

GREEN TECHNOLOGIES AND MARKETING DIGITALIZATION

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Abstract

Green technologies and digitalization through marketing are closely related and will significantly affect the quality of life of citizens in the next decades. They cannot develop independently, that is, independently of each other. Digital technologies have a major role in making it easier, cheaper and more pleasant to accept products and services with zero emissions. At the same time, the increased demand for energy-intensive digital marketing devices, the expansion of data centers, cloud services and increased demands for critical raw materials will have significant impacts on the climate. The active role of small and medium-sized enterprises (SMEs) in the Republic of North Macedonia in these processes is very important. But, unfortunately, the majority of SMEs in Macedonia are not aware of the possibilities of green and digital transformation. According to the European Investment Bank, almost 2/3 of SMEs in Macedonia do not recognize energy efficiency as a priority for saving and optimization, while most of them use only fragmented digitalization of permanent processes. The Economic Investment Plan (EIP) for the Western Balkans is a good opportunity for green and digital transformation. The deployment of ultra-fast broadband Internet, used as a marketing tool, is done in order to ensure universal access, development of digital skills and improvement of cyber security, are among the key priorities of the Digital Agenda for the Western Balkans. The establishment and development of innovative and technological parks could be a solid approach, with a specific focus on startup companies that are oriented towards the complete development of products (such as technologies for additive manufacturing), instead of creating only software applications and services through marketing tools.

Keywords: green marketing, digitization, marketing tools, companies and marketing tools

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INTRODUCTION

Companies must adapt to compete in the dynamic open market. Digital transformation, collaboration, compliance, cost management and competition require primarily flexibility. Liberalization necessarily transforms enterprises into commercial players with fast action. Improved optimization of resource allocation and resource utilization is also an important condition. In general, the process of digitalization of companies, in parallel with the implementation of the principles of the green economy, leads to growth in income, growth in profits, better rates of productivity and encourages innovation. The development of green industrial zones is also a solid basis for decarbonization of industry, sustainability and digitalization. It is closely related to the creation of green jobs, innovations and research, which will not only reduce pollution, but will also bring added value to the national economy.

The construction and operation of these zones are considered to be of public interest and have state support in terms of taxes, employment incentives, etc. The development of intelligent transport systems and multimodal transport is also an important sector for encouraging green and digital transformation.

In accordance with the strengthening of global environmental awareness, there are more and more consumers who are looking for green products on the market. Hence, a completely new form of demand is created - the demand for products whose process of creation, consumption and disposal does not harm the environment. This is the place where green marketing enters the scene.

If the company offers such products, presenting the advantages of its products, it will be able to reach consumers who, in addition to aesthetic appearance, comfort, taste or functionality, are now looking for safety and the absence of harmful effects on them and the environment. That is why it is very important that all claims for green marketing are true in order to create and maintain a good reputation in relation to the environment.

By applying green marketing, companies can turn this legal obligation to their advantage - the eco-label on the packaging, they can stand out from the competition, standing out as a company that constantly advances in accordance with environmental policy. Since eco-labels are bought only by companies that meet specially defined and strictly determined criteria, they are a sure sign of care for the environment and certainly the best sign of green marketing.

Many countries and international organizations offer various incentives and incentives for companies that turn to green business, such as state subsidies or tax exemptions, and even the award of an environmental label. In this way, the state directs the operations of companies and promotes environmental protection.

1. GREEN AND DIGITAL TRANSFORMATION

Although the importance of green and digital transformation is recognized by policymakers in our country, it is still not enough and additional efforts are needed to encourage and distribute them to sectors and processes that will result in greater added value.⁷⁵ Lack of integrated approach and strong political will, administrative capacity and priorities in investments. Furthermore, there is no sufficiently developed mechanism for policy implementation and no satisfactory institutional setting for green and digital promotion and implementation. In general, in our country, the main problem of the legislation is its implementation, even in cases where the legislation has been harmonized with the EU and technical assistance has been given to build the capacities of the institutions that implement it.⁷⁶

