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NON-ECONOMIC DETERMINANTS OF CONSUMER PURCHASING BEHAVIOR

Abstract

The aim of the article is to examine the impact of non-economic factors on consumer purchasing decisions depending on their place of residence. The article discusses non-economic factors influencing consumer purchasing decisions. To verify the research hypothesis regarding the relationship between place of residence and consumer buying behavior, the Mann-Whitney U test was used. The results obtained from the study conducted on a group of 250 consumers residing in the Mazowieckie Voivodeship do not unequivocally confirm that the place of residence influences consumer purchasing decisions.

Key words: consumer, purchasing decisions, market

JEL Classification: D11, D12

Paper type: Research paper

1. Introduction

Consumer behaviors are one of the most important sources of knowledge about the market. Understanding them can turn into market success for a company. Therefore, the process of consumer purchasing decisions is important, influenced by both economic issues and a variety of non-economic factors. Purchasing decisions can be shaped by social influences, psychological motivations, cultural norms, individual preferences, and environmental elements.

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The aim of the article is to examine the influence of non-economic factors on consumer purchasing decisions depending on their place of residence.

Consumer behavior and needs in the market are dynamic and undergo evolution due to a variety of social, economic, and environmental factors. Changing conditions in economic development can cause changes in human needs and the factors shaping them. Moreover, place of residence can serve as an important context shaping consumer purchasing decisions through the availability of products and services, demographic characteristics of the community, infrastructure, local culture, and consumer trends

The article conducted a review of the literature on the subject, as well as used the Mann-Whitney U test.

The analysis of the obtained results was conducted based on surveys carried out on a group of 250 consumers from the Mazowieckie Voivodeship (pilot studies) using STATISTICA 13 software. The survey questionnaire aimed to assess the importance of selected factors influencing consumer purchasing behavior.

The results obtained from the research can provide crucial information that will be utilized in the marketing strategy of businesses operating in the specific local or regional market.

2. Theoretical background

In the subject literature, there is a broad and interdisciplinary approach to the concept of consumer behavior. Available studies emphasize various aspects and dimensions of behavior. This concept is understood as: "the totality of actions and perceptions of a person comprising the preparation of product choice decisions, making that choice, and consumption" (Hansen, 1972, p. 15), "the dynamic interaction of affect (emotions) and cognition (thought processes), behavior, and environment, through which people carry out aspects of exchange in their lives" (Bennett, 1995, p. 58), "actions and processes whereby people decide to acquire or dispose of products or services based on their experiences and ideas" (Blackwell et al. 2006), "a coherent set of actions and ways of acting related to choices made in the process of satisfying consumer needs under specific cultural, social, and economic conditions" (Kieźel, 2010). According to Nguyen Hoang Tien et al. (2021, p. 54), consumer behavior is the act of a person buying and using a product or service, including both psychological and social processes occurring before and after the act. The study of consumer behavior includes the study of individual consumers, how they choose products and services, and the impact of this process on consumers themselves and society. From the presented definitions, it follows that consumer behavior can be understood as the totality of actions and ways of acting related to making choices occurring in the process of satisfying consumer needs.

It encompasses everything that happens before, during, and after the acquisition of specific goods and services.

The role of consumers and their behaviors in shaping the market and the functioning of businesses is very important. Through a better understanding of consumer needs and preferences, companies can optimize their product offerings, improve operational efficiency, and build stronger customer relationships (Dash et al., 2019). As a result of these actions, they can gain a competitive advantage in the market (Wolak-Tuzimek, 2023).

The fundamental and comprehensive division of determinants of consumer purchasing behavior is into economic and non-economic factors. Within the first group, economic factors consist of elements from the broader economic environment (over which consumers have no control – macroeconomic factors) and microeconomic factors, such as consumer incomes. Economic factors are the cornerstone of consumer purchasing behavior as they determine the financial capabilities necessary to fulfill needs.

The main non-economic factors influencing consumer behavior are divided into four primary groups: cultural, social, psychological, and personal (Tien et al., 2021, p. 54).

