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Analysis of Slovak Consumer's Perception of the Green Marketing Activities

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Abstract

Standard strategic goals of a company are related to the achievement of predefined values in the area of sales or a market share. Their achievement is conditional upon obtaining a stable consumer preferences and some competitive advantage. Applying traditional marketing activities does not have a desired effect, companies have been forced to search new ways to achieve their goals. One of these ways is to implement the concept of socially responsible behaviour with an emphasis on the application of green marketing. At the present green marketing does not represent only one of the tools of company's image building. In fact, its implementation is primarily public commitment of company's management to carry business in the way which ensures economic development and at the same time it is realizing of the responsibility for increasing of environmental and social performance. The contribution papers are focused on the efficiency of the green marketing as a tool of competitive advantage in the context of Slovak consumer's perception. The goal of the survey, whose outputs are partially presented in the article, was to identify the relationship of Slovak consumers to green marketing activities and perception of this concept in relation to its impact on the buying decision. Following achieving information there are formulated recommendations for application of green marketing as a tool of competitive advantage in the conclusion.

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1. Introduction

The Slovak professional literature has given insufficient attention to the issue of green marketing. Its processing doesn't have, in our opinion, a more complex character and predominantly consists of knowledge summarization contained in the foreign literature without taking into account the specification of the Slovak market. Neither the current situation of the usage of green marketing in Slovakia is not on a satisfactory level. In particular, large companies pay attention to green marketing, which are mainly linked with foreign countries from the point of capital and management. Domestic small and medium-sized companies green marketing, green marketing as a potential source of competitive advantage, barely has been using it.

With the concept of green marketing we could meet for the first time in the eighties of the 20th century. That time, this concept was describing the implementation of a marketing programme aimed at an environmentally conscious segment of the market. (Kicova, Kramarova, 2013) Since that time the concept of green marketing has experienced a significant progress in evolution. According to Peattie and Charter (1992), during the 1990s, the argument that greening can act as a source of competitive advantage emerged, from authors such as Elkington, Azzone and Bertele, and Porter and van der Linde. Obvious examples come from companies such as The Body Shop, who compete on the basis of strong eperformance and by tapping into customer demand for greener products. Porter and van der Linde's argument is that the search for environmentally superior solutions leads to innovation and the creation of more efficient and effective technologies. Their logic is that tough environmental legislation (often vigorously opposed by companies) sets new challenges for companies, which prompts them to be innovative and secure improvements in competitive, as well as environmental, performance. This is what Varadajan termed "enviropreneurial marketing". (Peattie, Charter, 1992) Now, with regard to marketing, which more significantly respects the environmental criteria, the professional literature has been using several terms such as "green", "organic", "environmental" or "eco-marketing", and these terms tend to be used as synonyms. (Zvarikova, 2011)

Although various definitions of green marketing vary, but the task of green marketing theory remains unchanged. It should not be just a presentation of common products as environmentally friendly, but to achieve that a customer began to perceive environmentally friendly products as a common one. This way it is possible to achieve even one of the fundamental goals of socially responsible behaviour of companies.

Grant's definition of green marketing emphasizes its basic attributes which, according to his opinion, are: intuitiveness, integrity, innovation, initiative and awareness. (Kim, Pradeep, 2012) Not every activity that meets these attributes is an activity of green marketing. Fuller states that green marketing is the process of planning, implementing and monitoring price developments, promotion and distribution of the product while simultaneously are fulfilled all criteria of satisfying the needs of the customer, achieving goals of a company and compatibility of the whole process with the ecosystem. (Misankova, Chlebikova, 2013) Even though we consider this definition as the one of the most comprehensive, the author does not include the aspect of a back taking-off and recycling of the product, which are essential to achieve compatibility with the ecosystem. This deficiency is partially eliminated by Dalhstrom. According to him we can define the green marketing as the study of all efforts to consume, produce, distribute, promote, package, and reclaim products in a manner that is sensitive or responsive to ecological concerns. (Nadanyiova, 2014)

So, for modern company, the importance of green marketing is indisputable. It is not only the way how to create the competitive advantage but also the company's social commitment. But the practical applicability of this marketing concept is often challenging. Referred also applies to the Slovak Republic, where the problem is not only in the lax approach of domestic companies. As the main reason, we consider the specifics of Slovak consumers in relation to their green purchasing behavior. But this issue is also problem in the global context.

