### SWOT Analysis of Sustainable Marketing Mix of Food Industry Enterprises

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Abstract: The article is a pioneering attempt to identify the strengths and weaknesses as well as opportunities and threats to the development of a sustainable marketing mix in Polish food industry enterprises. The study enriches the poor state of literature on the sustainable marketing and marketing mix. The value of research is to acquire and present new knowledge about the four elements of marketing mix in the sustainable concept. The article may support managers who want to implement the concept of sustainable marketing mix in their companies. The aim of the study is to conduct a SWOT analysis, identifying strengths, weaknesses as well as opportunities and threats to the development of a sustainable marketing mix in Polish food industry enterprises.

Key-Words: SWOT analysis, sustainable marketing mix, food industry enterprise

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#### 1 Introduction

The processes of environmental degradation and emerging social problems put the welfare and prosperity of the next generations at risk. The development of modern civilization, the desire for industrial enterprises, including those from the food sector, to have more and more material and financial resources, means that the natural resources of the Earth are rapidly shrinking and, in some cases, completely disappearing. The changing economic environment of food enterprises, which is related not only to the development of civilization, but also the increase in competition, technology development, or common consumerism, observed mainly in developed and developing countries, strongly affects the functioning of enterprises [1]. The manufacturing activity of food industry enterprises is obviously related to the impact on the natural environment of man. Taking the Earth's natural resources needed for production is an unquestionable interference with the ecosystem of our planet. The business activity of enterprises, which ignores the environmental and social aspects, is doomed to failure in the long term. For this reason, there is a need to change the current way of managing enterprises, including marketing activities, into more environmentally and socially sustainable economic ventures.

An effective solution to meet the emerging environmental and social problems is the reorganisation of production processes towards more sustainable and responsible manufacturing activities [2]. For this reason, food sector companies should make efforts to change their current production activities into pro-environmental and pro-social activities [3]. One of the main conditions for reorienting the philosophy of conduct of food companies to date is a properly understood and professionally conducted sustainable marketing mix.

# 2 The Concept of Sustainable Marketing Mix

The concept of sustainable development gave foundations to the formation of a new scientific trend known as sustainability marketing. A. Pomering and L. W. Johnson claim that in the last decade there has been an increased interest in the issues of sustainable marketing, including the sustainable marketing mix, among scientists and researchers [4].

As a result of the recognition of the state of knowledge in the field of sustainable marketing, including the sustainable marketing mix, it should be indicated that this is a new and developing scientific area that requires further analysis in terms of theoretical and empirical aspects. They deal with the subject of sustainable marketing: D. Fuller; F. Belz, K. Peattie; K. Leitner; D. Kadirov; D. Martin, J. Schouten; B. Emery; J. Kemper, C. M. Hall, P. W. Ballantine [5-11]. When referring to the achievements in the field of sustainable marketing mix in relation to food industry enterprises, the publications by E. Rudawska; T. Trojanowski; P. T. Kazibudzki, T. Trojanowski, should be suggested [1, 12-13]

The sustainable marketing mix of food industry companies includes four instruments of marketing impact on customers - a sustainable product [14-15], a sustainable price [16-17], sustainable distribution [18-19] and sustainable promotion mix [20]. Proper management of the marketing mix elements by managers of food industry enterprises is associated with achieving not only financial benefits, but also social and environmental advantages.

balanced marketing composition is important for the success of the business on the market because it directs the organisation's activities not only to the sale of products, but also to meeting the needs of buyers who are not indifferent to social and environmental aspects. use of marketing mix instruments supporting sustainable development by food industry enterprises is particularly important because production processes significantly affect the condition of the natural environment, thus contributing to environmental and social problems. The concept of a sustainable marketing mix assumes the introduction to the market of food products that will be able to properly meet the needs and desires of buyers, while having a minimum impact on the natural environment.