Culture is a powerful force influencing consumers' daily lives, making it a significant factor shaping consumer behavior in different parts of the world (Akdogan et al., 2021). It is a complex network of shared beliefs, customs, values, traditions, religions, and symbols that serve to identify a group or society (Zimmu, 2023). Cultural factors are the reason why consumer behaviors in different markets can be entirely different.

Social factors, largely associated with the influence of groups (such as family, reference groups), play a significant role in consumer purchasing behavior (Almeshal, Almawash, 2023). A person's reference groups are individuals or groups of people who may directly or indirectly influence the attitude or behavior of that person. Reference groups can include friends, coworkers, classmates, the same team, an organization, or simply people with similar interests (Tien et al., 2021).

Psychological determinants, constituting a separate group of determinants, are interconnected with other factors (Lichev, 2017, p. 15). The environment, education level, social status, ownership status (among others) have significant connections with the psychological aspects of an individual. These primarily include perception, motivations and emotions, attitudes and preferences, as well as acquired knowledge. Perception allows consumers to become aware of the existence of certain products, notice differences between brands and places of purchase, thus it can be inferred that it is a condition and a prelude to any purchasing behavior (Kiežel, 2010, p.135). Motives, as factors related to the occurrence of consumer needs and

perception, are forces arising from unfulfilled needs that stimulate and direct consumer behavior to satisfy those needs (Rudnicki, 2000, p. 91).

Personal factors include, among others, age, gender, education, life stage, occupation, lifestyle, and personality. The structure and preferences for purchasing many products change with age. Perception of risk, economic conditions, tastes, and preferences also change. Gender influences orientation towards specific products, perception of their shape, color, packaging, functionality, and usefulness. Consumer behavior also depends on the phase in the family life cycle. Depending on the phase, changing needs can be observed, initially focused on oneself, leisure, free time, entertainment, and later, as a result of changes, on family needs (Rosa, 2012, p.126). Individuals with higher education have more information about the environment in which they operate and can better process the accumulated information, turning it into knowledge. This knowledge serves to make more conscious and thoughtful purchasing decisions than in the case of individuals with lower levels of education. It should be added that with an increase in the level of education, the level of rationality in market behaviors increases (striving for maximizing benefits), as well as the desire to purchase a product for pleasure (Zalega, 2007). On the other hand, occupational activity is directly related to the level of education, the amount of income earned, and social position, which undoubtedly translates into consumer behavior and the structure of purchases (Janoś-Kresło, Mróz, 2006).

The consumer's place of residence can have a significant impact on their purchasing behavior because many factors, including culture, the availability of products and services, and the standard of living, vary depending on the region or locality. The availability of products and services can vary significantly depending on the location. A consumer in a large city may have easier access to a wider range of products than someone living in a rural area.

Market research indicates that the local availability of products can influence consumer brand loyalty (Rust, 2010). The income level of the population residing in a particular area can shape shopping profiles (Chetty, Hendren, 2018), and the brand of a product should align with local social values (Bhattacharya, Sen, 2003).

The literature review enabled the identification of both direct and indirect factors influencing consumer purchasing behavior. The article formulated a research hypothesis H: place of residence affects consumer purchasing behavior.

3. Research methodology

The verification of the research hypothesis was conducted based on the results of survey research carried out on a group of 250 consumers residing in the Mazowieckie Voivodeship, using the Mann-Whitney U test.

The study was conducted in June and July 2023 and had a pilot nature. Data included in the survey were obtained using a diagnostic survey method, in which an author-designed questionnaire was used to collect the necessary data. It consisted of two parts: a metric part and a substantive part. In the metric part, objective criteria such as gender, age, education, and place of residence were used to characterize the sample, as presented in Table 1.

Table 1 Research Sample Characteristics

Criteria	Number	Structure (%)
Sex		
female	136	54.4
male	114	45.6
Location		
town with over 100,000 inhabitants	161	64.4
town with below 100,000 inhabitants	89	35.6
Age		
18-24	60	24.0
25-34	109	43.6
35-44	39	15.6
more than 45	42	16.8
Education		
high	95	38,0
medium	110	44,0
basic	45	18,0

Source: own study

Upon analyzing the structure of the surveyed respondents, the following observations can be made:

1. Women predominated in the study, constituting 54.4% of the total respondents.
2. In cities with over 100,000 inhabitants, 161 respondents resided (approximately 64%).
3. The highest number of surveys were completed by respondents in the age group of 25-34 years, with 109 individuals, while the smallest share, accounting for 15.6%, was represented by consumers aged 35 to 44 years (39 individuals).
4. The study included the highest number of individuals with a secondary education (110 individuals, accounting for 44% of the total).

