

TECHNICAL-ECONOMIC MANAGEMENT ELEMENTS SPECIFIC TO ECO-COMMERCE

PhD. St. Diana Cristina Labes (CRACIUN) ¹

Assoc. Prof. Dr. Adrian Ioana ²

PhD. St. Roxana Marina Solea ³

PhD. St. Daniela Tufeanu ⁴

PhD. St. Paul Stefan Trandafir ⁵

^{1, 2, 3, 4, 5} University Politehnica of Bucharest, Romania

ABSTRACT

The article has as a starting point the definition of the notion of commerce in its two senses: economic sense and legal sense. We also defined the notion of eco-commerce as "the presentation and sale of organic products, under prescribed ecological conditions", according to European regulations. Also, in the article we present original elements of technical-economic management specific to eco-commerce. We present and analyze the correlations between the "4 P" of the marketing mix (production, price, promotion, placement) and the technological elements. Based on an original correlation scheme, we have designed and analyzed 7 levels of such correlations, of which we notice: the biunivocal correlation Product (P1) - Promoting (P2) is based on assuring the quality of the product, The level of technological optimization is directly correlated with the product's quality. In the article we also present an original model of economic analysis. This model has as its starting point 3 categories of subjects: Intern performers, Joint performers and External performers. Information (including conclusions) of economic analysis conducted can be passed to the three distinct pathways: Domestic Customers → Direct (Official) → Company (trader); Indirect (unofficial) → Company (trader); External Customers (with respect ownership) → Indirect Competition (banks) → Company (trader).

Keywords: *Eco-Commerce, Management, Technical, Economic*

INTRODUCTION

In the etymological sense, the expression "commerce" comes from the Latin "commercium", which in itself represents a juxtaposition of the words "how" and "merx", which means "with the goods". So commerce consists of operations with the goods.

In the economic sense, commerce is defined as an activity that aims at exchange and, thus, the movement of goods from producer to consumer. In this respect, commerce consists of the operations between the time of the production of goods and their entry into circulation, until they reach the consumers [1], [2]. In the legal sense, the notion of commerce has a wider content than the concept defined in economic sense. It includes not only the operations of interposition and the movement of goods, which the merchants carry out, but also the operations of producing the goods, by transforming raw matter, materials, etc. and obtaining



results of a higher value, which the manufacturers and the entrepreneurs realize in general. A simple definition of the concept of eco-commerce is "the presentation and sale of organic products, under prescribed ecological conditions" (European Regulation no. 834/2007, European Regulation no. 889/2008).

MATERIALS AND METHODS

The economic analysis examines the activities or phenomena from the economic point of view. The essential issue when performing economic analysis is that it observes the structural relationships, including functional relationships and the cause and effect relationships [3], [4].

The economic analysis is a research method, based on decomposing and dismantling an object or a phenomenon in its components or its basic elements [5].

By the means of economic analysis we investigate various phenomena, their structure, we verify those phenomena, find out their intimate rules and based on that we substantiate and take actions concerning the future of the company's economic activity [6], [7].

Creating environmental information can be expensive and time consuming. Environmental Performance Indicators (EPI) should therefore be cost-effective and appropriate to the size and type of organization and its needs and priorities. They should address primarily those environmental impacts that are most significant and which the company can influence by its operations, management, activities, products and services. They should also be sensitive enough to reflect significant changes in environmental impacts.

Organizations should make the optimum use of the environmental information they collect. To this end the indicators should fulfill the dual purpose of assisting the management of the organization and providing information to stakeholders.

Depending on an organization's capabilities and resources, the use of environmental performance indicators may initially be limited to those aspects considered most relevant, with the initial scope being gradually widened over time.

RESULTS

We propose many correlations between the four „P-s” of marketing mix (P1- Product; P2- Price; P3- Promoting; P4- Placement-Distribution) and technological elements. In figure 1 there are briefly presented the main correlations.

