Analysis of WEconomy and Macedonian Socially Responsible Companies

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Abstract. The resources offered by planet Earth are limited, so they need to be used wisely. We live in an era of digitalization and technological revolution where businesses have the opportunity to use sustainable development and concepts of green economy and growth. The whole transition in this era is based on fresh solutions, creativity, and open minds. Rational use of resources contributes to their reuse, pollution reduction and economic growth. This is where new trends emerge in sharing underutilized resources among people using the Internet aiming to generate as little waste as possible and reuse those resources in another production. This global movement, known as WEconomy, brings together six different trends in the modern economy where product ownership is overshadowed by the temporary resource-sharing approach. The purpose of this paper is to show the current position of the WEconomy in Macedonia compared to the world, and what are its future directions. The main focus is put on the shared and circular economy, as well as their impact on the economy and the environment. The socially responsible companies on the territory of Macedonia are also included as a positive example of the transition from linear value chains to circular value chains.

Keywords: Circular Economy, Environment, Pollution, Resources, Shared Economy, WEconomy.

1 Introduction

Sharing goods isn't something new. Exchange systems and the community life have a long-standing tradition. What is new are the digital platforms and the technological development that have contributed to the mediation of resource sharing between people. This new concept is known as shared economy, which is one of the six WEconomy's trends. In recent years, there has been an intense discussion about WEconomy, which is based on structured and innovative technology that brings together large people system and coordinates the services they need. The market success of a shared economy is closely related to the technologies at their disposal and operation.

Closely related to WEconomy is the social entrepreneurship which is rapidly expanding and attracting increased attention from many sectors. Social entrepreneurship drives change and cares about the profitability and benefit of the transformations it offers to people. [1].

This paper analyses the Macedonian market and the presence of companies and organizations that promote a shared economy or are part of a social entrepreneurship.

The structure of this paper is as follows: in Section 2 we define WEconomy. Then, in Section 3, we cover several examples of WEconomy in Macedonia, whereas in Section 4, we list the competitors and propose several ways in which national businesses can improve. Next, in Section 5, we analyze the results of a survey conducted regarding the use of WEconomy in Macedonia. In Section 6, we describe the influence of the circular economy on the natural resources in Macedonia. Then, in Section 7 we provide predictions regarding the future of WEconomy. Eventually, in Section 8, we give a conclusion derived from the analyses conducted and presented in this paper.

2 Conceptualizing the WEconomy

WEconomy can be described as a worldwide movement that involves sharing resources and profiting from each other. WEconomy's main goal is to achieve a common good through working together, rather than profiting individually. This type of economy is famous for its targeted profit, people's creativity, increased socialization, and trust. In the field of the WEconomy, of particular importance for increasing productivity and interest, is that business is driven by purpose.

WEconomy consists of 6 trends: circular, functional, bio-based, collaborative, sharing and self-production economy. In the following subsections, we focus on the circular and shared economies as two main objectives of interest for analysis in this paper.

2.1 Circular economy

The production and consumption model based on sharing, repairing, restoring, recycling and reusing standard products, is defined as a circular economy. The main goal is to keep the resources in use for a long time to improve productivity [2].

This economy aims to take care about global issues such as climate change, waste, environmental pollution, biodiversity loss and more. The concept of a circular economy is the contrary of a linear economy. In the linear economy, natural resources are used for production but then they become waste. For the transition from a linear to a circular economy it is crucial to follow three principles: elimination of waste and pollution, circulation of products and renewal of nature.

2.2 Shared economy

The sharing economy represents an economic model of sharing goods and services, mostly through online platforms. In the sharing economy, which is also defined as peer-to-peer (P2P), individuals can make money from unused assets and resources.

Examples of this are unused cars, rental apartments and other types of goods when they are not being used, etc. In this way, any unused resources can be shared.

In the 21st century, there are many people who choose sharing products and services or paying for temporary access, instead of buying or owning them. On the other hand, there are also individuals who cling to the traditional need to own products.

However, the uniqueness of the sharing economy is that it takes advantage of all the unused resources that individuals possess.