#### 3 Research Methods

Research carried out in this article concerns food industry enterprises. The aim of the study was to identify strengths and weaknesses as well as opportunities and threats to the development of sustainable marketing mix in Polish food industry enterprises. In order to carry out the SWOT analysis, information on

the actual state of the phenomenon under study was collected.

The conducted research used the method of personal interview, the advantage of which is high credibility, ensured by the possibility of asking questions directly related to the studied phenomena. Direct contact with the respondent while asking questions made it possible to deepen specific thematic issues, and also gave the respondent the opportunity to develop and justify his statements. The interview was conducted in the places where the surveyed companies have their headquarters.

The research also used the CATI interview method. This type of research method makes it possible to carry out research on large, targeted samples in a short time and at low costs. In addition to the CATI method, the study also used the CAWI method, in which the respondent was asked to fill in a research questionnaire in an electronic form included in web application. The CAWI method, as in the case of the previous method, also makes it possible to conduct tests on very large samples, in a short time and at low test costs. In addition, the advantage of this method is the anonymity of the respondent, and thus freedom in answering, for example, questions about the amount of earnings. The overall aim of the methods used was to get to know the facts and capture as many details as possible in relation to the questions posed. The research was carried out on a random sample of 109 enterprises. The response rate was 68%, which is 74 companies.

The tool used to conduct the research was a research questionnaire containing an ordered list of questions. It covered questions about four areas of marketing mix - product, price, distribution and mix promotion. The research used a seven-point version of the Likert scale in order to increase the accuracy of the measurement.

### **4 SWOT Analysis Results**

The data obtained as a result of the research study made it possible to analyse the individual elements of the marketing mix. Tables 1, 2, 3 and 4 present a SWOT analysis on the elements of sustainable marketing mix in food industry enterprises.

