# MARKET COMPETITION DETERMINANTS OF CONSUMER BEHAVIOR 

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#### Abstract

The purpose of this work is the analysis of consumer behavior, as well as the analysis of economic, social, cultural, and psychological influences on consumers when choosing and purchasing special products. According to Schiffman and Kanuk (2009), consumer behavior is the behavior that consumers manifest during the search, purchase, use, evaluation, and disposal of products and services that they expect to satisfy their needs, and the purchase includes a psychological process according to which consumers who have identified their needs, collect information, and find the way how to fulfill their needs and desires (Kurtz \& Boone, 2009). During the research, comparative economic analysis methods and statistical methods will be used. As an instrument, the multifactor leadership questionnaire (MLO) was used as a psychometric method (Bass \& Avolio, 2000), and with the psychographic analysis that measures the lifestyle. The results of the research will be very useful because they will help further research on this issue. As many times as research on this topic are done, we will see that the results are different because consumer behavior is very complex and changing, therefore continuous study is required, which will always include all the changes that are made in the environment.


Keywords: Consumer Behavior, Influential Determinants, Decision-Making, Consumer Satisfaction

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## 1. INTRODUCTION

The product concept is complex and can be considered at different levels, such as the main product, actual product, and improved product. The main product is the main solution to the problem, which the consumer addresses when buying. The actual product exists around the main product (style, design, quality, packaging, etc.), and the improved product is the actual product plus the various services (warranty, free shipping,
installation, etc.). There are numerous product classifications. Thus, according to durability, the products are divided into long-lasting products and short-lived products.

According to which market the products are offered, we distinguish consumer products: products offered in the consumer market and industrial products offered in the business (industrial) market. But from the point of view of marketing, the most important is the division of products depending on the time and effort required
to purchase them. In this regard, the products appear as basic (conventional) and special products. Within this research paper, the emphasis is only on special products and the determinants of consumer behavior when buying special products.

It is a group of products that for some consumers is an illusion, and for some, it is their every day, it is about diamonds, apartments, cars, and other products that certain groups of consumers consider basic products. Like all other needs, special products should be designed in accordance with the needs and requirements of that market segment which is considered to be a representative segment of potential buyers and consumers of such a product. At the same time, each production entity in its marketing activities must pay special attention to the market properties of special products.

Today, all ambitions are oriented towards marketing because it reflects success, which is essentially the buyer. The consumer in modern society is the "king" because it is he/she who determines what companies should produce and sell in the market. Familiarizing customers and their behavior with all the determinants that affect their behavior is a step forward in creating policies and making appropriate decisions. It used to be enough to value sales results, but today all marketing plans are based on needs and motives that drive consumer behavior (Rahman, 2008).

All the scientific thoughts of marketing take into account the numerous economic, social, cultural, psychological, and various other determinants that influence customer behavior before, during, and after the purchase as a process. The behavior of buyers and consumers is a set of mental and physical acts, which are realized during the decisionmaking time before, during, and after the purchase. Explaining consumer behavior does not only mean explaining individual purchases, i.e., consumer behavior of the so-called "consumer market", but also consumer behavior in the industrial market (Rahman, 2008).

Globalization has become a necessity faced by today's society, which does not require isolated markets without standards but requires highly homogeneous standardization. Consumers are becoming a major force, and modern consumers are different from their predecessors, because thanks to the Internet and other media, they are increasingly enriching their consumer culture, and also have access to various information on price selection, quality, and other attributes of special products.

The age of globalization heralded the call for intergenerational responsible leadership. With internationalization trends imposing significant challenges regarding the sustainability of climate stability, indebtedness, and social welfare for an aging Western world population, the need for intergenerationally responsible leadership has leveraged into an international concern (Puaschunder, 2018).

Knowing the world of consumers will provide companies with a high degree of satisfaction with their needs and desires, preferences, knowledge, and attitudes, but will also have a significant impact on the formulation of the marketing policy of the company. The process of consumer research is followed, starting from the emergence of the need to the post-purchase behavior, from which it is
concluded that the emergence of needs is the reason for buying a special product and thus a certain behavior of an individual or consumer.

The important aim of this work is to analyze the preferences of the buyers in the Republic of Macedonia for special products, especially when it comes to the country of origin, for the originality of the products, and thus giving suggestions to the manufacturers and traders of special products to adapt their marketing strategy according to the specific characteristics of these consumers in the Republic of Macedonia.

The remainder of this paper is structured as follows. Section 2 reviews the relevant literature. Section 3 presents the methodology that has been used to conduct empirical research on the consumers who buy special products in the Republic of North Macedonia and analyzed their behavior and all the determinants that influence their behavior. Section 4 reviews the descriptive statistics that will serve as a reference for hypothesis testing. Section 5 provides a discussion of the sociological and economic determinants of consumer behavior when buying special products. Finally, Section 6 concludes the paper.

## 2. LITERATURE REVIEW

The consumer is the person who buys products and services created by the economic system (Vasiljev \& Pantelic, 2010).

The consumer is an individual who possesses financial resources, opportunities, and rights, on which he bases the right to choose products and services. Every day and every moment, the needs of the consumer become more and more complex and changeable, as the modern environment becomes, and thus his behavior and attitudes change.

The market economy is very dynamic but also risky, companies are facing great competition, so each of them is trying to build a better and stronger relationship with customers and consumers. The big reputable companies in the world, even though they have many years of experience, are always afraid of possible mistakes that can damage their reputation and trust, so it is very difficult for them to enter unverified markets. Their caution is very high, unlike the smaller companies who think that even if that happens they will not lose much.

The secret of marketing lies in the ability to understand what drives consumers, and in the ability to adapt products and services, and even to "transcend" them, so that consumers are not the only ones satisfied, but also "delighted", and this is very important in today's global financial crisis if they want to "tie" consumers to their products (Zarantonello \& Schmitt, 2013).

Design thinking is a data-driven type of analytical thinking with proactive innovative thinking in analyzing and predicting people's behavior for creating products, services, and processes (Yeung, 2018).

Because in today's conditions of rigorous globalization, it is becoming increasingly difficult for companies to survive, it is more than necessary for them to research the consumers of their products, in order to find out how they decide to buy, which means what they would buy and where, how much know their products, what they think about them, how they decide on the choice of the brand, how
satisfied they are with the purchase and use of the purchased products, etc.

In organization ethical principles exist in the form of a business code of ethics, which is used to monitor employees' behavior within a business organization. An employee's behavior may be considered either ethical or unethical according to the specific codes of ethics accepted within a given organization (Lin et al., 2018).

Digitalization is a set of evolving practices consisting in adopting new digital technologies in daily organizational life, which identifies agility as a critical component for the company's business model, organization, and culture (Warner, 2019).

Consumer behavior covers an area that has been studied since 1960 when economic reason has always dominated, but if you look from the 1980s onwards, because people are also members of society, it is more than necessary to consider the complex social, cultural, and psychological world in which they live (Malter et al., 2020).

