermediate level, while 35% of respondents answered that it is at a high level. This means that the use of marketing methods and process and market analysis for the needs of the public sector in fulfilling the tasks is advanced **(see Chart 8).**

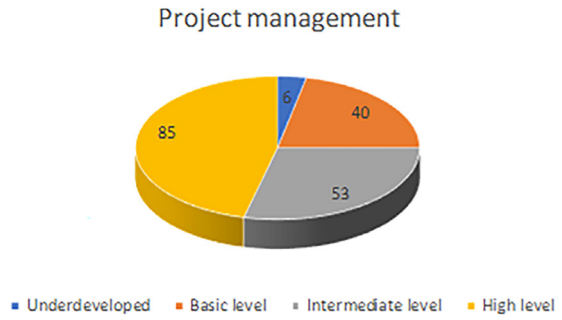
Chart n. 9: Knowledge and use in daily work responsibilities of storage and maintenance of information as an entrepreneurial skill among public sector employees in North Macedonia



Source: Individual research

Regarding the knowledge and use in the daily work responsibilities of storage and maintenance of information, it can be concluded that the highest percentage of respondents answered that this activity is at a high level. In contrast, the lowest percentage of respondents answered that it is underdeveloped **(see Graph 9).**

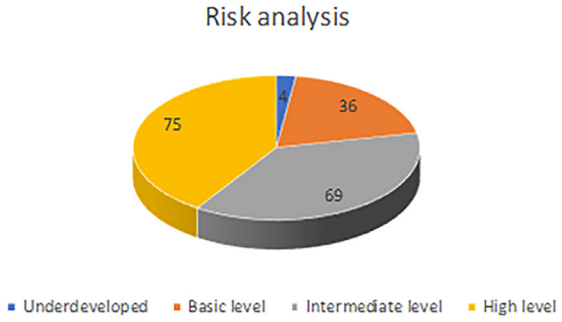
Chart n. 10: Knowledge and use in daily work responsibilities of project management as an entrepreneurial skill among public sector employees in North Macedonia



Source: Individual research

Regarding the knowledge and use of project management in the daily work responsibilities, it can be concluded that the highest percentage answered that this activity is at a high level. In contrast, the lowest percentage of respondents answered that it is underdeveloped **(see Chart 10).**

Chart n. 11: Knowledge and use in daily work responsibilities of risk analysis as an entrepreneurial skill among public sector employees in North Macedonia

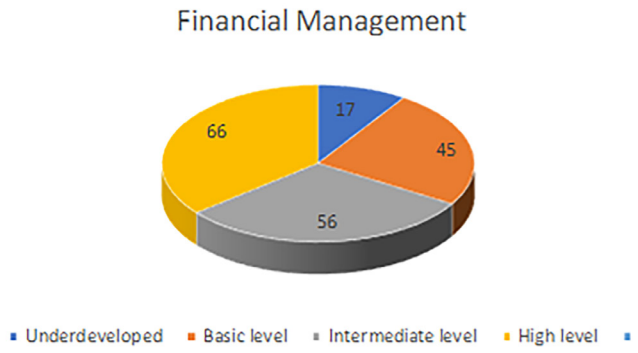


Source: Individual research

The knowledge and use of the methods for risk analysis in the daily work responsibilities, the most significant percentage of respondents (41%) consider it to be at a high level. In comparison, 38% of the respondents consider it to be at an intermediate level. These results indicate an advanced level of

risk analysis among public sector employees **(see Chart 11).**

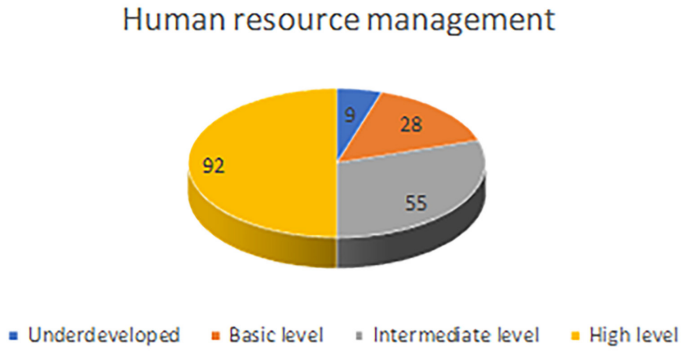
Chart n. 12: Knowledge and use in daily work responsibilities of financial management as an entrepreneurial skill among public sector employees in North Macedonia



Source: Individual research

The most significant percentage of respondents consider the knowledge and use of financial management in the daily work responsibilities to be at a high level. In contrast, the lowest percentage of the respondents consider it to be underdeveloped **(see Chart 12).**

Chart n. 13: Knowledge and use in daily work responsibilities of human resource management as an entrepreneurial skill among public sector employees in North Macedonia



Source: Individual research

In terms of knowledge and use of human resource management in the daily work responsibilities, the most significant percentage of the respondents think that this tool is at a high level of its application. In contrast, 30% of respondents consider it to be at an intermediate level **(see Chart 13).**

Conclusion

From the theoretical elaboration and analysis of the research results, it can be concluded that most employees in public enterprises have a high level of knowledge and use of entrepreneurial skills. Although most of the respondents think that the knowledge and use of financial management and risk analysis are at a high level, a significant number have a basic or intermediate level of knowledge. An exception is the knowledge and use of marketing, where most of the respondents are at an intermediate level.

Entrepreneurial skills are essential for the development and improvement of the efficiency and effectiveness of employees in public enterprises. Their knowledge and implementation in their daily work tasks can significantly improve the work of the public sector and further improve public services. The research shows a solid representation of entrepreneurial skills in public enterprise employees. However, still, many respondents have underdeveloped entrepreneurial skills, which is a worrying signal of their efficiency and effectiveness.

It must be noted that the high level of education of the respondents has a significant impact on the obtained results. The announced reforms in the public administration have shown that the progress of the entrepreneurial skills of the employees in the public administration is continuously improving. However, the poor application, together with the restraints and limits that managers and superiors impose on employees, remain one of the main issues for effective and efficient public administration in North Macedonia.

It is evident that reform in the public administration in the country is necessary. According to the recommendations of the European Commission, further deregulation is needed, but a real one, with a professional and independent administration, which requires real management, to be part of the European administrative space. This means adhering to the principles of employment and promotion based on merit, clear and transparent criteria for employment, criteria for appointment of senior management positions that are clearly regulated, unification of the salary system, criteria for reward and career development, changing the approach to training, and treating accountability as an indicator of establishing effective administration. Given the presented theoretical knowledge and modern practices for public entrepreneurship, there is much room for the application of this set of reforms in the public sector of North Macedonia at all levels.

References

1. Benz, M. & Frey, B. S. (2007) Corporate Governance: What can we learn from Public Governance, Academy of Management Review, January, 32, 1, 92-104
2. Communication from the Commission to the European Parliament, The Council, The European Economic and Social Committee and The Committee of the Regions (2011), Social Business Initiative Creating a favorable climate for social enterprises, key stakeholders in the social economy and innovation Brussels, 25.10.2011 COM(2011) 682 final.
3. Currie G., Humphreys M., Ucbasaran D., & McManus S. (2008) Entrepreneurial Leadership in the English Public Sector: Paradox or Possibility?, Public Administration, 86, 4, 987-1008.
4. Harry E, Richard T. H, Ernest C. R, (2010) "Entrepreneurial orientation of public enterprises in Malaysia, " Business Strategy Series, Vol. 11 Issue: 2, pp.75 77, https://doi.org/10.1108/17515631011026371
5. Henisz, W. J. & Zelner, B. A. (2005). Legitimacy, Interest Group Pressures and Change in Emergent Institutions: The Case of Foreign Investors and Host Country Governments. Academy of Management Review
6. Jarna Heinonen, ENTREPRENEURSHIP IN PUBLIC SECTOR ORGANISATIONS, Turku School of Economics and Business Administration, Small Business Institute, Turku, Finland
7. Kearney, C., Hisrich, R.D. & Roche, F. (2009) Public and private sector entrepreneurship: similarities, differences or a combination? Journal of Small Business and Enterprise Development
8. Kotler P., Lee N. (2009) Marketing in the public sector, Data Pons, Skopje, p. 170-174.
9. Leyden, D. P., & Link, A. N. (2015). *Public sector entrepreneurship: U.S. technology and innovation policy*. New York: Oxford University Press.
10. Maguire, S. Hardy, C. & Lawrence, T. B. (2004). Institutional Entrepreneurship in Emerging Fields. Academy of Management Journal,

11. Morris, M.H. & Jones, F.F. (1999) Entrepreneurship in Established Organizations: The Case of the Public Sector, Entrepreneurship Theory, and Practice,
12. Radnor, Z. & Noke, H. (2012) Entrepreneurship in Public Services: Understanding its Role in Change, Academy of Management Meeting, Boston Mass.
13. M. Reinhart & Kenneth S. Rogoff, This Time Is Different Eight Centuries of Financial Folly Carmen, 2009.
14. Stefania Z. & Vangelis S., (2007) Entrepreneurship in the public sector: a framework of analysis in European local governments, Entrepreneurship & Regional Development

MARIJA KARAEVA*

VESNA GOCEVA MIHAJLOVSKA**

UDK 332.1.055.2.021(497.7)
332.1.055.2.021(4-672EU)
(Original scientific paper)

NEW TRENDS OF REGIONAL POLICY IN REPUBLIC OF NORTH MACEDONIA

Abstract

As one of the priorities of the European Union, Cohesion Policy targets all EU regions in order to support job creation, business competitiveness, economic growth, sustainable development, and improve citizens' quality of life.

Regional economic development is an important objective of the Government of North Macedonia and an important prerequisite for balanced and sustainable development of the country. Effective and efficient implementation of the policy for balanced regional development will significantly accelerate the integration processes into the European Union and align with its cohesion policy. Since 2007, when the first efforts were initiated, significant progress has been made towards creation of smart, sustainable and inclusive country. Special attention in this paper will be given to the legal and institutional framework and new principles of regional policy in RNM. The paper also will be focused on harmonization of the regional policy with sectoral policies in the county.

Keywords: EU regional policy, regional policy in Republic of North Macedonia, participations, inclusion, balanced development.
JEL Classification: R580, K0

* PhD, Programme Coordinator of the project "Sustainable and Inclusive Balanced Regional Development" - Ministry of Local-Self Government - R. Macedonia and Swiss Embassy/SDC e-mail address: karaevamarija@gmail.com

** PhD, Coordinator of Component of the project "Sustainable and Inclusive Balanced Regional Development" - Ministry of Local-Self Government - R. Macedonia and Swiss Embassy/SDC e-mail address:gocevavesna@gmail.com

Introduction

EU Cohesion Policy contributes to strengthening economic, social and territorial cohesion in the European Union and it aims to correct imbalances between countries and regions.[1] The regional policy of the European Union is a policy of investing in creating jobs, competitiveness, economic growth and improved quality of life.[2] For the period 2021-2027 EU cohesion policy has five policy objectives supporting growth, competitive and smarter Europe, greener, low-carbon Europe, connected and more social and inclusive Europe and the least but still important Europe closer to citizens. During creation of cohesion policy in last 30 years of cohesion policy the stakeholders have become increasingly diverse. Creation and implementation of regional policy should be an inclusive process with active participation of all actors including representatives of civil society, private sector, academia, and other groups.[3] Active stakeholder participation, especially involvement of citizens including vulnerable groups during the process of planning and decision-making processes is key success factor for building national consensus for the vison of the country in the field of regional policy.

Through the new Law of Balanced Regional Development[4] and new bylaws, The Republic of North Macedonia is trying to push the idea of thinking just at a higher level which includes participation, social inclusion, transparency and gender responsive budgeting. This is a big step towards EU priorities following the example of the EU member states and their regions.

1. THE INSTITUTIONAL FRAMEWORK FOR REGIONAL DEVELOPMENT IN THE REPUBLIC OF NORTH MACEDONIA IN ACCORDANCE WITH THE NEW LAW

The Law on Balanced Regional Development defines the following policy stakeholders responsible for stimulation of balanced regional development:

---

[1] Cohesion Policy 2021-2027, https://ec.europa.eu/regional_policy/en/2021_2027/

[2] Andonov. M. Mihajloski. Z Davitkovska. E. Goceva. V., Main challenges in the implementation of regional development in the Republic of Macedonia, Economic Development No.3/2015 p. (177-194)

[3] Cohesion Policy: involving citizens to ensure better results https://ec.europa.eu/regional_policy/en/newsroom/news/2020/02/02-06-2020-cohesion-policy-involving-citizens-to-ensure-better-results, 09.2021

[4] The Law on Balanced Regional Development Official Gazette No 24/2021

- Council for Balanced Regional Development of the Republic of North Macedonia;
- Ministry of Local Self-Government (MLSG);
- Councils for Development of the Planning Regions (CRDs), and the following operational stakeholders in the regional development:
- Bureau for Regional Development (BfRD);
- Centres for Development of the Planning Regions (CRDs).

The Council for Balanced Regional Development is the main integrative body on a national level, ensuring harmonization of the balanced regional development policy with sector policies and the macro-economic policy of the Republic of Macedonia.

With the new Law on Balanced regional Development from 2021, the Council for Balanced Regional Development has the following 21 members: Vice President of the Government, in charge of economic affairs, for coordination with the economic departments and investments, First deputy of the Prime Minister and the Minister for political system and relations between the communities, Deputy of the Prime Minister in charge of European Affairs, Ministers in charge of the Ministries for: Local self-government, Finance, Economy, Transport and Communications, Education and Science, Labor and Social Policy, Culture, Environment and Spatial Planning and Agriculture, Forestry and Water Management; 8 Presidents of the Councils of the Development of Planning Regions and the President of the Union of the Units of Local Self-Government (ZELS).

The Ministry of Local Self-Government is authorized to create and carry out the national policy for Balanced Regional Development. In cooperation with the other line Ministries that allocate funds for stimulation of regional development, it is responsible for defining and implementation of the national policy in accordance with other national strategic documents. As a separate entity within the Ministry, the Bureau for Regional Development is responsible for implementation of the national policy of regional development. It acts as a main operational unit in the implementation of the policy: distribution of the funds and main support to the CRDs.

Councils for Development of the Planning Regions are established for each planning region and constitute of the mayors of the municipalities from the respective region. They are responsible for the development policy within the own region by: formally adopting the regional development documents, coordination of the diverse regional stakeholders in the development area,

identifying the areas with special development needs in the region and promoting cross-border cooperation with regions from other countries.

CRDs (established by the municipalities from each region) are the main bodies for implementation of the activities for regional development and are responsible for the preparation of regional development documents. At the same time, they are the main regional driver for utilization of the national funding for development dedicated to their region by preparation and implementation of development projects.

2. IMPLEMENTING THE POLICY AT THE REGIONAL LEVEL

The regional institutions i.e., Centres, play an important role in the process of regional development in the Republic of Macedonia. The Centres as main operational bodies responsible for implementing the policy of balanced regional development represent a fundamental link in the regional development processes in the country. Hence, this paper is focuses at issues related to the current situation of the CRDs.

According to the Law on Balanced Regional Development each of the Centres participate in the planning of the development at the level of planning region; the implementation of development projects; informing and coordinating the relevant factors for development; providing expert support of the municipalities, associations etc. in preparation of regional development projects; supporting the cooperation among municipalities; mobilizing financial resources from international funds and the European Union; promoting the development prospects of the planning region, supporting the competitiveness through active support of the private sector, and other activities aimed at supporting the development of the planning region.

The tasks of the Centres are clearly highly complex. On one hand, they are responsible for the planning the development activities at the regional level, i.e. preparation of Programmes for Regional Development, and on the other hand, they are responsible for preparation and implementation of all projects financed by different sources, but mostly from state Programmes for Balanced Regional Development.

They are also responsible for fostering cooperation at the regional level, between municipalities and also between other stakeholders: the business community, NGOs, the scientific - research sector etc.

With the new Law on Balanced Regional Development, the Center for development of the planning region shall organize regional consultations - fo-

rums for determining the Proposed list of regional projects in accordance with the Regulation on the manner of organizing and conducting forums adopted by the Minister.

In order to strength the role of the civil society, business sector and academia with the new Law on Balanced Regional Development, members of the Council for Development of the Planning Region with the right to vote remain to be the mayors of the municipalities that are part of the planning region. But also, representatives from the civil society and business organizations will be members of the RCs, without the right to vote.

From the first day of establishment until now, Centers engages the entire workforce in implementation of various projects and their focus to networking, delivering serviced to civil society, business sector is reduced to minimum.

In regards to the Policy of Balanced Regional Development, i.e., in terms of the overall system of balanced regional development, the Centres facilitate a unified approach in the development, primarily in institutional sense, because they provide a certain balancing of the differences regarding the level of development within the regions, i.e., overcoming the disparities in the municipal development, and above all their administrative capacities. The existence of identical structures in each of the planning regions is an essential pre-condition to foster a unified approach in the development.

In this context, the strengthening of Centres and ensuring their long-term sustainability is of utmost importance for the sustainability of the overall system for a balanced development, which do not have developed technological infrastructures nor possess highly specialized workforce and special skills.

The successful functioning of the Centres and the continuous strengthening of their capacities to mobilize financial resources, means paving the way for a more dynamic regional development.

3. SUSTAINABLE URBAN DEVELOPMENT AND URBAN AREAS

Following the EU practice, for the first time the urban areas are at the center of importance in this policy. Till now only the regions, areas with specific development needs and the villages were financed through the Program for Balanced Regional Development. From 2021, municipalities based in a city, municipalities in the city of Skopje and the city of Skopje have the opportunity to apply for funds in the Bureau for Regional Development.