Table 1. SWOT analysis -sustainable product

Table 1. SWOT analysis –sustainable product					
Sustainable Product—PRO					
	Strengths		Veaknesses		
PRO	Companies	PRO	Enterprises do		
- S1	design products	- W1	not use		
	taking into		packaging made		
	account their		from fully or		
	impact on the		partially		
	natural		recycled raw		
	environment		materials		
PRO	Companies				
- S2	design products				
	taking into				
	account their				
	impact on the				
	health of				
	consumers				
PRO	Companies save				
- S3	energy, water				
55	and fuel needed				
	for production				
PRO	Companies				
- S4	effectively				
- 54	manage human				
	capital while				
	*				
	respecting				
	employee rights	D1			
l D	evelopment	Development threats			
			<b>P</b>		
	pportunities		_		
PRO	pportunities Enterprises are	PRO	Enterprises do		
	Enterprises are gradually		Enterprises do not intend to use		
PRO	Enterprises are gradually reducing the	PRO	Enterprises do not intend to use renewable		
PRO	Enterprises are gradually reducing the types and	PRO	Enterprises do not intend to use		
PRO	Enterprises are gradually reducing the types and quantities of	PRO	Enterprises do not intend to use renewable		
PRO	Enterprises are gradually reducing the types and quantities of materials used	PRO	Enterprises do not intend to use renewable		
PRO	Enterprises are gradually reducing the types and quantities of materials used to produce	PRO	Enterprises do not intend to use renewable		
PRO	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g.	PRO	Enterprises do not intend to use renewable		
PRO	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper,	PRO	Enterprises do not intend to use renewable		
PRO	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic,	PRO	Enterprises do not intend to use renewable		
PRO - O1	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic, aluminium, etc.	PRO - T1	Enterprises do not intend to use renewable sources		
PRO - O1	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic, aluminium, etc.	PRO - T1	Enterprises do not intend to use renewable sources  The companies		
PRO - O1	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic, aluminium, etc.  Enterprises gradually reduce	PRO - T1	Enterprises do not intend to use renewable sources  The companies do not intend to		
PRO - O1	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic, aluminium, etc.  Enterprises gradually reduce the emission of	PRO - T1	Enterprises do not intend to use renewable sources  The companies do not intend to introduce		
PRO - O1	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic, aluminium, etc.  Enterprises gradually reduce	PRO - T1	Enterprises do not intend to use renewable sources  The companies do not intend to		
PRO - O1	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic, aluminium, etc.  Enterprises gradually reduce the emission of	PRO - T1	Enterprises do not intend to use renewable sources  The companies do not intend to introduce		
PRO - O1	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic, aluminium, etc.  Enterprises gradually reduce the emission of harmful gases,	PRO - T1	Enterprises do not intend to use renewable sources  The companies do not intend to introduce modifications to		
PRO - O1	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic, aluminium, etc.  Enterprises gradually reduce the emission of harmful gases, dusts,	PRO - T1	Enterprises do not intend to use renewable sources  The companies do not intend to introduce modifications to create		
PRO - O1	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic, aluminium, etc.  Enterprises gradually reduce the emission of harmful gases, dusts, fragrances,	PRO - T1	Enterprises do not intend to use renewable sources  The companies do not intend to introduce modifications to create ecological		
PRO - O1	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic, aluminium, etc.  Enterprises gradually reduce the emission of harmful gases, dusts, fragrances, industrial	PRO - T1	Enterprises do not intend to use renewable sources  The companies do not intend to introduce modifications to create ecological		
PRO - O1	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic, aluminium, etc.  Enterprises gradually reduce the emission of harmful gases, dusts, fragrances, industrial wastewater, and	PRO - T1	Enterprises do not intend to use renewable sources  The companies do not intend to introduce modifications to create ecological		
PRO - O1	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic, aluminium, etc.  Enterprises gradually reduce the emission of harmful gases, dusts, fragrances, industrial wastewater, and the generation	PRO - T1	Enterprises do not intend to use renewable sources  The companies do not intend to introduce modifications to create ecological		
PRO - O1	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic, aluminium, etc.  Enterprises gradually reduce the emission of harmful gases, dusts, fragrances, industrial wastewater, and the generation of production waste	PRO - T1	Enterprises do not intend to use renewable sources  The companies do not intend to introduce modifications to create ecological		
PRO - O1	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic, aluminium, etc.  Enterprises gradually reduce the emission of harmful gases, dusts, fragrances, industrial wastewater, and the generation of production waste  Enterprises are	PRO - T1	Enterprises do not intend to use renewable sources  The companies do not intend to introduce modifications to create ecological packaging  Activities of		
PRO - O1  PRO - O2	Enterprises are gradually reducing the types and quantities of materials used to produce packaging, e.g. foil, paper, plastic, aluminium, etc.  Enterprises gradually reduce the emission of harmful gases, dusts, fragrances, industrial wastewater, and the generation of production waste	PRO - T1  PRO - T2	Enterprises do not intend to use renewable sources  The companies do not intend to introduce modifications to create ecological packaging		

C	content of such	the	area	of
r	aw materials	produ	uction	
a	as: white sugar,			
	chemical			
I	preservatives			
a	and			
I	preservatives,			
f	lavour			
(6	enhancers,			
a	artificial			
	colours, trans			
f	fats, etc.			

Source: Own study

Taking into account the first element of the marketing mix, i.e. the product, it can be concluded that enterprises are engaged in activities aimed at introducing to the market food products that are characterised by the characteristics of sustainability. Regarding the product, four strengths of sustainable product development (PRO-S), one weakness (PRO-W), three opportunities (PRO-O) and three threats (PRO-T) have been identified.

