Product Personalization as a Tool of Individualized Marketing

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Abstract: Due to a need in a focus of marketing technologies changed towards the consumer, the research is aimed at personalized marketing and the study presents guidelines on product personalization as a tool of individualized marketing.In the process of market relation development, a role, strategies and tasks of marketing have been changed, while a modern understanding of marketing depends on its history. To achieve the set aim, the researchers of the study used generalization and systematization, structural and comparative analysis methods and a classification of existing theoretical trends. Modern economic conditions are described with increased competition, an emergence of the innovative economic development model, changed consumers' needs and values associated with an expansion in an offered products range, an increased supply of similar goods and services, a growth of population well-being and a change to a person's worldview. In this regard, companies haveto look for new ways to capture their market share. The product personalization appears to be among the highly successful concepts, its difference lies in a new focus on the customer's needs. To introduce customization technologies (consumer goods) into marketing departments' activity using product components' adjustment is very expensive, so it is important to calculate possible efficiency of changes. The studypresents a mathematical model to calculate the feasibility to use personalized marketing in sales of consumer goods. The calculation model presented in the study will allow companies that use it to track quickly the changes to the markets, analyse dynamics of market segmentation and identify the most promising directions in product personalization.

Key words: Competitive relationship, differentiation, segment, customization, personalization

INTRODUCTION

For decades, the focus on production has been considered a key business concept ensuring a success and achievements of acompany. It has been primarily describedwith production indicators. Today, however, available production does not guarantee any demand and success. The increased competition, transformed consumer preferences, a widespread use of innovations in all domains involve a need in changes to marketing activities. To perform successfully, companies, facing the heavier competition among manufacturers, have to refocus their approaches on expectations and needs of buyers. It has become clear that there is a need in producing a product that can and should be in demand among potential consumers. According to Brodie, Coviello, Brookes and Little, Kotler, Lindgreen, Davis, Brodie and Buchanan-Oliver, today, marketing should not be seen as a secondary activity, performed atan end of the manufacturing process (Brodie *et al.*, 1997; Kotler, 1992; Lindgreen *et al.*, 2000). In contrast, marketing should play a meaningful role from the product planning stage.

MATERIALS AND METHODS

The research and methodological tools include the methods of system analysis, cabinet and field marketing research, the surveytechnique, interviews with experts and expert evaluations. The researchers' contribution to the researchincludes the explained marketing technologies designed for product customization, allowing selecting and modelling the variable part of the product at stages of its design, production and sales with the buyer's participation. The information and empirical basis to support and ensure scientific credibility of research findings and conclusionsconsisted of statistical reports and materials issued by Rosstat, as well as reports prepared by marketing, rating and analytical agencies (One-to-One Media, International Institute on Mass Customization and Personalization, A.C. Nielsen, McKinsey, RBC, Expert, etc.) for 2005-2015. Among the researchers, whose works were used to complete the research, we can refer to Tretiak, Chelenkov and Leonov who are experts in inventory management, product policy and the new management concept of personalized

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marketing. Among the world's experts, whose works were reviewed for the research, we can refer to Baldwin and Clark in the field of design as an element of product concept personalization; Aydin, Cetin and Ozer who explain in detail how to establish new marketing processes focused on the customized product.

Based on the received primary data, the studysets the tasks as follows: classify the customized product offers (depending on a development nature, available variable components, a degree of consumer involvement and a type of a customized attribute); develop baseline scenarios to make individual product sets that allow customizing even in cases where physical transformation of a product is impossible; apply the methodology to select product attributes for further customization based on customer preferences.

Trends in personalized marketing: Personalized marketing is based on an individual approach which assumes a focus on sales to each specific customer with as many relevant products offered to the customer as possible. This strategy focuses on customers developing their loyalty to a company. This facilitates an increase in a share of consumers as well as a company's market share that, in turn, implies efficient practices to improve services and meet customer's needs. Coviello and Brodie (1998) and Kotler (1992) believe that the consumers are more unique than products, available on the market. What's more, some customers are more important and valuable for a company than the others. In this regard, the Pareto principle is recognised, according to which 80% income comes from 20% of the customers. Therefore, thecompany should treat its customers differently and establish a relationship with them taking into account their individual needs.

