MARKETING INNOVATION IN PORTUGUESE FIRMS: AN EMPIRICAL APPROACH

EMPRESAS PORTUGUESAS COM INOVAÇÃO DE MARKETING: UMA ANÁLISE EMPÍRICA
LA INNOVACIÓN DE MARKETING EN LAS EMPRESAS PORTUGUESES: UN ENFOQUE EMPÍRICO

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ABSTRACT

This paper aims at reflecting upon marketing innovation evolution in Portuguese firms. Considering a marketing innovation as the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing (OECD, 2015), and using the results of Community Innovation Survey, the purpose of this paper is to analyse the evolution of Portuguese firms in terms of marketing innovation, and determine which factors are associated with this evolution. In addition, it considers the different firms’ size, the different sectors of activity, the Portuguese regions and the analysis of the interaction and impact of marketing innovations with other types of innovations.

Keywords: Innovation, Marketing Innovation, Portuguese firms

RESUMO

Este artigo tem como objetivo refletir sobre a evolução da inovação de marketing nas empresas portuguesas. Considerando inovação de marketing como a implementação de um novo método de marketing envolvendo mudanças significativas no design ou embalagem do produto, colocação de produtos, promoção de produtos ou preços (OCDE, 2015), e usando os resultados do Inquérito Comunitário à Inovação, o objetivo do trabalho é analisar a evolução das empresas portuguesas em termos de inovação de marketing e determinar quais fatores estão associados a esta evolução. Além disso, considera-se o tamanho das diferentes empresas, os diferentes setores de atividade, as regiões portuguesas e analisa-se a interação e o impacto das inovações de marketing com outros tipos de inovações.

Palavras-chave: Inovação, Inovação de Marketing e Empresas Portuguesas

RESUMEN

Este documento tiene como objetivo reflexionar sobre la evolución de la innovación de marketing en las empresas portuguesas. Considerando una innovación de mercadotecnia como la implementación de un nuevo método de mercadeo que involucre cambios significativos en el diseño o empaque de productos, colocación de productos, promoción de productos o fijación de precios (OCDE, 2015) y utilizando los resultados de Community Innovation Survey, el propósito del trabajo es analizar la evolución de las empresas portuguesas en términos de innovación de marketing, y determinar qué factores están asociados con esta evolución. Además, considera el tamaño de las diferentes empresas, los diferentes sectores de actividad, las regiones
portuguesas y el análisis de la interacción y el impacto de las innovaciones de marketing con otros tipos de innovaciones.

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The modern concept of innovation is introduced by Schumpeter (1934), and was developed by OECD thought Frascatti Manual (1st edition in 1966 and last edition in 2015) and Oslo Manual (last edition in 2005).

The concept of innovation adopted in Oslo Manual (OECD/Eurostat, 2005) considers innovation as the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations and distinguished four types of innovations: product innovations, process innovations, marketing innovations and organisational innovations. Product innovations and process innovations are closely related to the concept of technological product innovation and technological process innovation. Marketing innovations and organisational innovations broaden the range of innovations compared to the previous definition.

Marketing innovations can be considered as the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing (OECD, 2015).

Considering the above concept, this paper aims at reflects upon marketing innovation evolution in Portuguese firms. Using the results of Community Innovation Survey, the purpose of this paper is analyse the evolution of Portuguese firms in terms of marketing innovation, that include the implementation of marketing methods (product, place, promotion, price) and his relationship with different variables like sectors of activity, firms size, Portuguese regions (nomenclature of territorial units for statistics – NUTS II) and analysing the interaction and impact of marketing innovations with other types of innovations in 2002-2004 and 2012-2014.

This paper starts to present some definitions of marketing innovation as well the different types of marketing methods, to better understanding the subject, followed by the methodology used to analyse the evolution of the behaviour of firms with innovation activities in the years 2002-2004 and 2012-2014, whose results are presented in point 3. At the end we present some conclusions.