Table 2.SWOT analysis -sustainable price

Sustainable Price—(PRI)				
	Strengths		Weaknesses	
PRI	Enterprises in the	PRI -	Enterprises do	
- S1	prices of products	W1	not take into	
	take into account		account labour	
	the costs of		costs in their	
	purchasing raw		product prices,	
	materials and		e.g.	
	materials for		occupational	
	production		health and	
			safety, social	
			welfare	
PRI	Enterprises			
- S2	include the costs			
	of transporting			
	and storing			
	products in their			
	product prices			
PRI	Enterprises take			
- S3	into account			
	labour costs in the			
	prices of products,			
	e.g. ensuring			
	occupational			
	health and safety,			
	social welfare			
	Development	<b>Development threats</b>		
	opportunities			
PRI	Increased	PRO	In their product	

costs associated with reducing the emission of harmful gases, dusts, fragrances, industrial wastewater, and production waste.  PRO Enterprises do -T2 not intend to include packaging recycling costs in their product prices  PRO In their product prices, enterprises do not intend to take into account the costs of treatment related to the consumption of food products, e.g. the costs of treating obesity,	- O1	consumer interest in the purchase of environmentally friendly food products	- T1	prices, enterprises do not intend to take into account the
and production waste.  PRO Enterprises do not intend to include packaging recycling costs in their product prices  PRO In their product prices, enterprises do not intend to take into account the costs of treatment related to the consumption of food products, e.g. the costs of treating obesity,		p. out.out		costs associated with reducing the emission of harmful gases, dusts, fragrances, industrial
- T2 not intend to include packaging recycling costs in their product prices  PRO In their product prices, enterprises do not intend to take into account the costs of treatment related to the consumption of food products, e.g. the costs of treating obesity,				and production
recycling costs in their product prices  PRO In their product prices, enterprises do not intend to take into account the costs of treatment related to the consumption of food products, e.g. the costs of treating obesity,				not intend to
- T3 prices, enterprises do not intend to take into account the costs of treatment related to the consumption of food products, e.g. the costs of treating obesity,				recycling costs in their product
diabetes, tooth decay, etc.				In their product prices, enterprises do not intend to take into account the costs of treatment related to the consumption of food products, e.g. the costs of treating obesity, diabetes, tooth

Source: Own study

The second element of the marketing mix that was analysed is the price. In this case, it can be seen that the price has three strong trait of sustainable price development (PRI - S), one weak trait (PRI - W), one opportunity to develop sustainable prices (PRI - O) and three threats to sustainable product pricing. food (PRI - T).

Table 3.SWOT analysis –Sustainable distribution

Sustainable Distribution—(DIS)				
Strengths Weaknesses				
DIS	Enterprises	DIS	Enterprises do	
- S1	optimize product	-	not use	
	deliveries by	W1	environmentally	
	choosing the right		friendly means of	

		ı	<u> </u>
	route (shorter,		transport, e.g.
	faster routes)		hybrid cars,
			electric cars,
			LPG-fuelled cars,
			etc.
DIS	Enterprises	DIS	Enterprises do
- S2	combine	-	not optimise
	deliveries to	W2	distribution
	several recipients		channels by
	simultaneously		reducing
	·		intermediaries
			involved in
			distribution
			processes
DIS	Enterprises adjust		P
- S3	the means of		
	transport to the		
	amount of		
	transported goods		
DIS	Enterprises		
- S4	maximise the use		
- 54	of transport space		
	by proper		
	products in		
	means of		
DIC	transport		
DIS	Enterprises		
- S5	monitor and		
	control drivers'		
	working time in		
	order to avoid		
DIG	road accidents		
DIS	Enterprises use		
- S6	environmentally		
	friendly resources		
	and devices		
	elopment chances		elopment threats
DIS	Companies	DIS	Enterprises do
- O1	intend to phase	- T1	not intend to
	out means of		select
	transport with		intermediaries in
	high emissions		terms of
	and noise		environmental
			and social
			sensitivity

Source: Own study

Carrying out further considerations in the area of SWOT analysis of the sustainable marketing of the mix of food products, one should refer to another element, which is distribution. In this case, the results of the analysis indicate as many as six strengths of the implementation of sustainable

distribution of food products (DIS-S), while two weak features of sustainable distribution (DIS-W) have been identified. One development opportunity (DIS-O) and one threat (DIS-T) in achieving sustainable distribution have also been identified.