Consumer behavior is the study of the processes involved when individuals or groups select, purchase, use, or dispose of products, services, ideas, or experiences to meet needs and wants (Solomon et al., 2010). Hawkins and Coney (1981, as cited in Hawkins, 2004) consider consumer behavior to be a study of why, when, where, and how individuals or groups choose to select, supply, use, and dispose of products, services, experiences, or ideas to meet their needs. From this definition of consumer behavior, it follows that consumer behavior includes elements of sociology.

Consumer behavior is the study of how individuals, groups, and organizations select, purchase, use, and dispose of products, services, ideas, or experiences to meet their needs and desires (Kotler \& Pfoertsch, 2007).

On the other hand, when consumers buy unknown products or services at high prices, then they are very much involved in making the decision to buy or not to buy (Lancaster \& Massingham, 2010). According to the American Marketing Association (AMA, n.d.), consumer behavior is a dynamic interaction between the perceptions, behaviors, and developments in the environment in which the individual manages his or her life. From the definition of consumer behavior, three important elements can be noted (Peter \& Olson, 2005):

- consumer behavior is dynamic;
- includes interactions;
- includes exchange.

Consumer behavior is very dynamic because their feelings, thinking and actions are always changing. Due to the changes in consumers and their environment, consumer research must be regular and continuous, and this dynamic nature of consumer behavior requires change and the development of marketing strategies of companies, which should always be innovative. Consumer behavior involves interactions between cognition, behavior, and the environment, so the market must understand what products and brands consumers want and what they mean to them, and what they learn more about. The more they learn about these interactions, the better they can satisfy their needs and desires.

Consumer behavior involves the exchange of communication between buyers (consumers) and sellers. Consumer behavior addresses many other issues, such as (Perner, 2010):

- How to get information about the products we are looking for?
- What price are consumers willing to pay?
- How to evaluate alternative products?
- Why do different people choose to use different products?
- How much risk is taken by buying those products?
- Who can influence someone's decision to buy and use a product?
- How can loyalty to a certain brand be formed, etc.?

According to these questions, consumer behavior can be defined as mental, emotional and physical activity, where individuals or groups engage in the selection, purchase, use, and disposal of products and services in order to meet the needs and desires (Hawkins et al., 2013).

According to Quester et al. (2007), consumer behavior is conditioned by:

- personal characteristics of the consumer;
- the specificity of the situation;
- product features;
- marketing strategy.

It should be noted that as product orientation develops, the same does the study of consumer behavior, but one thing is certain: the study of consumer behavior in today's consumer-focused world is more important than ever, so different methods, to get into people's brains, to find out why they behave in a certain way. These methods include research by observation, surveys, and experimentation, which at the end of the research provide data on companies, to create their marketing strategies, which will be used as a basis for education and consumer protection, but also macroeconomic level is very important for public policy decisions (Blackwell, 2001).

It is difficult to study the buying decision process, so to investigate this process, marketing specialists should use several methods (Kotler \& Pfoertsch, 2007):

- They can think about how they would react (introspective method).
- Can interview a small number of recent buyers about the events that led them to make a purchase decision (retrospective method).
- Can find potential customers who would buy the product for how they would implement the buying process (prospective method).
- They can ask consumers what they think would be the ideal way to buy a product (prescriptive method).

Purchasing special products is a very complex process, so for its realization, according to Kotler and Pfoertsch (2007), several stages must be passed, such as: recognizing the problem, gathering information, analyzing, and evaluating each opportunity, purchasing decisions, and postpurchase behavior.

The methodology that will be used to achieve the goal should be considered, to explain those hypotheses, through which conclusions are reached and concrete recommendations are given for further studies and concrete recommendations for the hypotheses highlighted in the paper. In this paper, to reach our goal, we used descriptive and econometric analysis and models to be able to confirm the hypotheses that are also the object of analysis in this paper.

The problem of this research is the modern consumers who are becoming the main force in the market, who are always trying to satisfy their needs and desires, so their thorough knowledge is the key to the success of any company. During each occurrence of needs as well as their satisfaction consumers manifest a certain behavior, which is very difficult to predict and even control.

The study aims to establish hypotheses regarding the various determinants, such as demographics, psychology, sociology, economics, and culture that influence the purchasing behavior of high school and university students when buying original sports clothing and shoes. The study expects to verify whether these hypotheses hold true or not

The research sample will include about 666 respondents, and it is several respondents that limit the value of the results because it is logically clear that a larger number means more experiences and more answers that are of relevant importance.

Consumer behavior is influenced by several factors, so the question arises as to how much and to what extent economic, demographic, cultural, and psychological factors influence the decision to buy sportswear and footwear, for which the following hypotheses are set:

H1: Demographic determinants influence the decision to buy sportswear and footwear.

H2: Social determinants influence the decision to buy sportswear and footwear.

H3: Psychological determinants influence the decision to buy sportswear and footwear.

H4: Economic determinants influence the decision to buy sportswear and footwear.

## 3. RESEARCH METHODOLOGY

The methods of comparative economic analysis and the statistical method are used in this analysis. From the internal methods, we used the multifactor leadership questionnaire (MLQ) instrument (Bass \& Avolio, 2000), which is a survey questionnaire composed of questions that are asked to examine the demographic determinants that influence the decision to buy, as well as questions related to economic, psychological, and sociological factors that influence that decision such as price, quality, preferences. The MLQ is an instrument that belongs to the more modern psychometric methods for analyzing the determinants that influence consumer buying behavior.

With the psychographic analysis that measures the lifestyle, the attitudes, beliefs, and opinions of consumers will be examined, which will capture the variety of cultural and psychological determinants of consumer behavior when choosing and buying special products in the Republic of North Macedonia. The survey was conducted with high school students from several cities and students, and the number of respondents was 666 .

Descriptive statistics and tools, which will help us, and which have the structure of the logistic regression, are used for the analysis and processing of the data on the influence of the demographic determinants of the consumers in the selection and purchase of special products. MedCalc, Statistical Package for the Social Sciences (SPSS), R, etc., can be listed as the most used. As for descriptive statistics, SPSS is used in order to classify the factors that influence the purchase and behavior of the analysis of the ratio of chances according to many indicators such as psychological, sociological, cultural, economic, and demographic, of consumers when choosing and buying special products. A certain logistic regression model is used to analyze the political, economic, social, and technological environment in which the relations between producers and traders of specialty products, on the one hand, and consumers of specialty products, on the other hand, take place.

The questionnaire consists of 14 questions for general data about the consumer such as age, gender, education, family members, number of employees in the family, etc., the rest of the questionnaire is designed according to the Likert scale ("Completely agree" = 5, "Agree" = 4, "Neither agree nor disagree" $=3$, "Disagree" $=2$ and "Totally disagree" $=1$ ) which consists of 10 questions about the reasons for deciding to buy sportswear and shoes, as well as 8 questions about the manner of information received, the manner and time of use of the product, the satisfaction after use and the repurchase of the product.

## 4. RESULTS

Descriptive statistics are very important for analyzing the demographic characteristics that are part of the questionnaire and will serve as a reference for hypothesis testing. Each of the demographic characteristics is explained below, according to the findings obtained or derived from the statistical analysis.