1. MARKETING INNOVATION: CONCEPT, TYPES AND OBJECTIVES

Innovation is fundamental to the competitiveness and for OECD/Eurostat (2005) it is central to the growth of output and productivity. Innovation is currently defined for Oslo Manual (OECD/Eurostat, 2005) as new or significantly improved products on the market or finding better ways (through new or significantly improved processes and methods) of getting products to the market. Thus, in Schumpeter’s perspective, the innovation can be “radical”: innovations shape big changes in the world, whereas “incremental”: innovations fill in the process of change continuously.

An innovation is implemented if it has been introduced on the market (product innovation) or used within a production process (process innovation) (OECD, 2002). In this context, Schumpeter (1934) proposed a list of five types of innovations: introduction of a new product or a qualitative change in an existing product; process innovation new to an industry; the opening of a new market;
development of new sources of supply for raw materials or other inputs; and changes in industrial organisation.

The most recent Manual Oslo (OECD/Eurostat, 2005) considers that an innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations.

The activity of innovation also include the acquisition of existing knowledge, machinery, equipment and other capital goods, training, marketing, design and software development. These innovation activities may be carried out in-house or procured from third parties. (OECD, 2015).

Following Oslo Manual (OECD/Eurostat, 2005) innovation activities are all scientific, technological, organisational, financial and commercial steps which actually, or are intended to, lead to the implementation of innovations. Some innovation activities are themselves innovative, others are not novel activities but are necessary for the implementation of innovations. Innovation activities also include Research and Development (R&D) that is not directly related to the development of a specific innovation.

Thus, the OECD through its Oslo Manual (OECD/Eurostat, 2005) and the European Union adopt a broad concept of innovation considering both technological innovations or non-technological, including organizational innovation and marketing innovation, referring to the introduction products or new processes or significantly improved, the company or the market. The innovations (new or improved) must be new to your enterprise, but they do not need to be new to your market or to territory and could have been originally developed by your enterprise or by other enterprises or institutions. This OECD concept of innovation includes the incremental and radical innovation or disruptive innovation (Tidd and Bessant, 2016). Additionally, includes the systemic dimension of innovation, by opposite the linear model of innovation (Kline and Rosenberg, 1986), that shows the influence of the institutional and social environment, and recognizing the importance of different types and sources of knowledge (not only of scientific knowledge) (Madureira; Gamito, Ferreira & Portela, 2013: 14).

For Manual Oslo (OECD/Eurostat, 2005) it broad definition of an innovation encompasses a wide range of possible innovations. An innovation can be more narrowly categorised as the implementation of one or more types of innovations, for instance product and process innovations.

Thus, Manual Oslo (OECD/Eurostat, 2005) defines four types of innovations that encompass a wide range of changes in firms’ activities: product innovations, process innovations, organisational innovations and marketing innovations. Effectively a firm can make many types of changes in its methods of work, its use of factors of production and the types of output that improve its productivity and/or commercial performance. These four types of innovation are used in the Community Innovation Survey (CIS) applied to the firms by European Union.

OECD/Eurostat (2005) considers a product innovation as the introduction of a good or service that is new or significantly improved with respect to its characteristics or intended uses. This includes significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics. In turn a process innovation is the
implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software. As organisational innovation considers the implementation of a new organisational method in the firm’s business practices, workplace organisation or external relations.

“Transforming innovative actions to economic and social value can only be possible by marketing effectively. That means, creating a new product, a new service or a new business process, cannot be considered as innovation unless being subjected to marketing process.” (Gümüş and Gümüş, 2015:263).

Following Medrano and Olarte-Pascual (2016) we consider the efforts and resources that enterprises dedicate to introducing new sales methods into their business are regarded as marketing innovations. This innovation type as being just as important as technological innovations because promoting companies’ competitiveness. Also for Gupta, Malhotra, Czinkota & Foroundi (2016) discuss the competitive advantages that businesses can achieve through the said innovation and conclude that marketing innovation influencing the competitiveness.