Aspects regarding management:

1. The biunivocal correlation Product (P1) - Promoting (P2) is based on assuring the quality of the product.
2. An important role in optimizing the correlation (1) is held by advertising directly correlated with the product's quality level.
3. The Product (P1) needs and determines technological development for assuring the quality technical requirements.

4. The biunivocal correlation Product (P1) – and Price (P2) is based on cutting of production costs.
5. The level of technological optimization is directly correlated with the product's quality [1], [2], [8].
6. A good (low) price of the product assures good placement condition of it.
7. A good placement of the product can lead to a good price (optimal in direct correlation with the sales level).
8. The technological optimization ensures conditions of price reduction.

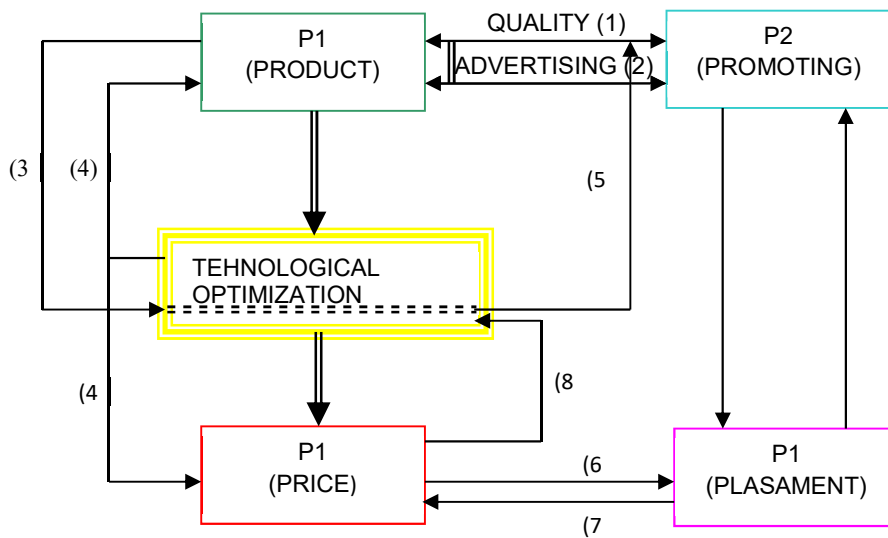


Figure 1. The main correlations between the 4 marketing mix components and technological elements

The lower the price (P2) is (witch is facilitated by a high level of technological optimization), the higher the profit (benefit) is, which allows investing it in research-development.

The analysis of the main correlation between the 4 marketing mix components in a case of a product from the materials' industry (presented in figure no.1) highlights the importance of management in order to optimize that product.

Figure 2 presents the main correlations between the functional and constructive betterments regarding a product from the materials' industry [3].