The basic concept shared by founders of the new marketing trend (Lado *et al.*, 2013) is that a product should be developed with its advance positioning in a line of other competing products, similar in quality and properties. The developers should find "a niche" for the product in a value system of a potential customer. Making a unique image fora good or service should contribute to promotion of it and increase its competitive advantages (Coviello and Brodie, 1998). Those who adhere to the classical concept of personalization claim that knowledge of all similar goods should be generalized and "compressed" in minds of potential consumers of a new product or service thus, creating some free space to capture the new product in a customer's mind. When doing so, it is important to combine all similar goods in the customer's mind into a single group, "convincing the customer that differences between items in this group are

insignificant and then introducing a new trademark or present it in contrast to an existing group in such a cleared space" (Kotler, 1992).

It should be said that some scholars believe that in a process of choosing a personalization concept, manufacturers only need to identify one unique attribute of their product or brand and take a set of measures following marketing principles and techniques to support the selected attribute of the product which as they think seems to be the most preferable by consumers in a specific target segment. According to Loken and John (1993), the company shall make an individual price quote for sales and follow it strictly for each product (service). Any product or service should have an individual attribute which may help the company to personalize this product as "number one" among the similar ones. Consumers tend to remember the brand, positioned as "number one". The most promising properties in terms of identification of goods byindividual attribute are:

- The highest quality
- The best service
- The lowest price
- The highest value
- The most advanced manufacturing technology

It seems that the marketing strategy aimed at achieving one of the above-mentioned properties and its maintaining helps to achieve a good image in the market, associated with this individual attribute byconsumers (Rust *et al.*, 2004). However, other scientists have another view, according to which the most efficient result of personalization is available when the company has a marketing strategy aimed at achieving several of the best attributes, especially if several companies compete on the market and positionthemselves as the best in relation to a particular attribute. At that, a manufacturer has a task to convince its consumers that the sold product (service) fully meets all of their possible needs.

As for an evaluation of product's promotion results, the made analysis of products' personalization as an essential tool of personalized marketing suggests that the market consumer demand is the main indicator for this process efficiency. At the same time, the objects for marketing research in this direction mayinclude: Primary demand, a total demand for all goods of a certain brand, the resource costs spent for personalization in this situation tend to 0 (the lowest).

Market potential is the highest level to be reached by the market consumer demand; in this case, the resource costs for research in product personalization are close to the value which ifreached means that furtherhigher costs

do not entail any growth in the market demand in the same environment. Current market demand, sales of the good for a specified period in the same environment at a constant level of the resources, spent on personalization.

Selective (electoral) demand is a market demand for a specific category of the good at the specified level of expenditures for research in personalization. The main methods of research to evaluate the personalization results are: piloting in various market segments; statistics on actual sales of goods and services for a specified period of time; applied logistic function which has a saturation limit; integrated method which includes elements of the above-mentioned methods.

RESULTS AND DISCUSSION

This researchhas made it possible to define the conditions of a transition to personalized marketing, presented in Fig. 1. Moreover, it seems reasonable to clarify an essence of product personalization that may be represented as a sum of consecutive actions to develop the product and introduce it among the consumers, the product with distinctive attributes (new or updated product), primarily based on contrasts as for the same attributes in similar products available in the market.

Thus, it becomes clear that in modern conditions, product personalization can be a promising technology for promotion on the markets. However we should understand that because of such personalization there is a risk of increased consumers' distrust towards the proposed product, so-called "erosion" of personalized qualities. There are some examples of possible risks in product personalizing, according to market researchers.

Vague personalization: There are cases where consumers get an incomplete idea of a particular product or service.This product is on a par with many similar products.The good has no visual and semantic image associated with it.

Over personalization: Consumers have a limited idea of abrand, buyers don't have enough information about the products.
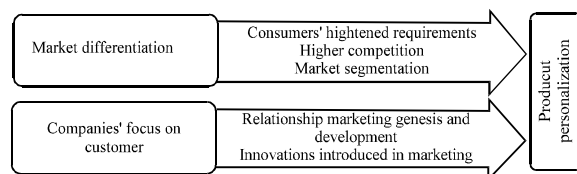

Fig. 1: Conditions for a transition to personalized marketing (compiled by the researcher)

Complicated (diffuse) personalization: A manufacturer personalizes the product by many attributes; companies often make drastic changes to their marketing strategy to define a concept for product personalization.