Concerning Marketing innovations, this concept is new to the Oslo Manual. Marketing innovations can be important for firm performance and the overall innovation process. Identifying marketing innovations allows for the analysis of their impact and their interaction with other types of innovations (OECD/Eurostat, 2005). Halpern (2010) cited by Medrano and Olarte-Pascual (2016) for example, concluded that marketing innovation had a positive effect on performance in the airport industry.

Thus, Oslo Manual (OECD/Eurostat, 2005) defining a marketing innovation as the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing.

Community Innovation Survey (CIS) 2012 considers that marketing innovation is the implementation of a new marketing concept or strategy that differs significantly from your enterprise’s existing marketing methods and which has not been used before. It requires significant changes in product design or packaging, product placement, product promotion or pricing and exclude seasonal, regular and other routine changes in marketing methods.

For Ren, Xie, and Krabbendam, (2009: 82) “Marketing innovation is understood commonly as a continual process. Initially, the entrepreneur holds a potential profit opportunity in the market. Taking commercial profit as the target, the entrepreneur re-combines the key marketing elements and establishes a marketing system with stronger market competitive capabilities to facilitate the launch of new products and the promotion of new markets. Moreover, the characteristics of successful marketing innovations, which include a sound marketing strategy, the path taken in the market, the level of management skills within the firm and its unique organizational culture may be difficult for competitors to imitate or replicate.”

Marketing innovations are aimed at better addressing customer needs, opening up new markets, or newly positioning a firm’s product on the market, with the objective of increasing the firm’s sales. The distinguishing feature of a marketing innovation compared to other changes in a firm’s marketing instruments is the implementation of a marketing method not previously used by the
firm. It must be part of a new marketing concept or strategy that represents a significant departure from the firm’s existing marketing methods. The new marketing method can either be developed by the innovating firm or adopted from other firms or organisations. New marketing methods can be implemented for both new and existing products.

Studies on marketing innovations include case analyses of new commercialisation channels such as the internet, new marketing concepts for diet beverages, new markets and processes (Doyle and Bridgewater, 1998) or consider marketing innovations: package and/or packaging, design and better distribution methods to analyse the characteristics and determinants of marketing innovation in agribusiness sector (Geldes and Felzensztein, 2013) or consider marketing innovation as an incremental innovation (Naidoo, 2010). According Medrano and Olarte-Pascual (2016) the literature on marketing, consider marketing innovation as incremental innovation, mainly in small and medium-sized enterprises that through such incremental innovation, achieve results that are just as successful as those achieved by big companies that do invest in internal R&D.

Nieves and Diaz-Meneses (2016) for example, analysing antecedents and outcomes of marketing innovation in the hotel industry, consider the rise of new technologies as communication tools and the internet and companies’ Web pages represent an important tool for promoting certain services in novel ways and the use of novel strategies for service pricing as another type of marketing innovation.

Following Oslo Manual (OECD/Eurostat, 2005) a defining characteristic of marketing innovations is the orientation towards customers and markets, with a view to improving sales and market share. These economic objectives may differ greatly from those of process innovations, which tend to focus on productive quality and efficiency. Grouping marketing innovations with organisational innovations would also be problematic because some marketing practices do not fit into concepts of organisational changes and because this would greatly dilute data on organisational innovations, making it difficult to interpret the results.

Marketing innovations involve the implementation of new marketing methods. These can include changes in product design and packaging, in product promotion and placement, and in methods for pricing goods and services, according Marketing theories and in the Marketing Mix Model (Perreault and McCarthy, 2005) that focuses on the “4 Ps” of marketing: Product, Price, Promotion and Placement.

Marketing innovations include significant changes in product design that are part of a new marketing concept. CIS (2012) considers significant changes to the aesthetic design or packaging of a good or service. Product design changes here refer to changes in product form and appearance that do not alter the product’s functional or user characteristics. They also include changes in the packaging of products such as foods, beverages and detergents, where packaging is the main determinant of the product’s appearance.

New marketing methods in product placement primarily involve the introduction of new sales channels. Sales channels here refer to the methods used to sell goods and services to customers, and not logistics methods (transport, storing and handling of products) which deal mainly with efficiency. For CIS (2012) this concept includes new methods for product placement or sales
channels (i.e. first time use of franchising or distribution licenses, direct selling, exclusive retailing, new concepts for product presentation, etc.).