Table 1. Age

| Age | Frequency | Percentage | Valid percentage | Cumulative percentage |
| :--- | :---: | :---: | :---: | :---: |
| $18-20$ years old | 540 | 81.1 | 81.1 | 81.1 |
| $20-30$ years old | 104 | 15.6 | 15.6 | 96.7 |
| $30-40$ years old | 18 | 2.7 | 2.7 | 99.4 |
| $>40$ years old | 4 | 0.6 | 0.6 | 100.0 |
| Total | 666 | 100.0 | 100.0 |  |

Source: Data processed by the authors.

Age: Regarding the demographic characteristic age from Table 1, the survey covers four groups of respondents, from 18 to $>40$ years old, but the dominant ( $81.1 \%$ ) in buying age is $18-20$ years old At this age, more and more original sportswear is
bought, because as high school and college students need to be active, actively participate in lectures and exams and that is why they need comfortable clothes like the original sportswear, in relation to the other group of customers, i.e., the older generation.

Table 2. Gender

| Gender | Frequency | Percentage | Valid percentage | Cumulative percentage |
| :--- | :---: | :---: | :---: | :---: |
| Female | 358 | 53.8 | 53.8 | 53.8 |
| Male | 308 | 46.2 | 46.2 | 100.0 |
| Total | 666 | 100.0 | 100.0 |  |

Source: Data processed by the authors.

Gender: Another variable or demographic characteristic that is very important is Gender. The results show that today, both men and women
buy original sportswear in approximate percentages of women $53.8 \%$ or 358 and men $46.2 \%$ or 308 , due to the fact that both are very active and on the move.

Table 3. Education

| Education | Frequency | Percentage | Valid percentage | Cumulative percentage |
| :--- | :---: | :---: | :---: | :---: |
| Primary school | 4 | 0.6 | 0.6 | 0.6 |
| High school | 444 | 66.7 | 66.7 | 67.3 |
| University | 208 | 31.2 | 31.2 | 98.5 |
| Master's degree | 8 | 1.2 | 1.2 | 99.7 |
| Ph.D. | 2 | 0.3 | 0.3 | 100.0 |
| Total | 666 | 100.0 | 100.0 |  |

Source: Data processed by the authors.

Education: Considering that high school and university students are the ones who buy more sportswear and considering the results obtained from the model, the second variable such as

Education is a very influential factor in considering and deciding to buy sportswear and that buyers of original sportswear are high school and college students.

Table 4. Family members

| Family members | Frequency | Percentage | Valid percentage | Cumulative percentage |
| :--- | :---: | :---: | :---: | :---: |
| 2 | 2 | 0.3 | 0.3 | 0.3 |
| 3 | 42 | 6.3 | 6.3 | 6.6 |
| 4 | 220 | 33.0 | 33.0 | 39.6 |
| 5 | 206 | 30.9 | 30.9 | 70.6 |
| 6 | 134 | 20.1 | 20.1 | 90.7 |
| $7+$ | 62 | 9.3 | 9.3 | 100.0 |
| Total | 666 | 100.0 | 100.0 |  |

Source: Data processed by the authors.

Family members: In the survey of the question regarding the number of family members, 220 or $33 \%$ of the respondents live in a family of four, 206,
or $30.9 \%$ in a family of five, while a smaller number are the respondents or buyers in families with more than seven members.

Table 5. Number of employees in the family

| No. of employees <br> in the family | Frequency | Percentage | Valid percentage | Cumulative percentage |
| :--- | :---: | :---: | :---: | :---: |
| 1 | 304 | 45.6 | 45.6 | 4.6 |
| 2 | 260 | 39.0 | 39.0 | 84.7 |
| 3 | 72 | 10.8 | 10.8 | 9.5 |
| $4+$ | 30 | 4.5 | 4.5 | 100.0 |
| Total | 666 | 100.0 | 100.0 |  |

Source: Data processed by the authors.

The number of employees in the family: From the findings, $45.6 \%$ or 304 of the total respondents stated that they have only one employee in
the family, $39 \%$ or 260 that they have two employees in the family, and the number of those families with more than four employees is small.

Table 6. Monthly family income

| Monthly family income | Frequency | Percentage | Valid percentage | Cumulative percentage |
| :--- | :---: | :---: | :---: | :---: |
| Up to 15,000 denars | 108 | 16.2 | 16.2 | 16.2 |
| $15,001-30,000$ denars | 196 | 29.4 | 29.4 | 45.6 |
| $30,001-45,000$ denars | 158 | 23.7 | 23.7 | 69.4 |
| Above 45,000 denars | 204 | 30.6 | 30.6 | 100.0 |
| Total | 666 | 100.0 | 100.0 |  |

Source: Data processed by the authors.

Monthly income: According to the results obtained from the analysis, the independent variable income has an impact on the decision to buy
sportswear and footwear and it is clear that larger consumers are those with incomes over 45,000 denars.

Table 7. Marital status

| Marital status | Frequency | Percentage | Valid percentage | Cumulative percentage |
| :--- | :---: | :---: | :---: | :---: |
| Single | 630 | 94.6 | 94.6 | 94.6 |
| Married | 16 | 2.4 | 2.4 | 97.0 |
| Married with children | 20 | 3.0 | 3.0 | 100.0 |
| Total | 666 | 100.0 | 100.0 |  |

Source: Data processed by the authors.

When asked about their marital status, 630 or 94.6\% of respondents answered that they are single, meaning those who are not yet married but live with their family because they still need support as they are in school, and rarely any of them work in parallel with school or study, which means that they are not yet independent.

According to the obtained results, social factors influence the decision to buy or not to buy sportswear and footwear, which confirms hypothesis that social determinants influence consumer behavior when choosing and buying special products.

Table 8. Treating yourself

| Place of living | Frequency | Percentage | Valid percentage | Cumulative percentage |
| :--- | :---: | :---: | :---: | :---: |
| People that live in rural places | 176 | 26.4 | 26.4 | 26.4 |
| People that live in urban places | 490 | 73.6 | 73.6 | 100 |
| Total | 666 | 100 | 100 |  |

Source: Data processed by the authors.

The question "Where do you live?" was posed in order to obtain data on the lifestyle of high school and university students, and the results of the analysis show that 490 or $73.6 \%$ like the dynamics of activities and engagements, going out, and more; and 176 or $26.4 \%$ want to engage more modestly and "quietly" in all changes and movements. Among high school students, this proportion of representation is a result of compulsory completion of high school,
and this is not the case with students.
Apart from those who know, there are those who are not very familiar with the term "special products", and that is not a small number, 128 or $19.2 \%$, surely it is those who are less interested or those who are not in schools mention these products because they do not check different sources.

Table 9. Preferences for sportswear and footwear

| Preferences | Frequency | Percentage | Valid percentage | Cumulative percentage |
| :--- | :---: | :---: | :---: | :---: |
| Yes | 588 | 88.3 | 88.3 | 88.3 |
| No | 78 | 11.7 | 11.7 | 100.0 |
| Total | 666 | 100.0 | 100.0 |  |

Source: Data processed by the authors.