In the second part of the survey, respondents were asked to evaluate the importance of variables in consumer purchasing decision-making. Nineteen variables were identified, namely: product brand, advertising,

public relations, company image, product price, promotion, product/service quality, service quality, customer loyalty, customer trust, customer satisfaction, product innovation, product availability, company involvement in the local community, company environmental protection activities, consumer consultations, company charity activities, eco-labeling, and promotion of a healthy lifestyle. Respondents' answers were recorded on a 10-point ordinal scale, where 1 indicated low importance, while 10 indicated high importance.

To verify the research hypothesis, the Mann-Whitney U test was utilized. This is a non-parametric test used to test hypotheses about the insignificance of differences between the medians of the variable under study in two populations (with distributions of the variable being close to each other) (Mroczek, Stachyra, 2022, p. 110). The conditions for applying this test include measuring variables on an ordinal scale and the independence of the model.

The hypotheses regarding the equality of mean ranks for the compared populations have been simplified to medians:

$$H_0: \theta_1 = \theta_2,$$

$$H_1: \theta_1 \neq \theta_2,$$

where:

θ_1, θ_2 – distributions of the variable under study in the first and second populations.

The null hypothesis assumes equality of the mean ranks for both groups, while the alternative hypothesis suggests that the means differ. The calculated p-value based on the test statistic is compared to the significance α level:

if $p \leq \alpha \Rightarrow$ reject H_0 accepting H_1 ,

if $p > \alpha \Rightarrow$ there is no reason to reject H_0 .

The verification of the Mann-Whitney U Test for each variable was conducted at a significance level (p-value) of 0.05.

4. Results and discussion

In the study, it was assumed that the p-value should be greater than the specified significance level $\alpha = 0.05$.

In the study, two hypotheses were formulated:

H_0 : The distributions of variables influencing consumer purchasing behavior are the same for the categories of the variable "place of residence".

H_1 : The distributions of variables influencing consumer purchasing behavior are not the same for the categories of the variable "place of residence".

The null hypothesis H_0 should be rejected in favor of the alternative hypothesis H_1 if the p-value $\leq \alpha$. If the p-value $> \alpha$, there is no basis for rejecting H_0 . The results of the Mann-Whitney U test are presented in Table 2.

Table 2. The results of the test for the values of variables influencing consumer purchasing behavior based on the place of residence are as follows

Number	Null hypothesis	Test	Significance (p)	Decision
1	The distribution of the product brand variable is the same across the variable category of place of residence	Mann-Whitney U Test	0.037	reject H0
2	The distribution of the advertisement variable is the same across the variable category of place of residence		0.069	accept H0
3	The distribution of the public relations variable is the same across the variable category of place of residence		0.015	reject H0
4.	The distribution of the company image variable is the same across the variable category of place of residence		0.007	reject H0
5.	The distribution of the product price variable is the same across the variable category of place of residence		0.088	accept H0
6.	The distribution of the promotion variable is the same across the variable category of place of residence		0.492	accept H0
7.	The distribution of the product/service quality variable is the same across the variable category of place of residence		0.789	accept H0
8.	The distribution of the customer service quality variable is the same across the variable category of place of residence.		0.199	accept H0

Continued Table 2

9.	The distribution of customer loyalty variable is the same across the variable category of place of residence		0.002	reject H0
10	The distribution of customer trust variable is the same across the variable category of place of residence		0.008	reject H0
11	The distribution of customer satisfaction variable is the same across the variable category of place of residence		0.003	reject H0
12	The distribution of product innovativeness variable is the same across the variable category of place of residence		0.368	accept H0
13	The distribution of product availability variable is the same across the variable category of place of residence		0.097	accept H0
14	The distribution of the company's engagement in local community efforts is the same across the variable category of place of residence		0.008	reject H0
15	The distribution of the company's actions for environmental protection is the same across the variable category of place of residence		0.008	reject H0
16	The distribution of consumer consultations variable is the same across the variable category of place of residence		0.020	reject H0

Continued Table 2.