New marketing methods in product promotion involve the use of new concepts for promoting a firm’s goods and services. In this point of view CIS (2012) appears to new media or techniques for product promotion (i.e. the first time use of a new advertising media, a new brand image, introduction of loyalty cards, etc.).

Innovations in pricing involve the use of new pricing strategies to market the firm’s goods or services. New pricing methods whose sole purpose is to differentiate prices by customer segments are not considered innovations (OECD/Eurostat, 2005). CIS (2012) considers new methods of pricing goods or services (i.e. first time use of variable pricing by demand, discount systems, etc.).

For Oslo Manual (OECD/Eurostat, 2005) seasonal, regular and other routine changes in marketing instruments are generally not marketing innovations. For such changes to be marketing innovations, they must involve marketing methods not previously used by the firm.

The main factors relating to the objectives and effects of marketing innovation, according OECD/Eurostat (2005) are: Increase or maintain market share, Enter new markets, Increase visibility or exposure for products, Increase the ability to adapt to different client demands and Develop stronger relationships with customers.

There exist several reasons for not starting innovation activities at all, or factors that slow innovation activity or have a negative effect on expected results. Thus, innovation activity may be hampered by a number of factors. These barriers include economic factors, such as high costs or lack of demand, enterprise factors, such as a lack of skilled personnel or knowledge, and legal factors, such as regulations or tax rules (OECD/Eurostat, 2005) and hampering innovation activities.

Thus and according Ren, Xie & Krabbendam (2009: 82) marketing factors can be segmented into four general levels, which form the basis for marketing innovation. “These levels are those related to product, service, distribution and sales/promotion. Identifying these fundamental levels of marketing is necessary because these elements are central to an enterprise’s marketing innovation.”

Innovation determinants depend on internal and external factors of businesses (Geldes and Felzenszteain, 2013) in a systemic process (Edquist, 1997) and can be extend to marketing innovations determinants.

2. METHODOLOGY

Innovation is fundamental to the competitiveness and it is central to the growth of output and productivity (OECD/Eurostat, 2005), whether we consider product innovations, process innovations, organizational innovations or marketing innovations.

Considering a marketing innovation as the implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or
Pricing (OECD, 2015), we intend in this paper to analyse the evolution of Portuguese firms in terms of marketing innovations that include the implementation of marketing methods (product, place, promotion, price). In this analyses we also consider the marketing innovations in different Portuguese firms size, in the different sectors of activity and in the Portuguese regions (nomenclature of territorial units for statistics – NUTS II) in 2002-2004 and 2012-2014. To do this analyses the main data source used was the results of Community Innovation Survey (Portuguese CIS 4 and CIS 2014). “The CIS is a harmonised survey of innovation activity in enterprises. … is designed to provide information on the innovativeness of sectors by type of enterprises, on the different types of innovation and on various aspects of the development of an innovation,…”

CIS operations are based on conceptual principles laid down in the Oslo Manual and methodological recommendations from Eurostat were followed and the concepts defined by the OECD/Eurostat in its theoretical reference framework for the area of innovation. The observation period referred to in the appropriate data concerns the years from 2002 to 2004 (CIS 4) and 2012 to 2014 (CIS 2014).

CIS 4 in Portugal was distributed to a sample of 7,370 companies, representing a population of 27,797 companies in the Industry, Construction and Services Sections of the Economic Activity Classification (CAE) - Rev. 2.1. These were randomly selected by the INE from the General File of Statistical Units. After corrected, the sample and the population included 6,482 and 24,094 companies, respectively. Of the total of 6,482 companies surveyed, there were 4,815 valid responses, representing a response rate of 74%.