The key value of the sharing economy is that it offers a variety of ways to share resources, offering individuals much faster and cheaper access to them. A key imperative of the sharing economy is that having access to goods and skills is much more important than ownership of them.

3 ICT-enabled WEconomy in Macedonia

In the last decade, a growing number of businesses in the field of WEconomy have been observed in Macedonia. Most of them are social entrepreneurship businesses, but there are also several projects that are part of the circular and bio-based economy. Furthermore, social entrepreneurship became more prevalent during the Coronavirus pandemic, and these companies were encouraged and supported by innovation funds and other investors from the country and abroad.

On the other hand, there are not many formal companies offering services from a shared economy, but most are informal associations and organizations. This fact is due to the little knowledge of the citizens about this type of services, the distrust in the system itself, as well as the tendency towards the already existing linear economy and the acquired ways of buying products and services.

The younger generations are enthusiasts who believe in WEconomy and make the most of the resources available to them. Their main goal is to offer something new on the market that will be used in the long run and that will help many individuals and families to live a better life in our country.

3.1 Circular economy businesses

The circular economy generally includes humanitarian and non-governmental organizations that strive to use all resources to their maximum and to reduce waste. These include those who donate food to homeless people, donate things like clothes, items, etc. that they no longer use, as well as pay other people's utility bills to those who cannot afford it. In the following subsections, a detailed description of several companies that belong to the circular economy in Macedonia is given.

Ways2Help [4] is a networking platform that provides easy access to all charities and NGOs, donors and individuals willing to be effective, by offering assistance to vulnerable people. Ways2Help is one of the socially responsible companies in Macedonia that helps vulnerable people by enabling volunteers to pay their water, electricity, and other

bills. To present date, they have achieved results from over 1600 paid bills and over 160 families who have been helped.

Retweet a meal [5] is a tweeter initiative, composed of several enthusiasts that prepares and donates meals to those who need it most. It is a self-organized group of twenty young people who prepare and donate meals to the homeless in Skopje. This activity is performed every Saturday and the action continuously increases the number of humanitarian citizens, organizations and companies that take part in cooking, preparation, transport, and food donation.

Self-organized groups on social platforms. There are several separate groups that are created on Facebook and are used as a channel to share things between people. The most famous are the groups offering private transport from one city to another on the territory of Macedonia. Advertising real estate for rent for a short period is another activity widely spread on social network groups. People also self-organize in groups to exchange books they have already read. Additionally, the citizens of the city of Skopje can leave a book at certain locations designated as book corners and take another book in exchange.

3.2 Bio-based economy businesses

In the last decade, many considerably influential companies have emerged on the Macedonian market which contribute to reducing environmental pollution and increasing the quality of life in the country. The following companies deal with planting of trees and greenery, recycling waste and reconstruction of old and broken computers that are one of the biggest polluters when thrown in the trash.

Treebanks. Treebanks [6] is a simple but immensely powerful concept that stands for a healthier and cleaner environment and for the fight against the huge pollution in the country. With every reservation made through their application, they plant a tree. So far, they have planted over 6000 trees. The use of their platform is free, and their earnings consist of a percentage of the commission of the partner from whom they buy seedlings.

Pakomak. Pakomak [7] is a non-profit company whose activity is packaging waste management. It is the first company in Macedonia to have a license for selection and processing of packaging waste. The founders of the company are 11 leading production companies. In accordance with European regulations, Pakomak builds stable collaborations with many clients in the country. The main goal of this company is to minimize waste, thereby reducing the negative impact on the environment. In addition, it stimulates a high level of responsibility of companies that generate packaging waste, thus ensuring a better life for all in the long term. As of 2021, Pakomak has recycled 25 761 tons of waste.

Donate a computer. Donate a computer [8] is an online platform where people and companies can donate their old/used computer or cash, which later is donated to families who cannot afford it. The main goal of the company is that every family in Macedonia has at least one computer. For 6 years now, donations of used computers have been made throughout the territory of Macedonia and over 1400 families have been provided with computers.

3.3 Shared economy businesses

The shared economy has slowly but surely become part of the Macedonian market. People are slowly gaining the trust to share their underutilized things on loan and to offer one service in exchange for another.