17	The distribution of the company's charitable activities is the same across the variable category of place of residence		0.004	reject H0
18	The distribution of eco-labeling variable is the same across the variable category of place of residence		0.007	reject H0
19	The distribution of promotion of a healthy lifestyle variable is the same across the variable category of place of residence		0.004	reject H0

Source: own study

Based on the analysis of probabilities obtained for the respective threshold values presented in Table 2, it appears that not all examined variables influence consumer purchasing behaviors based on their place of residence. The obtained results indicate that for the variables: product brand, public relations, company image, customer loyalty, customer trust, customer satisfaction, company engagement in the local community, company environmental protection activities, consumer consultations, company charitable activities, eco-labeling, and promotion of a healthy lifestyle, the null hypothesis should be rejected. This means that for the mentioned variables, place of residence is a differentiating factor in consumer purchasing behaviors, thus confirming the validity of the research hypothesis H.

However, it should be noted that for 7 variables: advertisement, product price, promotion, product/service quality, customer service quality, product innovativeness, and product availability, the null hypothesis should be accepted. This means that for these variables, place of residence does not differentiate consumer purchasing behaviors. In summary, it cannot be conclusively confirmed that the research hypothesis H: place of residence influences consumer purchasing behaviors, is correct.

The obtained research results align with previously published studies. According to M.J.L. Costales (2023), non-economic factors influence consumer purchasing behaviors. In line with research conducted among 100 residents of Muntinlupa, ecological awareness, ecological product characteristics, ecological promotional activities, and ecological pricing notably influence consumers' ecological purchasing behaviors. Meanwhile, demographic characteristics have a moderate impact on the assertion that

brand, product, price, and promotional strategies significantly influence the purchasing behaviors of the surveyed consumers.

Research conducted by Q. Liu and X. Wang (2023) among a group of 544 consumers confirms that regional product branding positively influences consumers' attitudes, purchase intention, and purchasing behavior. Each regional brand, with its unique characteristics, combines certification factors and geographical indication, facilitating the transformation of purchase intention into actual purchasing behavior.

According to research by H. Nahi and E.I. Develi (2023), consumers rely on information from social media when making purchasing decisions. The results of the study conducted on a group of 300 Moroccan consumers confirm that the content of posts, their emotional appeal, and the frequency of social media usage influence consumer behaviors.

To summarize, it can be said that many authors confirm in their research that consumers take into account non-economic factors when making purchasing decisions.

Conclusions

In the literature, there are many definitions of consumer behavior. They usually differ in their emphasis or level of detail. Consumer behavior can be defined as any actions taken by individuals during the acquisition, consumption, and disposal of products and services.

The literature analysis has enabled the identification of non-economic factors influencing consumer purchasing behaviors, which encompass a wide range of factors including social, psychological, cultural, and environmental factors.

Based on the conducted research, it can be concluded that consumers are influenced by non-economic factors when making purchasing decisions. Furthermore, 12 variables examined—product brand, public relations, company image, customer loyalty, customer trust, customer satisfaction, company engagement in the local community, company environmental protection activities, consumer consultations, company charitable activities, eco-labeling, and promotion of a healthy lifestyle—are diversified depending on the place of residence. However, for 7 variables—advertisement, product price, promotion, product/service quality, customer service quality, product innovativeness, and product availability—place of residence does not differentiate consumer behaviors. This suggests that the correctness of the research hypothesis, that place of residence influences consumer purchasing behaviors, cannot be conclusively confirmed.

The extensive variety of products available makes the knowledge about customer behaviors possessed by the entrepreneur a significant source of competitive advantage and business success. This knowledge forms the basis for characterizing buyers, which in turn is useful in formulating

responses regarding the reasons behind certain customer behaviors and enables thinking in their terms. Therefore, it is important to conduct research encompassing customers' views, opinions, and assessments regarding their behaviors in the market.

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