CIS 2014, the data collection was carried out from an electronic platform online specially developed for this purpose. The considered for the CIS corresponds to the companies of CAE - Rev. 3, headquartered in Portugal. Following the guidelines and recommendations of the Eurostat, INE has constructed a composite sample by 9,455 companies, based on a combination census (for companies with 250 people service or more) and random sampling for other companies. They considered as valid 7,083 responses, among the 8,736 companies in the sample corrected, corresponding to a response rate of 81%.

Based on the results of the CIS 4 and CIS 2014 (that show percentages because compare several countries) we started this statistical analyse by the evolution of the behaviour of firms with innovation activities in the years 2002-2004 and 2012-2014, by sectors and by types of Innovation. We proceed by the analyse activities of Marketing Innovations in the Services and Industry sectors and also the contribute of Marketing innovations by Portuguese region (NUTSII) in the two periods and the relation between firms with marketing innovation activities and the number of employees. We continue the analysis in terms of innovation in the “4 PS” of marketing (2012-2014), followed by the same analyse in Industry and Services sector.

1 http://ec.europa.eu/eurostat/web/microdata/community-innovation-survey

After analysing the data in two periods under analysis, it can be seen that the percentage of Portuguese firms with innovation activities increased in the period 2012-2014 compared to the period 2002-2004, the same is true for Industry and Services sectors (Figure 1). It should be noted that in 2002-2004, in each sector, less than half of the firms had innovation activities and in the period 2012-2014 exceeded 50%.

As mentioned previously, according to the Oslo Manual (OECD / Eurostat, 2005), four types of innovation can be distinguished: product innovations, process innovations, organizational innovations and marketing innovations. The most important type of innovations is organizational innovations but this tendency decreased in the period 2002-04 to 2012-14 (Figure 2). Product innovations and process innovations, registered tendency inverse: tend to increase in the period by opposite organizational innovations and marketing innovations.
In period 2002-2004 it was the Organizational Innovations that is higher than the others types of innovations activities (Figure 3) and in period 2012-2014 we found the highest percentage of firms that made Process Innovations activities (Figure 4).

Making an analysis in terms of marketing innovation, it appears that there was a decrease in the percentage of Portuguese firms that practiced marketing innovations in the two periods. The same evolution was verified in industry and services sectors.

In 2002-2004 the percentage of businesses nationwide that have introduced marketing innovations was 37 and in the 2012-2014 period decreased to 29 (Figure 5).
According to the Figure 6 the services sector has the highest percentage of firms with marketing innovation activities in periods considered. In this sector in 2012-2014 is in human health (CAE 86) where higher percentage of firms with marketing innovation activities (49%); followed in exequo Edition, video, radio and television (NACE 58-60) (43%); Telecommunications, computer consulting (CAE 61-63); Other activities. consulting, scientific and activities. Veterinary (NACE 74-75) with 43 % (Figure 6).

In the industry sector in 2012-2014 stand the Ind. food, beverages and tobacco (NACE 10-12), with 40%; Ind. Oil, chemicals and pharmaceuticals (NACE 19-22) with 38 % and Information Technology, equi. electric, motor vehicles (NACE 26-30) with 35% (Figure 7).
Comparing marketing innovation levels of 2002-2004 to 2012-2014 by region, we clearly see in Figure 8 that there was a decrease in all Portuguese regions except the Azores. In 2002-2004, are the regions of Madeira and the Alentejo that have higher percentage of firms with innovations marketing, 40% and 39% respectively, already in 2012-2014 the percentage decreases in all regions except the Azores and are now the regions Center, Lisbon and the Azores that stand with 32% and the Alentejo with 30%.

By graphical analysis clearly see that the percentage of firms with marketing innovation activities is higher in firms with the highest number of employees. (In 2002-2004 with 43% and in 2012-2014, 45% of innovation activities occurred in firms with 250 or plus persons employed) (Figure 9).
Marketing innovations involve the implementation of new marketing methods with several changes that focuses on the “4 Ps” of marketing: Product, Price, Promotion and Placement.