According to Peattie and Charter (1992), many factors have been proposed as influences on green consumer behaviour such as changing consumer values, demographic factors, knowledge of environmental problems and alternative products, perceived personal relevance, and the ability of the individual to make an effective contribution.

But when discussing the specifics of Slovak consumer, we do not refer to the research of Kardash. According to his theory, the difficulties in isolating green consumer behaviour reflect several factors (Musova, 2010):

- all consumers (barring a few who enjoy contrariness for its own sake) are “green consumers” in that, faced with a choice between two products that are identical in all respects except that one is superior in terms of its eco-performance, they would differentiate in terms of the environmentally superior product,
- by attempting to relate a consumer’s environmental concern to purchases, marketing researchers may be looking in the wrong place. Many of the most significant contributions that consumers can make towards environmental quality come in product use, maintenance and disposal, or in delaying or avoiding a purchase through a “make do and mend” mentality,
- environmental improvements in products are often entangled with economic or technical benefits,
- different answers are achieved depending on what is defined as constituting green consumer behaviour, and whether the environmental issues that it is linked to are defined in general or specific terms.

We prefer theoretical approach of Zdenka Musova. Her survey was carried in 2011 on a statistic sample of 420 respondents. The survey showed that only 42% of respondents have to the protection of environment, forming the base of the concept of green marketing, a selective approach. This means that their friendly behaviour in relation to the environment, is mostly occasional, expressed mainly in waste separation and in purchase of the product, an environmental aspect is not crucial. This concept is general. In this survey respondents were asked (in order to allow their environmental segmentation) a question about their attitudes towards environmental protection. Strongly environmentally oriented were 4% of respondents (actively involved in environmental protection, trying to influence the views of their surrounding), 23% of respondents are concerned about the situation of the environment and green marketing affects their buying behaviour, 42% of respondents prefer environmentally friendly products, only in the case that its price is not higher. In 25% of responses, respondents are skeptical, do not believe that their behaviour can make a difference and 6% of respondents are not interested in this topic at all. (Musova, 2010)

As it is visible from the text above, there are some significant differences between the approach of Kardash and Musova. So, we assume that in general, many green purchases involve some form of compromise over conventional purchases. The compromise can take a variety of forms, including paying a green premium, accepting a lower level of technical performance in exchange for improved eco-performance and travelling to non-standard distribution outlets.

According to Peattie and Charter (1992), where there is a compromise involved in making a greener purchase, a key factor which will determine whether or not this is acceptable to customers is the confidence they have in the environmental benefits involved. Customers will need to be confident that:

- the environmental issue involved is real problem,
- the company’s market offering has improved eco-performance compared to competitor or previous offerings,
- purchasing the product will make some sort of material difference.

Krizanova, Majerova and Zvarikova (2013) argues according the results of their research dedicated mostly to the specifics of green marketing buying decision, that 74% of respondents perceive green marketing activities in relation to the company (the public level), 17% of respondents attribute these activities to particular brands and concrete environmental problems (the social level) and only 9% of respondents distinguish green marketing activities from the product level (the personal level). The questions focused on the automotive industry were found significantly different values. The social level of the respondents dominated (82%), on the public level were between 13% of respondents and the remaining 5% were on the personal level. It means that the aspect of company’s potential in the scope of its eco-performance is the main factor influencing Slovak green buying decision (74%).

So, the outcomes of mentioned theoretical approaches, which are the most important from the point of view of our research, are the following:

- Kardasha's theory about green consumers is not absolutely valid in the specific conditions of Slovak republic, because according to Musova more than one quarter of Slovak consumers is skeptical and does not believe that environmental friendly buying behaviour can make a difference,

- in Slovak republic, the compromise over conventional purchases which is involved in many green purchases has an opposite character, because Slovak consumers are not willing to pay the so called environmental premium (according to Musova research respondents prefer environmentally friendly products only in the case that its price is not higher),
- the main aspect with which Slovak customers need to be confident (according to the theory of Peattie and Charter) is that company's market offering improves eco-performance compared to competitor or its previous offerings, because according to Krizanova, Majerova and Zvarikova the main factor influencing Slovak green buying decision is the aspect of company's potential in the scope of its eco-performance.