Preferences: Because preferences represent attitudes towards one object in relation to another (Blackwell et al., 2001), the results of the research show that $88.3 \%$ or 588 out of 666 respondents prefer sportswear and footwear, which means that
this group of consumers has already created a strong attitude towards one brand over another. This attitude as a mental readiness of high school students and students, based on experience directly affects the individual's reaction to these products.

Table 10. Brand you prefer

| Which brand do you prefer? | Frequency | Percentage | Valid percentage | Cumulative percentage |
| :--- | :---: | :---: | :---: | :---: |
| Adidas | 316 | 53.7 | 53.7 | 5.7 |
| Nike | 212 | 36.1 | 36.1 | 8.8 |
| Puma | 20 | 3.4 | 3.4 |  |
| Reebok | 28 | 4.8 | 4.8 | 93.2 |
| Lacoste | 12 | 2.0 | 2.0 | 9.0 |
| Total | 588 | 100.0 | 100.0 |  |

Source: Data processed by the authors.

From those who stated that they prefer sportswear and footwear ( $88.29 \%$ ), below we have listed the brands that they prefer. From the processed data, the most preferred brands by high school and university students are the brands Adidas and Nike. The brand Adidas is preferred by 340 respondents or $51.1 \%$.

The findings show that the brand Nike is not far behind, which was declared to be preferred by

238 respondents or $35.7 \%$, which can be said that these two brands in the Republic of Macedonia have become part of the culture of the population, and especially of young high school and university students.

This cannot be said for other brands that lag far behind, e.g., for Puma only 36 or $5.4 \%$ said they like it, and the same goes for Reebok and Lacoste.

Table 11. Purchasing sportswear and footwear for the last two years

| Purchasing sportswear and <br> footwear for the last two years | Frequency | Percentage | Valid percentage | Cumulative percentage |
| :--- | :---: | :---: | :---: | :---: |
| 0 | 152 | 22.8 | 22.8 |  |
| 1 | 258 | 38.7 | 38.7 | 2.8 |
| 2 | 234 | 35.1 | 35.1 | 61.6 |
| More than three times | 22 | 3.3 | 3.3 | 9.7 |
| Total | 666 | 100.0 | 100.0 | 10.0 |

Source: Data processed by the authors.

The question "How many times have you bought sportswear and shoes in the last two years?" proves to us how influential the standard of living or
monthly family income is, $38.7 \%$ or 258 bought only once, $35.1 \%$ bought twice, and $22.8 \%$ have not bought even once.

Table 12. Reasons for deciding where to buy sportswear and footwear, in \%

| Thoughts | Completely disagree | Disagree | Neither agree nor disagree | Agree | Completely agree | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I buy in a place that is closer to me. | 22.22 | 24.32 | 22.22 | 20.12 | 11.11 | 100.00 |
| I buy in places where prices are lower. | 8.41 | 21.92 | 28.23 | 27.33 | 14.11 | 100.00 |
| I buy in places that sell clothes and shoes that are in trend. | 4.20 | 7.81 | 15.02 | 40.54 | 32.43 | 100.00 |
| I buy in places that offer fair prices (low prices for lower quality products and high prices for high quality). | 4.80 | 7.51 | 12.91 | 22.22 | 52.55 | 100.00 |
| I buy in places where I am respected by the seller. | 5.41 | 3.90 | 9.31 | 30.33 | 51.05 | 100.00 |
| I buy where the seller really and carefully listens to what I am looking for and need. | 6.31 | 12.91 | 21.92 | 30.03 | 28.83 | 100.00 |
| I buy where I waste less time realizing the transaction. | 4.50 | 9.91 | 25.53 | 31.53 | 28.53 | 100.00 |
| I buy in places where they are offered for the same price and additional services. | 4.50 | 4.80 | 12.91 | 32.73 | 45.05 | 100.00 |
| I buy in places where the product I am looking for can easily be found. | 5.71 | 10.21 | 19.52 | 31.53 | 33.03 | 100.00 |

Source: Data processed by the authors.

Table 12 is actually a Likert scale, which covers questions that are asked to see what motivated them to decide to buy some of the brands of sportswear and footwear. The most important thing to emphasize is that although relatively young in age, $52.55 \%$ of them answered that they want and buy in places that offer fair prices (low price for lower quality products and high price for high quality), which proves that this should be an incentive for the companies offering these brands to also have fair prices, high prices for high quality.

The findings from the analysis of the answers show that the treatment and respect that the sellers should have and show towards them is very important to them and $51.05 \%$ of them answered that they completely agree to buy in places where they are treated as respected.

Regarding the price of these products, 28.23\% of the respondents answered that the price is not very important to them because they like these brands, even $21.92 \%$ of them do not want low prices, but a large number of those who buy where prices are lower, i.e., 27.33\%.

This group of young people is at the age when a lot of attention is paid to fashion trends because they want to look beautiful, but also to feel comfortable, so $40.54 \%$ of them agree and 32.43\% completely agree that they love these sports products because they are in trend.

The answers of $31.53 \%$ and $33.03 \%$ that they agree to buy in places where the product they are looking for can be easily found, proves that the internal organization of the store where sports
clothes and shoes are sold is very important, but also thus, a wider range of products is needed, so that customers have the opportunity to choose and choose one of them that will be acceptable to them.

Because time is of the essence, and these consumers want to waste as little time as possible, especially when waiting for payment, as can be seen from their answers, 28.53\% and 32.53\% agree that they do not want to waste time making the payment, According to this, the sellers should provide all the methods of payment, such as payment by payment card, payment in installments, with invoices, etc., and for $25.53 \%$ the time for the realization of the transaction is not very important. Additional services are a tactic used by companies and sellers to attract consumers, but on the other hand, this tactic is also very tempting for consumers.

This method is practiced in the form of various actions, such as "pay one, get two" or by giving an additional gift, which can be seen from their answers, i.e., $45.05 \%$ and $32.73 \%$ agree that they want additional services, and a small percentage, $4.5 \%$ and $4.8 \%$, do not like.

According to the obtained results, it can be seen that psychological factors influence the decision to buy or not to buy sportswear and footwear, but by emphasizing that when deciding to buy, priority is given to consumer satisfaction with treatment, attitude, attitude, respect and other factors, thus, it is confirmed that products psychological determinants influence consumer behavior when choosing and buying special.

Table 13. Reasons for deciding to purchase the product

| Reason | Frequency | Percentage | Valid percentage | Cumulative percentage |
| :---: | :---: | :---: | :---: | :---: |
| Price | 94 | 14.1 | 14.1 | 14.1 |
| Quality | 406 | 61.0 | 61.0 | 75.1 |
| I find solutions | 18 | 2.7 | 2.7 | 77.8 |
| To make a special gift | 18 | 2.7 | 2.7 | 80.5 |
| It is good for the whole family | 52 | 7.8 | 7.8 | 88.3 |
| It looks phenomenal - I like it | 30 | 4.5 | 4.5 | 92.8 |
| It is easy to use | 20 | 3.0 | 3.0 | 95.8 |
| Advertisement | 10 | 1.5 | 1.5 | 97.3 |
| Other reasons | 18 | 2.7 | 2.7 | 100.0 |
| Total | 666 | 100.0 | 100.0 |  |

Source: Data processed by the authors.