Analysing the various types of marketing innovation in period 2012-2014 (Figure 10) it can be verified that Product innovations (significant changes in appearance / aesthetic or packaging of products) are more intense in the Industry sector. And the Place innovations (new methods of distribution / product placement or new sales channels), Promotion innovations (new techniques or media to the promotion of goods or services) and Price innovations (new pricing policies for products) happen in a greater percentage in the companies belonging to the Services sector. Thus, it is in the Services sector that most stands out at the level of 3 P’s: Promotion, Place and Price.
We sought to know, within each sector, which firms stand out most in terms of innovation in the 4 Ps of marketing. According to figure 11, in the Industry sector, the innovations in the Product and the Promotion stand out, being the Food, beverages and tobacco industry (CAE 10-12) (34%); Petroleum, chemical and pharmaceutical industry (CAE 19-22) (26%) and Computers, equi. Electric, motor vehicles (CAE 26-30) (22%) that innovate the most at Product level; And Computers, equi. Electric, motor vehicles (CAE 26-30) (21%); Petroleum, chemical and pharmaceutical industry (CAE 19-22) (20%); Furniture, other ind. Transformers (CAE 31-33) (20%), the ones that innovate the most in the Promotion.

![Figure 11 - Industry, 4 Ps, 2012-2014](image)

In the Services sector, the most visible product innovations of Marketing and Promotion are also Human Health (EAC 86) (44%); Telecommunications, computer consulting (CAE 61-63) (36%); Consulting, scientific and activities (CAE 74-75) and Architecture, Engineering, R&D and Advertising (CAE 71-73) (27%) in the Promotion marketing activities. And Architecture, Engineering, R & D and Advertising activities (CAE 71-73) (30%); Human health (EAC 86) (27%), Other activities. Consulting, scientific and activities (CAE 74-75) (27%) in the Product marketing activities. In the Price, Editing, video, radio and television (CAE 58-60) stands out with 25%, according to figure 12.
CONCLUSIONS

The OECD through its Oslo Manual (OECD/Eurostat, 2005) and the European Union adopt a broad concept of innovation considering both technological innovations or non-technological, including organizational innovation and marketing innovation, referring to the introduction products or new processes or significantly improved, the company or the market. This broad definition of an innovation encompasses a wide range of possible innovations.

According Oslo Manual and Community Innovation Survey it is possible distinguished four types of innovation: product innovations, process innovations, organizational innovations and marketing innovations. Marketing innovations that focuses on the “4 Ps” of marketing: Product, Price, Promotion and Placement, following the Marketing Mix Model (Kotler and Keller, 2016).

After analysing the data on the behaviour of Portuguese firms in terms of marketing innovation, it was verified that the percentage of firms that made marketing innovation, decreased from the period 2002-2004 to 2012-2014 either at national or sectoral levels.

The highest percentage of firms with marketing innovation activities are firms that belongs to the Services sector. Also the marketing innovation levels decrease from 2002-2004 until 2012-2014, in all Portuguese regions except the Azores. In 2012-2014 the higher percentage of companies with innovation activities was in Center, Lisbon and the Azores.
The percentage of firms with marketing innovation activities is higher in companies with the highest number of employees. In 2001-2014, 45% of innovation activities occurred in companies with 250 or more persons employed.

Analysing the various types of marketing innovation in period 2012-2014 it can be verified that product innovations are more intense in the Industry sector. And the Place innovations, Promotion innovations and Price innovations happen in a greater percentage in the companies belonging to the Services sector. In both sectors we see more marketing innovation in two P’s: Product and Promotion.

Thus the government and the different regional actors must defined policies to encourage innovation by firms in the four types of innovation and mostly in marketing innovations. The policies must include government funding for research and development, direct and indirect subsidies, tax credits, and other tax benefits such as deductibility of research expenses. Other policies such as the corporate profits tax also impact firms’ decisions to innovate as proposed Atkeson (2011).

As limitations it is pointed out that secondary databases used which inhibit more sophisticated analyses and does not allow a better understanding of the micro-level mechanisms that influence marketing innovation. Thus for future researches it is suggested to carry out an inquiry to found a more detailed analysis of the marketing innovation in SME, by sector or by region.

REFERENCES