MojCoek [9] is a web and mobile sharing platform where people can offer services and on the other hand they can request and pay for services published by other people. The services are evaluated and the ones with the highest rank are displayed at the top, which increases their visibility and increases the possibility for offers. The services offered on this platform are in the field of home repairs, health, arts skills, food, mentoring, weddings and events, pets, moving and more [10].

DriveDriveCar [11] is a web platform that allows people to rent cars directly from their owners. This is a relatively new and modern business model in the world of the sharing economy. Specific for this business is that it offers car owners a unique opportunity to define rental conditions and the opportunity to offer additional services. Car owners can set a variety of adjustable settings on their profiles, with which they can best stand out on the platform, as well as define the price at which they rent their vehicle. Users who rent vehicles can reserve in advance the periods in which they want to rent the vehicle, and in return they pay at a lower price [12].

GoViral [13] is a platform that offers several services including grocery shopping, food delivery, shipping delivery, bill payment, gift delivery, document delivery, anonymous delivery, shopping, chemical delivery etc. It also offers taxi services where anyone who owns a vehicle can sign up to be taxi-driver, like Uber. Some of the existing taxi-drivers are pet-friendly which is rare and unique in taxi services in Macedonia.

Kajak.mk [14] is a platform that promotes local tourism services. Their goal is to enable all people in the country to earn additional funds through their hobby, passion, and profession. The main goal of the company is to introduce domestic tourists to the offer in the country. Kajak.mk has authentic and unique stories related to individuals who have decided to develop a small business from their interesting hobby. Although the company initially promoted itself as a platform where one can find travel suggestions for everyone's taste, it has continued to develop as a platform for promoting all local heroes who do small things of great importance for the development of tourism.

4 Competition analysis and improving national solutions

The beginnings of WEconomy started in the USA more than a decade ago, right after the biggest world economy crisis [15]. There are many competing companies world-wide that offer the same or similar services/products on the market. Uber and Airbnb are among the most famous and largest such companies, but there are many others that offer services from the shared, bio and circular economy. In the following subsections, we single out only a small part of the foreign companies that offer similar services to those from our country and propose how our existing solutions can be improved by looking at the competitors' advantages.

4.1 Circular economy businesses

In Macedonia, the concept of circular economy in businesses is rarely used, although there are many areas in which it can be applied. By comparison, in 2020, several major global brands applied the circular economy to their businesses [16] such as: Nike - started co-production of sneakers from recycled materials, Burger King - introduces reusable packages for sandwiches, Ikea - introduces a program for purchase of used furniture, Adidas - makes completely recyclable sneakers, H&M - procures exclusively sustainable materials for collections, etc. All these products are available online at the platforms of the respective companies, which further highlights the presence of ICT in the circular economy.

Following these examples, we can think in terms of greater application of the circular economy in local businesses and industries such as fashion, automotive, construction etc., supported by legislation that will support this economy.

4.2 Bio-based economy businesses

Industries must reconsider their approach to resources. Every year, 8 million tons of plastic are thrown into the oceans, and greenhouse gas emissions are out of control. Global resource demand is projected to double by 2050 [17], and some reserves of rare metals could disappear. Globally, the situation is extremely worrying for the extremely small number of companies that are committed to recycling waste or reusing hard-to-decompose resources. With the European Green Deal, the Commission set out an ambitious plan to transform the European economy and make it the first continent with eliminated carbon emmisions by 2050. [18]

As the green transition continues, we are also going through a digital transformation. Digital solutions to reduce or avoid emissions, have a huge potential. It is estimated that today's digital technologies, if well optimized and widely applied, could reduce 15-20% of total emissions. To realize this potential, technologies need to be designed and used in a way that minimizes their negative effects.

There are 5 main projects that are planned to be implemented with this European Green Agreement, namely:

1. Mapping solar and wind potential on our rooftops
2. Improving industrial processes with smart technology

3. Digital tech for smart, sustainable housing
4. Living labs to test future mobility solutions
5. Precision digital tools in support of farm productivity and emission mitigation

4.3 Shared economy businesses

The shared economy is one of the most developed sectors in the world. There are several competitors offering almost identical services to national companies in this field. We mention only a few among the most famous companies [19]:

Relay Rides (Turo). Turo [20] is a car sharing company that originated in America. This company, through its online and mobile application, allows car owners to rent their vehicles in over 56 countries.