As can be seen from the results of the analysis, for 406 respondents or $61 \%$ the quality of the original sports products is a very important factor that influences the decision to buy sportswear and footwear, and at the same time, is a strong indicator of how satisfied consumers would be and whether they would repeat the purchase of the same brand. Original sportswear and footwear as special products have a high and relatively high price, but still, the results show that the price is not very important (only 94 or $14 \%$ is an important factor) when buying sportswear and footwear, although it is in closely related to consumer revenue.

Some of the respondents opted for the original sports products and for other reasons such as 20 of them take them because of the ease of use, 30 of them take it because of the good look, 10 respondents or $1.5 \%$ take it because of the nice advertisement that influenced them. According to the obtained results, economic factors influence the decision to buy or not to buy sportswear and footwear, but by emphasizing that the quality of products takes precedence over price and other factors, which confirms product psychological determinants influence consumer behavior when choosing and purchasing special products.

Table 14. Satisfaction with the purchase of sportswear or footwear

| Satisfaction | Frequency | Percentage | Valid percentage | Cumulative percentage |
| :--- | :---: | :---: | :---: | :---: |
| Completely satisfied | 262 | 39.3 | 39.3 | 39.3 |
| Satisfied | 308 | 46.2 | 46.2 | 85.6 |
| Neutral | 92 | 13.8 | 13.8 | 99.4 |
| Dissatisfied | 4 | 0.6 | 0.6 | 100.0 |
| Total | 666 | 100.0 | 100.0 |  |

Source: Data processed by the authors.

The answers obtained from the research show that consumers are satisfied with the purchase of sportswear and footwear, i.e., $39.3 \%$ and $46.2 \%$, and a small number of them (6\%) are not, while 92 or $13.8 \%$ are not sure may they do not have much experience with that brand and have not yet formed their own position. These percentages are obtained after the use of the product, so they are very important for companies and sellers of sportswear and footwear, because it is also feedback from consumers about them, and that is another reason for their commitment to improving their quality. But
also, for other measures, they take to retain and even benefit consumers.

They should also consider this number or $13.8 \%$, who are not sure about the purchase, as they may not repeat the purchase of the same brand, so several actions should be taken in order to convince and win, and even worse so as not to become factors that affect other potential buyers.

Implementation of the logistical recourse for analysis of the purchase of sportswear and footwear is presented in Table 15.

Table 15. The ratio of chances of buying sportswear and footwear by age

|  |  | Age |  |  |  | Total |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{1 8 - 2 0}$ years old | 20-30 years old | 30-40 years old | $\mathbf{> 4 0}$ years old |  |
| Cbsfg | $Y=0$ | 124 | 16 | 10 | 2 |  |
|  | $Y=1$ | 416 | 88 | 8 | 152 | 2 |
| Total | 540 | 104 | 18 | 4 |  |  |

Source: Data processed by the authors.

$$
\begin{align*}
& O R_{<20}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{416}{126}}{\frac{8}{10}}=\frac{416 \cdot 10}{126 \cdot 8}=4.19  \tag{1}\\
& O R_{20-30}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{88}{16}}{\frac{8}{10}}=\frac{88 \cdot 10}{16 \cdot 8}=6.88 \tag{2}
\end{align*}
$$

So, because the age of $>40$ years old is taken as a basis, it results that all other ages have a positive chance of buying sportswear and footwear, and it follows that the age group 20-30 years old has a better chance of buying.

The ratio of the chances of buying sportswear and footwear by gender, based on women, shows that the chances of buying sportswear and footwear are 1.24 times higher for men than women.

Table 16. The ratio of the chances of buying sportswear and footwear by gender

|  |  | Gender |  | Total |
| :--- | :--- | :---: | :---: | :---: |
|  |  | $\mathbf{1}=\boldsymbol{F}$ | $\mathbf{2 = \boldsymbol { M }}$ |  |
| BUY | $Y=0$ | 88 | 64 | 152 |
|  | $Y=1$ | 270 | 244 | 514 |
| Total |  | 358 | 308 | 666 |


|  |  | Gender |  |
| :--- | :--- | :---: | :---: |
|  |  | $\mathbf{1}=\boldsymbol{F}$ | $\mathbf{2}=\boldsymbol{M}$ |
| BUY | $Y=0$ | $q_{2}$ | $q_{1}$ |
|  | $Y=1$ | $p_{2}$ | $p_{1}$ |

The dependent variable $Y$ has a value of $1-$ "I buy" and $0-$ "I do not buy". For males, $p_{1}$ is a probability of success because it corresponds to the order where $Y=1-$ buys, while $q_{1}$ is the opposite, "I do not buy" corresponds to the order where $Y=0$.

So, for men the relationship "I buy"/"I do not buy" is $\frac{p_{1}}{1-p_{1}}=\frac{p_{1}}{q_{1}}=\frac{244}{64}$.

The same is done for women: $\frac{p_{2}}{1-p_{2}}=\frac{270}{88}$.
And the ratio of the chances of men to women is a double fraction:

$$
\begin{gather*}
O R=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}  \tag{3}\\
O R=\frac{\frac{244}{64}}{\frac{270}{88}}=\frac{244 \cdot 88}{270 \cdot 64}=\frac{21472}{17280}=1.2426 \tag{4}
\end{gather*}
$$

According to the level of education, the relations between the chances for buying sports clothes and shoes, where the one with a doctorate is taken as a basis, it results that the chances for buying are 2 times higher for the ones with a master's degree than for the ones with a Ph.D., 2.59 times for the ones with a university than in a Ph.D., 4.16 times in the high school education than with a Ph.D. and 3 times in primary school than the ones in Ph.D.

Table 17. The ratio of the chances of buying sportswear and footwear by education

|  |  | Education |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Primary school | High school | University | Master degree | Ph.D. |  |
| BUY | $Y=0$ | 1 | 86 | 58 | 2 | 1 | 152 |
|  | $Y=1$ | 3 | 358 | 150 | 4 | 1 | 514 |
| Total |  | 4 | 444 | 208 | 8 | 2 | 666 |

Source: Data processed by the authors.

$$
\begin{gather*}
O R_{\text {prim }}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{3}{1}}{\frac{1}{1}}=\frac{3 \cdot 1}{1 \cdot 1}=3  \tag{5}\\
O R_{\text {highsch }}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{358}{86}}{\frac{1}{1}}=\frac{358 \cdot 1}{86 \cdot 1}=4.16  \tag{6}\\
O R_{\text {uni }}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{150}{58}}{\frac{1}{1}}=\frac{150 \cdot 1}{58 \cdot 1}=2.59  \tag{7}\\
O R_{m s c d}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{4}{2}}{\frac{1}{1}}=\frac{4 \cdot 1}{2 \cdot 1}=2.00 \tag{8}
\end{gather*}
$$

So, since the higher level of education of the respondents was taken as a basis, it results that all other levels have a positive chance of buying sportswear and footwear, which means that the younger generation buys more, especially high school students.