Also, MLSG is implementing a Program for distribution of funds to reduce disparities between and within the planning regions and increase regional

competitiveness. The beneficiaries of the funds may be the Centers for development of planning regions, municipalities, municipalities in the City of Skopje, the City of Skopje, public enterprises and public institutions established by the Government, municipalities, municipalities in the city of Skopje and the city of Skopje, higher education and scientific institutions and associations/ societies.[5]

4. MAINSTREAMING OF PARTICIPATION, SOCIAL INCLUSION, GENDER RESPONSIVE BUDGETING AND TRANSPARENCY INTO NATIONAL LEGISLATION GOVERNING BALANCED REGIONAL DEVELOPMENT

Participation, social inclusion, gender equality and gender responsive budgeting, and transparency are the new principles introduced with the new Law for balanced regional development, bylaws and other related documents. These principles are the main drivers of the new approach of the policy for regional development in North Macedonia.

Regional forums were organized for the first time in 2020 by the Bureau for Regional Development as a tool for consultations in a process of determining the Proposed list of regional projects financed through the national budget.

The new by law: Rulebook on the procedure and methodology for evaluation of projects proposal[6] was prepared, taking into account three additional criteria for the project proposals supported through Programme for balanced regional development of MLSG/BfRD as qualification criteria:

1) social inclusion of the project proposal, i.e., whether the project proposal addresses the problems of persons belonging to at least one of the listed vulnerable and marginalized groups in the planning region;

2) transparency, i.e., whether there is a clearly marked section on the website of the Centre;

3) participation in the process of identification of the regional project proposal, i.e., whether the regional forum model has been implemented as consultative mechanism in the process of defining the project proposal.

The new Strategy for Regional Development for the period 2021 – 2031[7] was prepared in a participatory manner including all relevant stakehold-

[5] Op.cit., Article 58

[6] Rulebook on the procedure and methodology for evaluation of projects proposal, Official Gazette No 24/2021

[7] Strategy for Regional Development for the period 2021 – 2031, Official Gazette No 76/2021

ers. Gender issues and gender responsive budgeting and Sustainable Development Goals were taken into consideration during preparation of the Strategy.

One of the biggest benefits in the field of transparency is the establishment of the System for coordination in the planning, implementation, monitoring and evaluation of the policy for balanced regional development (SiReRa). The MLSG takes care of timely filling system with data from involved in balanced regional development. This is the first step for starting the process of digitalization of the regional development policy.

Conclusion:

The legal framework and institutional structure that was established as a result of the enactment of the Law for Balanced Regional Development is the main factor that supports the successful implementation of regional development policy in North Macedonia. The current institutional arrangements include to a certain degree well defined responsibilities of the key institutions in charge of the regional development, the processes and sources of their financing, their mutual rights and obligations, as well as methods and channels of inter-institutional communication.

The regional development policy needs to be further strengthened and its implementation and administrative capacity at central and local level needs to be improved.

On regional level, ideally, the Centres instead of focusing on implementation of projects would have to be responsible for the spreading and fostering of the regional culture in the regions, for building cooperation within and between regions in the country and beyond, to nourish the regional policy pathway thus leading the region towards innovation, research and development, and encouraging all possible forms of cooperation and association (clusters, public-private partnerships, etc.). If the goal is the regions to become more successful in the future, they must learn a new strategy, that is, to begin exploring new opportunities for development.

Introduction and regular exercises of the main principles such as: transparency, active citizens' participation, gender equality, social inclusion will increase welfare of all eight planning regions in North Macedonia.

References

1. Andonov. M. Mihajloski. Z Davitkovska. E. Goceva. V., Main challenges in the implementation of regional development in the Republic of Macedonia, Economic Development No.3/2015 p. (177-194)
2. Cohesion Policy 2021-2027, https://ec.europa.eu/regional_policy/en/2021_2027/
3. Cohesion Policy: involving citizens to ensure better results https://ec.europa.eu/regional_policy/en/newsroom/news/2020/02/02-06-2020-cohesion-policy-involving-citizens-to-ensure-better-results, 09.2021
4. The Law on Balanced Regional Development, Official Gazette No 24/2021
5. Rulebook on the procedure and methodology for evaluation of projects proposal, Official Gazette No 24/2021
6. Strategy for Regional Development for the period 2021 – 2031, Official Gazette No 76/2021

UDK 338.121:330.341.1]:303.724(497.7)
338.121:330.341.1]:303.724(497.7)
(Original scientific paper)

TATJANA DRANGOVSKA*
MARICA ANTOVSKA-MITEV**

THE ROLE OF TECHNOLOGICAL PROGRESS IN SUSTAINABLE ECONOMIC GROWTH – THE CASE OF THE REPUBLIC OF NORTH MACEDONIA

Abstract

The purpose of this paper is to assess the role of technological progress in long-term economic growth, with special emphasis on the case of the Republic of North Macedonia. There are two basic postulates serving as starting point of the paper: first, according to the new growth theory, the technological progress has crucial role in the economic gowth and second, one of the main targets of sustainable development goals (SDGs) is to foster innovation and R&D of national economies in purpose to boost their transformation in knowledge-based economies as a precondition for sustainable development.

The hypothesis of the paper is that the technological progress is positively correlated with the long-run economic growth; this is in accordance with the economic theory. The analyses conducted in the paper are based on secondary data (Eurostat, European Commission, State Statistical Office, World Bank) and in order to confirm or reject the paper's hypothesis an econometrician model has been performed. The main methods used in the paper are statistical method, method of comparison, method of analysis and synthesis. The paper deals with technological progress in the EU and North Macedonia, measured through available data. The findings indicate a positive correlation between the technological progress and the economic growth in the case of EU countries. In the case of the Republic of North Macedonia, the results of the regression analysis confirm the

* Ph.D. student, Associate Researcher, Center for Strategic Research "Ksente Bogoev", Macedonian Academy of Sciences and Arts, North Macedonia, e-mail: tatjana.drangovska@manu.edu.mk

** Ph.D., Scientific Collaborator, Center for Strategic Research "Ksente Bogoev", Macedonian Academy of Sciences and Arts, North Macedonia, e-mail: mantovska@manu.edu.mk

positive and statistically significant impact of R&D on GDP and negative and statistically significant impact of number of persons with tertiary degree on GDP. The findings confirm the main hypothesis of the paper.

Keywords: economic growth, R&D, innovation, human capital, technological progress.
JEL classification: O30, O47, O52, J24.

Introduction

Economic growth by definition is the inflation adjusted market value of the goods and services produced by an economy over time. Sustainable growth is a process of economic growth where the welfare of human society does not exhibit a tendency to decline over time[1]. It is usually measured as the percent rate of increase in real gross domestic product (GDP) or in real GDP per capita terms. In the paper the economic growth is measured through GDP. Technological progress, technological development or technological change is the process of invention, innovation and diffusion of technology or processes. Basically, the technological progress is the invention of technologies and their commercialisation via research and development, the improvement of technologies and their diffusion. Total factor productivity is used to measure the technological progress[2]. Because of the missing data for total factor productivity, in the paper the technological progress in the EU countries is analysed through its main factors: the level of R&D investments and innovation. In the paper, the technological progress in North Macedonia is analysed through three key factors/sources: human capital, R&D investments and innovation. Explanatory variables in the econometric model are R&D investments and number of persons with tertiary education.

Today economists agree that R&D, innovation and technological progress are factors that provide a competitive advantage and sustainable economic growth[3]. According to the new economic growth theories, the crucial role in long-term economic growth has technological progress. The Solow model[4] of

[1] IMF, (2012). *Statistics on the Growth of the Global Gross Domestic Product (GDP) from 2003 to 2013*.

[2] Crespo, R. J., (2005). "Total Factor Productivity: An Unobserved Components Approach". University of Bristol Discussion Paper No. 05/579. Bristol: University of Bristol.

[3] Pece, A. M., Simona, O. E. O. and Salisteanu, F. (2015). "Innovation and economic growth: An empirical analysis for CEE countries". *Procedia Economics and Finance*, Vol.26, pp: 461– 467

[4] Solow, R.M. (1957). "Technical Change and the Aggregate Production Function". *The Re-*

economic growth is including the technological progress in the growth model, as well as the new endogenous theories[5][6]. The economic growth is achieved mainly due to the technological progress in the most developed economies, such as: China, Japan, South Korea, Switzerland, Great Britain, Germany etc.

The paper's goal is to analyse the characteristics of the technological progress and its role as a source of economic growth, with main focus on the case of North Macedonia. The main hypothesis of the research is that the technological progress is positively correlated with the long-run economic growth; this is in accordance with the economic theory. Furthermore, the paper focuses mainly on two questions: first, whether technological progress is correlated with the level of economic growth and second, which are the basic characteristics of technological progress in North Macedonia and what is its role in long-term economic growth.

First, the technological progress in the EU is assessed through the investments in R&D and innovative performances measured by the Summery Innovation Index and Community Innovation Survey. In the second part the similar analysis is done for North Macedonia. The main findings are summarised at the end of the paper.

1.1. THE ROLE OF R&D AND INNOVATION IN THE ECONOMIC GROWTH

1.1. R&D investments

R&D investments and innovation are two key indicators used to monitor technological progress worldwide. R&D consists of creative and systematic work that is undertaken to increase the stock of knowledge in order to raise the general level of development and use of those skills in all areas of social development[7].

One of the EU priorities in the next decades is the EU member states to increase the R&D investments. In the Europe 2020 strategy, one of the long-term goals is R&D share to reach 3% of GDP.

---

view of Economics and Statistics, Vo.39, No.3, pp: 312-320.

[5] Romer, P.M. (1986). "Increasing Returns and Long-Run Growth". *The Journal of Political Economy*, Vol.94, No.5, pp: 1002-1037.

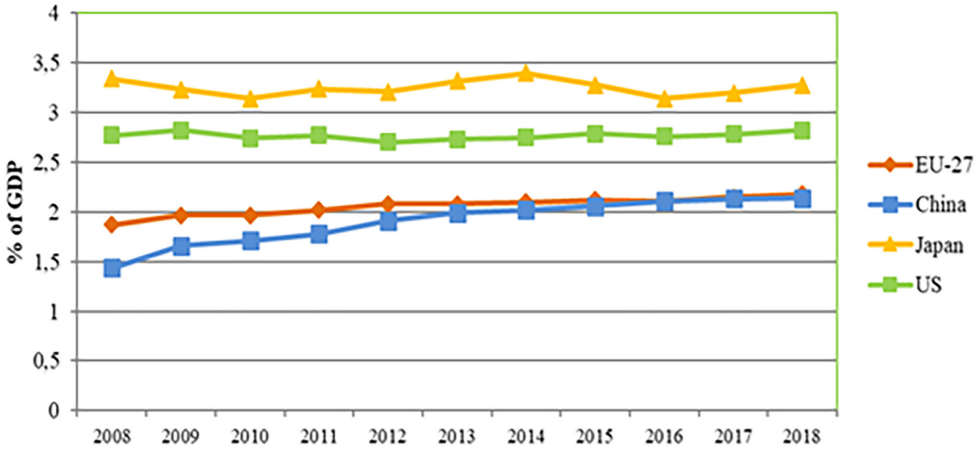
[6] Lucas, R. E. (1988). "On the Mechanics of Economic Development". *Journal of Monetary Economics*, No.22, pp: 3-42.

[7] OECD: Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development, The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing, Paris, 2015, p. 12.

In the last decade, although the EU member states have mobilized increasing resources for R&D, the R&D investments still remain lower than the 3% target. According to an analysis conducted by the European Commission, the EU will not meet its target to spend 3% of its GDP on R&D until 2030, unless it dramatically increases its ambitions and investments[8]. Although the EU, in the last decade, spent more than EUR 306 billion on R&D, the EU's expenditure in average remains at 1.8% of GDP[9]. The R&D investments as a percentage of GDP stood at 2.19% in 2019, compared with 2.18% in 2018. Ten years earlier (2009) the R&D investments as GDP share was 1.97%. In respect with the other major economies, in EU (2.18%) the R&D investments as share of GDP in 2018, is much lower than the share in South Korea (4.52%), Japan (3.28%) and US (2.82%), while it is about at the same level as in China (2.06%)[10] (Figure 1).

EU represents around 20% of global R&D investments, China represents around 25%, US share is around 26%, the share of developed Asian economies is 15%, while the rest of the world share is around 12%[11].

Figure 1. R&D investments, 2008 - 2018



[8] https://www.researchprofessionalnews.com/rr-news-europe-innovation-2020-7-eu-r-d-spending-on-course-to-miss-3-target-until-after 2030/#:~:text=The%20EU%20will%20not%20meet, analysis%20by%20the%20European%20Commission, (accessed date 03.02.2021)

[9] PROJECT EUROPE 2030, Challenges and Opportunities, A report to the European Council by the Reflection Group on the Future of the EU 2030.

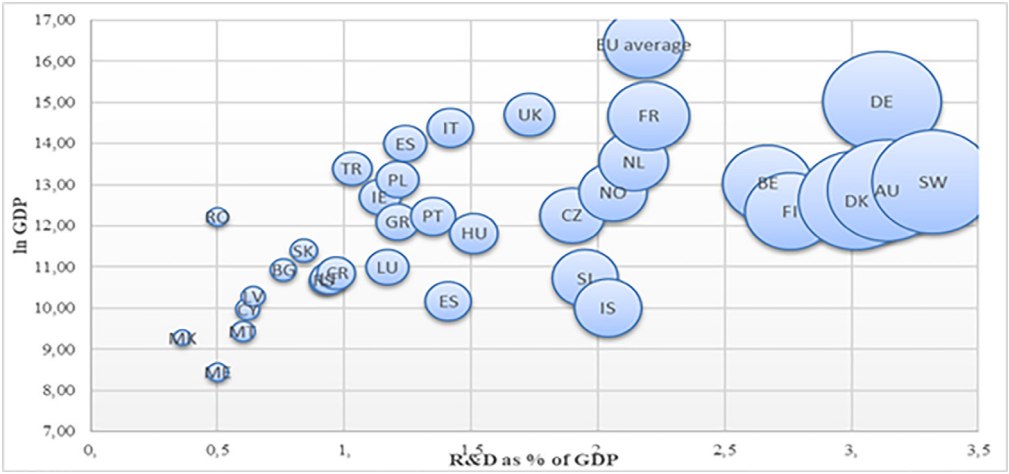
10 https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20201127-1#:~:text=In%202019%2C%20the%20highest%20R%26D, close%20to%203.0%25%20of%20GDP, (accessed date 28.01.2021)

[11] European Commission: Science, Research and Innovation Performance of the EU 2020: A fear green and digital Europe, Publication Office of the European Union in Luxemburg, 2020, p. 260.

Source: Eurostat, https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20201127-1#:~:text=In%202019%2C%20the%20highest%20R%26D,close%20to%203.0%25%20of%20GDP, (accessed date 28.01.2021)

In Europe, in 2019 the highest R&D investments are recorded in Sweden (3.39%), Austria (3.19%) and Germany (3.17%), in all other EU countries the R&D investments are above 3% of GDP. At the opposite end of the scale, in eight EU member states are recorded R&D investments below 1% of GDP (Figure 2).

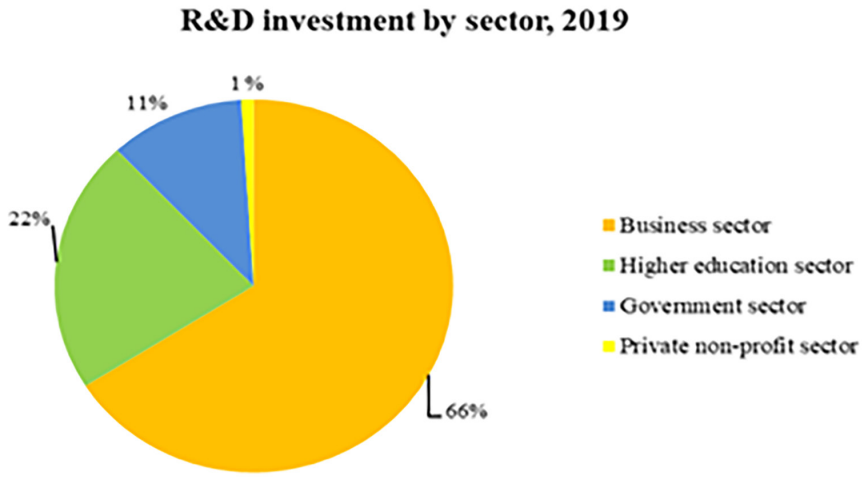
Figure 2. R&D investments as % of GDP and GDP in logarithm form, selected European countries, 2019.



Source: Eurostat, https://ec.europa.eu/eurostat/web/main/data/database, (accessed data 28.01.2021)

The analysis by sector of performance shows that in all years, within the EU countries, the highest share of R&D investments is realised in the business sector. In 2019, the business sector accounted for 66% of total R&D investments, followed by the higher education sector (22%), the government sector (11%) and the private non-profit sector (1%) (Figure 3).

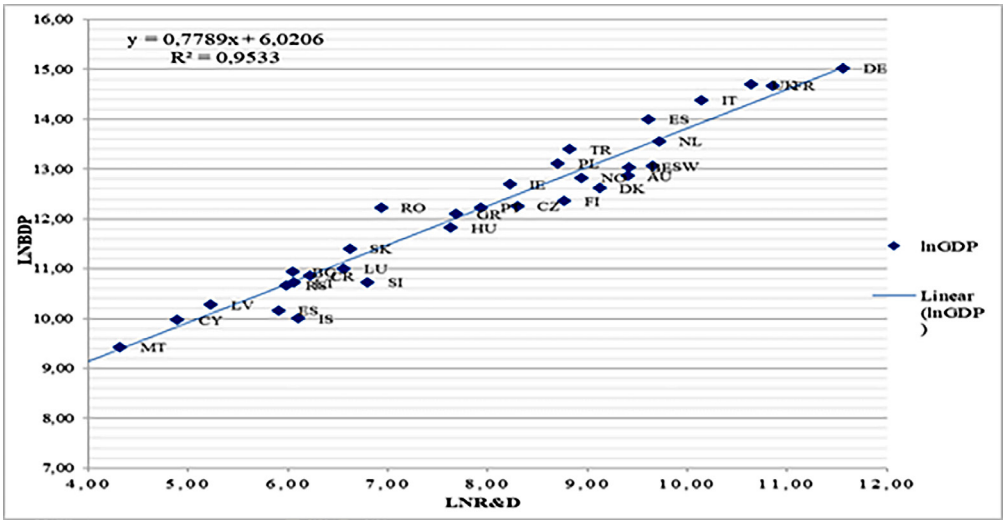
Figure 3. R&D investments in the EU, by sector, 2019.



