

# The Triple Bottom Line Concept in Sustainable Marketing Mix Activities of Food Industry Enterprises

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*Abstract:* The concept of Triple Bottom Line (TBL), plays a key role in transforming manufacturing enterprises into sustainable economic organisations operating in accordance with the principles of sustainable development. Due to the theoretical and cognitive gap identified by the author, the concept has been referred to the marketing mix of food industry enterprises functioning in the sector of economy, which is characterised by dynamism and constant increase of value. The article includes the aim of the study, the research hypothesis, the research problem and presents the research methods used. The aim of the study is to identify and determine the activities undertaken by food industry enterprises in relation to the components of the marketing mix, i.e. product, price, distribution and promotion mix subordinated to the Triple Bottom Line concept. The article is theoretical and empirical in nature and concludes with a summary that includes recommendations for future research directions.

*Key-Words:* Triple Bottom Line concept, sustainable marketing mix, food industry companies

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## 1 Introduction

The functioning of production enterprises, which include food industry enterprises, is focused primarily on achieving profits from sales of manufactured products and on increasing market shares. Setting goals can be realised by means of various production, distribution or sales and marketing activities. Business undertakings commenced by food producers arouse fears and concerns among the public opinion due to the interference in the natural environment and the quality of life of societies.

Food production, apart from ensuring raw materials for production in the form of agricultural crops, additionally requires guaranteeing various kinds of raw materials - water, energy, fuels and other goods provided by the natural environment [1]. Exploitation of the Earth's natural resources entails its degradation. Food production is accompanied by emission of gases and dusts that are produced and emitted during production processes, production of industrial wastewater, generation of organic vegetable waste and packaging waste [2-3]. In addition, negative effects may include noise or vehicular traffic intensity caused by the distribution activity of the enterprise. The indicated activities contribute to the deterioration of the state of the natural environment and the quality of life of

societies. Due to the existing threats, there is a need to counteract these negative practices. One of the effective ways to minimise the existing problems is to implement the idea of sustainable development in food industry enterprises [4-5], which takes into account the concept of Triple Bottom Line - TBL.

## 2 The Triple Bottom Line Concept

The achievement of financial targets by food companies is the main objective of these companies. Manufacturing food products and directing them to the FMCG (Fast Moving Consumer Goods) market is supposed to provide the organisation with sales profits. Such behaviour of manufacturing companies is a natural practice and does not raise any major objections. However, the question that needs to be asked is whether the presented course of action balances the economic goals of the enterprise with environmental and social goals? Figure 1 presents a simplified production process leading to product sales.

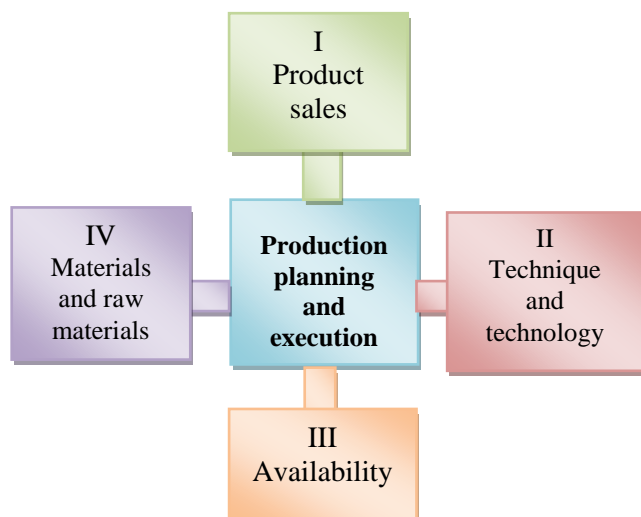


Fig. 1: Production and sales of products

Analysing Figure 1, one can notice the lack of activities covering environmental and social aspects. The simplified production and sales process starts with the purchase of materials and raw materials used in production processes. The next third stage is the availability of various types of goods and assets with which the company will be able to proceed to the physical production of the product. For this it is necessary to guarantee technical and technological means in the form of machinery and equipment with which the product will be made. The final stage is the sale of the products. This stage is aimed at achieving financial benefits for the company. Figure 1 indicates only one of the three aspects of the TBL concept, i.e. the economic aspect omitting the environmental and social aspects. The Triple Bottom Line concept changes the traditional way of doing business of manufacturing companies into a sustainable business with environmental and social considerations.

