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## GREEN MARKETING THROUGH THE LENS OF WASTE COLLECTION AND TREATMENT

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**Abstract**: With global challenges in production and consumption, sustainable development is the perfect solution. The environmental crisis generated by the overuse of natural resources, which has led to environmental degradation, encourages economic progress and improved quality of life by protecting the environment.

Waste collection and treatment is a crucial aspect of sustainable development and has a significant impact on the environment, human health and the economy. The objective of sustainable development in this context is to reduce the negative impact of waste on the environment and to promote the use of resources in an efficient but responsible way.

By implementing strategies and targets in waste collection and treatment, it can help promote sustainable development, reduce environmental impacts and create a more sustainable future for generations to come. Taking into account that green marketing also includes waste marketing, also known as waste management marketing, we have set as the aim of the research to highlight some aspects of green marketing through the lens of waste collection and treatment. It is an important and increasingly relevant area in the context of concerns about the global environmental crisis and sustainable development and focuses on promoting responsible waste management practices, educating and raising public awareness about the importance of recycling, waste reduction and resource efficiency.

**Keywords:** sustainable development, environmental crisis, protecting the environment, waste collection, waste treatment, green marketing.

JEL Classification: F01, M31, M38

#### Introduction

With global challenges in production and consumption, sustainable development is the perfect solution. The environmental crisis generated by the overuse of natural resources, which has led to environmental degradation, encourages economic progress and improved quality of life by protecting the environment.

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September 22nd-23th, 2023, Chisinau, Republic of Moldova

in this context is to reduce the negative impact of waste on the environment and to promote the use of resources in an efficient but responsible way.

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At the current stage, the issue of environmental protection has become a major one, unresolved since the previous century. There are many warning signs of excessive pollution and depletion of natural resources. Although concern for environmental protection and conservation of natural resources is present in most countries and at international level, it is widely recognized that efforts in this area are insufficient and unevenly distributed across the globe. Funding for environmental protection depends to a large extent on the economic situation of each country, which leads to significant disparities in the global approach to this issue.

Proper waste management is essential to protect the environment and public health, and involves collecting, transporting, treating and disposing of or recycling waste in a responsible manner and in accordance with applicable laws and regulations.

This is where we can apply marketing tools to successfully manage waste sustainably by meeting the needs of today's individual and organisational consumers without compromising the ability of future generations to meet their own needs.

By carrying out ongoing market research, some hidden desires of individual and organisational consumers are brought to light, such as cheaper self-service packaging. Any waste can be reused, recycled or turned into fertiliser - it's just a question of proper sorting and proper waste management. As an example, a company that dries fruit and makes jam from plums gets plum and cherry stones as waste. The average annual quantity of pits obtained is about 36 tones. Some of these pits were taken by the workers, and the other part had to be paid for by the company to be disposed of in landfill. But these pits contain a considerable amount of energy, so the company has decided to reuse them to produce the heat needed to dry the fruit. This saves the company half of the natural gas it uses, which is about 17 000 m³/year, and the financial savings are around 120 000 lei/year.

After analysing the data provided by economic operators for the year 2021, the Environment Agency gathered and presented statistical information on waste management. This reporting process included all stages of waste management, starting from the moment of generation of waste quantities, which were correctly specified by category and type according to the Waste List. The reports covered activities in the field of industrial production, agriculture, as well as reports from municipal enterprises or sanitation services in municipalities.

Regarding waste generation, data from the Environmental Information System (SIA MD) showed that in 2021, enterprises from various economic sectors generated a total of 415.8 thousand tons of waste.

September 22nd-23th, 2023, Chisinau, Republic of Moldova

Most of the waste came from the agriculture and food processing sectors, totalling 300.4 thousand tones. The Republic of Moldova is characterised by the fact that the agro-industrial sector has a significant share in the total number of enterprises, which explains the continuous increase in waste generation in this sector. Most of the waste in this sector comes from the production of alcoholic and non-alcoholic beverages, accounting for 41.1%, and from the sugar production industry, with a share of 37.1% in the total waste of the agro-industrial sector (5 accessed: 17.09.2023).

Municipal waste, which accounts for more than 16% of the total waste generated, consists mainly of household waste from the economic and commercial activities of businesses. This category does not include household waste from the population.

About 5% of the total waste generated comes from waste treatment plants and waste water treatment plants. This waste is usually not included in the category of recovered waste, but is landfilled by businesses looking for ways to dispose of it.