Source: Eurostat, https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20201127-1#:~:text=In%202019%2C%20the%20highest%20R%26D, close%20to%203.0%25%20of%20GDP, (accessed data 28.01.2021)

The positive correlation between R&D investments and economic activity, measured by GDP among EU is presented in Figure 4. The R&D investments and GDP are presented as logarithms. In Figure 4 a simple linear regression is presented, where the dependent variable is GDP and the independent variable is R&D investments. The coefficient of correlation is above 0.9 and in accordance with economic theory, the regressive analysis confirms that R&D investments have a positive effect on economic growth.

Figure 4. Correlation analyses, R&D investments and GDP for selected countries in Europa, 2019.



Source: Authors' calculations.

1.2. Innovation

R&D is an input in the innovation process. Innovation is defined as a new or improved product or process (or a combination thereof) that differs significantly from the unit's previously produced or processes and that has been made available to potential users (as product) or brought into use by the unit (as a process). Innovative enterprises are all enterprises that during the observation period have introduced product and/or process innovation and/or have some unfinished and/or unsuccessful innovation activity[12].

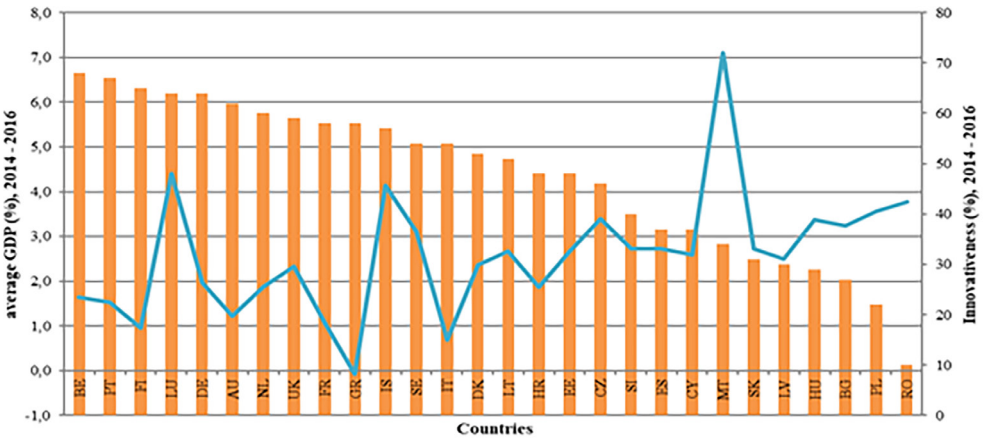
According to the Community Innovation survey, for the period 2014 – 2016, 51% of the enterprises among the EU are innovative. The innovativeness compared with the previous period 2012 – 2014 is slightly increased (49%). The highest percentage of innovative enterprises is registered in: Belgium (68%), Finland (65%), Luxemburg (64%) and Germany (64%). As opposite, the share of innovate enterprises was lower than 30% in Romania (10%), Poland (22%), Bulgaria (27%) and Hungary (29%)[13]. The average growth rate for

[12] OECD and Eurostat: Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation, 4th edition, The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing Paris/Eurostat, Luxemburg, 2018, p. 20.

[13] https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20201127-1#:~:tex-

the countries with more than 50% of innovative enterprises is 2%. While the average growth rate for countries with the lowest share of innovative enterprises, below 30%, is 3.5% (Figure 5).

Figure 5. Innovation rates and average GDP rates for EU member states, 2014 – 2016.



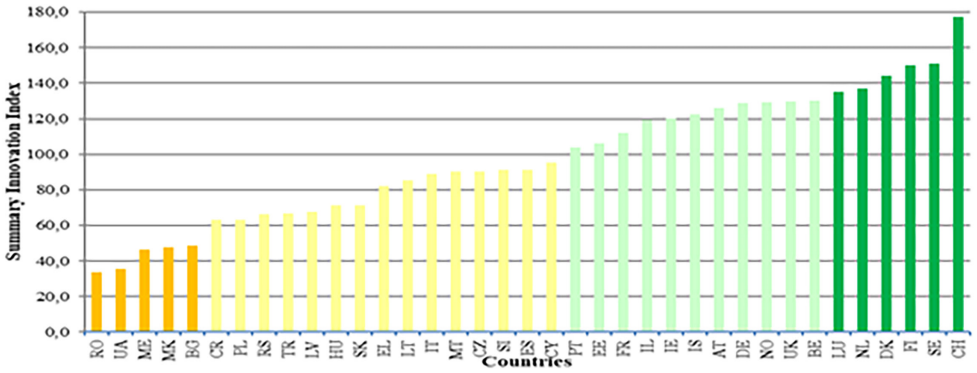
Source: Eurostat, https://ec.europa.eu/eurostat/web/main/data/database, (accessed data 28.01.2021)

For assessment of the development and potential of innovation and research systems of national economies, EC prepares an annual Report - European Innovation Scoreboard. The European Innovation Scoreboard through comparative analyses assesses the relative strengths and weaknesses of national innovation systems, in order to help countries to identify areas they need to address and improve it. Based on the innovation performance, countries are grouped in four groups: Innovation Lieders, Strong Innovators, Moderate Innovators and Modest Innovators.

In 2019, according to the European Innovation Scoreboard, five EU member countries fall into the group of Innovation Leaders. The innovative performance of the countries that consist this group is above 125% of the EU average. The second group of Strong Innovators includes 7 EU member states with the innovative performance of the countries in this group ranging between 95% and 125% of EU average. The third group of Moderate Innovators includes 13 EU member states and their performance is between 50% and 90% of EU average. In the last, forth group, 2 EU member states are included with innovative performance under 50% of EU average (Figure 6).

t=In%202019%2C%20the%20highest%20R%26D, close%20to%203.0%25%20of%20GDP, (accessed date 28.01.2020)

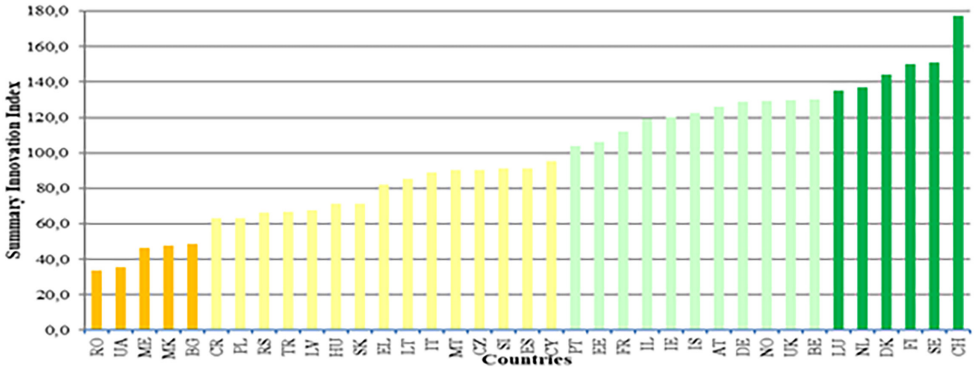
Figure 6. Countries' ranking according to the Summary Innovation Index, 2019.



Source: European Commission, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_20_1150, (accessed data 28.01.2020)

Figure 7 presents a single linear regression, where the dependent variable is GDP in its logarithm form and independent variable is Summery Innovation Index (SII). Selected countries from Europe are included in the regression. The correlation coefficient (above 0.4) indicates a positive correlation between the Summary Innovation Index and economic growth; this is in accordance with economic theory.

Figure 7. Correlation analyses, SII and GDP, for selected countries in Europa, 2019.



Source: Authors' calculations.

2. SOURCES OF ECONOMIC GROWTH IN NORTH MACEDONIA

North Macedonia in the last three decades is facing serious problems and challenges in achieving sustainable rates of economic growth. The economic growth in the country is mainly unstable and has an unfavorable structure.

One of the most frequently used models for the measurement of the sources of economic growth is the growth accounting model. The results from conducted calculations for the Macedonian economy show that labour had highest share in the growth rates for the period 2000 – 2012. The absolute contribution of the labour is 0.84%, while the relative contribution is 35.75%. The capital contributes in absolute terms with 0.8%, while in relative terms with 34%. TFP had the lowest contribution to the growth rate. TFP's relative contribution to the growth rate was 30%, while the absolute contribution was 0.71%. The average growth rate in the analysed period is 2.35%[14]. The low share of TFP in the growth rates in Macedonian economy indicates on unsustainable growth rates in the long run. The situation is especially serious if we compare the TFP contribution in North Macedonia with the contribution in the developed countries (40% to 50%) and with the middle-developed countries (35% to 40%).

According to the Ministry of finance's projections for the period 2019 – 2021, it is expected the capital to contribute with 38.4%, labour with 36.2%, while TFP with 25.4%, which still presents low contribution of TFP in the growth rates[15].

The negative TFP growth in 1993-2001 and again in 2009-2017 has not dragged down the GDP growth only, but at the same time has been accompanied by a declining rate in human capital formation[16].

---

[14] Lazarov, D. and Petreski, G.: Does Innovation Capacity Constraint Economic Growth in Republic of Macedonia, MPRA Paper No. 68398, 2015.

[15] Ministry of finance: Republic of North Macedonia, Programme for economic reforms 2019 – 2021, 2019, https://www.finance.gov.mk/files/%D0%9F%D0%95%D0%A0_%D0%9C%D0%9A%D0%94%202019_%D0%9C%D0%9A.pdf, (accessed data 27.01.2021)

[16] World Bank: *Seizing a Bright Future for All: Former Yugoslav Republic of Macedonia Systematic Country Diagnosis*. Report Number 121840-MK, The World Bank Group, 2018.

3. OVERVIEW OF TECHNOLOGICAL PROGRESS IN NORTH MACEDONIA

In this paper, technological progress in North Macedonia is analysed through three key factors/sources: human capital, R&D investments and Innovation.

3.1. Human capital

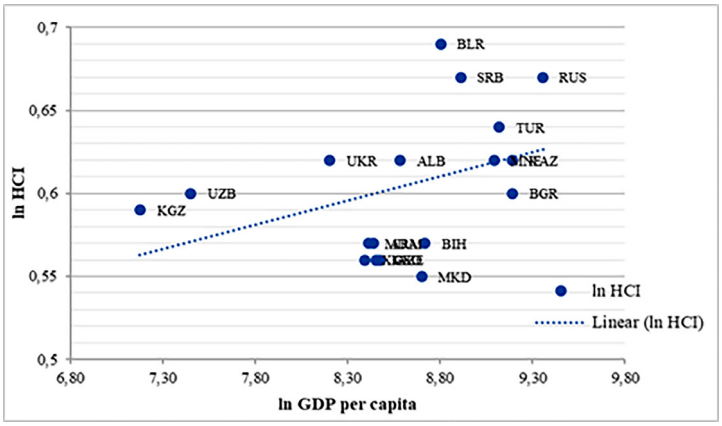
For the countries recognized as technological leaders, the main source of growth is technological progress and knowledge, while for the less developed countries the main source is human capital. North Macedonia belongs to the latter group. The human capital is a precondition for development of new ideas, R&D and innovation, all leading to technological progress, productivity growth and sustainable growth rates.

The World Bank through the calculation of Human Capital Index (HCI) measures the losses of the countries in terms of their productivity due to the insufficient investment in human capital. According to the latest HCI Report published in 2020, the value of HCI for North Macedonia is 0.56 and the country is ranked in the third group of countries, whose index values ranges between 0.5 – 0.6. Over the period 2010-2020, the value of HCI of North Macedonia increased from 0.54 to 0.56. The value of HCI shows that a child born today will be 56 percent as productive when he grows up, as he could be, if (s) he enjoyed full education and full health. The value of HCI shows that North Macedonia has the weakest performance, compared with the countries in the Western Balkan and compared with the countries that enter the same group by income (Figure 8). In North Macedonia, it is expected for children to complete 11 years at school by the age of 18. Factoring with what children actually learn, expected years of school are only 7.3 years, this indicating a gap of 3.7 years[17]. According to the World Bank, the preschool's enrolment is very low; the scores of the students on international tests are getting worse; the most of the unemployed lack adequate work experience and at the same time the firms in the country offer few opportunities for professional development[18]. The HCI value for North Macedonia and its position compared with the other countries indicates that there is a need for urgent measures in order to improve the education indicators.

[17] World Bank: The Human Capital Index 2020 Update: Human Capital in the Time of COVID-19, The World Bank Group: Washington, 2020.

[18] World Bank: *Seizing a Bright Future for All: Former Yugoslav Republic of Macedonia Systematic Country Diagnosis*. Report Number 121840-MK, The World Bank Group, 2018.

Figure 8. HCI and GDP for selected countries from the middle-income group, 2019.

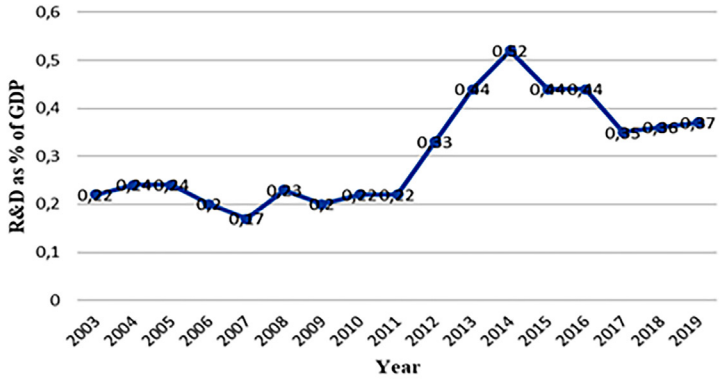


Source: Authors' calculations.

3.2. R&D investments

The analyses of R&D in North Macedonia show a very low share of R&D investments in GDP. In 2019, the share of R&D investments in GDP was 0.37%[19], which presents a relatively low share compared with the data in the EU. The lowest investment in R&D of 0.17% of GDP was realized in 2007 (Figure 11). In the recent years, a positive trend in R&D investments was registered, but still, the investments are less than the defined target of 1.8% in the Innovation Strategy of the Republic of Macedonia, for 2012 – 2020.

Figure 9. R&D investments as % of GDP, North Macedonia, 2003 – 2019.



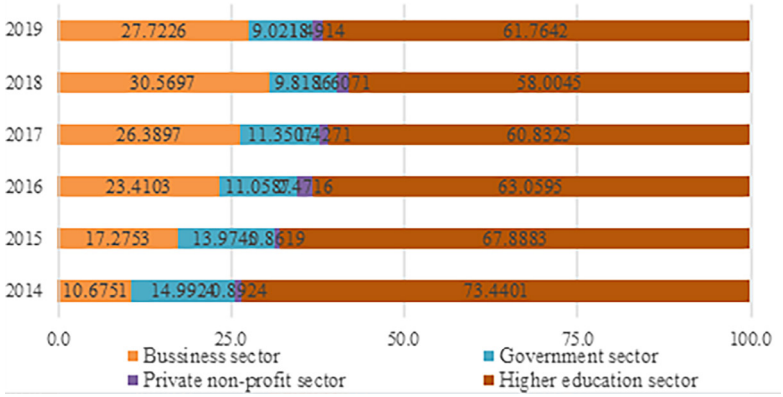
Source: SSO, https://www.stat.gov.mk/PrikaziPoslednaPublikacija_en.aspx?id=40, (accessed

[19] http://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7e-c5ef, (accessed date 28.01.2021)

data 28.01.2021)

Figure 10 shows that the highest investments in R&D in 2019 are realized in the high education sector (61.8%), while the lowest investments are realized in the private non-profit sector (1.5%), opposite to the EU where the highest investments are realized in the business sector (66%). Although there is an evident increase in R&D investments in the business sector in the last years, from 10.7% (2014) to 26.4% (2017) and up to 27.7% (2019), the R&D investments still remain at a very low level.

Figure 10. R&D investments by sectors, 2019.



Source: SSO, http://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat/?rxid=46ee0f64-2992-4b45-a2d9-cb4 e5f7ec5ef, (accessed data 28.01.2021)

3.3. Innovation

The human capital and R&D investments are leading to the improvement of the innovativeness in the national economies. The State Statistical Office's survey show that innovativeness of the Macedonian business sector is increasing. In the period 2012 – 2014, 36% of the enterprises are innovative, the share of innovative enterprises has slightly increased in the period 2014 – 2016 (37.4%), and in the last reference period 2016 – 2018, something more than half of the entities are innovative (55%) (Table 1).

Table 1. Innovative business entities in North Macedonia

Reference period	Total	Innovative (number)	%	Non-innovative (number)	%
2012 - 2014	2997	1078	36	1919	64
2014 - 2016	3114	1166	37, 4	1949	62, 6

2016 - 2018	3198	1758	55	1440	45

Source: SSO, http://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat/?rxid=46ee0f64-2992-4b45-a2d 9-cb4e5f7ec5ef, (accessed data 28.01.2021)

Despite the increase of the business sector's innovativeness, North Macedonia is lagging behind the most countries of the Western Balkan and particularly, the EU. Over the period 2014 – 2016, the Macedonian business sector is lagging behind the business sector of Slovenia (46%), Croatia (42%) and Serbia (41%), while the innovativeness of the Macedonian business sector is higher compared to the innovativeness of the business sector of Bulgaria (26%). If we compare the innovativeness of the Macedonian business sector with the innovativeness of the EU member states or with the EU average (51%), then it can be concluded that the differences are even higher, the Macedonian business sector is lagging by more than 10 percentage points compared with the share of innovative enterprises in EU.