2. Research

The basic research problem was the insufficient usage of green marketing activities in Slovak companies. (Gogolova, Nadanyiova, 2008) The survey was conducted from January to March 2015. We used a standardized method of the direct questioning. As a tool of this survey it was chosen a semi-structured written questionnaire. A basic set of surveyed respondents was formed of Slovak citizens older than 15 years (depending on the size of the basic set, the survey sample was 384 respondents). That age limit was set as one of the essential prerequisite for autonomous decision-shopping, according to a valid Slovak law.

The methodological concept of the realized research was built on the above mentioned theoretical basis with respect to the literature review elaborated by Mittelman. According to him, there are generally two major but separate outcomes emerged from the review of consumer's attitude and responses to green products including a number of contradictory results (Mitellman, 2012):

- studies that describe the attitude-behaviour gap and challenge the assumption that being poor means consumers do not care about the environment,
- studies that explore the relationship between attitude and environmental knowledge.

According to these two approaches and above described synthesis of Slovak consumer's specifics, the hypotheses of the research were set:

- **Hypothesis H1:** Green character of the product has an impact on buying behavior of the majority of respondents.
- **Hypothesis H2:** There is not a relationship between the average monthly income of households and their willingness to pay higher prices for environmentally friendly products.
- **Hypothesis H3:** The improvement in company's eco-performance has an impact on buying behavior of the majority of respondents.

These hypotheses are internally distinguished between:

- **Statistical hypothesis (H_0)** - usually known as a null hypothesis (it expresses almost always that the variables of interest are not in relationship),
- **Research hypothesis (H_1)** - usually known as an alternative hypothesis which is opposite to the formulated statistical hypotheses (this hypothesis reflects the existing relationship between the variables of interest, most statistical tests are based on their confirmation).

In context of formulated hypotheses and their testing methods, we consider as appropriate to explain how the "majority" was quantified. We refer to Rimarcík (2007). According to his theory, the majority can be considered more than 50% of the analyzed trait occurrence.

Hypotheses were tested using:

- **binomial test (H1 and H3)** – the binomial test uses the binomial distribution to decide if the outcome of an experiment in which we count the number of times one of two alternatives has occurred,

- **Pearson's chi squared test (H2)** – it is a nonparametric test that is performed on categorical (nominal or ordinal) data and which evaluates the relationship between two variables.

2.1. Hypothesis H1

The verification of hypothesis was based on the binominal test usage. This test served to reject or accept the so called null hypothesis H_0 .

- **Hypothesis H_0 :** Green character of the product has not an impact on buying behavior of the majority of respondents.
- **Hypothesis H_1 :** Green character of the product has an impact on buying behavior of the majority of respondents.

The following characteristics were used for the hypothesis testing (1):

$$t = \frac{|\bar{x} - \mu|}{\sigma} \Rightarrow \frac{x - np}{\sqrt{npq}} = \frac{\frac{x}{n} - \frac{np}{n}}{\sqrt{\frac{npq}{n}}} = \frac{\tilde{p} - p}{\sqrt{\frac{pq}{n}}} \quad (1)$$

Where:

- **x** the frequency of the trait
- **n** the frequency of observed phenomena
- **p** predicted probability of the phenomenon incidence
- **q** probability of alternative phenomenon frequency
- **\tilde{p}** statistical probability of the phenomenon incidence

The equation for the calculation of the phenomenon incidence statistical probability is (2):

$$\tilde{p} = \frac{x}{n} \quad (2)$$

After the equation (1) substitution, testing characteristic was the following (3):

$$t = \frac{\tilde{p} - p}{\sqrt{\frac{pq}{n}}} = \frac{0,737 - 0,50}{\sqrt{\frac{0,5 * 0,5}{384}}} = 9,288 \quad (3)$$

The critical testing characteristic was calculated through the Microsoft Excel, using the function NORMINV (0,05; 0; 1). The resulting value was -1,645 (t_k). To accept the null hypothesis (H_0) which is the object of verification, the “t” value has to be minor than “ t_k ” value. As the “ t_k ” value is minor than “t” value (9,288 > -1,645), the null hypothesis (H_0) is rejected and we accept the alternative hypothesis (H_1) at the significance level of 0,05.