In order to meet the priorities set out in the Government's Programme of Activities "European Integration: Freedom, Democracy, Welfare" for the period 2011-2014 and to implement the Government's Action Plan for 2012-2015, as approved by Government Decision No 289 of 7 May 2012, it was necessary to develop the infrastructure and services required to protect the environment at global, national and local levels from the effects associated with the management of waste generated by citizens, businesses and institutions (3, accessed 07.09.2023).

It also implies the creation of an appropriate legal and institutional framework to support the gradual alignment of Moldova's waste management practices with those of the European Union. The ultimate aim is to protect the environment and ensure that waste management is efficient and sustainable, thus contributing to European integration efforts and improving the quality of life for citizens.

Waste is traditionally seen as a source of pollution. But well-managed waste can be a valuable source of materials, especially when raw materials start to run out. The best option is to stop waste production. And when this is not possible, reuse and recycling are other good options.

There are many researchers and experts in the field of waste management and the impact of waste on the environment. These researchers come from various fields such as environmental science, environmental engineering, resource economics, environmental sociology and many others. Over the years, these experts have written research papers, books, scientific articles and reports on various aspects of waste management and its impact on the environment, including some internationally recognised researchers and experts in the field of waste management and environmental protection, such as Paul Connett, an expert in hazardous waste management, who addresses one of the most important issues of today's world - waste management and zero waste solutions. He highlights the concept of zero waste and argues for more responsible waste management practices in communities and societies.

The researcher defines zero waste as a holistic approach to waste management, with the aim of minimizing the amount of waste sent to landfill and maximizing recycling, composting and reuse of materials (1).

Through concrete examples of communities and cities around the world that have successfully adopted zero waste principles, the author demonstrates that it is possible to significantly reduce waste

September 22nd-23th, 2023, Chisinau, Republic of Moldova

and create a cleaner, healthier environment. He stresses the importance of education and public awareness about waste management and its impact on the environment. It argues that real change can only be achieved when communities become more informed and involved.

The paper "The Zero Waste Solution: Untracking the Planet One Community at a Time." offers practical tips and strategies for reducing waste at personal, household and community levels. The author promotes methods of recycling, composting and reusing waste (1).

Also here, the author highlights the link between zero waste and the concept of a circular economy, where resources are continuously harnessed without generating waste, and encourages readers to take action at a personal and community level to help reduce the impact of waste on the planet.

Daniel Hoornweg, is another researcher and urban waste management expert who has contributed to the development of waste management strategies worldwide. He supports the concept of the circular economy, which promotes recycling and reuse of resources to minimise waste and reduce environmental impact, arguing that the circular economy is an alternative approach to the way we manage resources and waste, replacing the traditional "use and throw" model with one in which resources are conserved, reused, recycled and reused.

The researcher's interest is not accidental. Waste is a substance or material left over from a technological or domestic process that can no longer be used in the production or use of a product, but has a negative effect on people's health and well-being. Waste management, also known as waste management, focuses on the whole process that includes the collection, transport, treatment and proper disposal of these wastes.

Virtually every individual, household or institution produces waste. This can be extremely varied, including household and biodegradable waste, industrial and hazardous waste, marine waste, medical waste, rubble, building materials, and liquid waste. Among the most common types of waste are plastic, metal and paper, which are the most recycled materials in the world and in Moldova today.

The industry and manufacturing sector has been successful in implementing effective measures to reduce the amount of waste generated in their processes, which can include recycling strategies, reducing material consumption and adopting more sustainable practices.

At the same time, population and living standards growth may lead to an increase in waste generated by the population in households and in everyday activities. This puts pressure on waste management systems to cope with more household waste and to develop solutions for collecting, recycling and disposing of this waste in a sustainable and responsible way.

These two trends underline the importance of adopting effective and sustainable waste management policies and practices that address both the industrial and household sectors in order to minimise environmental impacts and ensure sustainable development in Moldova.

In the "National Programme for Waste Management for the years 2022-2027," information on the estimated recycling rate of some categories of municipal waste is presented. However, it should be noted that this information is not official data and is only an estimate. Thus, according to these estimates, in 2018, the recycling rate for plastic waste was estimated at 4.1%, while the recycling rate

September 22nd-23th, 2023, Chisinau, Republic of Moldova

for paper waste was 7.7%. There is also an increase in the recycling rate for glass waste, which rose from 35.1% in 2018 to 41.5% in 2019 (3).