Table 4. SWOT analysis –Sustainable promotion

Sustainable Promotion (Communication)—				
(COM)				
	Strengths	Weaknesses		
COM	Enterprises post	COM	Enterprises do	
- S1	the content of	- W1	not publish	
	promotional		promotional	
	messages that is		messages that	
	transparent and		are educational	
	credible		in nature	
COM	Enterprises post	COM	Enterprises do	
- S2	promotional	- W2	not publish	
	messages via the		promotional	
	Internet		messages that	
	(banners,		emphasize pro-	
	advertisements)		ecological and	
	,		pro-social	
			features of	
			product	
Devel	opment chances	Devel	opment threats	
COM	Enterprises	COM	Enterprises do	
- O1	intend to resign	- T1	not intend to	
	from publishing		post	
	announcements		promotional	
	in the form of		messages that	
	press articles,		inform	
	brochures and		consumers	
	promotional		about the	
	leaflet		ecological and	
			social activity	
			of the	
			enterprise	
		COM	Enterprises do	
		- T2	not intend to	
			post	
			promotional	
			messages that	
			encourage the	
			purchase of	
			pro-ecological	
			and pro-social	
			products	
			manufactured	
			by the	
			company	

Source: Own study

The last, fourth element of the marketing mix that was investigated is the

promotion/communication of industry food enterprises. With regard corporate to communication, two strengths of the development of sustainable communication (COM-S) and two weaknesses of communication (COM-W) can be identified. The situation is similar in terms of opportunities and threats. As a result of the analysis, one development opportunity (COM-O) and two threats that occur in the implementation of sustainable promotion/communication (COM-T) were identified.

To better illustrate the conducted analysis, the results are presented graphically in Figure 1.

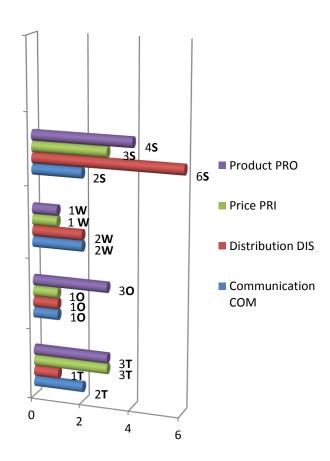


Fig. 1: SWOT analysis of sustainable marketing mix of enterprises in food industry.

#### 4 Conclusion

The reason for the subject matter of the study is the rapidly progressing degradation of the natural environment caused by the economic activity of production companies, including the food sector. The negative effects of the economic activity of enterprises contribute not only to the degradation of the ecological environment, but also to the emergence of social problems [21].

A production company that wants to define itself as a sustainable organisation should first adopt the principles of sustainable development, and then implement them in the individual organisational structures of the company. Employee personnel is an important factor that determines the company's success in conducting sustainable economic activity. Especially senior management is the body that defines the mission and goals of the organisation focused on the sustainable conduct of the entire company, with particular emphasis on the concept of the marketing mix [22].

The conducted SWOT analysis allowed to identify the features that may have a significant impact on the development of a sustainable marketing mix in food industry enterprises in Poland. The results of the analysis indicate which areas of the marketing mix are characterised by sustainability features and which require improvement and refinement.

SWOT analysis covers four elements of the marketing mix, i.e. product, price, distribution and promotion mix, but according to the author of this study, one should not forget about the fifth element, which is the aforementioned staff. The theoretical considerations, conclusions and analysis of the research results included in the study do not fully solve the subject matter. Therefore, it remains an open question to search for new and creative solutions aimed at reconciling the economic development of food industry enterprises, as well as other economic entities, with ecological and social values. The article may support enterprises that strive for a balance between the company's activities aimed financial achieving goals and environmental and social environment.

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