TaskRabbit. TaskRabbit [21] is an online and mobile on-demand marketplace that connects freelance labor with those who need assistance for a variety of everyday tasks, including moving, cleaning, deliveries, and handyman-related work.

Uber. Uber [22] is a company that allows independent drivers to act as taxi drivers and transport passengers from one place to another with their vehicle. This business is one of the more famous in the sharing economy because it uses existing assets and does not incur additional costs for their provision.

Instacart. Instacart [23] is a mobile and web application where people can order food groceries from all the famous traders and stores and on the other hand, they can sign up to be the food supplier.

Airbnb. Airbnb [24] is an American web and mobile application that offers owners to rent out their vacant real estate properties to people in need of a place to stay. There are a huge number of different types of accommodation offered on this platform, at very reasonable prices.

If we compare the examples of a shared economy on a national level, compared to a global level, we will notice that we have enormous potential, but slow realization of solutions. There are several obstacles, such as legislation, privacy, and safety concerns. However, we need to be aware of the possibilities of the shared economy and put a lot of effort into its inclusion because it is highly environmentally friendly and optimizes the use of resources [25].

5 Data analysis and results

In order to get a clear picture of the awareness of WEconomy in Macedonia, we conducted a survey between several different groups of respondents. The survey was conducted online in March 2022. A total of 97 respondents aged between 19 and 65+ years old participated in the survey, divided into 5 age groups, shown in Figure 1. The largest number of respondents (81.4%) were aged 19-29 and they are mostly people from the IT departments.

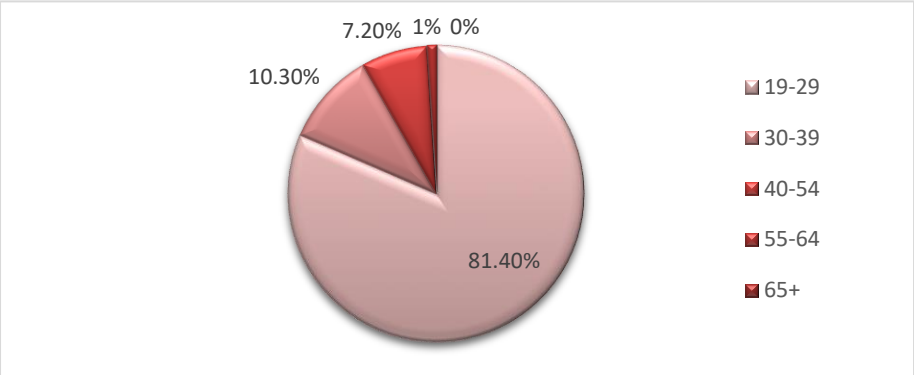

Fig. 1. Age distribution of the respondents

Regarding the gender distribution, 53.6% of the respondents were men, while 46.4% were women.

We asked the respondents how familiar they were with the term WEconomy, whether they were familiar with the companies/organizations mentioned in the previous sections, whether they used any of their services and whether they would use such services in the future.

Figure 2 shows the results from the people's awareness of the WEconomy term, divided by the age group of the respondents. We can see that only around 18.8% of the respondents aged between 19-29 years said they had heard of the term WEconomy.

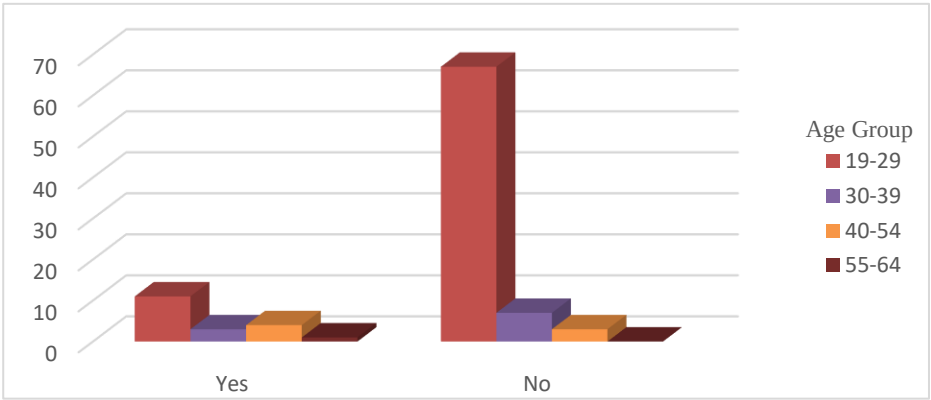

Fig. 2. Awareness of WEconomy among the population in Macedonia, divided by the age group