Regarding the number of family members, the group of families with two members is taken as a basis. Families with 3 members are 3 times more likely to buy sportswear and footwear compared to
families with 2 members, families with 4 members are 2.25 times more likely, with those with 2 members, 1.48 times more likely to have families with 5 members those with 2 members; 1.02 times higher chances of families with 6 members, than those with 2 members and 1.08 times higher chances of families with more than 6 members than those with 2 members. The following shows how the odds ratio is calculated:

Table 18. The ratio of the chances of buying sportswear and footwear according to the number of family members

|  |  | Family members |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2 | 3 | 4 | 5 | 6 | 7+ |  |
| BUY | $Y=0$ | 1 | 6 | 40 | 52 | 44 | 19 | 152 |
|  | $Y=1$ | 2 | 36 | 180 | 154 | 90 | 41 | 514 |
| Total |  | 3 | 42 | 220 | 206 | 134 | 61 | 666 |

Source: Data processed by the authors.

$$
\begin{gather*}
O R_{3 m}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{36}{6}}{\frac{2}{1}}=\frac{36 \cdot 1}{6 \cdot 2}=3  \tag{9}\\
O R_{4 m}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{180}{40}}{\frac{2}{1}}=\frac{180 \cdot 1}{40 \cdot 2}=2.25  \tag{10}\\
O R_{5 m}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{154}{52}}{\frac{2}{1}}=\frac{154 \cdot 1}{52 \cdot 2}=1.48  \tag{11}\\
O R_{6 m}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{90}{44}}{\frac{2}{1}}=\frac{90 \cdot 1}{44 \cdot 2}=1.02  \tag{12}\\
O R_{7+m}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{41}{19}}{\frac{2}{1}}=\frac{41 \cdot 1}{19 \cdot 2}=1.08 \tag{13}
\end{gather*}
$$

Families with $4-5$ members in the family have a better chance of buying sportswear and footwear. It turns out that the chances are 1.58 times higher for families with 2 employees to buy more than those with 1 employee, 3.16 times more for families with

3 employees than those with 1 employee, and 3.55 times those families with 4 employees in a family than those with 1 employee. The following shows how the odds ratio is calculated:

Table 19. The ratio of chances for buying sportswear and footwear according to the number of employees in the family

|  |  | Number of employees in the family |  |  |  | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4 +}$ |  |
| BUY | $Y=0$ | 86 | 52 | 8 | 3 |  |
|  | $Y=1$ | 218 | 208 | 64 | 27 |  |
| Total | 304 | 260 | 72 | 314 |  |  |

$$
\begin{align*}
& O R_{2}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{208}{52}}{\frac{218}{86}}=\frac{280 \cdot 86}{52 \cdot 218}=1.58  \tag{14}\\
& O R_{3}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{64}{8}}{\frac{218}{86}}=\frac{64 \cdot 86}{8 \cdot 218}=3.16  \tag{15}\\
& O R_{4+}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{27}{3}}{\frac{218}{86}}=\frac{27 \cdot 86}{3 \cdot 218}=3.55 \tag{16}
\end{align*}
$$

According to the income in the family, which is based on the family that has a monthly income of up to 15,000 denars, the findings show that the chances are 1.67 times higher for families with an income of 15,001-30,000 denars, to buy more than those who have incomes of 15,000 denars, 2.32 times higher
for families who have incomes of 30,00145,000 denars, than those with 15,000 denars and 2.56 times higher for those with more than 45,000 denars, than those with 15,000 denars. The following shows Table 20 and how the odds ratio is calculated:

Table 20. The ratio of the chances of buying sportswear and footwear according to family income

|  |  | Family income |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Up to 15,000 denars | $\mathbf{1 5 , 0 0 1} \mathbf{- 3 0 , 0 0 0}$ denars | $\mathbf{3 0 , 0 0 1 - 4 5 , 0 0 0}$ denars | Above 45,000 denars |  |  |
| BUY | $Y=0$ | 38 | 48 | 30 | 36 | 152 |
|  | $Y=1$ | 70 | 148 | 128 | 514 |  |
| Total |  | 108 | 196 | 158 | 204 | 666 |

Source: Data processed by the authors.

$$
\begin{align*}
& O R_{15-30}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{148}{48}}{\frac{70}{38}}=\frac{148 \cdot 38}{70 \cdot 48}=1.67  \tag{17}\\
& O R_{30-45}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{128}{30}}{\frac{70}{38}}=\frac{128 \cdot 38}{70 \cdot 30}=2.32  \tag{18}\\
& O R_{\text {above } 45}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{170}{36}}{\frac{70}{38}}=\frac{170 \cdot 38}{70 \cdot 36}=2.56 \tag{19}
\end{align*}
$$

Here, it is very clear that the purchase of sportswear and footwear depends on family income, so those who have more employees in the family and higher income have a better chance of buying. status, where as a basis is taken the one who is declared to be married with children, it follows that
the chances of those who are married are 1.67 times higher than those who are married with children and 3.63 times higher than those who have declared that they are single, but in the sense of unmarried, from those who are married with children. The following shows Table 21 and how the odds ratio is calculated:

Table 21. The ratio of chances of buying sportswear and footwear by marital status


So, most of the respondents are high school students and their status is single, which means that they are bigger buyers. As for the living zone, the rural zone is taken as a basis, and the chances of
buying sportswear and footwear are 1.92 times higher in the urban population than in the rural one. The following shows Table 22 and how the odds ratio is calculated:

Table 22. The ratio of chances to buy sportswear and footwear by a living area

|  |  | Would you buy sportswear and footwear? |  | Total |
| :--- | :---: | :---: | :---: | :---: |
|  |  | Urban | Rural zone |  |
| BUY | $Y=0$ | 96 | 56 | 152 |
|  | $Y=1$ | 394 | 120 | 514 |
| Total | 490 | 176 | 6 |  |

Source: Data processed by the authors.

$$
\begin{equation*}
O R_{\text {urban }}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{394}{96}}{\frac{120}{56}}=\frac{394 \cdot 56}{120 \cdot 96}=1.92 \tag{22}
\end{equation*}
$$

Also, in this study, we will see the relationship between the chances of buying sportswear and footwear with preferences, because sometimes we can prefer them, but we do not have the opportunity to buy them, or we are not interested in buying
them. It follows that the ratio of chances of buying is 3.08 times higher for those who prefer to buy, compared to those who do not prefer

The following shows Table 23 and how the odds ratio is calculated:

Table 23. The ratio of the chances of buying sportswear and footwear according to preferences

|  |  | Would you buy sportswear and footwear? |  | Total |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | No |  |
| BUY | $Y=0$ | 118 | 34 | 152 |
|  | $Y=1$ | 470 | 44 | 514 |
| Total |  | 588 | 78 | 666 |

Source: Data processed by the authors.

$$
\begin{equation*}
O R_{\text {rural }}=\frac{\frac{p_{1}}{1-p_{1}}}{\frac{p_{2}}{1-p_{2}}}=\frac{\frac{p_{1}}{q_{1}}}{\frac{p_{2}}{q_{2}}}=\frac{p_{1} \cdot q_{2}}{p_{2} \cdot q_{1}}=\frac{\frac{470}{118}}{\frac{44}{34}}=\frac{470 \cdot 34}{118 \cdot 44}=3.08 \tag{23}
\end{equation*}
$$

So, above we saw the cases of who has more chances to buy sportswear and footwear and who does not, where one of the determinants is taken as a basis. For age, those who are over 40 years old are taken, for gender, those from the female sex are taken, for education are taken those with higher education (with a Ph.D.), for the number of family members, those with two members are taken, for the number of employees in the family, ones with one employee are taken, for the income in the family those with incomes up to 15,000 denars are taken, for the civil status those who are married and have children are taken, for the zone of residence those from rural areas are taken and for preferences, those who do not prefer sportswear and footwear are taken.