In the literature research conducted by the author, it appears that the concept of TBL is concerned with three aspects namely profit, people and planet [6-8]. The set of factors presented should be applied to the activities of enterprises as a set of fair business practices involving labour, society and the environment in which the enterprise operates [9-10]. The TBL approach thus encompasses the financial goals of the enterprise achieved from human labour, the environmental and social goals that accompany the productive activities of enterprises. Figure 2 shows the graphical form of TBL.

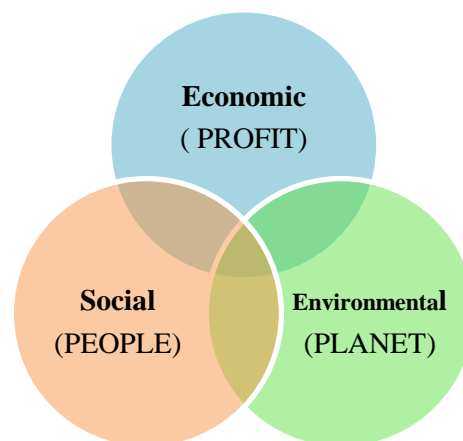


Fig. 2: Triple Bottom Line

When leading a discussion on TBL, it is important to clarify what activities are included in the triad of objectives by profit, people and planet -3P. In Table 1.

Table 1. Triad of 3P objectives

PROFIT	PEOPLE	PLANET
- "green" jobs,	- respect for rights of employees,	- reducing emissions of harmful gases and substances,
- pure technology,	- fair pay,	- reducing the production of industrial waste water
- sustainable enterprise status,	-guaranteeing health and safety at work,	- reducing the generation of packaging and post-production waste,
- customer acceptance and recognition	- not employing children,	- the rational use of raw materials and production materials,
		- recycling of packaging

The characteristics defining the triad of objectives, presented in Table 1, point the way for manufacturing organisations to change their behaviour to be more socially and people friendly, while achieving their financial goals.

The Triple Bottom Line concept does not contribute to weakening the market position of

a company or to slowing down its development [11]. Lawson and Beckmann [12] argue that TBL emphasizes that everything that is conducted within the business system must be compatible with broader social and environmental systems. From the point of view of the contemporary consumer goods market it is even a chance for development and strengthening the position on the food products market. Consumers' acceptance of the implementation of sustainable production activity by food industry enterprises, which results in environmentally and people-friendly products, evokes recognition and respect for the enterprise on the part of buyers. A necessary condition for the transformation of the enterprise into a sustainable organization is the change of the marketing strategy to a sustainable marketing strategy [13-14].

### **3 Essence and Importance of Sustainable Marketing**

The concept of sustainable marketing, including marketing mix, is a relatively new and not fully recognized field of knowledge, which is increasingly implemented in production and service enterprises, while transforming these enterprises into sustainable organizations. In contrast to traditional marketing [15] focused on market success without regard to the environmental and social environment of the enterprise, sustainable marketing precisely focuses on these values.