In Figure 3, the awareness of local WEconomy companies among the respondents is shown. Among the most famous companies and organizations stood out Pakomak (84.4%), Donate a computer (83.3%) and Retweet a Meal (52.1%). The most popular companies are those which offer social services to help other people with services/products that they cannot afford.

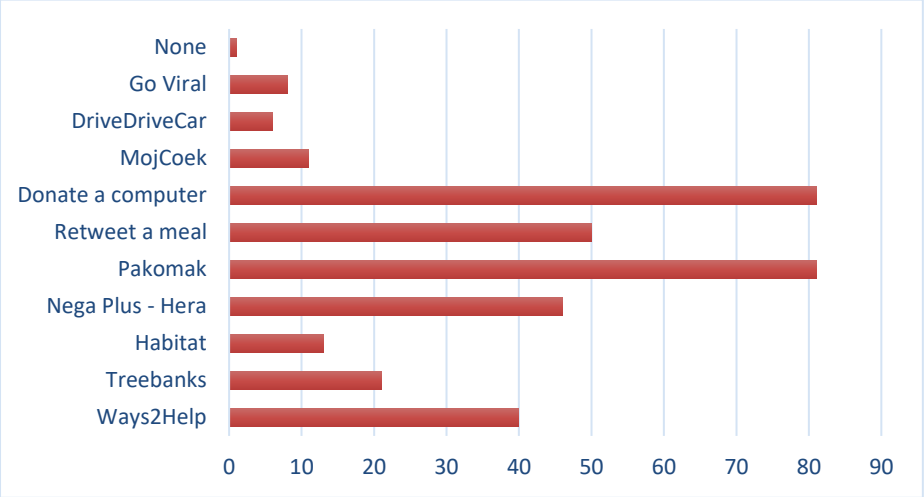

Fig. 3. WEconomy companies familiar to the respondents

As many as 75% of the respondents stated that they did not use any services in the field of shared economy, but almost all of them would like to use them in the future.

The conclusion of this survey is that WEconomy has a brilliant potential for development, but it takes more time for people to gain the necessary trust and make use of it in their daily lives. In addition, there is a need to increase awareness of the existence of this type of companies, which means enhanced marketing and support from government institutions.

6 The impact of the circular economy on the natural resources in Macedonia

The concept of circular economy implies the multiple use of the same raw material to get a new product again. The term itself is essentially a business model used to reduce the misuse of natural resources, to protect the environment and achieve better conditions, i.e., to contribute to reduction of the effects on climate change.

An example of a circular economy are the wineries where, after the processing of the grapes, the stalks can be used to produce briquettes The seeds are further used for extraction of certain Q10 enzymes or other derivatives which can then be used to produce new products. In this case, we say that we are closing the production cycle with zero waste.

As a trend, the circular economy exists in the food, textile, and the wood industry. It's also present in the field of energy, where renewable energy sources can be used. In this context, in the automotive industry, it's important whether the energy used to charge the batteries of electric vehicles is also from renewable energy sources. Still, the question that causes many debates is the recycling of these batteries, which, if not treated, may be very harmful for the environment.

The goal of the circular economy is to reduce the one-time use of natural resources, thereby further increasing the possibility of employing people who will contribute to the reuse of existing resources. For a successful circular economy, it is necessary to change the raw materials themselves, their type and design, in order to change the production process, which in turn will directly affect economic growth. At the same time, we should strive to generate as little waste as possible, and if possible, reuse it as a resource in another production process. This will ensure sustainable management of raw materials.