In addition, we will raise a mathematical model, using the logistic regression, to see the relationship between the purchase of sportswear and footwear, at least once in the last two years among the population in the Republic of Macedonia, against some determinants such as age, gender, education, number of family members, number of employees in the family, family income, marital status, place of residence, preferences, etc.

In raising the model, the dependent variable "purchase of sportswear and footwear, at least once in the last two years" is a variable with two values: value 1 identifies all respondents who have purchased sportswear and footwear at least once, while 0 identifies all respondents who did not buy. And as independent "predictable" variables we will consider several variables that affect the purchase of respondents.

The predictable variables that we will consider in this study are Age $(1=<20$ years old, $2=20-30$ years old, $3=30-40$ years, old and $4=>40$ years old); Gender $(1=\mathrm{F}$ and $2=\mathrm{M})$; Education $(1=$ with primary school, $2=$ with high school, $3=$ with university, $4=$ with master's degree, and $5=$ with a Ph.D.); The number of family members $(1=$ one to two
members, $2=$ three to four members, $3=$ five to six members, and $4=$ more than seven members); The number of employees in the family ( $1=$ one member, $2=$ two members, $3=$ three members, and 4 = four members); Family income ( $1=\mathrm{up}$ to 15,000 denars, $2=15,001-30,000$ denars, $3=30,001-$ 45,000 denars, and $4=$ over 45,000 denars); Marital status $(1=$ single, $2=$ married, $3=$ married and have children); Place of residence ( $1=$ urban, $2=$ rural $)$ and Preferences ( $1=$ yes, $2=$ no $)$.

Numerical problems are simplified by using MedCalc software. The application of this logistics regression program initially provides a general overview of the observations covered: the scope of the selection, the cases in which the dependent variable is 0 , and the corresponding percentages.

Then the coefficients of recourse are calculated, the relations of the odds with a confidence interval of $95 \%$, and the classification table is shown, where the observed values intersect with those predictable ones. Finally, the percentage of cases that are accurately predicted by the created model is given, and all this proves the effectiveness of the model:

Independent: Age, Gender, Education, The number of family members, The number of employees in the family, Family income, Marital status, Place of residence, Preferences, etc.

Independent: Buying sportswear and footwear at least once in the last two years. These results are given in the Appendix.

We have case where $Y=0$, which in our case are 152 or $22.82 \%$ of respondents, have not bought sportswear and footwear in the last two years. The cases where $Y=1$, which in our case are 514 or $77.18 \%$ of the respondents are those who bought sportswear and footwear in the last two years.

For this group of variables, we use the logit model:

$$
\begin{gather*}
\operatorname{logit}(p)=\ln \frac{p}{1-p}=4.897+0.011 X_{A}+0.018 X_{G}-0.756 X_{E}-0.366 X_{F M}+0.387 X_{N E F}+0.250 X_{F I N}-  \tag{24}\\
0.758 X_{S F}-0.619 X_{T Y}-1.227 X_{P S}
\end{gather*}
$$

From the above, we see who has more chances to buy sportswear and shoes and who does not, where one of the determinants is taken as a basis. For age, those who are over 40 years old are taken as a basis, for gender, those from the female sex are taken; for education, those with higher education (with Ph.D.) are taken; for the number of family members those with two members are taken; for
the number of employees in the family, those with one employee are taken; for the income in the family, those with income up to 15,000 denars are taken; for the civil status those who are married with children are taken; for the zone of residence those from rural areas are taken, and for preferences, those who do not prefer sportswear and footwear are taken.

## 5. DISCUSSION

It is influenced by a number of internal and external factors, so for marketers, it is necessary not only to find consumers but also to understand the reasons for the need for a particular type of special product.

In this paper, the sociological and economic determinants of consumer behavior when buying special products are elaborated in detail, and a more detailed review is made of consumer lifestyle, then the role and status as reference groups, family, and society when buying special products.

Economic determinants affect the behavior of consumers when buying special products, as well as culture and subculture, cultural values, products and their cultural significance, culture, and process of consumption, social implications of cultural values, and others. From the psychological determinants that influence consumer behavior when buying special products, this paper elaborates on motivation, personality, and consumer perception, then learning, as well as consumer beliefs and attitudes as determinants of consumer behavior when buying special products, as well as the purchasing and postpurchasing process and consumer satisfaction when purchasing special products.

Post-purchase behavior is also complex and includes all consumer activities and experiences that follow the buying process. In that period, the consumer manifests a certain behavior, during the whole process, starting with their consumption, until the satisfaction or dissatisfaction of the consumer is achieved. Consumer satisfaction is the motivation for companies that produce and sell special products. It is very difficult to understand and achieve consumer satisfaction, so it is necessary to build a positive attitude and consider the guarantees and complaints of consumers, as well as other issues related to consumer loyalty when choosing special products. Consumer satisfaction is different depending on the different development of the countries, meaning a special product that is luxurious somewhere, in another country is considered basic, and so on.

This category of customers and consumers (especially high school students) is a very attractive but delicate market for companies that offer sports clothing and footwear in the Republic of Macedonia. The behavior of these consumers, as buyers and users of sportswear and footwear, is analyzed in the case study. Companies must be aware that this age group, especially male and female consumers, undergoes rapid changes both socially and psychologically, making it more difficult to communicate with them. Therefore, companies must use effective tactics to connect with this audience, such as offering gifts, "buy one, get one free" promotions, sending holiday and birthday messages, and organizing free concerts with popular singers they love. It is essential to keep dissatisfaction to a minimum to achieve customer satisfaction.

However, it should be noted that the Republic of Macedonia still does not have a similar practice, because companies have neither experience nor material opportunity to implement these activities to retain and gain consumers. The findings of the study listed above, which are grouped as groups of
determinants, such as economic, sociological, psychological, and other factors, affect special purchases, and all these determinants are hypotheses that are analyzed separately.

## 6. CONCLUSION

Globalization became a necessity facing today's society, which did not isolate markets without standards, but rather homogenized standardization. Consumers are becoming the main force, and modern consumers differ from their predecessors, because thanks to the Internet and other media, they increasingly enrich their consumer culture, and have access to various information for choosing price, quality, and other attributes of special products.

Knowing the world of consumers and companies will enable them to meet their needs and desires, preferences, knowledge, and attitudes to a high degree, but it will have a significant impact on the formulation of the company's marketing policy. The process of consumer research is followed, starting with the accommodation of the need, all the way to the post-purchase behavior, from which it is concluded that the accommodation of the needs is the reason for the purchase of a special product, and so it is a certain behavior of an individual or consumer.