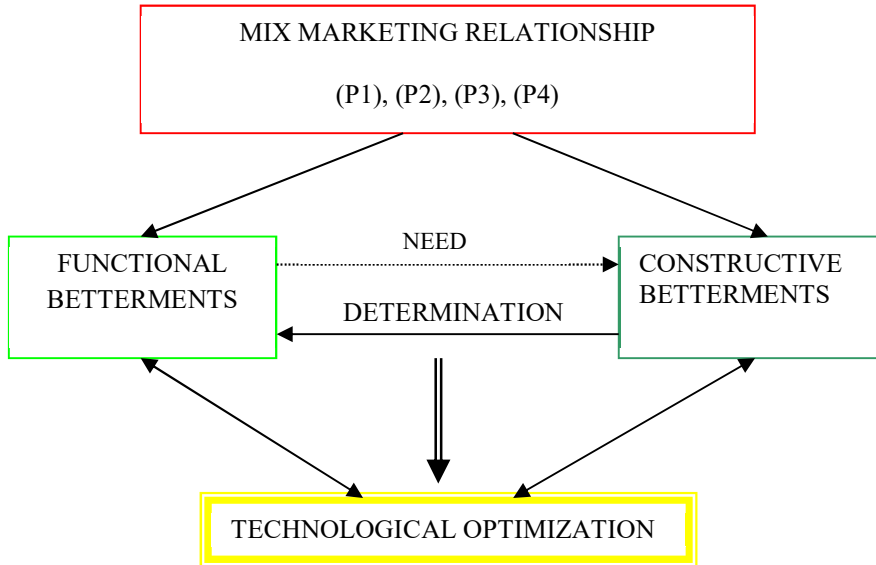


Fig. 2. The main correlation between the functional and constructive betterments in the technology of a product from the materials' industry, needed in order to assure an optimal marketing mix

It is to be noticed that. In order to obtain an optimal marketing mix for a product from the materials' industry, the technological optimization management must focus on both functional and constructive betterments.

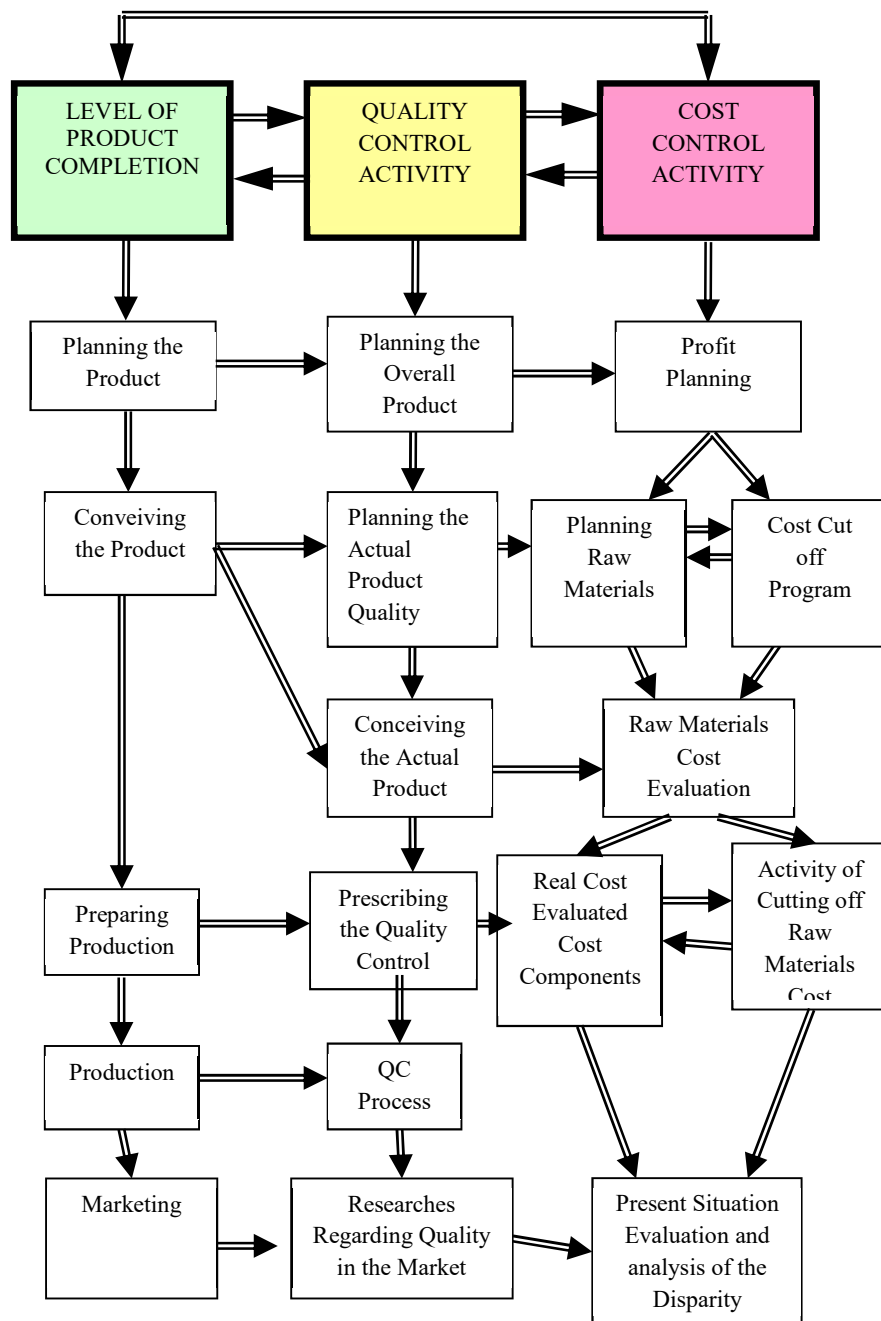
The functional betterments need constructive betterments and constructive betterments generate functional betterments.

