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**(Original scientific paper)**

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**IMPLEMENTATION OF GREEN ECONOMY CONCEPT IN SMES:  
EMPIRICAL RESEARCH IN THE REPUBLIC OF NORTH  
MACEDONIA**

**Abstract**

Although the pandemic further complicates the situation in the Macedonian economy, it gives an advantage for development of the green economy concept that is, by efficient use of resources and to find new technological and innovative solutions that will contribute in generating income, creating new jobs and different model of consumption than the previous one. Given this, the main purpose of the paper is to analyze and identify the opportunities faced by SMEs in terms of adopting green policies in its operations. The analysis showed that SMEs have an obvious lack of information on how SMEs can apply the concept of green economy in their operations and are facing with complex administrative procedure in implementing environmental practices. This can be explained by the fact that many small and medium-sized enterprises are subject to the same environmental regulatory regime as large enterprises. Despite the modest external support, most of the surveyed companies take measures for more efficient use of resources in order to save and reduce costs. Therefore, it is necessary to create a regulatory framework for green economy in North Macedonia by bringing clear and appropriate documents with specific activities and measures, harmonized with EU standards.

**Keywords:** green economy, SMEs, Republic of North Macedonia

**JEL Classification:** Q50, Q56, Q57

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## **INTRODUCTION**

SMEs play a significant role in the national economy in the Republic of North Macedonia and their development is one of the key factors for achieving accelerated economic growth, increasing employment and growth in production. Recent decades, there is a new approach in the functioning of SMEs that stimulate economic growth and development, while ensuring that nature continues to provide resources and services in the environment on which the well-being of national economies depends. The concept of green economy offers a new approach to work dedicated to the principles of environmental sustainability, especially minimizing the negative impact on the environment and the use of renewable energy sources.

Green economy in SMEs in Republic of North Macedonia is a new concept in the modern society and aims SMEs in its basic policy to recognize the impact of the business activity on the environment. The main goal of the green economy is to find ways and methods that will ensure the most efficient use of resources to meet human needs and thereby preserve the environment unchanged. Responsibility for the environment and green work means sustainability to be incorporated in the work in all activities of the company. Business that provide green economy in their work or green businesses can be defined as a business that uses renewable energy sources (environmentally sustainable), takes into account the impact of its activities on society (socially responsible) while covering its costs or creating a profit (economically sustainable).

For a business to be called environmentally responsible or "green", it is necessary to meet the following criteria: (Cooney S., 2009,p.5)

- Principles of sustainability to be incorporated in every business decision;
- The business to provide environmentally friendly products and services;
- The business to build competitive relations that are "green" in relation to the traditional ones;
- There is a permanent commitment to environmental principles inside, within the business activities in the company

Responsibility for the environment and green business includes environmentally focused or "green activities" that ensure that all processes and products of the company are in line with current environmental issues while respecting their profitable motive. This implies such a choice of product design that will best take advantage of the current environmental situation, while recognizing the degree of success of the enterprise in the use of renewable resources. The company becomes "green" by adding value by technological redesign, modifying existing or introducing new technologies with less negative impact on the environment, by adapting the management system of environmental requirements to modern operations and by achieving environmental performance of its products and services.

Although the pandemic further complicates the situation in the Macedonian economy, it gives an advantage for development of the concept of green economy that is, by efficient use of resources and respect for the principles of natural laws to find new technological and innovative solutions that will contribute in generating income, creating new jobs and different model of consumption than the previous one. Namely, these are businesses dedicated to the principles of environmental sustainability, they try to minimize the negative impact on the environment with their activities and use renewable energy sources. In this sense, they stimulate economic growth and development, while ensuring that nature continues to provide resources and services in the environment on which the well-being of national economies depends.

Given this, the main purpose of the paper is to analyze the Macedonian SMEs in terms of the ability to apply and develop the concept of green economy, i.e. identify the opportunities and challenges faced by SMEs in terms of adopting green policies in its operations. For that purpose, it was conducted a research among SMEs in Republic of North Macedonia to see the situation of SMEs in terms of the possibility of application and development of the concept of green economy, i.e. identifies the opportunities and challenges faced by SMEs in terms of adopting environmental policies in their work or application of green economy principles.