Thus, we can conclude that green character of the product has an impact on buying behavior of the majority of respondents.

2.2. Hypothesis H2

The verification of hypothesis was based on the Pearson's chi squared test usage. This test served to reject or accept the so called null hypothesis H_0 .

- **Hypothesis H₀**: There is not a relationship between the average monthly income of households and their willingness to pay higher prices for environmentally friendly products.
- **Hypothesis H₁**: There is a relationship between the average monthly income of households and their willingness to pay higher prices for environmentally friendly products.

The graphical representation of the questionnaire results are shown in the tables 1 – 3.

Table 1. Graphical representation of the relationship between answers focused on the average household income and green buying decision making.

	less than 500	501-999	1000-1499	more than 1500	total
“yes“	22	64	107	72	265
“no”	12	52	28	27	119
<i>total</i>	34	116	135	99	384

Table 2. Graphical representation of the expected value of the relationship between answers focused on the average household income and green buying decision making.

	less than 500	501-999	1000-1499	more than 1500	total
“yes“	23,46354	80,0520833	93,1640625	68,3203125	265
“no”	10,53646	35,9479167	41,8359375	30,6796875	119
<i>total</i>	34	116	135	99	384

Table 3. Graphical representation of the recalculated expected value of the between answers focused on the average household income and green buying decision making.

	less than 500	501-999	1000-1499	more than 1500	total
“yes“	0,091289	3,21877169	2,054796253	0,19818557	5,563042
“no”	0,20329	7,16785292	4,575806781	0,441337615	12,38829
<i>total</i>	0,294578	10,3866246	6,630603034	0,639523185	17,95133

The chi squared was calculated through the Microsoft Excel, using the function CHIINV (0,05; (2-1)*(4-1)). The resulting value was 7,814728 ($\chi_{\text{calculated}}$). To accept the null hypothesis (H_0) which is the object of verification, the “ $\chi_{\text{calculated}}$ ” value has to be minor than “ χ_{table} ” value. As the “ $\chi_{\text{calculated}}$ ” value is minor than “ χ_{table} ” value ($7,814728 < 17,95133$), the null hypothesis (H_0) is accepted at the significance level of 0,05.

Thus, we can conclude there is not a relationship between the average monthly income of households and their willingness to pay higher prices for environmentally friendly products.

2.3. Hypothesis H3

The verification of hypothesis was based on the binominal test usage. This test served to reject or accept the so called null hypothesis H_0 .

- **Hypothesis H₀**: The improvement in company's eco-performance has not an impact on buying behavior of the majority of respondents.
- **Hypothesis H₁**: The improvement in company's eco-performance has an impact on buying behavior of the majority of respondents.

After the equation (1) substitution, testing characteristic was the following (4):

$$t = \frac{\tilde{p} - p}{\sqrt{\frac{pq}{n}}} = \frac{0,47 - 0,50}{\sqrt{\frac{0,5 * 0,5}{384}}} = -1,18 \quad (4)$$

The critical testing characteristic was calculated through the Microsoft Excel, using the function NORMINV (0,05; 0; 1). The resulting value was -1,645 (t_k). To accept the null hypothesis (H_0) which is the object of verification, the “t” value has to be minor than “ t_k ” value. As the “ t_k ” value is minor than “t” value (-1,645 < -1,18), the null hypothesis (H_0) is rejected and we accept the alternative hypothesis (H_1) at the significance level of 0,05.

Thus, we can conclude that the improvement in company's eco-performance has an impact on buying behavior of the majority of respondents.