According to the Innovation Union Scoreboard 2020, North Macedonia is ranked in the fourth group as Modest Innovator, together with Romania, Montenegro and Bulgaria. The value of the SII for North Macedonia is 44.5, which indicates that the country's innovative performance is 44.5% of the EU average. Over time, the performance has increased significantly compared to 2012 (34.0).

4. REGRESSION ANALYSIS

The dependent variable in the regression bellow is GDP, i.e., logarithm of GDP, while as independent, explanatory variables are included two variables – R&D investments and number of persons with tertiary education[20]. Regression analysis refers to North Macedonia, for the period 2007 – 2019.

[20] In the model is included as explanatory variable the number of persons with tertiary education, not HCI for measurement of the level of human capital development due to the short data series for HCI for North Macedonia.

Data source is SSO.

The model is then:

$$(1)\quad \ln\text{GDP} = \beta_0 + \beta_1 \ln R\&D + \beta_2 \ln tertiary\ education + u,$$

The variables:

= natural logarithm of GDP

= natural logarithm of R&D investments

= natural logarithm of persons with tertiary education

The method used is Ordinary Least Squares Method (OLS Method). Table 3 presents the estimation results of the regression.

The estimated model is:

$$(1)\quad lnGDP = 21{,}1857 + (0{,}2707) \ln R\&D + (-0{,}5511) \ln tertiary\ education + u$$

Table 2. Estimation results

	Coefficients	*t Stat*
Intercept	21, 1857 (2, 1678)	9, 7727
ln R&D	0, 2707 (0, 0467)**	5, 7977
ln tertiary degree	- 0, 5511 (0, 1014)***	-2, 8792
R2	0, 8922	
adj. R2	0, 8706	
F-Statistics	41, 3617	

Source: Authors' calculations.[21]

The regression results show that the model is statistically significant (F = 41.36). Based on regression results the explanatory power of the model is highly significant ($R^2 = 0.89$). i.e., 89.22% of the variation in GDP is explained with the variation in the independent variables – R&D investments and persons with tertiary education. The estimated coefficient shows that R&D investments have a positive and statistically significant impact on GDP at the 5% level of significance. The estimated coefficient shows that persons with territory education have a negative and statistically significant impact on GDP at the 10%

[21] **, ***, significance at 5% and 10%, respectively.

level of significance. One of the explanations for the negative impact is international mobility, especially among technology graduates. The high mobility on labour market allows those graduates to migrate outside the country, which leads to the potential negative impact on R&D, labour productivity and growth rates in the long-run term[22]. The time lag could be also one of the reasons for the negative impact of persons with tertiary education on growth rates, as well as, the high number of graduates, besides the low level of quality staff.

Conclusion

Based on the analyses in the paper, it could be concluded that although the EU member states have mobilized increasing resources for R&D, the R&D still remains lower than the defined 3% target at the EU level. In some countries like Sweden, Austria and Germany, R&D investments are higher than 3%. The innovativeness of the business sector in the EU is continuously increasing, and, at the same time, the most developed national economies have highly innovative business sectors. The results of the regression analyses for EU confirm the positive correlation between R&D and economic growth. The same positive correlation is confirmed between the performances of innovative and research systems and the economic growth for EU member states and selected Western Balkan countries. This is in accordance with the economic theory and the paper's hypothesis.

The growth accounting model for North Macedonia shows that main sources of growth in the country are labour and capital, the share of TFP is under 30% and it is lower compared to the share of middle developed economies. One of the country's priorities in the upcoming period should be the improvement of human capital. The country should undertake urgent measures to improve both the quantity of its human capital (measured by school enrollment, school completion, and child mortality rates) and its quality of human capital (measured by the results of international standardized tests). R&D investments as a share of GDP in the last years have increased, but they still remain under the defined target in the Innovation Strategy of the Republic of North Macedonia (1.8%) and under the EU average (2.19%). Additional problem is the low share (below 30%) of R&D investments in the business sector in total R&D investments. This is particularly serious problem as business sector's invest-

[22] Machin, S. and McNally, S.: Tertiary Education System and Labour Markets, OECD Publication, 2007, p.41.

ments are the main source of technological progress and economic growth. The innovativeness of Macedonian business sector is constantly increasing. According to the SII for North Macedonia, the performance of the innovation and research system in 2019 was at level of 44.5% of the EU average.

In line with the economic theory and paper's hypothesis, the results of the regression model for the case of North Macedonia, confirm the positive impact of R&D investments on the growth rates. On the other hand, the results show a negative impact of persons with tertiary education on economic growth. This could be attributable to the migration of the highly education labour abroad or could be a result of the time-lag effect. In the case of the EU, the conducted analysis confirms the positive correlation between technological progress and long-run economic growth.

The summary conclusion of the paper indicates that the developing countries such as North Macedonia should increase their R&D investments and innovative capacities given that the economic theory and the performed analyses have confirmed that countries with high R&D investments are achieving sustainable growth rates.

References

1. Crespo, R. J., (2005). "Total Factor Productivity: An Unobserved Components Approach". University of Bristol Discussion Paper No. 05/579. Bristol: University of Bristol.
2. European Union: *PROJECT EUROPE 2030, Challenges and Opportunities, A report to the European Council by the Reflection Group on the Future of the EU 2030*, Luxemburg: Publication Office of the European Union, 2010, Available at: https://www.consilium.europa.eu/media/30776/qc3210249enc.pdf, [accessed date 03.02.2021]
3. Eurostat: Community Innovation survey, latest results, 12.03.2019, Available at: https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20190312-1, [accessed data 28.01.2021]
4. Eurostat: Database, Intramural R&D expenditures (GERD) by sectors of performance, 20.01.2021, Available at: https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20201127-1#:~:text=In%202019%2C%20the%20highest%20R%26D, close%20to%203.0%25%20of%20GDP, [accesed data 28.01.2021]
5. Eurostat: Database, GDP and main components (output, expenditure and income), 27.01.2021, Available at: https://ec.europa.eu/eurostat/

databrowser/view/nama_10_gdp/default/table?lang=en, [accessed at 28.01.2021]

6. European Commission: *European Innovation Scoreboard 2020*. Luxemburg: Publication Office of the European Union, 2020, Available at: https://ec.europa.eu/commission/presscorner/detail/en/QANDA_20_1150, [accessed data 28.01.2021]
7. European Commission: *Science, Research and Innovation Performance of the EU 2020: A fear green and digital Europe*. Publication Office of the European Union in Luxemburg, 2020, Available at: https://ec.europa.eu/info/sites/info/files/srip/2020/ec_rtd_srip-2020-report.pdf, [accessed data 28.01.2021]
8. IMF, (2012). *Statistics on the Growth of the Global Gross Domestic Product (GDP) from 2003 to 2013*.
9. Lazarov, D. and Petreski, G.: "Does Innovation Capacity Constraint Economic Growth in Republic of Macedonia", 2015, *MPRA* Paper No. 68398, Available at: http://eprints.ugd.edu.mk/14780/1/MPRA_paper_68398%20Lazarov%26Petreski.pdf, [accessed data 28.01.201]
10. Lucas, R. E. (1988). "On the Mechanics of Economic Development". *Journal of Monetary Economics*, No.22, pp: 3-42.
11. Machin, S. and McNally, S.: *Tertiary Education System and Labour Markets*, OECD Publication, 2007, Available at: https://www.oecd.org/education/ceri/38038265.pdf, [accessed date 28.01.2021]
12. Министерство за финансии: *Програма на економски реформи 2019-2021 година*, 2019, Available at: https://www.finance.gov.mk/files/%D0%9F%D0%95%D0%A0_%D0%9C%D0%9A%D0%94%202019_%D0%9C%D0%9A.pdf, [accessed data 28.01.2021]
13. OECD and Eurostat: *Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation, 4th edition, The Measurement of Scientific, Technological and Innovation Activities*, OECD Publishing Paris/Eurostat, Luxemburg, 2018, Available at: https://www.oecd-ilibrary.org/docserver/9789264304604-en.pdf?expires=1611835167&id=id&accname=guest&checksum=F1B9D78EEBC42D3AA8EBB734CADC6CCE, [accessed data 28.01.2021]
14. OECD: *Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development, The Measurement of Scientific, Technological and Innovation Activities*, OECD Publishing, Paris, 2015, Available at: https://www.oecd-ilibrary.org/docserver/9789264239012-en.pdf?expires=1611834748&id=id&accname

=guest&checksum=2B850A55867D1948F2B4E1FDDED56F31, [accessed data 28.01.2021]
15. Pece, A. M., Simona, O. E. O. and Salisteanu, F. (2015). "Innovation and economic growth: An empirical analysis for CEE countries". *Procedia Economics and Finance*, Vol.26, pp: 461– 467.
16. Romer, P.M. (1986). "Increasing Returns and Long-Run Growth". *The Journal of Political Economy*, Vol.94, No.5, pp: 1002-1037.
17. Solow, R.M. (1957). "Technical Change and the Aggregate Production Function". *The Review of Economics and Statistics*, Vo.39, No.3, pp: 312-320.
18. State Statistical Office: Publications, Research and Development, 2019, Available at: https://www.stat.gov.mk/PrikaziPoslednaPublikacija_en.aspx?id=40, [29.01.2021]
19. State Statistical Office: MakStat Database, Business entities by innovations, sector and sizes classes, 21.05.2020, Available at: http://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat/MakStat__ObrazovanieNauka__Nauka__Inovacii/125_Science_En_Innov.px/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef, [accessed data 29.01.2021]
20. State Statistical Office: MakStat Database, Research and development costs according to execution sector, 12.08.2020, Available at: http://makstat.stat.gov.mk/PXWeb/pxweb/en/MakStat/MakStat__ObrazovanieNauka__Nauka__IstrazuvanjeRazvoj/200_Na_T_5_ml.px/?rxid=46ee0f64-2992-4b45-a2d9-cb4e5f7ec5ef, [accessed data 29.01.2021]
21. World Bank: *The Human Capital Index 2020 Update: Human Capital in the Time of COVID-19*, The World Bank Group: Washington, 2020, Available at: https://openknowledge.worldbank.org/handle/10986/34432, [accessed data 28.01.2021]
22. World Bank (2018). *Seizing a Bright Future for All: Former Yugoslav Republic of Macedonia Systematic Country Diagnosis*. Report Number 121840-MK, The World Bank Group, Available at: https://thedocs.worldbank.org/en/doc/876461543434469412-0080022018/original/MKDOVERVIEWENGWQ.pdf, [accessed data 30.11.2021]

UDK 339.727.2(100)
(Professional paper)

MIKI RUNTEV*

NEW INDICATORS OF INTERNATIONAL CAPITAL FLOW

Abstract

The motive for writing this paper is to answer the question of what are the new indicators of international capital flow and how they have affected to date, despite the great turbulence with the Covid crisis. But also to indicate whether and to what extent the international flow of capital had a positive impact on the overall socio-economic and financial relations of markets around the world. This paper connects the issues of the relations between the international capital flow, on the one hand and the other, the monitoring and analysis of the movements of the national finances of a large group of countries, the so-called developing countries and the emerging market economies. Different motives are the reason for the international tendencies, changes and effects caused by the Covid crisis.

The main research question is what tendencies and movements the capital markets faced in conditions of great market turbulence, uncertainty and crisis. On the other hand, an attempt is made to predict what will happen in the coming years in the post-crisis Covid period. The main focus now is on the process of economic recovery. But the question is not just about reviving economies, but how to make a better recovery that will be more sustainable and more resilient to future shocks. For this purpose, this paper is generally divided into qualitative methodological studies that draw conclusions.

The purpose of this paper is to show the structure and dynamics of the movement of international capital flows, as they went through a process of crisis, especially in developing countries, poorly developed countries and developed countries.

The following results are expected from the research: greater and correct conceptualization of capital flows from highly developed countries to poorly developed and developing countries, which will ensure the stability and efficiency of their real economies.

* Ass. Prof. Dr. Miki Runtev, PhD of economics, direction of international financial management, miki.runtev@yahoo.com

Keywords: international capital movement, direct investments, portfolio investments, financial derivatives, stock exchanges.

JEL Classification: F21, F62, F63, F65

Introduction

The international movement of capital has become one of the key driving forces of economic globalization. For example: foreign direct investment, portfolio investments and financial derivatives that bring together all major stock exchanges in the world, as well as other investments that provide access to foreign credit markets, largely determine the future of the international economy. At the same time, it is not so much the movement of capital that determines its condition and perspective, but, on the contrary, its dynamics that affect the flow of capital. On the other hand, many emerging economies today have made important decisions about accessing and managing capital flows. They did this in order to ease the requirements for capital inflows.

This type of asymmetric interdependence is explored in this paper, along with other aspects of international capital flows.This paper, in many ways, warns of the danger of the fact that in this crisis and turbulent period, the world economic situation is in great search for a new balance.

Therefore, the aim of this paper is to try to cover the new features and indicators in the process of the new stages of the development of the international capital flow in conditions of pandemic crisis. But, this goal is far more complex and as such should be subject to a good financial market system in an extremely complex and risky environment.

This is the basic hypothesis of labor, that the international flow of capital, the global financial system and financial markets today, face new challenges and risks. The reason for this is the complex situation in international economic and financial relations caused by the Covid crisis. In the globalized era, these relations continue to aspire to improve the situation in the international financial markets and as such deserve special analysis, monitoring and control.

The subject of the paper is the presentation of new tendencies and indicators of the international capital flow. They demand new approaches, national and international regulation, use of new instruments, a new role in global and regional financially responsible institutions.

In this context, the main characteristics and conditions of the international economic environment are revealed, through the analysis of FDI, stock exchanges, stocks and the work of multinational corporations and companies.

As a problem, it can be singled out, and in the context that the global challenges and conditions, the understanding of the determinants and priorities at the regional level, is necessary to strive for faster global rapprochement and higher incomes for greater prosperity.

The ultimate goal is to gain knowledge about financial stabilization, overcoming the current risks in dealing with the economic consequences of the Covid crisis, which is towards increasing disposable income and consumption of the population. As well as more successful coping with new challenges in the capital markets.

1. OVERVIEW OF THE INTERNATIONAL MOVEMENT OF CAPITAL

What is characteristic of capital flows in general is that they are directed from developed countries to developing countries and occur in several basic forms: FDI, portfolio investments, banking, stock exchanges and other private flows.

According to many analyzes of capital flows and credit processes, as well as their movement, indicate that in recent years there have been significant changes in the financial architecture. Special emphasis is placed on the role played by international financial centers. In this regard, the development of the world economy continues to dominate and maintain the tendency of transnationalization in the overall public, and even stronger in the pronounced economic activity. The world market economy, globalized in its scale, has totally obeyed the principles of market relations. It was moving towards the objective laws of the international division of labor and the internationalization of production and capital. Global inequality, as measured by all countries in the world regardless of national borders, has increased in recent years, reflecting strong revenue growth in some of the major emerging economies.

International capital movements have become very chaotic in recent years. Namely, due to the Covid crisis, gross capital inflows fell very quickly and later returned with an upward intensity. Fluctuations in capital net flows were sharper in newer emerging market economies compared to already developed economies.[1]

To this end, governments in most developing countries have begun to pay attention to the recent upheavals in capital flows and have expressed differing views. Thus, the key challenge facing governments is to anticipate capital flows in the face of low global interest rates and a low-risk version. But, also to answer the question of whether capital flows will be an obstacle for larger developed economies?

[1] Analysis of Ass. Prof. Dr Miki Runtev PhD of economics, direction of international financial management

In this regard, if we take into account the last 2-3 years, it can obviously be seen that net inflows have decreased from foreign portfolio investors in the markets, with special emphasis on underdeveloped economies. It is more than clear that at the moment the markets need the return of foreign investors who would be a catalyst for new dynamics.[2]

On the other hand, due to the crisis, there are companies that are present in the market, but on a much smaller scale than before, with frozen positions at higher price levels and a strategy of anticipation. But also with a quick way out in a future conjuncture. Of course, a new upward price trend can cause new earnings ambitions. Compared to traditional lending financing, the cost of capital has remained an important deciding factor in financing decisions. This can be expected to stimulate the demand for alternative sources of funding. A second important factor, which is in favor of lending, can be determined, that is the speed of the financing process.

Also, banking and other private flows became particularly volatile, and portfolio debt was the least sustainable. However, these differences are not always statistically significant for all economies. FDI were somewhat more stable and sustainable than the debt portfolio flows in some of the developing economies. In developed economies, banking and other private flows, along with debt portfolio flows, have proved equally volatile. While, FDI and portfolio equity securities were slightly less volatile. Similarly, in developing countries the standard deviation of FDI versus portfolio debt flows is not statistically significant and there are no major differences between them. This situation called into question the sustainability of net flows, which was generally said to be low and marginally higher in developed countries compared to developing countries. There are no significant differences on this issue, especially between economies.

However, what is happening today with FDI, compared to the financial crisis of 2008, shows the same decline in capital inflows in developing economies. It is considered that the fluctuations that existed then are identical to today that make FDI «problematic» in supporting economic growth in these conditions of crisis. Such falls and turbulence in such a short time can cause a serious blow to economies. Thus, global FDI in 2020 tended to decline by 42%, or a decline of 1.5 trillion dollars, while in 2019, a decline of about 859 billion dollars.[3] Characteristically, this low was last seen

[2] Analysis of Ass. Prof. Dr Miki Runtev PhD of economics, direction of international financial management

[3] According to United Nations Conference on Trade and Development *(UNCTAD),* published on January 24 (https://unctad.org/news/global-foreign-direct-investment-fell-42-2020-outlook-remains-weak), accessed on 12.06.2021

in the 1990s and is more than 30% below investment in the 2008 global financial crisis.

For that purpose, as an illustration in Table 1, FDI is described during the great financial crisis, how they moved compared to today.