## **METHODOLOGY**

The methodology of research is based on primary data obtained from previously prepared, structured questionnaire, submitted to small and medium enterprises in the Republic of North Macedonia. In order to perceive the current situation, questions were referred to awareness and knowledge of SMEs on environmental regulation and application of environmental practices and principles of green economy in their operations. The analysis of the results is systematized in three areas:

- The application of environmental regulation and SME services,
- The current implementation of green practices by SMEs and
- The existing support for green practices in SMEs

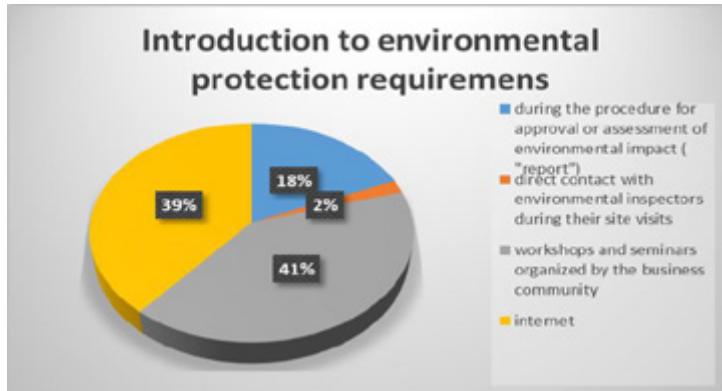
The questionnaire was distributed to more than 60 small and medium enterprises in the Republic of Northern Macedonia in the period November - December, 2020. The questionnaire covers 21 questions related to the possibilities of SMEs to apply the concept of green economy in their work.

The questionnaire was answered by a total of 54 micro, small and medium enterprises, of which 59% are micro enterprises, i.e. enterprises with up to ten (10) employees), 28% are small, i.e. enterprises with eleven (11) to fifty (50) employees and 13% are medium enterprises where the number of employees is from fifty one (51) to two hundred and fifty (250). Most of them are from the sector of agriculture - seventeen (17) and retail - thirteen (13), followed by processing industry - eight (8), hotels and restaurants - seven (7), real estate - four (4), construction - three (3) and other service activities - two (2).

## **RESULTS AND DISCUSSION**

The survey showed that SMEs have an obvious lack of information on how SMEs can apply the concept of green economy in their operations. Asked how your company meets the requirements for environmental protection, the highest percentage answered that it is the workshops and seminars organized by the business community (41%), and less that 39% said they introduced the Internet. also there are no concrete actions and measures to harmonize measures for growth and development of SMEs with environmental policies (Graph 1).

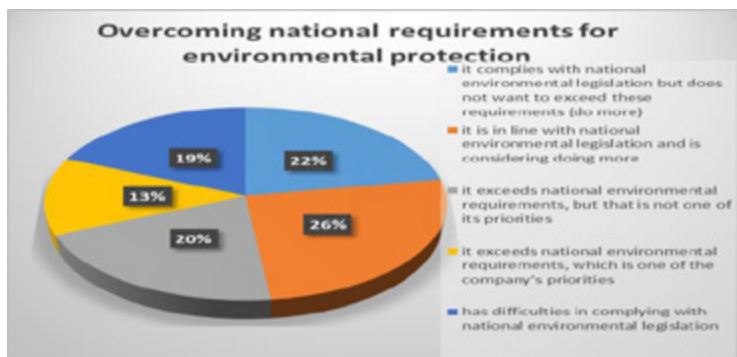
**Graph 1**



Own research

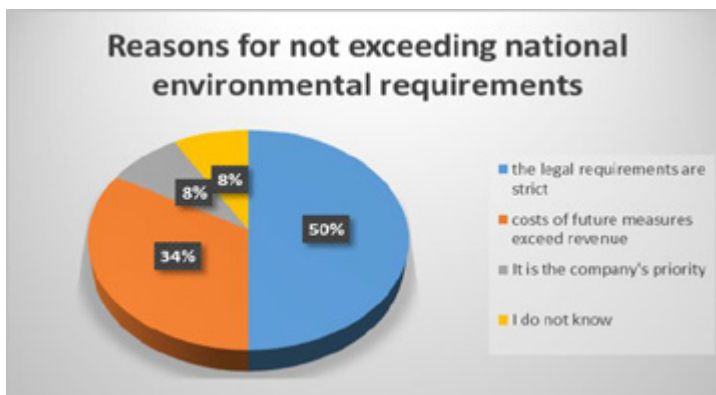
Graph 2 shows that there are divided mentions about overcoming national requirements for environmental protection. So as we can see on the Graph 3, the companies that answered that they would not want to bypass national requirements, why they do not want to do so. Half of the surveyed companies answered that the legal requirements are too strict, one third that the costs exceed the revenues, and the rest that it is not a priority in the operation of the company. They face a complex administrative procedure in enforcing environmental practices and strict rules if they want to do more (better) than legally prescribed requirements. This can be explained by the fact that many small and medium-sized enterprises are subject to the same environmental regulatory regime as large enterprises. Also, the largest percentage of respondents said that their company is familiar with the requirements for environmental protection online, through workshops and seminars organized by the business community or during the environmental impact assessment by the expertise.