3. Optimal strategy proposal

According to the results of realized questionnaire survey, we can propose an optimal green marketing strategy for the Slovak market. This strategy can be determined on the basis of the modification, so-called green marketing matrix, which was created by John Grant. (Winer, Dhar, 2009) The original matrix consists of nine quadrants containing recommended strategies based on the penetration rate of environmental orientation and company's goals and their approach to marketing.

Detecting of recommended strategy was based on customers' attitudes to environmental protection and green marketing activities (mainly based on H1 and H2 verification) and the level of perception of these activities in relation to green marketing activities on the product level and the company (mainly based on H3 verification).

Modified matrix of green marketing strategy is shown in figure 1. Proposed strategy is marked in the quadrant A1.

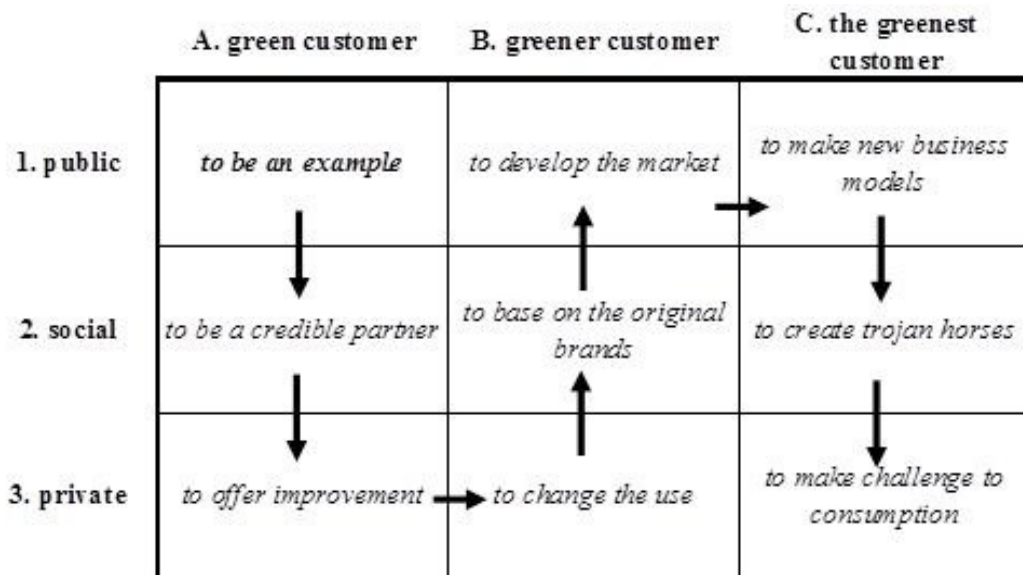


Fig. 1. Modified matrix of green marketing strategy

The exemplary strategy is the general strategy, which is recommended by us for companies operating in the Slovak Republic. The basis of this strategy lies in the emphasis on implemented communication strategies. These are basically of dual nature. The company can thus communicate corporate goals and commitments like General Electrics in its Ecomagination campaign focused on renewable energy and development of more efficient combustion engines. At the same time emphasizing specific actions that the company has made could be taken into consideration. This approach eliminates the possibility of greenwashing. The company does not build its image on some media coverage of its own environmental orientation, but subliminally reinforces its focus on the social responsibility, which continuously generates a stable future competitive advantage.

4. Conclusion

At the time of increasing environmental devastation and intensifying efforts to reverse this negative situation, more and more companies should be increasingly focusing on the implementation of green marketing as one of the forms of socially responsibility business. This approach, however, except from a society-wide benefit for the company, is building up a significant competitive advantage. The application of the above mentioned concept is in the Slovak Republic, as in many other advanced marketing concepts and in comparison with other foreign countries, on an insufficient theoretical and practical level. But the problem is not only in the lax approach of domestic companies. As the main reason, we consider the specifics of Slovak consumers in relation to their green purchasing behavior. The carried out research has shown that green character of the product has an impact on buying behavior of the majority of respondents, there is not a relationship between the average monthly income of households and their willingness to pay higher prices for environmentally friendly products and that the improvement in company's eco-performance has an impact on buying behavior of the majority of respondents. According to this knowledge, we proposed the optimal green marketing strategy for Slovak market in general. This one is the exemplary strategy.

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