Unfortunately, key national strategic documents do not recognize digitization as a driver of economic growth. The academic community should be more involved in strategic decision-making. Cooperation with civil society organizations is important for the legitimacy of policies and their public acceptance, while the business sector should show a higher level of social corporate responsibility in relation to these processes. Expert opinions should be valued more by incorporating scientific research and their findings into relevant policies and strategic documents. To be honest, even though this "dual transition" is often at the center of political initiatives, at the EU level, there is a lack of a detailed roadmap for how specific activities will be coordinated and implemented. For example, the EU often emphasizes data and artificial intelligence (AI) as critical enablers for achieving the goals of the European Green Deal, but without detailing how to influence them in a way that will speed up the transition.

According to the Global Innovation Index 2021, Macedonia is ranked 59th out of 132 countries (in the region, only Albania and Bosnia and Herzegovina are ranked worse). Since responsibilities for innovation policy are shared between different institutions, institutional mechanisms are expected to ensure a coherent approach and effective coordination of policies.⁷⁷ Technological parks, startup companies and universities should undoubtedly be leaders in the development of innovative solutions and products and generators of this dual (green and digital) transition.⁷⁸ And finally, but no less important - preventing the outflow of professionals from our environment. Today, Macedonia can boast that both in Serbia and Slovenia, the leading people in charge of digital transformation are Macedonian women (Marta Arsovska-Tomovska and Emilia Stojmenova-Dukh), but the fact that they did not stay to work on these processes in our country is disappointing. And if mediocrity is mainstream, more and better than the 59th place according to innovation, probably cannot be expected.

Environmentally conscious companies promote the preservation of the environment with their business, and thus potentially influence consumers who have not yet reached the principle of sustainability. In order for the entire production process to be ecological and not harm the environment, and considering that different companies often create only parts of the same product, companies must cooperate with each other.

⁷⁵ Suresh Lal, Dr. B., (2015) "Green marketing: opportunities and issues", International Journal of Multidisciplinary Research and Modern Education (IJMRME), ISSN (Online): 2454 – 6119, p, 185

⁷⁶ Kinoti M. (2011), "Green marketing Intervention Strategies and Sustainable Development", International Journal of Business and Social Science Vol. 2 No.23 http://ijbssnet.com/journals/Vol-2_No-23, p. 258

⁷⁷ Ottman, Jacquelyn A. (2023) "The new rules of green marketing. Strategies, Tools, and Inspiration for Sustainable Branding", Ottman Consulting, Inc, p. 359

⁷⁸ Suresh Lal, Dr. B., (2015) "Green marketing: opportunities and issues", International Journal of Multidisciplinary Research and Modern Education (IJMRME), ISSN (Online): 2454 – 6119, p. 186

In this way, companies are informed and environmental awareness is expanding in business circles as well. Even in business activities, environmental goals can be achieved only through joint action.

2. RESEARCH RESULTS FOR GREEN TECHNOLOGIES AND MARKETING DIGITALIZATION THROUGH CASE STUDIES

We are already witnessing a huge appetite for data in real or near real time, which leads to an increase in the requirements for data processing and analysis. In that context, IDC (International Data Corporation) predicts that by 2025, almost 30% of global data will be in real time.⁷⁹ In parallel with the increasing number of data, the appropriate tools for their transformation into useful products and services are becoming increasingly sophisticated. These trends are already transforming the lives of citizens and will continue to do so. Local authorities will have to be in the forefront in leading and coordinating the digital and green transition, because they are the closest to the citizens. The benefits are multiple – from providing better public transport and e-mobility to enabling local authorities to allocate resources more efficiently. Of course, this will be a serious challenge for the city authorities. It will take strong leadership in combination with a culture of learning and innovation, as well as a constant focus on understanding the needs of citizens. Climate-neutral cities in the future will be possible with the help of a new digitized, transport and energy infrastructure and the transition to a circular economy, which is driven by greater availability of data. All infrastructure upgrade projects - digital, transport, waste, energy and buildings - must be consistent with the green and digital transition.