An important component of the marketing mix for a product in the metallurgical industry is the quality and the cost control activity .

The main steps (and their correlations) of the quality and cost control activity management for product in the metallurgical industry are briefly presented in figure no. 3.

The level of the product's completion is to be noticed. This based on the following activities: planning the product, conceiving the product, preparing production and marketing.

Fig. 3. The management of the quality and cost control activities for a product from the metallurgical industry



CONCLUSION

The concept of eco-commerce is a current and very important one, including in terms of European prescriptions in the field.

Eco-commerce is also of great importance in the context of sustainable development. Thus, eco-commerce, placing a priority on the protection of the environment, implicitly ensures an increased level of security for future generations.

The marketing mix analysis for products in the materials industry highlights the importance of the technological optimization in order to obtain an optimum in the field.

An interesting aspect revealed in the article, in relation to the "4P" of the marketing mix specific to the ecommerce, consists of the multiple correlations between: Constructive modernization - Functional modernization - Technological conditioning. From this point of view, the economic field (the marketing mix) is determined and optimized by the technical and technological domain.

The technological optimization in the metallurgical industry is based on functional and constructive betterments. The optimization of the biunivocal correlation between them (need-determination) assures the efficiency of the marketing mix of that product.

REFERENCES

- [1] Kotler, Ph., Managementul marketingului, Editura Teora, București, 2003.
- [2] Nicolescu, O., Sisteme metode și tehnici manageriale ale organizației, Editura Economică, București, 2000.
- [3] Patriche, D., Marketing industrial, Editura Expert, București, 1994.
- [4] Ioana, A., Costoiu, M., Tufeanu, D., Semenescu, A., Marcu, D., Management elements of conception and development of scientific research projects, IOP Conf. Series: Materials Science and Engineering 591 (2019) 012092, IOP Publishing, Modern Technologies in Industrial Engineering VII, (ModTech2019), doi:10.1088/1757899X/591/1/012092, Iasi, pp. 1-5, 2019.
- [5] Tufeanu, D., Semenescu, A., Ioana, A., Management Criteria and Principles Applicable in Education and Scientific Research, Advanced Engineering Forum Vol. 33, doi: <https://doi.org/10.4028/www.scientific.net/AEF.33>, «5th Conference of ADVANCES IN ENGINEERING & MANAGEMENT», Drobeta Turnu Severin, 2018.
- [6] Ades, C., et al, Implementing Open Innovation: The Case of Natura, IBM and Siemens. In: Journal of Technology Management & Innovation, vol.8, supl.1, Santiago, feb. 2013.
- [7] Altmann, P., Rundquist, J., Florén, H., Sustained innovativeness and human resource management. In: Sven-Åke Hörte (ed.), Research on Technology,

Section ENVIRONMENTAL ECONOMICS

Innovation and Marketing Management 2009-2011: Introducing the Research Area of Innovation Science (p.21-35), 2011.

[8] Patriche, D., Economie comercială, Ed. Institutul National "Virgil Madgearu", Bucuresti, 1993