7 The future of the WEconomy

There are several ongoing projects in Macedonia promoting WEconomy. Among the last implemented measures are the ban on the sale of plastic bags in stores. Instead of plastic bags, buyers can buy biodegradable bags that cost 25 cents, which is a considerably higher price to what consumers were used to paying in the past [27]. Traders must report the quantities of biodegradable bags sold and transfer the earnings into a special state environmental fund. In this way, it is expected to raise public awareness about the enormous harmful impact of plastic on the environment and also to change the way people will buy.

In the direction of socially responsible companies, a company that stands out, a winner of the Social Impact Award 2019, is Edistraw. is a company that produces drinking straws that are both edible and biodegradable. The straws can be of different flavors, colors and sizes. Unfortunately, due to the pandemic of the corona crisis, the production of these straws has been paused, but they are expected to return to use soon and to contribute to reducing pollution on the territory of Macedonia.

The project "New business model of circular economy for sustainable urban development and construction - CINDERELA" [28] is a project that aims to introduce a circular economy in the direction of reducing waste. The goals of this circular economy are aimed at sustainable urban development and construction for the use of secondary waste raw materials in various areas, which will be a usable construction product, facility, or building. In this process, various industries, the construction sector, municipal services, decision makers and the public are connected. The essence of sustainable development is seen in the rational reuse of raw materials and waste materials with equal awareness of the value of all materials in the production process and their impact on the environment.

Furthermore, the EU Green Plan [29] is another project that aims to strengthen the economy, improve the health and quality of life of European citizens. This plan envisages measures to boost resource efficiency by moving to a circular economy, halting

climate change, reversing the trend of biodiversity loss and reducing environmental pollution. The plan covers all sectors of the economy from transport, energy, agriculture, and construction to industries such as steel, cement, textiles, chemicals and more. In this regard, the European Commission is preparing a "Green Plan for the Western Balkans" as one of the regions that are heavily dependent on fossil fuels and hardest hit by climate change.

In this context, we can also mention SocialCar [30], a research and innovation project of the City of Skopje which aims to integrate the carpooling system into the existing public transport systems with the help of powerful software for planning and integration of databases from public transport, joint travel, and activation of citizens through social networks (crowdsourcing). The goal of SocialCar is to change the current practice of using a driver-only car, reduce travel time and improve the environment. Other general objectives of the project are establishment of energy efficiency and use of renewable energy sources by reducing traffic congestion, overcoming current practices to make joint trips mainly for trips outside urban areas, as well as the use of green navigation support systems in driving through active management based on the European GNSS (The European Global Navigation Satellite Systems Agency) [30].

Finally, the likely future of the sharing economy can be expected to be growing with even steeper growth in the upcoming decades. This is due to technological growth, the Internet of Things, the increasing speed of data with the introduction of 5G technology, the growing demand for practical online services and products to enable consumers to complete their daily tasks online. Perhaps the most appealing force will be for the changing attitudes of future generations to abandon materialism and focus more on the environment.

8 Conclusion

WEconomy is an economic model of the future. It has the potential to become a new socio-economic system based on sharing and cooperation and will bring about a proper distribution of values, democratically organized businesses and raising people's awareness. ICT encourages digital sharing of resources and their collective consumption among people using digital platforms. Shared goods create sustainability, because the number of products is optimized as well as all the follow-up steps necessary for a product to reach sales.

WEconomy is still an under-researched topic and there are even greater and untapped market opportunities. The motivation of this paper was to give an overview of the presence of WEconomy on the Macedonian market and what are the similarities with foreign markets where this type of services is already significantly used. The results of the survey show that the main reason for the poor utilization of WEconomy resources is the low awareness of its existence.

Additionally, limited access to finance for starting a WEconomy business can be cited as a reason, as well as distrust in collaborative business models.

For the most part, people are familiar with social help and environmental care companies, only a greater entrepreneurial initiative is lacking. Most importantly, people are open to change and most of them are ready to use WEconomy services in the future.

WEconomy is a model for the future and brings great and lasting value to both people and the proper use of the Earth's resources. Every developing country should strive to implement WEconomy with a larger goal to maximize resource utilization and make a positive long-term environmental contribution.

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