Regional company Imlek packs its products in packaging made of natural materials from renewable sources, which can be 100% recyclable. In addition to the eco-label of the product, the company's website guides consumers in detail regarding the definition and benefits of eco-packaging, which makes this company one of the few that educates users about the benefits of green business.⁸⁰

Vomiting on green marketing is the awarding of a company for its dedication and commitment to the field of ecology in the business process itself. In the distant year 2022, one of the world's largest food and beverage manufacturers, PepsiCo, won the Stockholm Industry Water Award for its commitment to reducing water and energy use in all business processes, from the supply chain to the factories. By consuming a smaller amount of resources, the same satisfaction of the consumer's needs was obtained, and at the same time, less damage to the environment. This is an example of how efficient processes, improved productivity and lower compliance costs ultimately translate into a marketing strategy - protecting the environment as one of the best advertisements.

The telecommunications company Telenor gives its users the opportunity to receive a monthly telephone bill in the form of an e-mail, and the user's bill is reduced by 50 dinars. In addition, due to the reduced consumption of paper, the user can see on the monthly bill how many trees are saved thanks to electronic invoices. Companies are expected to constantly develop and work in accordance with the latest technological advances.

⁷⁹ Singh S. Dr. (2022), Green Marketing: Challenges and Strategy in the Changing Scenario, International Journal of Advanced Research in Management and Social Sciences, Vol. 1 No. 6, p. 396

⁸⁰ Jaideep S., (2023) Green Marketing: Meaning and Importance of Green Marketing, p. 158

New technologies make it possible to reach the global goal number 12 of the United Nations, which provides for the rational use of resources, then reducing waste and introducing sustainable practices in production processes until 2030.⁸¹

The rational use of resources is best reflected in the packaging of the product. The trend is to reduce the amount of material used for its production, and thus the amount of waste. The solution that leads to the fastest way to achieving the global goal of the environment is the complete cessation of the use of packaging. A product without packaging is an even better form of green marketing than the label on the product packaging. However, if it is impossible to avoid, the principles of sustainable development require reducing energy consumption during packaging production and enabling the reuse of packaging or its recycling.

Reducing the consumption of resources for companies also means reducing costs. However, the introduction of modern technologies for the company is an additional cost, which is often reflected in the price of the product.

Hence, companies that strive for progress, respecting the policy of environmental protection, offer cheap products on the market from those companies that are not environmentally conscious. So, how will environmentally conscious companies sell their products to customers who are offered products from the same category at a lower price?

With the help of ecological marketing, presenting the advantages of their production process, as well as the positive characteristics of the final product itself, companies that control their negative impact on the environment will sell their products to consumers with an ecologically developed consciousness.⁸²

3. PROBLEM ON THE WESTERN BALKANS

The countries of the region in the business sphere are characterized by poor awareness and even worse management of resources, lack of will to transition to sustainable business, the need to replace materials for production, as well as the absence of responsible waste management, especially recycling. Due to the better cooperation between environmentally conscious companies and consumers, eco-management has developed in the world, which successfully manages business, all to the benefit of companies, consumers and the environment. However, in the region, the general management of the company is developing intensively only in the last few years, so it is difficult to talk about eco-management.

Considering that there will be no growth if it is not ecologically sustainable, companies from the Western Balkans must become friends of the environment in order to survive on the market. Consumer awareness is noticeable, and it is an additional reason for the transition to sustainable business - as soon as there is a demand, it is time to create an offer.⁸³

Taking into account the general good, companies can also achieve their own goal - profit/production, thanks to green marketing. By promoting the protection of the environment, the goods and services of the company are promoted. To begin with, you only need to take one small step. Instead of plastic bags, offer plastic bags to your customers.

If you are the owner of a company that advertises its services by handing out flyers or putting up posters, ask yourself how many trees were needed to produce those advertising media and whether there is an alternative way to reduce the negative impact on the environment.