Units: USD billion — **ANNUAL** — **QUARTERLY** — *Units: USD billion*

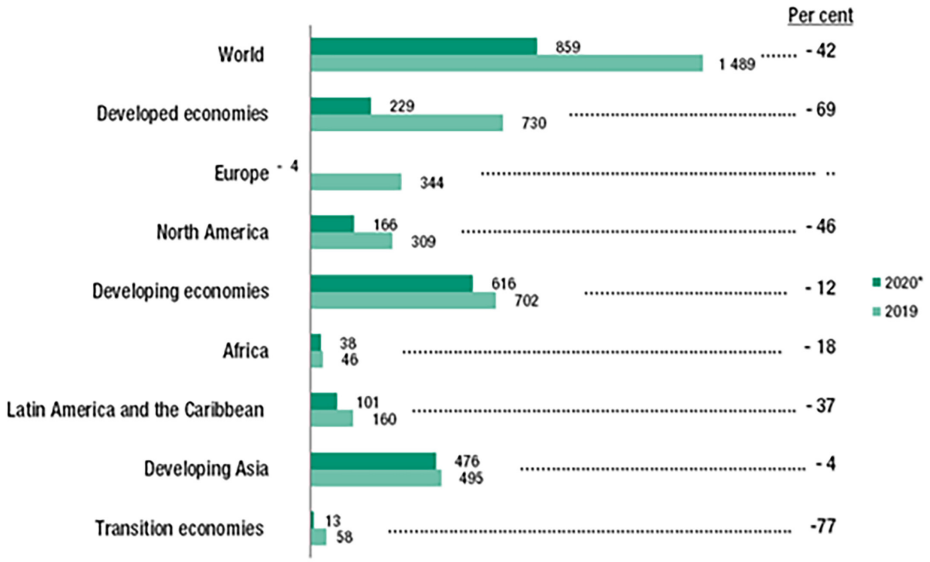
last update: 08/04/2013	2008	2009	2010	2011	2012[P]	Q4 2011	Q1 2012[P]	Q2 2012[P]	Q3 2012[P]	Q4 2012[P]	last update: 08/04/2013
Australia[1]	46.8	26.7	35.2	65.3	56.7	27.7	12.0	8.1	15.4	21.2	Australia[1]
Austria[(*)]	6.8	9.3	0.8	11.4	6.3	0.5	1.8	-3.4	4.5	3.4	Austria[(*)]
Belgium	193.6	61.0	85.7	103.4	-1.6	31.9	20.1	17.3	8.2	-47.2	Belgium
Canada	57.1	21.4	23.4	41.7	45.3	3.7	17.2	5.3	8.0	14.9	Canada
Chile	15.1	12.9	14.2	22.1	29.3	11.5	4.8	7.7	6.0	10.8	Chile
Czech Republic	6.4	2.9	6.1	2.3	10.6	2.1	1.9	2.7	2.7	3.3	Czech Republic
Denmark	1.8	3.9	-11.5	12.7	1.1	0.6	-2.2	1.0	0.3	2.0	Denmark
Estonia	1.7	1.8	1.6	0.3	1.5	-0.1	0.2	0.7	0.3	0.3	Estonia
Finland	-1.1	0.7	6.5	2.7	-1.8	-0.4	0.5	-0.3	-2.0	0.0	Finland
France	64.1	24.2	30.6	41.0	62.2	20.0	13.9	24.1	7.8	16.4	France
Germany	8.1	22.5	57.4	49.0	6.6	23.0	3.4	6.9	-7.8	4.0	Germany
Greece	4.5	2.4	0.3	1.1	2.9	2.2	-0.5	0.3	2.5	0.6	Greece
Hungary[(*)]	6.3	2.0	2.2	5.8	13.5	6.3	5.1	1.5	1.9	5.1	Hungary[(*)]
Iceland	0.9	0.1	0.2	1.1	0.5	0.3	0.2	0.2	0.2	0.0	Iceland
Ireland	-16.4	25.7	42.8	11.5	29.3	-26.7	16.6	-2.3	15.3	-0.4	Ireland
Israel[2]	10.9	4.4	5.5	11.1	10.4	5.2	1.7	3.3	3.4	2.0	Israel[2]
Italy	-10.8	20.1	9.2	29.1	8.8	6.9	2.2	-2.7	1.1	8.2	Italy
Japan	24.4	11.9	-1.3	-1.8	2.1	-0.4	0.6	-3.9	2.9	2.5	Japan
Korea	3.3	2.2	1.1	4.7	5.0	1.9	-0.9	2.9	0.5	2.6	Korea
Luxembourg[(*)]	11.2	20.7	27.7	14.4	58.5	1.9	5.6	6.7	5.6	40.6	Luxembourg[(*)]
Mexico	27.9	16.6	21.4	21.5	12.7	5.2	5.0	4.4	4.2	-0.9	Mexico
Netherlands[(*)]	4.5	38.6	-7.4	17.2	-0.2	18.1	3.4	1.7	-8.0	2.6	Netherlands[(*)]
New Zealand	5.0	-1.3	0.6	4.3	2.9	1.1	0.5	1.5	0.4	0.5	New Zealand
Norway	10.2	16.6	16.8	18.2	12.8	22.5	-1.3	1.1	5.7	7.3	Norway
Poland	14.8	12.9	13.9	18.9	3.4	4.4	-2.4	1.5	1.4	2.9	Poland
Portugal	4.7	2.7	2.6	11.2	8.9	7.2	1.7	6.1	0.1	1.0	Portugal
Slovak Republic	4.7	0.0	0.5	2.1	3.2	1.3	1.0	0.3	0.1	1.9	Slovak Republic
Slovenia	1.9	-0.7	0.4	1.0	0.1	0.4	0.3	0.0	0.0	-0.1	Slovenia
Spain	76.8	10.4	39.9	26.8	27.7	17.6	6.7	3.8	1.9	15.3	Spain
Sweden	36.9	10.0	-0.1	9.3	13.7	-10.9	11.3	3.5	4.4	-5.5	Sweden
Switzerland	15.1	28.9	32.6	11.8	3.6	1.5	6.8	5.9	-5.8	-3.3	Switzerland
Turkey	19.5	8.4	9.0	16.0	12.4	4.6	4.5	3.6	2.0	2.3	Turkey
United Kingdom	88.7	76.4	50.6	51.1	62.7	8.6	22.4	17.8	10.9	11.5	United Kingdom
United States	310.1	150.4	205.8	234.0	174.7	76.1	23.1	49.5	41.8	60.3	United States
OECD[3]	**1 055.7**	**647.1**	**724.7**	**872.3**	**685.6**	**275.9**	**187.2**	**176.8**	**135.8**	**185.8**	**OECD[3]**
Memo items:											*Memo items:*
EUROPEAN UNION[3,4]	***538.4***	***359.8***	***367.3***	***430.6***	***323.8***	***117.9***	***115.5***	***86.8***	***55.2***	***66.3***	***EUROPEAN UNION[3,4]***
TOTAL WORLD[3,5]	***1 765.3***	***1 142.7***	***1 389.1***	***1 664.0***	***1 414.0***	***488.9***	***388.4***	***328.6***	***310.8***	***386.2***	***TOTAL WORLD[3,5]***
G-20 countries	***1 045.2***	***644.2***	***786.4***	***970.5***	***873.4***	***301.3***	***210.7***	***202.0***	***188.8***	***271.9***	***G-20 countries***
OECD G-20 countries	*639.1*	*380.9*	*442.6*	*551.6*	*449.1*	*177.4*	*103.5*	*116.0*	*86.7*	*142.9*	*OECD G-20 countries*
Other G-20 countries	*406.1*	*263.3*	*343.9*	*418.9*	*424.3*	*123.9*	*107.2*	*86.0*	*102.0*	*129.0*	*Other G-20 countries*
Argentina	*9.7*	*4.0*	*7.1*	*8.7*	*10.8*	*3.7*	*3.7*	*2.5*	*2.1*	*2.6*	Argentina
Brazil	*45.1*	*25.9*	*48.5*	*66.7*	*65.3*	*16.3*	*14.9*	*14.8*	*17.9*	*17.7*	Brazil
China	*175.1*	*114.2*	*185.0*	*228.6*	*253.4*	*72.5*	*63.6*	*54.4*	*52.2*	*83.2*	China
India	*43.4*	*35.6*	*27.4*	*36.5*	*25.3*	*6.9*	*4.2*	*5.9*	*10.3*	*4.8*	India
Indonesia	*9.3*	*4.9*	*13.8*	*19.2*	*19.9*	*5.4*	*4.5*	*3.6*	*6.0*	*5.8*	Indonesia
Russia	*75.0*	*36.5*	*31.7*	*36.9*	*31.3*	*12.2*	*10.8*	*-1.1*	*6.5*	*15.1*	Russia
Saudi Arabia	*39.5*	*36.5*	*29.2*	*16.3*	*13.7*	*4.2*	*4.2*	*5.2*	*4.3*	-	Saudi Arabia
South Africa[1]	9.0	5.7	1.2	6.0	4.6	2.8	1.2	0.8	2.7	-0.2	South Africa[1]
[(*)]: Excluding Special Purpose Entities (SPEs). Corresponding data including SPEs:											
Austria	6.8	11.2	-26.4	16.9	5.0	4.1	0.4	-3.1	4.8	2.8	Austria
Hungary	72.4	5.2	-37.0	24.9	13.7	18.0	4.9	3.9	1.6	3.3	Hungary
Luxembourg	105.8	204.3	222.1	382.7	151.4	178.5	36.2	34.4	30.1	50.6	Luxembourg
Netherlands	151.0	29.7	-102.3	-107.5	30.7	78.8	28.3	28.9	25.5	-52.0	Netherlands

Source: The Organisation for Economic Co-operation and Development (OECD), 2012y www.oecd.org/daf/inv/FDI%20in%20figures.pdf, accessed on 20.06.2021

Based on the above data, it can be noticed that among the countries in the world, especially from the developing countries, the EU countries stand out as particularly attractive for foreign investors. The large inflows of FDI, especially in the countries of Central and Eastern Europe, in the last 8 years, have also contributed to a larger reconstruction of the economies, which stimulated their economic activity. Thus, the governments of developing countries have begun to attach great importance to FDI, because they believe that they not only act positively but are necessary for achieving dynamic development. The adoption of such measures has caused greater competition between economies.

In contrast, Table 2 summarizes the situation of FDI in the last two years.

Table 2. FDI inflows by region, 2019 and 2020 (billion USD)



Source: https://unctad.org/news/global-foreign-direct-investment-fell-42-2020-outlook-remains-weak, accessed on 03.07.2021

Compared to the period from the crisis of 2008, in table 2, it is evident that there was a decrease in FDI in developed countries, with which flows fell by 69%, or about 229 billion dollars. For example, inflows to North America fell 46% to $ 166 billion, with cross - border mergers and acquisitions falling 43%. In the United States, meanwhile, FDI fell 49 percent to about $ 134 billion. The decline occurred in wholesale trade, financial services and manufacturing. Sales of cross-border mergers and acquisitions of US assets by foreign

investors fell by 41%, mainly in the primary sector. There has also been a decline in investment in Europe. Flows fell by two-thirds to (-4 billion dollars).[4]

In the United Kingdom, FDI fell to zero, and declines were observed in other major recipients. But in Europe the situation with FDI was not so bad because in many countries flows were observed. In Sweden, for example, it doubled its flow from $ 12 billion to $ 29 billion. FDI in Spain also rose by 52%, thanks to several acquisitions, such as US private equities Cinven, KKR and Providence, which acquired 86% of Masmovil. Among other developed economies, inflows to Australia fell (-46% to $ 22 billion), but increased for Israel (from $ 18 billion to $ 26 billion) and Japan (from $ 15 billion to $ 17 billion).[5]

This may mean that the reaction of the international financial markets with the onset of the Covid crisis followed the pattern of previous economic crises, and as such were several: increasing uncertainty, increasing the risk premium in interest rates, fleeing to safe low-risk securities, the great turbulence with stocks, bonds and stock markets, as well as with the reduction of capital movements in developing countries. Furthermore, there were increased turbulences and uncertainties in portfolio investments, FDI, etc. But the Covid crisis has also posed new challenges for central banks in how to further adjust monetary policy to negative interest rates in highly developed countries and avoid over-indebtedness in the private sector. Meanwhile, the use of the new wave of unconventional monetary policy instruments was under pressure from the resilience of financial markets and institutions. The goal was to increase the capacity of capital markets to absorb budget deficits.

2. TRENDS IN THE INTERNATIONAL MOVEMENT OF CAPITAL

The global movement of capital in the current conditions of crisis has become very turbulent on a daily basis. Many reports show that the world's financial reserves have increased, and their growth rate is much higher than the GDP growth rate of countries. World capital markets from the United States, Europe, Great Britain, China and many other countries have faced an unprecedented decline in the volume of net capital flows. These are just some of the reasons why economic growth has been hampered by the Covid crisis. Basic fundamentals, especially consumption in the United States, have found themselves in poor shape. The UK

[4] https://unctad.org/news/global-foreign-direct-investment-fell-42-2020-outlook-remains-weak accessed on 20.07.2021

[5] https://unctad.org/news/global-foreign-direct-investment-fell-42-2020-outlook-remains-weak accessed on 21.07.2021

has also played a significant role in the markets and caused major turmoil, largely due to its exit from the EU.[6] On the other hand, the Eurozone, which has split as a financial center, has also faced major challenges due to poor capital flows.

This is especially important if we take into account the stock market situation and the large turbulence of stocks and bonds in the United States and Europe, which have been very dynamic lately. It is also predicted that if this turbulence trend continues to be unstable and volatile, it could have major implications for economies in the future. Therefore, the increase in the price of capital and its poor flow can call into question the profitability of many businesses. As well as the inability to control core costs and new products and partnerships to survive.[7] *Due to this, the previous statement that today the global capital market is becoming very complex can be confirmed once again*.

There was a lot of uncertainty, it initiated a movement in the capital markets that was not seen for a long time. For example, the large continuous declines in world stock markets in 2020 were in a backward trend. In the past period, the unstable movements on the world stock markets were different, with a tendency to decline. Then, their stabilization and their decline again. The reason for this was the pandemic that determined their condition in which the financial markets were located from Shanghai through Frankfurt to New York and others. Exchange rates have been different from the real economy for too long. For example, the state of German industry, which had been in recession for months, and the weak movement in the German economy were not taken into account. Another reason could be that this was the deteriorating situation between America and China. All this has led to major declines in the world's economies and large losses to countries. But if this crisis is compared to the financial crisis of 2008, the result is well known: hundreds of billions of dollars, euros, yuan and yen were highly valued in national economies – money that countries did not actually have. The consequences of this are still felt today, for example, in the form of low interest rates with all the negative consequences for banks and depositors.[8] Such was the case with Deutsche Bank, which in 2020, its shares fell by 17%, and faced a downward trend and a negative record.[9]

---

[6] Analysis of Ass. Prof. Dr Miki Runtev PhD of economics, direction of international financial management

[7] https://www.ek-inst.ukim.edu.mk/wp-content/uploads/2018/08/APLICIRANA-LEKTURA_1-ilovepdf-compressed.pdf accessed on 28.08.2021

[8] https://www.capital.bg/politika_i_ikonomika/sviat/2021/06/18/4217070_novata_geopolitika_na_globalniia_biznes/ accessed on 29.08.2021

[9] https://www.dw.com/mk/%D0%BA%D0%BE%D1%80%D0%B0%D0%BD%D0%BE%D0%B2%D0%B0%D1%80%D0%B8%D1%83%D1%81-%D0%B4%D0%BE-

Table 3. Stock market capitalization balance, calculated in millions of US dollars for 1991, 2000 and 2010