In the literature, sustainable marketing is also referred to as "green" marketing and is defined as activities that lead to the satisfaction of human needs and desires while minimizing environmental damage [16]. Calvo-Porrá [17] showed that sustainable marketing integrates environmental, social and economic issues into marketing activities and strategies. Another definition indicates that sustainable marketing refers to a comprehensive marketing development that includes environmental, ecological and social marketing [18]. Fuller [19] defined sustainable marketing as "the process of planning, implementing, and controlling the development, pricing, promotion, and distribution of products in a manner that satisfies the following three criteria: (1) customer needs are met, (2) organizational goals are attained, and (3) the process is compatible with ecosystems". Belz [20] defines sustainable marketing as an act of building and maintaining sustainable relationships with customers, the social environment, and the natural environment. Sustainable marketing is defined as the process of creating, communicating and

delivering value to customers, taking into account environmental and social aspects [21-22]. Kumar, Rahman and Kazm [23] emphasize the importance of building long-term relationships with customers that benefit not only the company but also society and the environment. In this view, it can be seen that people and the environment become the most important.

Turning to the essence of the sustainable marketing mix, it should be pointed out that it includes four instruments of marketing influence on customers - sustainable product [24-25], sustainable price [26-27], sustainable distribution [28-29] and sustainable promotion mix [30]. Proper management of marketing mix elements by managers is associated with achieving not only financial benefits, but also social and environmental benefits.

Regardless of the interpretation of the terms, it should be pointed out that the essence of sustainable marketing and marketing mix is concern for the environment and welfare of societies while achieving financial satisfaction by the enterprise. It should be added that the main marketing activities of food industry enterprises focus on four instruments of marketing mix, i.e. product, price, distribution and promotion mix. The Triple Bottom Line concept discussed in the article refers to sustainable marketing mix activities, which provide further basis for empirical considerations.

### **4 Research Methods**

The empirical part of the study was prepared on the basis of conducted research in food industry enterprises operating on the Polish market.

The aim of the study is to identify activities in the area of sustainable marketing mix of food companies, based on the Triple Bottom Line concept.

In addition to defining the purpose of the research and identifying ways to achieve it through the collection, analysis and processing of secondary and primary data, a research hypothesis was included:

*H: Food industry companies are undertaking sustainable marketing mix activities, but these ventures are not fully in line with the Triple Bottom Line concept.*

The following research problem was identified in the course of the analyses:

*Are and which marketing mix activities being implemented in line with the Triple Bottom Line concept?*

In the conducted research, the interview method was used, namely CATI (*Computer Assisted Telephone Interview*), and CAWI (*Computer Assisted Web Interview*), in which the respondent was asked to fill in a questionnaire in electronic form placed in an Internet application. The author of this article also planned to use the method of personal interview conducted in the offices of enterprises, but due to sanitary restrictions caused by the COVID - 19 pandemic this method of research was not applied.

Information on the implementation of the research study is also complemented by an indication of the tool with which the information was collected. The tool used in the study was a research questionnaire consisting of two parts and containing a structured list of questions. The first part included questions about environmental aspects, while the second part of the questionnaire dealt with social aspects.

The interview as a method of collecting information in scientific research is carried out strictly according to a previously prepared questionnaire. The characteristic element of this method is the interview questionnaire, which is used to standardise and order the questions. The questionnaire interview as a research tool involves personal contact with specific individuals in order to provide by them appropriate answers to the questions in the questionnaire. The uncategorised interview, on the other hand, is conducted in a casual manner in which the researcher has full freedom to conduct the interview with the research objective in mind. The uncategorised interview allows for the collection of qualitative data. A seven-point version of the Likert scale [31] was used in the study to increase the accuracy of the measurement:

- 1- definitely not
- 2 - no
- 3 - rather not
- 4 - no opinion
- 5- rather yes
- 6 - yes
- 7 - definitely yes

The survey was conducted on a random sample of 350 enterprises. The percentage of responses obtained was 25.4%, representing 89 enterprises.

The research was conducted between August and November 2021.

## 5 Analysis Results

The primary data obtained during the research study, allowed statistical analysis to be carried out. The chi-square test formula [32], which has the form:

$$x^2 = \sum_{i=1}^n \frac{(O_i - E_i)^2}{\sigma_i} \quad (1)$$

where:

- $O_i$  - measured value,
- $E_i$  - the hypothesis-driven theoretical value corresponding to the measured value,
- $\sigma_i$  - standard deviation,
- $n$  - number of measurements

A number of statements evaluating the use of the TBL concept in sustainable marketing mix activities of food industry enterprises were evaluated. Regarding the first element, i.e. the product, the results of the conducted research indicate that companies take into account the TBL concept when creating food products. Figure 3 presents the results of the research in this area.