These estimates indicate initial efforts to increase the waste recycling rate in the Republic of Moldova, but additional measures may be needed to further improve waste management performance and increase recycling rates. Regular monitoring and reporting of waste management data is essential for assessing progress and developing future sustainable waste management strategies in the country.

Green marketing is growing for several reasons, one of which is increasing awareness and concern for environmental issues among consumers. As a result, they are more likely to look for products and services that are environmentally friendly and sustainable. This trend has prompted companies to adopt more sustainable business practices and engage in green marketing to attract environmentally conscious consumers.

Another reason for the development of green marketing is that there is increasing pressure on companies to adopt sustainable practices and reduce their environmental impact. Governments, consumers and other stakeholders are increasingly demanding that companies be more responsible in their operations and supply chains. This has prompted companies to demonstrate their commitment to sustainability and differentiate themselves from their competitors.

Finally, the growth of green marketing can also be attributed to technological advances that have made it easier and more cost-effective for companies to adopt sustainable practices. As a result, it has become increasingly viable for companies to engage in green marketing and promote their environmental efforts to consumers.

It is worth noting that green marketing is a key strategy for promoting sustainable practices and products, and can bring multiple benefits to the environment, businesses and consumers alike. This activity contributes to raising public awareness of environmental issues. Marketing campaigns can provide information about the negative environmental impacts of certain practices or products and educate consumers about the more sustainable alternatives available.

Promoting green products and services can stimulate innovation and the development of more sustainable solutions. Promoting green products and services can create positive pressure on companies to develop more innovative and sustainable solutions. Awareness of the demand for such products can motivate research and development in this area. When consumers are informed and aware of the green options available, they are more likely to make responsible purchases and support companies that offer such products.

Companies that embrace green marketing and focus on social and environmental responsibility can reinforce their image as responsible entities. This can build consumer trust and strengthen consumer relationships.

Green marketing can influence consumers' purchasing decisions by encouraging them to choose products and services that are less harmful to the environment. This influence can have a positive impact on the environment through consumer preferences and choices.

September 22nd-23th, 2023, Chisinau, Republic of Moldova

Green marketing is therefore not only a promotional strategy, but also a powerful force for changing behaviour and attitudes towards the environment, while contributing to the development of innovative solutions and building a positive corporate reputation.

In conclusion, green marketing plays a crucial role in promoting more environmentally responsible behaviour among both consumers and companies. It can stimulate sustainable development and help protect the environment in an increasingly concerned world, and help companies reduce their environmental impact through products and practices with a lower carbon footprint or recycled materials.

Companies that are seen as environmentally responsible can benefit from increased customer loyalty and a positive brand reputation. By adopting sustainable practices and promoting them through marketing campaigns, companies can help create positive change and contribute to a more sustainable future.

From the above, we can deduce that waste marketing, which can also be called "waste management marketing" or "solid waste marketing", is a considerable part of green marketing and can be defined as "the application of marketing principles and techniques in the management and disposal of waste from all sources in order to support a sustainable society". The significance of this type of marketing lies in the promotion of responsible waste management practices and sustainable waste treatment and disposal solutions.

Waste marketing aims to raise public awareness of the importance of proper waste management. This includes informing about the negative impact of improper waste management on the environment and human health. Companies and local authorities can use marketing campaigns to encourage people to recycle and reduce consumption of products with

excessive packaging. With information about recyclable products and responsible packaging, consumers can make more conscious choices about their purchases. Companies can highlight their commitment to environmental protection and responsible waste management through marketing strategies and comply with waste management legislation. This can include educating customers or other stakeholders on legal requirements and how to comply.

#### Conclusion

The application of green marketing is crucial in modern business management as it helps raise awareness of environmental issues and encourages consumers to make more sustainable choices. In other words, to successfully implement waste management measures, active collaboration with citizens is essential. This requires effective communication between the local public authority, the sanitation operator, the businesses that process recyclable materials and the local community. In order to support the implementation of the principles of an integrated waste management system, it is crucial to carry out communication and public involvement actions.

Awareness-raising and information campaigns for citizens on the impact of waste on the environment and quality of life, as well as on how to apply the principles of the circular economy in solving waste-related problems, are an important tool in the development of local communities. These campaigns are designed to build skills and awareness among citizens about the importance of protecting the environment and to encourage their active and responsible involvement for the benefit of the

September 22nd-23th, 2023, Chisinau, Republic of Moldova

community. By promoting environmentally friendly products and practices, companies can not only reduce their own environmental impact, but also contribute to a wider societal shift towards sustainability.

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