**Graph 2**



Own research

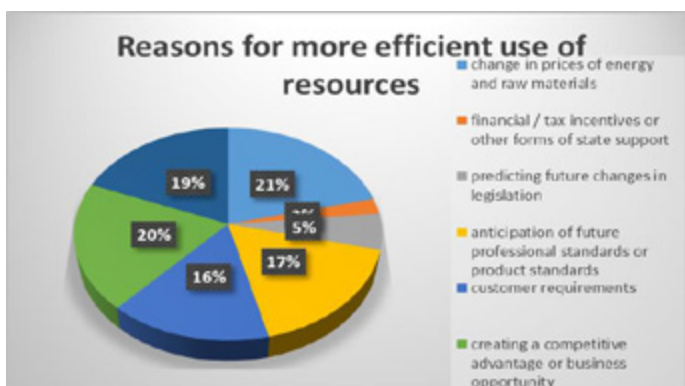
Graph 3



Own research

The largest percentage of companies surveyed that offer green products or services are companies in the agricultural or food processing sector, but there is also a significant percentage of companies in other industries that offer renewable energy products and pollution reduction technology. (Graph 4) Most companies enter this market because they want to protect and preserve the environment, partly because of improving their market reputation, but there are certain percentages who believe that offering green products or services will give them a competitive advantage. The largest percentage of companies cited waste minimization as an activity for more efficient use of resources, including recycling, approximately the same percentage saving of raw materials, energy and water, and less the use of renewable energy.

Graph 4



Own research

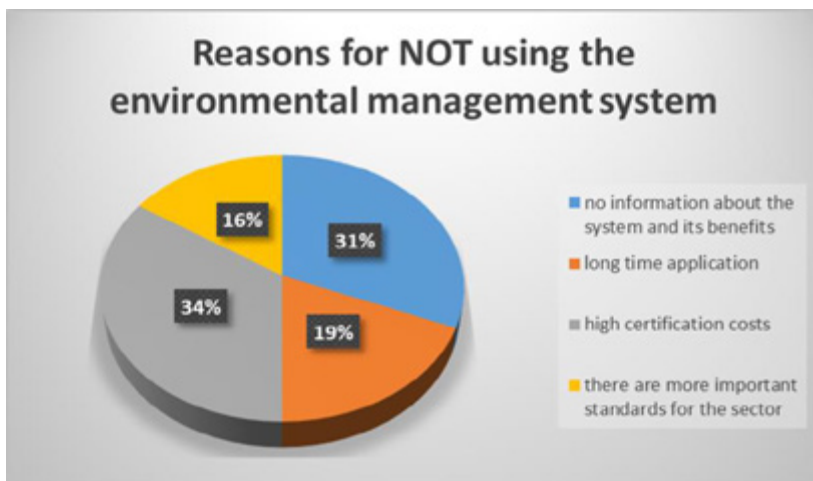
In order to find out whether the companies in the Republic of North Macedonia apply environmental practices and / or the principles of green economy in their operations, questions were asked about whether they use the ISO 14001 environmental management system or some other system that applies of environmental protection and the reasons why they use it or not. (Graph 5 and 6) The main reason for not using any system 34% of the surveyed companies answered that they are unfamiliar with the system, and 31% its benefits and costs for certification. Also, 19% of the surveyed companies answered that it is a long time to apply, but also that there are more important standards for the sector. Of the surveyed companies that answered that they use an environmental management system, 35% singled out the improvement of the company's performance as the main reason, the improvement of the image - 23% and at the request of the clients - 23%. This indicates lack of information, capacity or overload of time and costs for its implementation. First of all, there is very little market demand from business clients for the adoption of the system (such demand comes only from foreign companies), which means that the market benefits of investing in such a system are uncertain.