	Market Capitalization (in millions of U.S. dollars)						
	1991 (% of world total)		2000 (% of world total)		2010 (% of world total)		Market Type
United States	4,087,660	36.03%	15,104,037	46.82%	17,283,452	31.41%	Developed
Japan	3,130,863	27.60%	3,157,222	9.79%	4,099,606	7.50%	Developed
China	2,028	0.02%	580,991	1.80%	4,027,840	7.34%	Emerging
London Stock Exchange	NA	NA	NA	NA	3,613,064	6.58%	
United Kingdom	987,952	8.71%	2,567,992	7.99%			Developed
Italy	158,865	1.40%	768,364	2.38%			Developed
India	47,730	0.42%	148,064	0.46%	3,228,455	5.88%	Emerging
Euronext	NA	NA	NA	NA	2,930,072	5.34%	Developed
Belgium	71,319	0.63%	182,481	0.57%			Developed
France	348,083	3.07%	1,446,634	4.48%			Developed
Netherlands	136,158	1.20%	640,456	1.99%			Developed
Portugal	9,613	0.08%	60,681	0.19%			
Hong Kong	121,986	1.08%	623,398	1.93%	2,711,316	4.94%	Developed
Canada	266,874	2.35%	841,385	2.61%	2,170,433	3.95%	Developed
Brazil	42,759	0.38%	226,152	0.70%	1,545,566	2.82%	Emerging
Australia	145,511	1.31%	372,794	1.16%	1,454,491	2.65%	Developed
Germany	393,454	3.47%	1,270,243	3.94%	1,429,719	2.60%	Developed
Switzerland	173,881	1.53%	792,316	2.46%	1,229,357	2.24%	Developed
Spain	147,928	1.30%	504,219	1.56%	1,171,625	2.13%	Developed
Korea	96,373	0.85%	171,587	0.53%	1,091,912	1.99%	Emerging
OMX Nordic	NA	NA	NA	NA	1,042,154	1.90%	Developed
Denmark	44,841	0.40%	107,666	0.33%			Developed
Estonia	NA	NA	1,846	0.01%			
Finland	14,271	0.13%	293,635	0.91%			Developed
Iceland	NA	NA	4,439	0.01%			Developed
Latvia	NA	NA	563	0.00%			
Lithuania	NA	NA	1,588	0.00%			
Sweden	100,913	0.89%	328,339	1.02%			Developed
Russia	244	0.00%	38,922	0.12%	949,149	1.73%	Emerging
South Africa	168,497	1.49%	204,952	0.64%	925,007	1.69%	Emerging
Taiwan	124,864	1.10%	247,602	0.77%	838,401	1.53%	Emerging
Singapore	47,367	0.42%	152,827	0.47%	647,226	1.18%	Developed
Mexico	98,178	0.87%	125,204	0.39%	454,345	0.83%	Emerging
Malaysia	58,627	0.52%	116,935	0.36%	408,689	0.74%	Emerging
Indonesia	6,823	0.05%	28,834	0.08%	360,388	0.66%	Emerging
Saudi Arabia	48,213	0.42%	67,171	0.21%	353,410	0.64%	Not specified
Chile	27,984	0.25%	60,401	0.19%	341,799	0.62%	Emerging
Turkey	15,703	0.14%	69,659	0.22%	307,052	0.56%	Emerging
Norway	22,043	0.19%	65,034	0.20%	295,288	0.54%	Developed
Thailand	35,815	0.32%	29,489	0.09%	277,732	0.51%	Emerging
Israel	6,176	0.05%	64,081	0.20%	227,614	0.41%	Developed
Colombia	4,036	0.04%	9,560	0.03%	208,502	0.38%	Emerging
Poland	144	0.00%	31,279	0.10%	190,232	0.35%	Emerging
Philippines	11,386	0.10%	51,554	0.16%	157,321	0.29%	Emerging
Austria	7,689	0.07%	29,935	0.09%	126,032	0.23%	Developed
Peru	1,118	0.01%	10,562	0.03%	103,348	0.19%	Emerging
Luxembourg	11,308	0.10%	34,016	0.11%	101,129	0.18%	Developed
Iran	34,282	0.30%	34,041	0.11%	86,642	0.16%	Not specified
Egypt	2,651	0.02%	28,741	0.09%	84,277	0.15%	Emerging
Greece	13,118	0.10%	110,839	0.34%	67,586	0.12%	Developed
Argentina	18,509	0.16%	166,068	0.51%	63,910	0.12%	Frontier
Ireland	NA	NA	81,882	0.25%	60,368	0.11%	Developed
Jordan	2,512	0.02%	4,943	0.02%	30,864	0.06%	Frontier
Hungary	505	0.00%	12,204	0.04%	27,708	0.05%	Emerging
Sri Lanka	1,936	0.02%	1,074	0.00%	19,924	0.04%	Frontier
Slovenia	NA	NA	2,547	0.01%	9,384	0.02%	Frontier
Mauritius	312	0.00%	1,331	0.00%	7,753	0.01%	Frontier
Cyprus	1,290	0.01%	11,516	0.04%	6,834	0.01%	Not specified
Malta	NA	NA	2,009	0.01%	4,194	0.01%	Not specified
Bermuda	NA	NA	2,146	0.01%	1,535	0.00%	Frontier
Total World Market	**11,345,733**		**32,260,433**		**54,884,333**		

Source: *Greet Bekaret, Robert J.Hodrik. International Financial Management, Columbia University and the National Bureau of Economic Research 2nd ed., 399. (Notes : The data are taken from the World Federation of Exchanges, Datastream, and the S&P>IFC database. The indications "Developed, "Emerging, " and "Frontier" are from Morgan Stanley Capital International), accessed on 05.08.2021*

Table 3 shows the tendencies of the stock markets during the previous crises, and in comparison with today's developments. Thus, for example, the movements of capitalization in the stock markets, analyzed in times of crisis (1991, 2000 and 2001), in comparison with today's developments, it can be pointed out that the capital indices in Europe were much lower with a sharp decline in mid-2020, due to the pandemic. Meanwhile, futures in the United States have recently faced new record highs. Because of this, investors feared a growth trend and pointed to a lower opening for these shares. Shares in China and Hong Kong also came under pressure after a sell-off in educational technology companies after Beijing announced major industry reforms.

Comparatively, it can be pointed out that since 2020, there has been a major state of emergency on the stock exchanges. So far, the Dax Index and other indices have not fallen that much in such a short time. Last year, Wall Street experienced its worst moment since 1987, when stock markets plummeted and as such went down in history. What is happening on the stock exchanges today, there is no comparison. Such stock market declines in such a short time could cause a serious blow to economies. Due to that, the stock trading had to be stopped for the third time, because the losses of the exchange rates explosively broke the forecast limit. The Dax Index lost about a third of its value in 2020. There were times when investors in Asia panicked and left the stock markets. «This situation has not been recorded in history» and «almost all economic activity simply stops». [10]

Countries reacted differently during the pandemic, and it was expected that the crisis would remain confined to China. But the consequences were

%D0%BA%D0%B0%D0%B4%D0%B5-%D1%9C%D0%B5-%D0%BE%D0%B4%D0%B8-%D0%BF%D0%B0%D0%B4%D0%BE%D1%82-%D0%BD%D0%B0-%D0%B1%D0%B5%D1%80%D0%B7%D0%B8%D1%82%D0%B5/a-52820458

[10] Said Deka Bank's stock strategist "Joachim Schalmeyer" accessed on 10.08.2021 https://www.dw.com/mk/%D0%BA%D0%BE%D1%80%D0%B0%D0%BD%D0%BE%D0%B2%D0%B0%D1%80%D0%B8%D1%83%D1%81-%D0%B4%D0%BE-%D0%BA%D0%B0%D0%B4%D0%B5-%D1%9C%D0%B5-%D0%BE%D0%B4%D0%B8--%D0%BF%D0%B0%D0%B4%D0%BE%D1%82-%D0%BD%D0%B0-%D0%B1%D0%B5%D1%80%D0%B7%D0%B8%D1%82%D0%B5/a-52820458

felt in other parts of the world as well. In many places production had to stop because the supply chain from the states was disrupted. This was followed by a significantly larger decline in European and American stock markets, especially in the second wave, when the virus reached Europe.

Table 4. Stock market conditions on the stock exchanges, calculated in percentages for 2020

	Major stock exchanges	Shares in %
	European stock exchanges	**20% fall**
	German DAX	**2, 6 % fall**
	China	**1, 3 % fall**
	New York Dow Jones	**725 points fall or 2.1% fall**

Source:https://www.capital.bg/biznes/pazari/2021/07/20/4234284_cenite_na_evropeiskite_akcii_se_vuzstanoviavat_sled/?fbclid=IwAR1_rtKS2NpHWM7MMis_Zye-7jq9Ww1Ll-3n20aY-Bt7p1JZyTEEktXUQuDQ accessed on 06.08.2021

Table 4 shows the decline in stock markets that fell in 2020. It can also be noted that the STOXX Europe 600 index, which includes the shares of the largest European banks, has shown a downward trend, which has not happened since the global financial crisis of 2008. However, it should be noted that in mid-2021, European stocks recovered, after recording the largest daily declines since last year. The reason for the fall of the stock exchanges was the pandemic and because of that it was expected to be with a negative catalyst.

Table 5 Growth of the global stock exchanges, their growth and realized return for 2021

	US stock index S&P 500	18% yield
	American Index of Technology Companies NASDAQ	**16% yield**
	German DAX	**13% yield**
	Warsaw Stock Exchange	**52, 5% yield**

Source://www.capital.bg/biznes/pazari/2021/07/20/4234284_cenite_na_evropeiskite_akcii_se_vuzstanoviavat_sled/?fbclid=IwAR1_rtKS2NpHWM7MMis_Zye-7jq9Ww1Ll3n20aY-Bt-7p1JZyTEEktXUQuDQ, accessed on 10.08.2021

From table 5 it is evident that global stock markets are now recording their fifth consecutive quarter of growth with the opening of the world economy. There were also a number of stock exchanges that proved useful for securities markets. The table also describes the Warsaw Stock Exchange, which in 2020, became the second largest stock exchange in Europe in terms of liquidity growth and portfolio turnover.[11]

These developments and their effects raise the need for their detailed study in order to better predict the movements in the capital market.

Thus, many countries have continued to adjust their support and stabilization measures, taking into account the experience of other countries in this area. As market fragmentation can make fundraising more difficult, countries have become very interested in working with each other to find the most appropriate tools to overcome the crisis. Following these tendencies, this way of international cooperation can play an important role. On the other hand, it was characteristic that portfolio investments, which tend to be the most sustainable asset category, reacted quickly to the shock caused by the pandemic on the global economy. Meanwhile, the value of investment products related to the sustainable development of global capital markets in 2020 was $ 3.2 trillion. These products include sustainable funds, social bonds ($212 billion) and mixed sustainability bonds ($218 billion).[12] Most of them are located in developed countries and are focused on assets in developed markets. This continuous growth confirms the potential of capital markets to fill the financial gap to achieve the goals of sustainable development.

Conclusion

Covid crisis process, caused a lot of change in the attitude towards the capital markets, ie: FDI, stock exchanges, portfolio investments and their role in the development of countries. FDI has proven to be a very important factor in boosting economic growth in developing countries. Because developing countries have filled this gap with FDI as a more important form of international capital flow. However, FDI flows are expected to remain weak due to uncertainty about the evolution of the pandemic.

As a conclusion in this paper it can be determined that when regulating international capital mobility in this volatile period, the connection be-

[11] https://www.ekonomijaibiznis.mk/News.aspx?IdNews=23935 accessed on 12.08.2021

[12] Investing in sustainable recovery, overview, World Investment Report 2021, , 20-21p.

tween stock exchanges and institutional networking, ownership or functional, with other international markets and their long-term stabilization should be important. This should be aimed at overcoming the challenges faced by stock exchanges or FDI that have hit the capital market hard and caused major turbulence. The important thing for them is that, before the crisis, they were stable and navigable without any special trading challenges. Emerging economies also need to close the gaps with advanced economies to reap the benefits and experiences of international trade and the mobility of labor and capital markets, as well as the latest technological advances available worldwide.

It is therefore particularly important to conclude that in just less than 10 years since the last major financial crisis, capital markets have once again faced a crisis and major turbulence and uncertainties.

The aim of the paper is to point out that large investors should perceive the huge technological and economic potential of the regions in the newly developed and poorly developed economies and thus expect large returns in the near future. Therefore, it can be pointed out that the world trade imbalances that marked the world before the crisis will not clear up on their own.

The aim of the paper was also to analyze the differences in capital inflows and outflows between countries with a special focus on movements and the impacts on their economic growth before the Covid crisis and during the crisis.

But, as the most significant conclusions from the latest empirical research mentioned during the paper, they found that FDI is a key generator of economic growth in countries in the last decade. If countries follow the cycle of highly developed economies, they can expect increasing importance of reinvested profits in the future, as a source of capital for the current and investment needs of companies in their countries.

What has been said so far in this paper identifies the need to write what is expected in the future from capital markets to develop in the direction that countries go to overcome and solve many of the problems they faced during the crisis, and in order to be better investor oriented. Given the scale and variety of challenges, a coherent policy approach is needed to encourage investment in resilience, to balance incentives between infrastructure and industry, and to address the challenges of implementing recovery plans.

As a fundamental problem, it is posed that the turmoil in the capital markets will stabilize and overcome the problems they faced especially during the Covid crisis period, in order to create greater benefit to states and reduce poverty.

References:

1. Bekert Geert, Hodrick Robert J., International financial management, 2nd edition, 2009
2. Cataloging in Publication Data, Joint Bank-Fund Library – World Economic Outlook. – International Monetary Fund, World Economic and Financial Surveys, 2020
3. Financial, Vulnerabilities of Euro Area Households, Financial Stability, Review, European Central Bank (ECB), 2021
4. Global Financial Stability Report World Economic Outlook, 2021
5. Harnessing the digitalization of finance for the sustainable development goals, United Nations, Secretary-General's Task Force on Digital Financing of the Sustainable Development Goals, June 2019
6. Investing in sustainable recovery, overview, World Investment Report 2021,
7. United Nations Conference on Trade and Development UNCTAD https://unctad.org/system/files/official-document/wir2021_en.pdf
8. https://unctad.org/news/global-foreign-direct-investment-fell-42-2020-outlook-remains-weak
9. https://roscongress.org/materials/covid-19-i-globalnye-potoki-kapitala/
10. https://www.kearney.com/foreign-direct-investment-confidence-index/2019-full-report
11. https://www.oecd.org/investment/FDI-in-Figures-April-2021.pdf

UDK 005.336.5-057.16:005.963]:334.72.012.63/.63(497.7)
005.336.5-057.16:005.963]:334.72.012.63/.63(4-672EU)
(Original scientific paper)

IRINA PIPERKOVA*
ALEKSANDRA LOZANOSKA**

BARRIERS TO EMPLOYEE SKILLS DEVELOPMENT: COMPARATIVE ANALYSIS OF FIRMS IN NORTH MACEDONIA

Abstract

The 21st century race for talents has positioned skills development and utilization as one of businesses' primary concerns. Indeed, firms' sustainability in today's turbulent and competitive environment depends, among other, on the skillsets of their employees. Businesses face various obstacles in their quest for acquiring and developing adequate employee skills. The main aim of this paper is to present key obstacles to developing employee skills in firms in North Macedonia, based on organizational size and business activity. An insight into the barriers to employee skills development would help firms implement corrective measures to achieve appropriate employee skill development and utilization. Lack of applicants' adequate skills in the recruitment process, lack of employees' motivation to upgrade their skills and insufficient employee training are perceived as one of the most significant barriers to employee skills development.

Keywords: skills development, skills utilization, small and medium businesses

JEL classification: M53

* PhD, Associate professor, Institute of Economics – Skopje, "Ss. Cyril and Methodius" University, North Macedonia, irina@ek-inst.ukim.edu.mk
** PhD, Associate professor, Institute of Economics – Skopje, "Ss. Cyril and Methodius" University, North Macedonia, sandra@ek-inst.ukim.edu.mk

Introduction

Global trends are changing the nature of work and skills demand. To succeed in the 21st century business environment, firms need a comprehensive set of skills. Skills development is globally considered as key to productive employment. Hence, it is an important means for increased productivity, private-sector development including SMEs, inclusive economic growth and poverty reduction. Studies show that a sustainable approach to workforce development and employment creates improved skills for employability and at the same time contributes to private-sector competitiveness. The mismatch between the skills acquired in formal education and labour market needs could in part be addressed through adequate skills development within a flexible lifelong learning and formal/informal skills development.[1]

On the other hand, there are many obstacles in the process of skills development. Lack of necessary skills is one of the top barriers for SMEs to adopting emerging technologies, implementing changes in the working processes, etc. In fact, not only future employees should possess professional skills, but also current employees will need to develop their skills portfolio. To keep their skills relevant, employees will need to keep learning during their career.[2]

The paper provides theoretical background of the importance and barriers of skills development process. The empirical research identifies the main obstacles for development of skills in firms in North Macedonia. The findings reveal lack of applicants with adequate skills in the recruitment process, insufficient training of employees and low employee motivation to upgrade their skills.

1. IMPORTANCE OF EMPLOYEE SKILLS AND BARRIERS TO SKILLS DEVELOPMENT IN SMES

The skills development in SMEs is paramount to firm's sustainability and success in today's dynamic business environment, as continuous upskilling is needed to meet changing demands. Up-to-date skills allow employees to be more productive, to easily adapt to change and new technology, to think of what they do "as a career rather than only as a job", hence enabling a firm to achieve competitive advantage.[3] For individual employees, the recognition

[1] SIDA, "Skills developments", Information Brief, March, 2018, p. 1

[2] European Commission, "Skills for SMEs Supporting specialized skills development: Big Data, Internet of Things and Cybersecurity for SMEs", Final report, December 2019, p. 57

[3] NMMU Nelson Mandela Metropolitan University, Business Essentials, 2015, https://www.businessessentials.co.za/2015/02/24/importance-skills-development/

and validation of learning experiences is also important since it enhances their opportunities on the labour market.

Since one of the biggest assets to any business is its employees, firms are realizing the importance of employee training and development, especially as the job markets continue to evolve and business environment becomes more competitive. Some of the advantages of skills development refer to improved employee knowledge, increased job satisfaction and productivity levels, new and improved job opportunities, higher levels of employee motivation, ability to adapt to new technology and methods and reduced employee turnover.[4] According the latest research[5], skills development is important for SMEs because it helps employees to be up-to-date with the latest industry trends. In order for modern businesses to thrive, they need to constantly develop and find strategies to upskill their workforce. Both formal and informal learning processes are an important means to boost further firm performance in SMEs. With a robust training and development program in place, employees will adapt easily to the industry changes thus giving businesses a competitive advantage.

Despite the importance of skills development in SMEs, the process itself is rather difficult and complex, as firms face various obstacles in their endeavor to upskill their workforce. SMEs encounter multiple barriers to skills development process: barriers related to providing suitable and efficient trainings; barriers which derive from the lack of applicants with adequate skills during the recruitment process; financial barriers to support the skills development; lack of employees' motivation for acquiring and upgrading their skills; organizational and HR barriers; barriers imposed by demographic changes; strong labour market competition for attracting talents; etc.

One of the most common barriers hindering SMEs is the mismatch between their specific needs and the training programs offered on the market, as SMEs cannot easily find tailor-made programs or do not have the right information of training opportunities. As a result of the poor information about the range of training opportunities, a sense of resignation could rise. Therefore, professional organizations, the social partners and public authorities play an important role in raising the awareness and perception with regard to training, lifelong learning and the general need to take care of skills and competences.[6]

---

[4] **Terrique Alie, "The Benefits of Incorporating Training and Skills Development in the Workplace",** November 27, 2020, https://www.skillsportal.co.za/content/benefits-incorporating-training-and-skills-development-workplace

[5] Ibid.

[6] European Commission, "Guide for training in SMEs", 2009, p. 35, https://ec.europa.eu/social/BlobServlet?docId=3074&langId=en

The lack of finances is also very important barrier when it comes to skills development. SMEs cannot always afford formal training, as the costs for training per employee are rather high. Lack of training and competence development for managerial staff, lack of expertise in training needs evaluation and absence of employee development budgets adds up to the challenges of these firms. However, it is essential to note that training does not have to be necessarily expensive to give results. Informal forms of training or on-the-job trainings are also suitable for skills development and can even more be customized to the needs of each firm.