⁸¹ Surya R., Banu P. (2024), "Introduction to Green Marketing", SSRG International Journal of Economics and Management Studies (SSRG-IJEMS) – volume1 issue2 Oct, 411

⁸² Jaideep S., (2023)Green Marketing: Meaning and Importance of Green Marketing, p. 158

⁸³ .Polonsky M., (1994) "An introduction to green marketing", Electronic Green Journal, vol. 1, No 2, <http://escholarship.org/uc/item/49n325b7#page-1>, p 296

And then continue until your entire business becomes green, that is, until it turns into marketing by itself.

Several companies have already distinguished themselves with their green initiatives and ecological strategies. Companies like Patagonia and IKEA are great examples of how to integrate sustainability into all aspects of business. Patagonia is known for its commitment to recycling materials, while IKEA has committed to using only renewable and recycled materials by 2030.

However, I must admit that the implementation of green marketing is not simple. It means long-term dedication, investment and education - both to companies and to consumers. But I believe that this challenge is worth it, because it brings benefits to all countries, both in terms of economic development and improving the quality of the environment.

From my perspective, green marketing is not just a passing fad, but the future of marketing. It is the path to sustainability that will help companies make the world a better place for future generations.⁸⁴ Consumers and brands are the two pillars that carry this process, and I am sure that every step towards sustainability is a step towards a more beautiful and sustainable future. Sustainability is the future. Is your brand prepared for it?⁸⁵

Companies can get involved in local or global initiatives to protect the environment, such as planting trees or financing projects to protect nature. These activities will show that the brand is part of the bigger picture for a sustainable future.

My personal experience in marketing shows that brands that implement green initiatives not only improve their image, but also increase their competitiveness. Companies that choose eco-friendly materials and processes attract a new type of consumer, conscious and loyal to ethical products. Green marketing is not the only protection of nature; that's also a strategy for business growth.

I believe that green marketing succeeds only if the brand sincerely implements environmental practices in its operations. Transparency and authenticity are key. Consumers today recognize the offense of "greenwashing" (false representation of environmental initiatives), so real success lies in sincere commitment to sustainability. In my opinion, the brands that sincerely invest in reducing waste, improving energy efficiency and supporting environmental projects are those that really deserve loyalty.

I believe that consumers have a huge power to influence brands through their decisions. When we buy from brands that are responsible for the environment, we not only support that positive model, but we send a clear message to other companies that sustainability is important. Green marketing creates an opportunity for consumers to feel part of a positive change - and that increases the value of the service or product itself.⁸⁶

Sustainable practices should be part of communication with customers. Companies should educate their consumers about how they can contribute to environmental protection through their purchasing choices. This can be achieved through blogs, social media, educational campaigns and transparent product labels.

⁸⁴ Dr. P.B. Singh, Dr. Kamal K. Pandey (2021), "Green Marketing: Policies and Practices for Sustainable Development", *Integral Review - A Journal of Management*, Vol.5 No.1, June-2021, p398

⁸⁶ Delafrooz N, Taleghani M, Nouri B. (2014) "Effect of green marketing on consumer purchase behavior", *Q Science, Connect*, <http://dx.doi.org/10.5339/connect.2014>, p. 109

CONCLUSION

In accordance with the strengthening of global environmental awareness, there are more and more consumers who are looking for green products on the market. Hence, a completely new form of demand is created - the demand for products whose process of creation, consumption and disposal does not harm the environment. This is the place where green marketing enters the scene.

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In order for the entire production process to be ecological and not to harm the environment, and considering that different companies often create parts of the same product, companies must cooperate with each other. In this way, companies are informed and environmental awareness is expanding in business circles as well. Even in business activities, environmental goals can be achieved only through joint action.

In green marketing, businesses focus on their brand, production, or philanthropic initiatives by highlighting their environmental and sustainable practices.

Above all, green marketing serves as a medium for companies to communicate their environmental business practices while showing how their products have evolved in response to customer demand for such improvements.

Promoting environmental goods and practices is an important part of the marketing strategy of every company, and green marketing is an excellent method to show the brand's commitment to saving the planet.

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While many businesses claim that they dedicate a percentage of their profits to environmental causes, very few can claim that their entire business model revolves around environmental concerns.

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