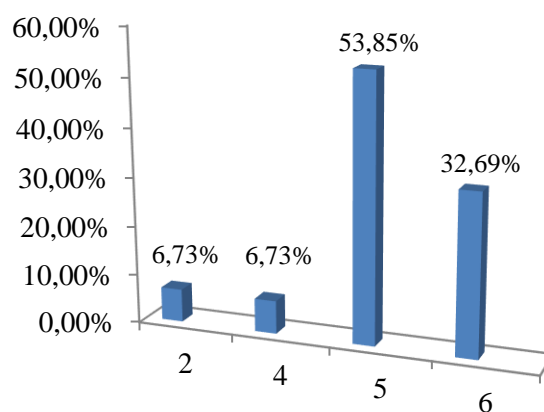


Fig. 3: Use of the TBL concept in the development of sustainable food products

The analysis confirms that a statistically significant majority of companies *rather yes* (53.85%; n=48) and *definitely yes* (32.69%; n=29) take environmental, social and economic aspects into account when creating food products. The concept of TBL in the creation of sustainable food products

is not taken into account by (6.73%; n=6) of the companies surveyed. The same percentage of respondents (6.73%; n=6) has no opinion on this issue.

Another element of the sustainable marketing mix analysed is price. This element, besides the profit for the company, should also include all the costs that have been incurred by society and the environment during the creation of food products. The pricing decisions of food producers should also take into account the concept of TBL. Sustainable pricing of products is not an easy task because the price of a product should include not only the producer's financial input incurred in production, but should also take into account the environmental and social costs associated with the processes of producing, selling and disposing of expired or damaged food products. In addition, the difficulty of setting sustainable prices is exacerbated by the perception that sustainable products must cost more because their production and sale involves environmental and social aspects that entail additional expenditure. The graphical interpretation of the results obtained is presented in Figure 4.

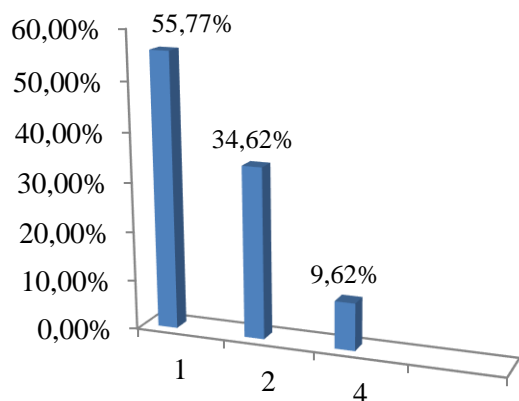


Fig. 4: Including real social, environmental and economic costs in product prices

The research indicates that enterprises *rather not* (34.62%; n=31) and *definitely not* (55.77%; n=49) do not include in product prices the actual social and environmental costs that accompany the production of food products. These enterprises represent a statistically significant majority ( $p < 0.001$ ). Whereas (9.62%; n=9) respondents do not have a task in this matter.

Conducting further analysis on the use of the TBL concept in the different elements of the marketing mix, distribution should be pointed out. Figure 5 shows the graphical form of the research results achieved.