The recent European SME Observatory Survey indicates that the lack of skilled labour is a problem for more than one third of all SMEs in the EU. Also, 28% of SMEs in the EU indicate that filling their job vacancies is their primary concern in recruiting, due to scarcity of skilled labour. Though SME managers also mention that high wage levels expected by candidates are a serious problem for recruiting, the scarcity of skilled and non-skilled labour is the most important barrier.[7]

The employees should be motivated to utilize their skills, but also to upgrade them. In order to do so, they should overcome the factors which are demotivating them. It's not enough for employers to decide to provide training and skills development for their employees if the later don't believe that such actions will make difference on their jobs. Sometimes, the employees think that their job is no longer challenging because their capabilities have not been put to good use or perhaps, they have not advanced in their career. Also, employees need some sort of affirmation of their work, whether through increase of wages, promotions, words of acknowledgment, or respect of their opinion, which will most likely raise their interest in up-skilling.

2. RESEARCH METHODOLOGY

The aim of this paper is to present a comparative analysis of the key obstacles to developing employee skills that firms encounter, based on their main business activity and their size. To assess possible barriers to employee skills development, a survey questionnaire was administered to business owners and/or senior managers in small and medium firms in different sectors in North Macedonia. The questionnaire included questions pertaining to perceived reasons for lack of appropriate skills of employees as well as to certain aspects of

[7] Ibid., p. 15

human resource practices that are relevant to skill acquisition and development of employees. The sample included 133 firms with a significant share of firms (51%) that offer services, while 26% of the firms were in production and 23% in trade. Regarding the organizational size, 80% of the firms included in the sample were small and employed up to 50 employees and 20% were medium enterprises. Most of the firms exist more than 5 years (89%) and operate in the domestic market (78.2%)[8].

3. PERCEIVED BARRIERS TO SKILLS DEVELOPMENT IN FIRMS IN NORTH MACEDONIA

Research data reveal considerable differences between small and medium firms in terms of perceived reasons for lack of skills of employees. In particular, most of the small firms (66.7%) perceive lack of initiative by employees to be one of the most important reasons for lack of skills, while, for a significant share of medium firms (59.26%), it is the insufficient and/or sporadic employee training. The latter is considered to be a relevant cause of lack of employee skills by small firms as well (Figure 1a).

Lack of initiative or motivation by employees to upgrade their skills, which is especially dominant in small firms, could be partly due to inadequate methods of employee motivation, such as lack of clear interdependence between skills upgrade and improved performance of employees on one hand, and career development opportunities and rewards offered by firms, on the other. Absence of proactive and continuous employee training is pointed out as a serious obstacle to skills development. Eurostat's data[9] on employee training provided by firms in North Macedonia reveal that the country falls behind EU-average and other developed countries. Namely, research[10] outlines several reasons for low levels of employee training in SMEs, as lack of visible positive effects of training, inadequate training provided by firms and/or high costs of training.

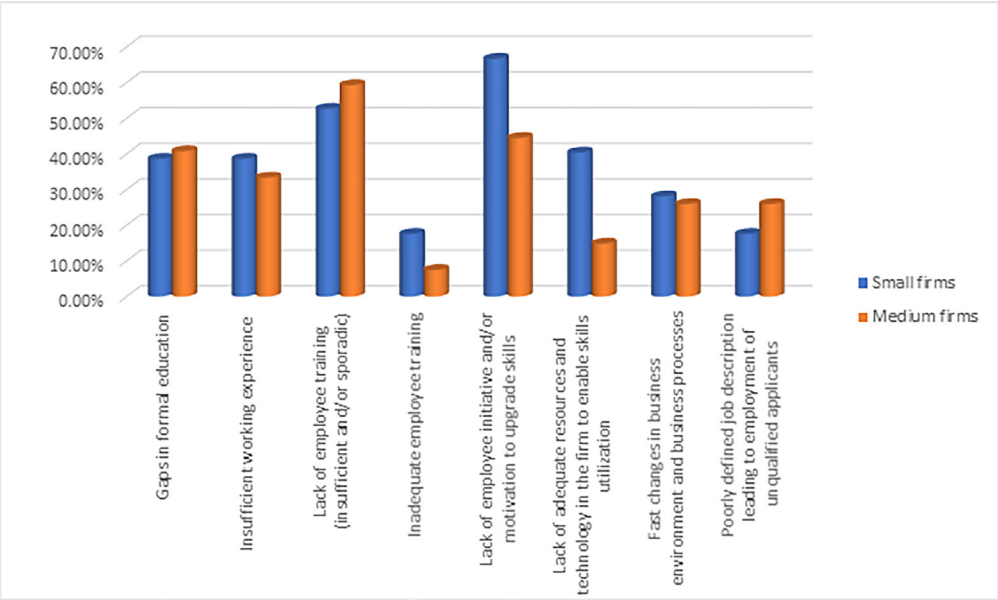
---

[8] The results presented in this paper are part of a larger research project financed by Ss. Cyril and Methodius University, implemented by Institute of Economics-Skopje, 2019-2020

[9] Eurostat, 2015 [https://ec.europa.eu/eurostat/databrowser/view/trng_cvt_01s/default/table?lang=en]

[10] See: Beraud, D. "SMEs are increasingly interested in the effects of training", *Training and Employment* No.114, 2014 & Stone, I. "*Encouraging small firms to invest in training: learning from overseas*", Praxis, UK Commission for Employment and Skills Iss.5, 2010, p.10

Figure 1a. Perceived reasons for lack of employee skills, based on organizational size



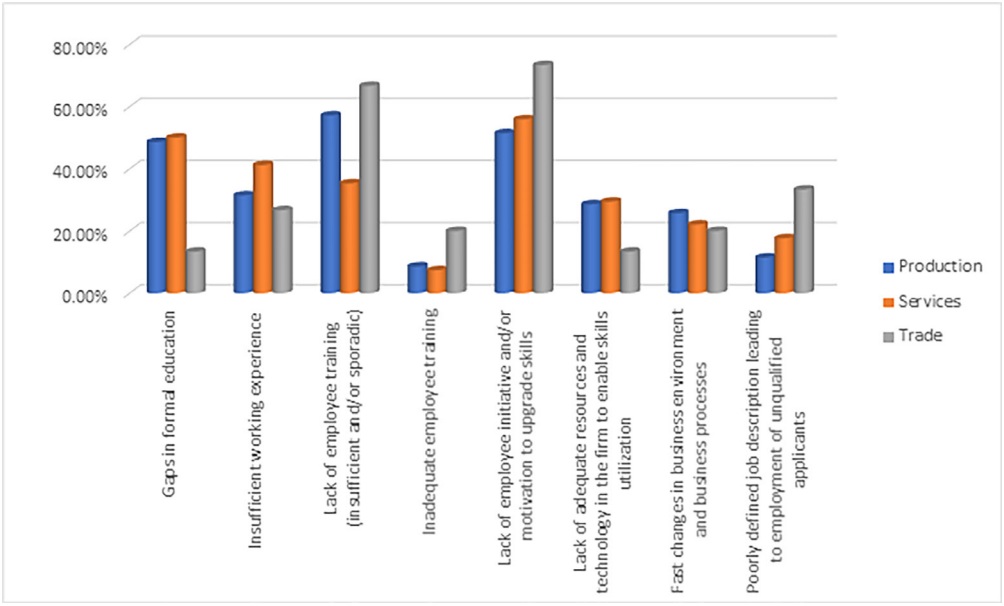
Source: Based on authors' research

Another relevant difference between small and medium firms, in terms of perceived reasons for lack of employee skills, is the unavailability of technology resources in small firms that would allow utilization of employee skills and create a need for skills upgrade. Lack of adequate resources and technology impedes skills development in about 40% of small firms as opposed to almost 15% of medium firms. The link between cutting-edge skills, advanced technology and innovation capacity in small firms is well documented in literature[11].

Lack of employee initiative to upgrade their skills is considered to be a cause of lack of skills in firms, regardless of their main business activity (Figure 1b). It is a predominant obstacle in trading firms (73.3%), but also significant for firms in production (51.4%) and services (55.9%).

[11] Albaladejo, M. & Romijn, H.A., "Determinants of innovation capability in small UK firms: An empirical analysis", *ECIS working paper series*, Vol. 200013, Eindhoven University of Technology, 2000, [https://pure.tue.nl/ws/files/1517301/538750.pdf]

Figure 1b. Perceived reasons for lack of employee skills, based on main business activity



Source: Based on authors' research

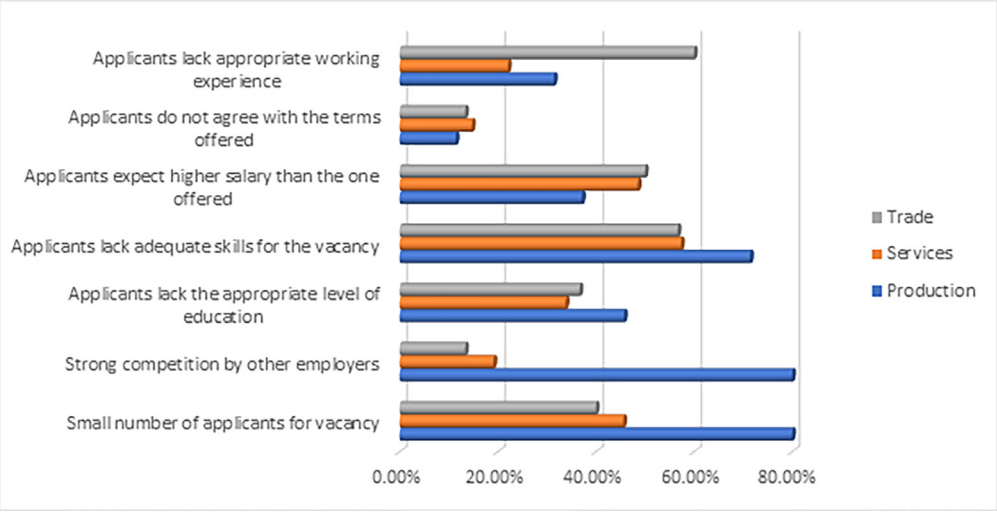
Gaps in employee formal education are perceived to be an important reason for lack of employee skills by approximately half of the firms in production and services. Indeed, these findings are somewhat expected as knowledge and technical skills acquired in formal education have a significant impact on the overall competences of employees, especially in production and services. Hence, long-term challenges in the country, as the mismatch between business sector needs and the curricula offered by education institutions, leads to formal education gaps and affect both the individual and the businesses.

Research findings also revealed that poorly defined job description is a considerable impediment to skills development for about 33% of trading firms. Knowledge on job analysis and subsequently job description is essential for many practices, as recruitment, job evaluation, compensation and rewards systems that are crucial to building and developing a competitive skills base.

Taking into account the identified causes of lack of employee skills as perceived by firms, the research focused on recruitment and training practices and on motivational methods used by firms so as to determine potential impediments to the skills development process in firms. The findings show that firms encounter different barriers in the recruitment process. In this regard,

small number of applicants, lack of appropriate skills of applicants for the vacancy and strong competition by other employers are identified by majority of the production firms as major barriers to their skills development efforts (see Figure 2a). While a considerable share of service firms identifies lack of adequate skills of applicants (57%) and higher applicants' expectations in terms of salary, for trading firms the biggest impediment refers to lack of appropriate working experience by applicants (60%). The job specifics in service firms, especially pertaining to direct contact with clients, impose a need for diverse skillsets of employees, some of which acquired from work experience. Thus, lack of appropriate working experience of applicants can hamper the skills development, that is, recruitment process of service firms.

Figure 2a. Main obstacles in the recruitment process, based on main business activity

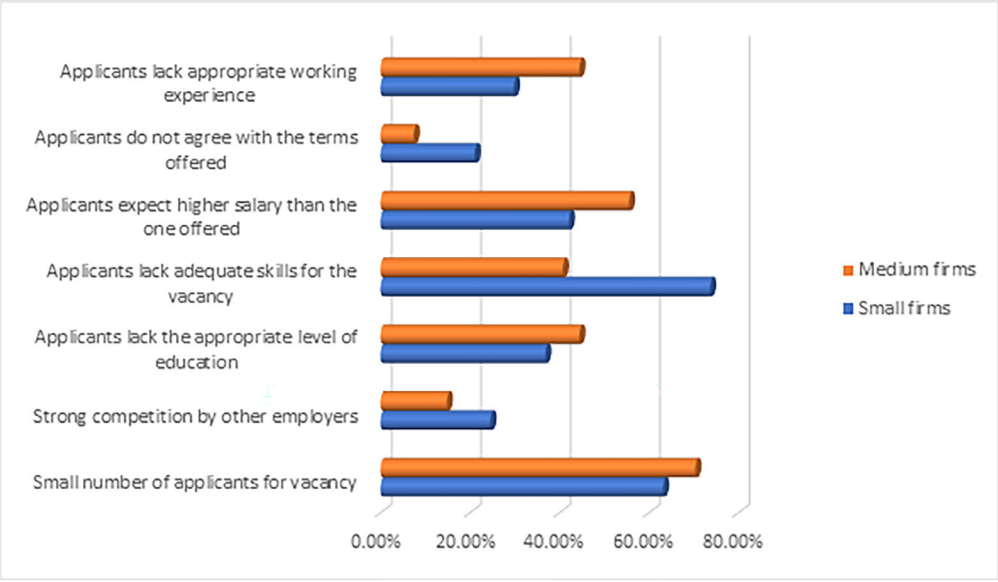


Source: Based on authors' research

The analysis based on the organizational size identified three main barriers in the recruitment process. The biggest challenge, regardless of organizational size, refers to the small number of applicants for a vacancy, reported by 70% of medium and 63% of small firms (Figure 2b). In addition, 55.6% of medium firms indicate that applicants expect higher salary, while more than 44% state that applicants do not possess the appropriate level of education or work experience. On the other hand, the majority of the small firms (74%) perceive lack of appropriate skills of applicants to be one of the biggest obstacles. The most

significant differences between small and medium firms in terms of barriers in the recruitment process refer to lack of skills of applicants (73.3% of small and 40.7% of medium firms), lack of working experience (29.8% and 44.4%, respectively) and terms offered by the firm (21.1% and 7.4%, respectively).

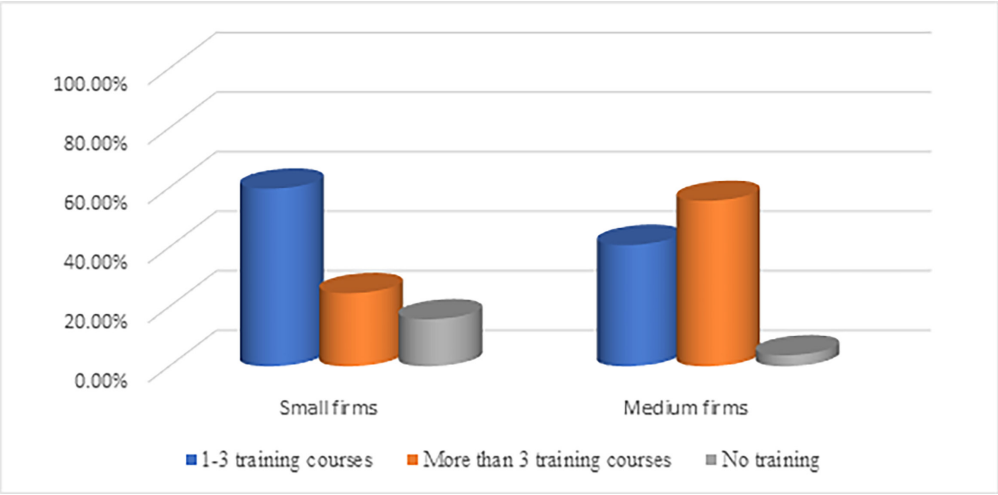
Figure 2b. Main obstacles in the recruitment process, based on organizational size



Source: Based on authors' research

Employee training is also considered to be a human resource practice that directly contributes to skills development in firms. The dynamic changes in both organizational and business environment as well as the rapid technological development increase the importance of employee training for skills development in firms. Research findings indicate that almost 56% of medium firms implemented more than 3 training courses in the last three years, and 41% implemented 1 to 3 training courses. On the other hand, less than a quarter of small firms organized more than three trainings (Figure 3a). In addition, the share of firms that did not organize any employee training is significantly higher for small firms in comparison to medium firms.

Figure 3a. Employee training in the last three years, based on organizational size



Source: Based on authors' research

The above presented difference between small and medium firms with regard to the incidence of employee trainings is supported by research[12]. Small firms continuously report lower incidence of employee training as a result of several factors, some of which are directly linked to the very specifics of small firms. This is mainly due to higher training costs per employee[13], absence of HR expertise and/or departments, poor training needs assessment and lack of training budgets[14], among other.