Doubtful personalization: Doubts appear among consumers about the declared properties when a real quality does not match the declared one, a price is higher and the company's business image has been destroyed.

To calculate whether it is reasonable to personalize the product we suggest to use an analysis of a possibility to personalize various goods and services, as well as results from such marketing procedure based on the preference index (affinity index) (hereinafter, referred to as AI). AI is taken from various marketing research or surveys among social and age groups held in separate market segments and divided by demographic characteristics. The calculation is made by Eq. 1:

$$AI = \frac{sh}{SH} \times 100\% \qquad (1)$$

Where:

sh = Share of buyers (consumers) of the good or service in the analysed segment

SH = Share of the estimated segment within the entire population or the general totality (general totality is population in considered country or region)

AI = Ratio of p (share of consumers) to Sh share (share of segment) (%)

This indicator is needed to evaluate the potential efficiency of product personalization in a market segment chosen by demographic factors. A management decision about promotion of the product in the target segment is only made in cases when AI takes a value over 100%. Under these conditions, the value of sh (share of consumers) in relation to the entire sample is higher than SH, share of segment in the population. The higher AI is, the higher a probability is to increase the consumer demand for an object of personalization, improve sales and increasethe company's profit.If AI is less or equal to 100% we can assume that personalization of the analysed product on the market in aconsidered demographic group is unreasonable.

It should be said that the analysis by this criterion does not always show an objective picture as a target segment often includes consumers for whom the calculated AI is the highest. Another disadvantage in applying AI to an evaluation of product personalization is that the index calculation is often based on results of sampling (survey). In this case, component exponent sh in the equation and hence, AI is calculated with a certain

statistical error. A value of the error depends on a value of whole sample N (where N is a number of surveyed consumers, respondents):

- When N>1,000 surveyed persons, the statistical error approaches 0 and can be neglected
- When N<1,000, the value of the statistical error is high enough to influence significantly the evaluation results

Thus, we can assume that in large-scale marketing research when a significant number of respondents is surveyed, it is possible to make a management decision on personalization or no personalization for a certain product based on AI calculated by Eq. 1. If the analysis is made by a small company with limited resources (financial, information, labour) when calculating AI by Eq. 1, it might get a result with essential statistical errors in an anticipated estimate for sh (share of consumers).

According to Loken and John (1993), product personalization is mostly achieved with customization. At the same time, customized products should consist of components that are easily adjustable or changeable subject to customer's needs. The researcher of the study agrees with those researchers who believe that not each consumer product is customizable. Such products may include mass consumption products, described with low elasticity, low profitability and the constant demand. Personalization is mostly applied to products purchased for fun. Customization might be achieved with both multiple configurations, an individual packaging and a unique composition. This scheme means that in this process, there is a chance that the customer will like an object of personalization ("positive"); there is also a chance that the customer will not like the object ("negative"). In this case, we may offer theconsumer surveys: the solution to this task will be found by Eq. 2:

$$P_n^{(m)} = C_n^m \times p^m \times (1-p)^{n-m} \qquad (2)$$

Where:

n = Respondents is interviewed
p = Chance that the response is "positive"
q = Chance that the response is "negative" is taken as q where, q = 1-p
m = The number of "positive" answers

A number of "positive" answers is a random value; it has, as a rule, binomial distribution. A result of the calculation will be a probability to get "positive" responses we need. For these purposes, let us mark a "positive" response with 1 and a "negative" response with 0. The use of the proposed activities will help the company to assess personalization-driven prospects of sale. In this process, forecasting and valuating the market demand have the highest practical significance in aspect of mathematical assessment of results from product and service personalization.

CONCLUSION

To sum up, we can say that the current economic development is described with changes to an overall structure of competition influenced by globalization and an accelerated pace of the technological progress (Protasova *et al.*, 2011). External and internal conditions have been constantly evolving causing fluctuations in the supply and demand, lower competitiveness, outdated equipment and technology facilitating changes to competitive advantages of products. In this regard, a need for personalization in promotion comes to the foreground. Besides, the model presented in the study toestimate reasonability of personalized marketing applied in sales of consumer goodswould help to avoid unnecessary expenses forfailed product personalization.

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