Graph 5



Own research

Graph 6

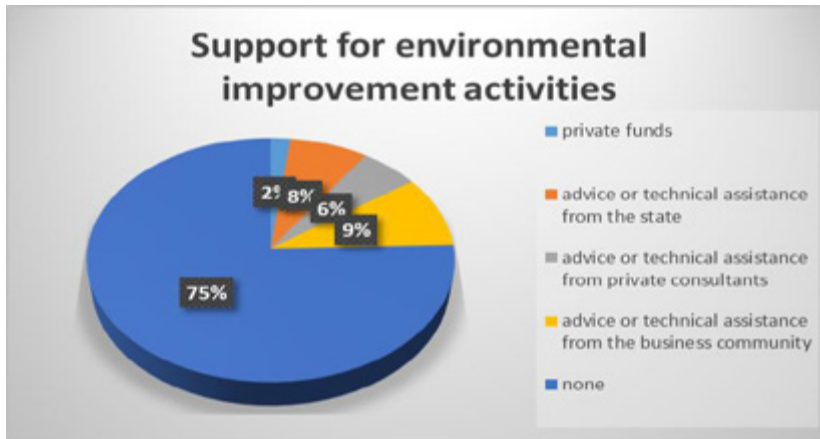


Own research

Despite the lack of external support, the largest percentage of companies are taking measures to use resources more efficiently, most often saving energy and raw materials, or plan to do so in the future. The main reason for such activities is purely economic, i.e. companies are already experiencing and expecting further increases in the prices of these resources, and it is known that the smaller the business, the more the impact of changes in resource prices is felt. It is also worth noting that, of the surveyed enterprises, the percentage share of SMEs planning to implement additional resource efficiency measures and those already implementing them are relatively the same. This indicates the need for companies to be convinced of the economic benefits of more efficient use of resources. The graph 7 shows that 75% of companies that take resource efficiency measures do not receive technical or financial support. Public financing, i.e. subsidies from the state are present only in the companies from the agricultural and processing sector in the part of food processing.



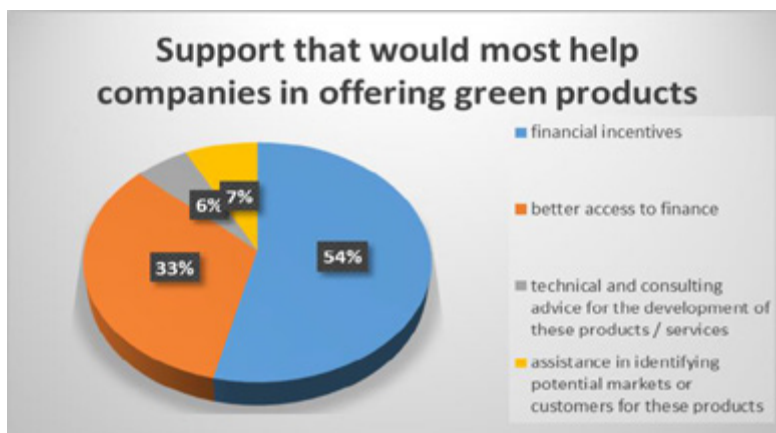
Graph 7



Own research

As part of the SME survey, companies were also asked about the type of state support that would most help them in introducing green products or services. Financial incentives were mentioned by more than half of the respondents, while better access to finance and technical advice were named by about a third of the businesses surveyed (Graph 8). The need for better access to finance was particularly pronounced among companies in the food production sector and micro-businesses. Most small businesses require clear and consistent information that aligns SME growth and development measures with environmental policies.

Graph 8



Own research

## **CONCLUSION**

The results of the survey highlighted several critical points i.e. that clear and consistent information is needed on the minimum requirements for compliance with environmental protection policies and on the other hand, the application of the concept in the green economy is largely voluntary action, dependent on the persuasion of the owner or several employees: they see it as an opportunity to save, reduce costs and increase efficiency. They are aware of the potential of the green economy in order to improve the environmental performance of the company, but are prevented from lacking appropriate skills and expertise. Hence, concise and accessible publications are needed to comply with environmental or green practices, and thus to comply with the Law on Environment. Research has also shown that they often face barriers to accessing finance, as banks are reluctant to finance such investments and do not have the specialized staff needed to evaluate projects that have a green component. There are several financial mechanisms available to SMEs willing to go beyond compliance and invest in green technologies, such as the Fund for Innovation and Technological Development, the GEF Small Grants Programme and the Green Climate Fund. However, there is a need to expand state financial support for green businesses in several sectors and strengthen market incentives to improve the application of the concept of green economy, both directly (such as: green public procurement) and indirectly (green certificates and eco-labels) in order to increase the demand for improved environmental performance and green products and services.

As proposed recommendations arising from the analysis of the research results, the following could be stated:

- There is a need to improve access to information, public participation and consultation in the decision-making process relevant to the environment and climate;
- Simplification of administrative procedures in the implementation of environmental practices in SMEs and strengthening the relationship between government institutions, ministries responsible for this issue, with the business community in order to directly introduce the need to meet certain standards for environmental protection in the operation of enterprises;

- The introduction of the green economy indicates that the main goal of achieving sustainable development in the Republic of North Macedonia is geared towards the integration of tourism, forestry, agriculture and industrial sectors with sustained support from the energy sector, infrastructure and transport sector;
- Raising the level of awareness on the availability of funds and loans from banks for SMEs orienting towards the green concept in the operation;
- Expanding the financial support from the state for green businesses in several sectors by opening a Green Fund for this purpose, i.e. project support of SMEs oriented towards a green economy with different goals, such as: reuse, repair, renewal (recover) and recycling.

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