Based on the main business activity, 60% of production firms, 53% of trading firms and 44% of service firms conducted up to three trainings (see Figure 3b). Nevertheless, a relevant share of firms in services (23.5%) and trade (20%) did not conduct any training in the last three years. This percentage is rather low in production firms (almost 6%), which could be explained as an attempt of production firms to reduce the skills gap that occurs as a result of lack

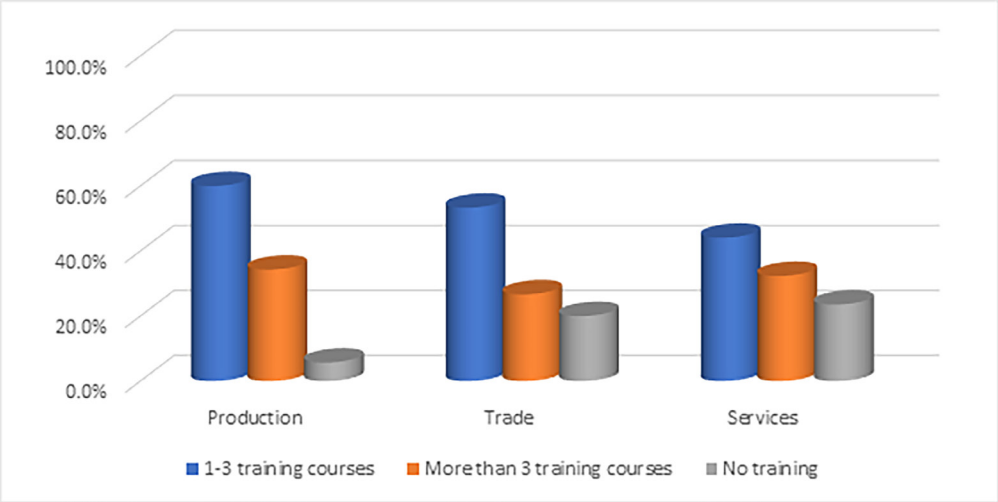
[12] See, for example, OECD, "Skills development and training in SMEs", OECD Publishing, 2013; Eurostat, [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Vocational_education_and_training_statistics&oldid=464069]

[13] Stone, I. "*Encouraging small firms to invest in training: learning from overseas*", Praxis, UK Commission for Employment and Skills Iss.5, 2010, p.10

[14] Beraud, D. "SMEs are increasingly interested in the effects of training", *Training and Employment* No.114, 2014, p. 2

of applicants' skills in the recruitment process, an aspect discussed previously.

Figure 3b. Employee training in the last three years, based on main business activity



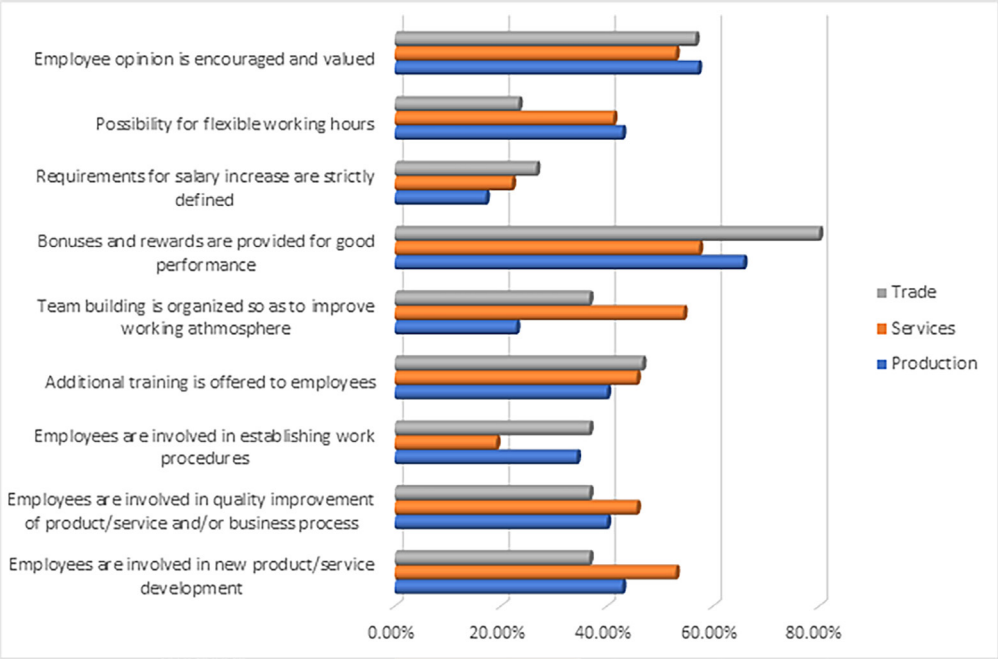
Source: Based on authors' research

Another important aspect in the skills development process refers to methods implemented by firms to motivate employees to upgrade their skills and use the acquired skills on the job. In this way, firms can benefit from employees' upskilling and use their knowledge and expertise for achieving organizational goals. There are various methods that could motivate employees to upgrade and use their skills in the workplace, but their implementation and success depend largely on management capacity as well as the opportunities and specifics of the firm itself. In this context, some of the most frequently highlighted methods of employee motivation pertain to active employee participation, financial and non-financial rewards, career development opportunities, team building, flexible working, and alike.

Having said that, one of the aims of this research was to identify methods used by firms to motivate employees, so as to foster the skills development process. The findings indicate that more than one third of the analyzed firms implement several different methods to motivate their employees. Namely, a significant share of firms, regardless of their main business activity provides bonuses and rewards for good employee performance. This method is, however, mostly used by trading firms (87%) as opposed to 57% of service firms (Figure 4a). On the other hand, more than half of the service firms (54%) conduct team building activities, a method that is not much used

by other firms.

Figure 4a. Motivational methods implemented by firms, based on main business activity

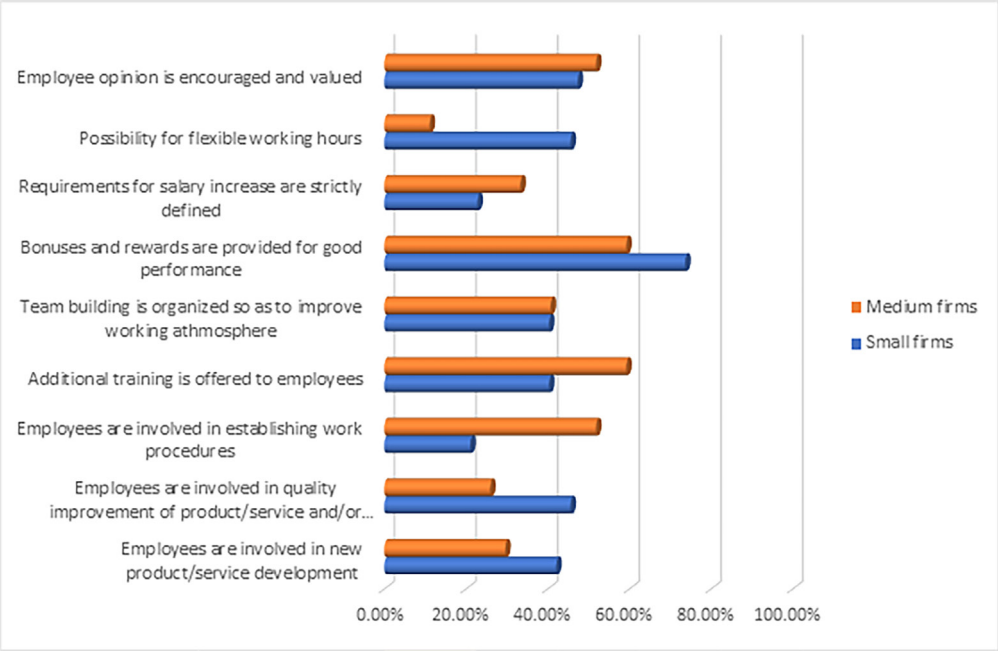


Source: Based on authors' research

Employee involvement in new product/service development, quality improvement of products/services or business processes and establishing work procedures are referred to as important aspects of employee participation and have major impact of employees' motivation to upgrade their skills. Yet, research findings reveal that less than half of all firms use these methods. Indeed, service firms, compared to other firms, predominantly use employee involvement in new product/service development (53%) and in quality improvement of products/services (46%), whereas employee involvement in establishing work procedures is least used method.

The analysis based on organizational size shows that small firms mainly use bonuses and rewards (74%) and flexible working hours (46%), while the majority of medium firms (59%) provide additional training to employees (see Figure 4b). With reference to employee participation methods, it is found that most of the small firms involve employees in new product/service development and product/service quality improvement (42% and 46%, respectively), whereas most of the medium firms (52%) include their employees in establishing work procedures.

Figure 4b. Motivational methods implemented by firms, based on organizational size



Source: Based on authors' research

One of the main obstacles that firms report in their skills development efforts pertains to lack of employees' initiative to upgrade their skillsets. Yet, our research revealed that firms do not take decisive steps in establishing various methods to increase employees' motivation for up-skilling nor to maximize skills utilization. Such a goal cannot be achieved using limited methods. In fact, it takes a system of consistent and complementary methods to achieve competitive working environment in which knowledge and skills would be paramount.

Conclusion

The continuous development of employee knowledge and skills is an important feature of 21st century, as a key factor of competitiveness. Lifelong learning, continuous training and up-skilling enable individuals and firms to keep pace with the latest achievements and the ongoing and rapid changes in the business environment. Thus, firms should focus on continuous skills development of their workforce, support learning in the organization and encourage employee initiative to upgrade their skills.

In the skills development process, firms encounter various barriers that hinder their efforts. Some of the key obstacles to skills development process that firms face pertain to lack of adequate skills in the recruitment process, insufficient employee training and lack of employees' motivation to upgrade their skills. Nevertheless, firms do not show commitment to overcome these challenges. In particular, trainings provided by firms as well as methods used for motivating employees to improve their skillsets are not sufficient. Continuous skills development should be part of the firms' strategies and policies. Firms should develop a system of complementary practices that would support skills development on an organizational level, through continuous employee training, active employee involvement and various methods to motivate employees to upgrade their skills.

References:

1. Albaladejo, M. & Romijn, H.A., "Determinants of innovation capability in small UK firms: An empirical analysis", ECIS working paper series, Vol. 200013, Eindhoven University of Technology, 2000, [https://pure.tue.nl/ws/files/1517301/538750.pdf]
2. Beraud, D. "SMEs are increasingly interested in the effects of training", Training and Employment No.114, 2014
3. NMMU Nelson Mandela Metropolitan University, Business Essentials, 2015, [https://www.businessessentials.co.za/2015/02/24/importance-skills-development/]
4. European Commission, "Skills for SMEs Supporting specialized skills development: Big Data, Internet of Things and Cybersecurity for SMEs", Final report, December 2019
5. European Commission, "Guide for training in SMEs", 2009, [https://ec.europa.eu/social/BlobServlet?docId=3074&langId=en]
6. Eurostat, 2015, [https://ec.europa.eu/eurostat/databrowser/view/trng_cvt_01s/default/table?lang=en]
7. Eurostat, [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Vocational_education_and_training_statistics&oldid=464069]
8. OECD, "Skills development and training in SMEs", OECD Publishing, 2013

9. SIDA, "Skills developments", Information Brief, March, 2018, [https://cdn.sida.se/publications/files/sida62134en-skills-development.pdf]
10. Stone, I. "Encouraging small firms to invest in training: learning from overseas", Praxis, UK Commission for Employment and Skills Iss.5, 2010
11. Terrique Alie, "The Benefits of Incorporating Training and Skills Development in the Workplace", November 27, 2020, [https://www.skillsportal.co.za/content/benefits-incorporating-training-and-skills-development-workplace]

Authors' Guidelines

General Guidelines

- The Journal covers theoretical and empirical researches in the field of social sciences, economics and management.
- The paper will be written entirely in English (following the **Editing Instructions**).
- All articles are subject to peer review and scientific categorization and **should not exceed 4000 words**. Based on that, the paper can be categorized as: 1) original scientific paper; 2) professional paper 3) reviews.
- A soft copy of the manuscript is required to be sent to EconomicDevelopment@ek-inst.ukim.edu.mk. **The authors are entirely responsible for the content of their article.**

Each author may submit a maximum of two papers per one issue (as single author and/or as co-author).

- All submitted manuscripts should not be previously published and not under consideration for publication elsewhere.
- Upon submission of manuscripts the editorial board will: 1) sends the paper to pear reviewer 2) informs the author about possible suggestions or comments on the manuscript that need to be revised or 3) informs the author that the paper has been rejected. Only positively reviewed manuscripts are published in the Journal. Provided the manuscript is refused, (the editor is not obligated to present reasons for refusal), the author may submit the paper elsewhere. Submitted manuscripts will not be returned to the author. Once the manuscript is accepted for publication, the author must not publish the paper in other journal.

Note

- The logical connection between the title of the article, abstract, key words, main content and conclusions should be respected.
- Articles that do not comply with all the requirements specified in the Editing Instructions will not be accepted for publication.

Admission fee:

85 EUR/paper
5.000 MKD/paper

The admission fee must accompany the manuscript submission.

Beneficiary: Institute of Economics - Skopje (Ss. Cyril and Methodius University in Skopje)
Bank account (national): 160010853278810
International Bank account (IBAN): MK07 1007 0100 0096 782
Bank name: Народна Банка на Република Северна Македонија
National Bank of the Republic of North Macedonia
Address: Bul. Kuzman Josifovski Pitu, No. 1,
1000 Skopje, Republic of North Macedonia
SWIFT code: NBRM MK 2X

Contact:
Technical editor of the Journal
(EconomicDevelopment@ek-inst.ukim.edu.mk)
URL: http://www.ek-inst.ukim.edu.mk/

Editing Instructions

NAME AND LAST NAME will be written with capital letters, left alignment, 12 points, bold, being followed by asterisks, and in the footnote the didactic and scientific degree, the position and place of work of the authors e-mail are indicated (Times New Roman, 10 points)*
(12 points) <Blank line 12 point high>
(12 points) <Blank line 12 point high>
THE TITLE OF THE PAPER WILL BE WRITTEN WITH CAPITAL LETTERS, CENTERED, Times New Roman, 12 POINTS, BOLD
(12 points) <Blank line 12 point high>
(12 points) <Blank line 12 point high>
<Tab> **Abstract**: (Times New Roman, 12 points, Sentence case, bold, left alligment)
The text in the Abstract will only be in English and will have between 100 and 200 words, a single line spacing, justify alignment, Times New Roman, 12 points. (The abstract should summarize the content of the paper. Do not make references nor display equations in the abstract.)
(12 points) <Blank line 12 point high>

* Assoc.Prof., Ph.D., University of Ss. Cyril and Methodius, Republic of North Macedonia, e-mail:

<Tab> **Keywords**: (Times New Roman, 12 points, Sentance case, a single line spacing, justify alligment, bold). Maximum 5 words, in English, Times New Roman, 12 points.

(12 points) <Blank line 12 point high>

<Tab> **JEL Classification:** (Times New Roman, 12 points, Sentance case, justify alligment, bold). Times New Roman, 12 points, *(http://www.aeaweb.org/journal/jel_class_system.php).*

(12 points) <Blank line 12 point high>

(12 points) <Blank line 12 point high>

Introduction (Times New Roman, 12 points, Sentance case, left alligment, bold)

(12 points) <Blank line 12 point high>

(The introduction of the paper should explain the nature of the problem, previous work, purpose, and the contribution of the paper, a single line spacing, justify alignment, Times New Roman, 12 points. The contents of each section may be provided to understand easily about the paper.)

(12 points) <Blank line 12 point high>

1. THE TITLE OF THE CHAPTER: Times New Roman, 12 points, , capital letters, bold, numbered with Arabic numbers, left alligment.

(12 points) <Blank line 12 point high>

<Tab> The text paragraphs of the paper will be Times New Roman, 12 points, justified alligment, single line spacing. The paper will be edited on A4 format (210 x 297), page setup, top/bottom 2,54 cm; left/right 2,54 cm. The size of a <Tab> is 1,27 cm.

(12 points) <Blank line 12 point high>

1.1. Subchapter. Subchapters can be used in the text, numbered with the number of the chapter and a number showing the number of the subtitle within the chapter. The subchapters are Times New Roman, 12 points, Sentence case, bold.

(12 points) <Blank line 12 point high>

<Tab> **Conclusion**: (Times New Roman, 12 points, Sentence case, bold, left alligment)

The text in the Conclusion will be written in Times New Roman, 12 points, justify alignment, single line spacing.

CITATIONS: ***Quotations and notes*** should be elaborated as footnotes and marked successively with Arabic numbers[2]. The scope of quotations and notes should be limited to 15 lines. Abbreviations such as "ibid", "op. cit" can be used.
Harvard Format Citation is also asseptable (In-text and Reference list).

PRESENTATION OF THE MATHEMATICAL EQUATIONS
(10 points) <Blank line 10 point high>
The mathematical equations will be Times New Roman, 11 points, centred and numbered on the right with Arabic numbers between round brackets.

(10 points) <Blank line 10 point high>

$$X^2 + Y^2 = Z^2 \quad (1)$$

(10 points) <Blank line 10 point high>

PRESENTATION OF TABLES, GRAPHS AND PICTURES (12 points)
Title of the table, graph, picture or other illustration (Times New Roman, 12 points, Sentence case, bold, left alligment)

<Blank line 12 point high>

Tables, graphs, pictures and other illustrations should be presented in Arabic consecutive numbers. The references or data sources of the tables and graphs should be cited below, preceded by any additional comments or explanations. Tables, graphs, pictures and other illustrations are prepared in black and white techniques presented appropriately in the text. All graphs and illustrations and diagrams should be additionally submitted in their original electronic form (jpg, gif, xls, and alike).

<Tab> **References**: (Times New Roman, 12 points, Sentance case, bold, left alligment)
References should appear at the end of the paper, listed in alphabetical order by the names of authors.

[2] **Author's surname, Initial of first name**: *Title of book,* Edition (only include this if not the first edition), Publisher, Place, Year, page (Times New Roman, 10 points, justify alligment, single space)

References will be written with Times New Roman 12 points, justify alligment, numbered with Arabic numbers.

- For *books* the required elements for a reference are:
  Author's surname, Initial of first name: Title of book, Edition (only include this if not the first edition), Publisher, Place, Year
- For *journal articles* the required elements for a reference are:
  Author's surname, Initial of first name: Title of article, Full Title of Journal, Volume number (Issue/Part number),Year, Page numbers
- For *journal articles from an electronic source* the required elements for a reference are:
  Author's surname, Initial of first name: Title of article, Full Title of Journal, Volume number (Issue/Part number), Year, Page numbers if availalble, Available at: include web site address/URL(Uniform Resource Locator), [Accessed date]
- For *newspaper articles* the required elements for a reference are:
  Author's surname, Initial of first name: Title of article, Full Title of Newspaper, Day and month, year before page numbers and column line.
- For *websites* found on the world wide web the required elements for a reference are:

Authorship or Source: Title of web document or web page, Year of the document, Available at: include web site address/URL(Uniform Resource Locator), (Accessed date)