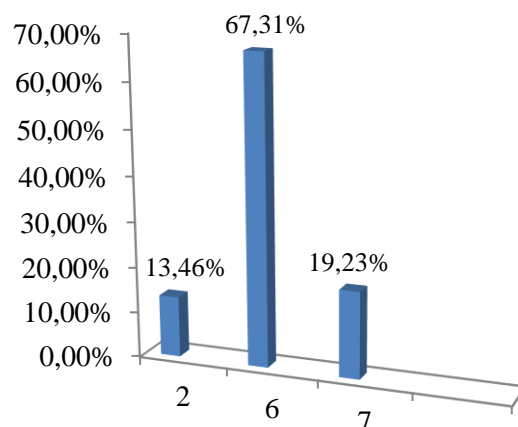


Fig. 5: Consideration of TBL concepts in food distribution processes

Surveys indicate that companies *rather yes* (67.31%; n=60) and *definitely yes* (19, 23%; n=17) consider the concept of TBL in order to protect societies and the environment from the negative impacts of distribution, while of course taking into account the economic objectives of the company. These companies represent a statistically significant majority ( $p < 0.001$ ). The concept of TBL in food distribution processes is not taken into account by (13.46%; n=12) companies.

The last fourth element of the marketing mix to be analysed is the promotion mix. Figure 6 presents the research results achieved.

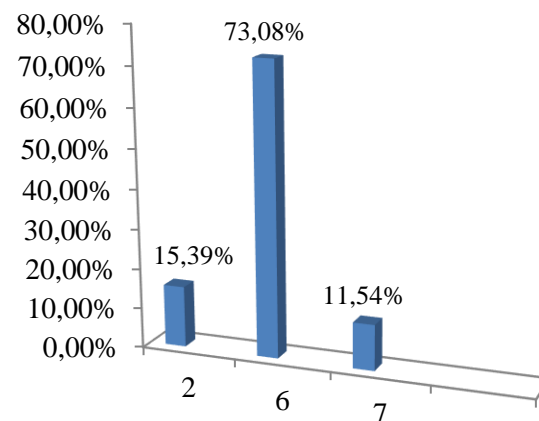


Fig. 6: Use of sustainable media, message form and content of promotional messages taking into account the TBL concept

The food businesses surveyed *rather yes* (73.08%; n=65) and *definitely yes* (11.54%; n=10) intend to use sustainable media, forms of communication and content of promotional messages. These organisations represent a statistically significant majority ( $p < 0.001$ ). The remaining companies

(15.39%; n=14) do not use sustainable means of communication, form of communication and content of promotional messages taking into account the TBL concept.

## 6 Conclusion

The article presents the concept of TBL in relation to sustainable marketing mix of food industry enterprises. Due to the specificity of the food market, consisting of the dynamics of changes taking place and the importance of food consumption for people's health and life, there is a need for qualitative and quantitative research in this area. Additionally, it should be pointed out that the production, distribution and sale of food interfere with the natural environment and the quality of life of societies. Reconciling the manufacturing activity of food enterprises whose primary objective is to achieve financial benefits with environmental and social aspects requires the development and application of universal solutions aimed at reconciling the existing discrepancies. The Triple Bottom Line concept presented in this article, combined with the activities of the sustainable marketing mix, is precisely the solution that effectively leads to the achievement of both the financial objectives of the company and the environmental and social objectives.

Referring to the research objective included in the earlier part of the article, it should be indicated that it has been achieved. As a result of the conducted research study, activities of food industry enterprises in the area of sustainable marketing mix in relation to the TBL concept were identified. As a result of the conducted empirical research it can be stated that the contained research hypothesis was confirmed. Regardless of the objective achieved and the research hypothesis confirmed, the conducted study does not fully exhaust the subject matter undertaken. Therefore, there is a need for further theoretical and empirical research in the analysed area. Future research should be characterised by intensity and depth of both theoretical and empirical layers. The article can support manufacturing companies wishing to conduct their business activities in a sustainable way. It can be used by both manufacturing and service companies operating in other sectors of the economy.

The research gap in the area in question has given rise to studies on this important yet little recognised topic. Available research on the concept of TBL is fragmentary and covers only selected areas of company operations. One may risk a

statement that this research is selective in nature and incomplete in scope. They mainly concern one of the three components of the TBL concept, namely the economic aspects and refer to large organisations. The TBL concept should also be relevant for small and medium-sized enterprises (SMEs).

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