Several internal and external factors affect it, so marketers, when researching the market, need not only to find consumers but also to understand the reasons for the need for a specific type of special product. It was further established that to decide to buy a special product, it is necessary to collect information about that purchase from various sources of information, but the process of collecting and evaluating it is very complex and is associated with high costs.

Consumer behavior is a complex process, which is influenced by many determinants. In order to better understand and analyze it, it is divided into groups, such as sociological, economic, demographic, and psychological, and they are analyzed separately.

In this work, the sociological and economic determinants of consumer behavior when buying special products are elaborated, and detailed attention is paid to consumer lifestyle, then the role and status of reference groups, family, and social stratum when buying special products.

Economic determinants affect consumer behavior when purchasing special products, such as culture and subcultures, cultural values, products and their cultural significance, culture and the consumption process, social implications of cultural values, etc. From the psychological determinants that influence the behavior of consumers when buying special products, in this work the following are elaborated: motivation, personality, perception of consumers, then learning how to believe and attitudes of consumers as determinants of consumer behavior when buying special products, how is the purchase and postpurchase process and consumer satisfaction when purchasing special products.

Post-purchase behavior is also complex and includes all consumer activities and experiences that follow the purchase process. In that period, the consumer manifests a certain behavior, and in the course of the whole process, starting with
their consumption, until everything reaches the satisfaction or dissatisfaction of the consumer. It is very difficult to understand and achieve consumer satisfaction, so it is necessary to build a positive relationship and consider customer guarantees and complaints, as well as other issues related to consumer loyalty when choosing special products.

The satisfaction of the consumers is different depending on the different development of the countries, so some special product that is luxurious somewhere, in some other country, it is considered as the main one. The case study makes it possible to analyze the behavior of secondary school students as well as university students in the Republic of Macedonia, as well as buyers and consumers of sports clothing and shoes.

This category of buyers and consumers (especially middle schoolers) is a very attractive category of consumers for companies that offer these products, but it is also very delicate because of their changes, whether social or psychological, especially for men and women. Companies need to be aware that this age group is difficult to communicate with, so they need to use tactics through which they can be closer to them, such as: by giving gifts, through actions "pay one, get two", sending messages for holidays and birthdays, organizing free concerts with familiar singers whom they love.

The hypothesis was that demographic determinants influence the behavior of high school and university students when deciding to buy original sportswear and footwear. This hypothesis is accepted, according to the results of the analysis and the positive coefficient, 6.88 times more at the age of $20-30$ years, than those aged $>40$ years old and 4.19 times more those aged $<20$ years old which shows that the largest buyers of original sportswear and footwear are high school students aged $<20$ years old and university students aged 20-30 years old.

Regarding the ratio of the chances for buying sports clothes and shoes by gender, where the female gender is taken as a basis, it follows that the chances for buying sports clothes and shoes are 1.24 times higher for men than for women. According to the level of education, the relations between the chances for buying sports clothes and shoes, where the one who has a doctorate is taken as a basis (i.e., it means older age), it results that the chances for buying are 2.59 times higher for the one who has university, 4.16 times that of high school, so it turns out that the younger generation buys more, and especially high school students.

The hypothesis that sociological determinants influence consumer behavior when buying sportswear and footwear is accepted, which can be seen from the research results. Regarding the number of family members, the group of families with two members is taken as a basis and therefore families with $4-5$ members have a better chance of buying sports clothes and shoes. The results show that the bigger the family, the lower the chances of buying.

From the relation of the chances for buying sports clothes and shoes according to the family status, where as a basis, the one who is declared to be married with children is taken, it follows that
the chances for those who declared that they are single, but as unmarried are 3, 63 times higher than those married with children.

So, most of the respondents are high school students and their status is single, which means that they are bigger buyers.

Also, the obtained results showed that when deciding to buy sportswear and footwear, the brand of the products has an important role. This reflects the perception of high school and university students about these brands, and the result shows that they buy more Adidas (316 or 53.7\%), Nike (212 or 36.1\%), which cannot be said for other brands such as Reebok (4.8\%), Puma (3.4\%) and Lacoste (2.0\%). This result is an indicator for the marketing managers of these companies that they should take measures to get out of this situation such as improving the quality, as well as all other features and additional services that would benefit consumers.

The way of informing also has an important role in making the decision, and this can be seen from the results that 216 (32.4\%) are more informed by family and friends, as well as from the advertisements in various media 272 (40.8\%). If companies want consumers to be better informed and up to date with their products and innovations, then they need to offer the latest information about all their innovations.

Also, regarding the living zone, where the rural zone is taken as a basis, the results show that the chances of buying sportswear and footwear are 1.92 times higher in the urban population compared to the rural one. Regarding the number of employees in the family, where the family with 1 employee is taken as a basis, it turns out that the chances are 3.55 times higher in those families that have 4 employees in the family than in those with an employee each.

The hypothesis that economic determinants have an impact on high school and college students when making a purchase decision is accepted, because their purchase also depends on the family income, so those who have more family employees and higher incomes have a better chance of buying what see from the results of the research. According to the income in the family, which is based on the family that has a monthly income of up to 15,000 denars, the findings show that the chances are 2.56 times higher for those with more than 45,000 denars, than those with 15,000 denars. One of the determinants that affect the purchase of original sportswear and footwear is the quality of products which has a positive effect on high school and college students.

The results obtained from the analysis show that quality is the priority, and the price is the last (except for 94 or $14 \%$ ). In the case of quality which is very influential as seen from the results of the analysis, 406 respondents ( $61 \%$ ) answered that it is a very important factor that influences the decision to buy.

Regarding the price of these products, $28.23 \%$ of the respondents answered that the price is not very important to them because they like these brands, even $21.92 \%$ of them do not want low prices, but a large number of those who buy where prices are lower (27.33\%), and their answers are based on those consumers where their family income is lower. These percentages show that when quality is guaranteed, then buyers are willing to pay more for that product.

But since it is about the Republic of Macedonia, with this standard of living, for high school and university students it would be better for the prices to be appropriate. The most important thing to emphasize is that although they are a relatively young category, $52.55 \%$ of them answered that they want and buy in places that offer fair prices (low prices for lower quality products and high prices for high quality), which proves that this should be an incentive for the companies offering these brands to also have fair prices, high for high quality.

Also, for the hypothesis regarding the influence of psychological factors affect the behavior of high school and university students when shopping, from the analysis of the relationship between the chances of buying sportswear and footwear according to preferences, it follows that the ratio of chances of purchase is 3.08 times higher in those who prefer to buy, in relation to those who do not prefer.

The findings from the analysis of their responses show that the treatment and respect that sellers should have and show towards them is very important to them, and $51.05 \%$ of them answered that they completely agree to buy in places where they are treated respectfully. This result proves that sellers should know well how to distinguish people from this group of consumers and know how to treat them, but always keeping in mind that "the buyer is a king". This group of young people is at the age when they pay a lot of attention to fashion trends because they want to look beautiful, but also to feel comfortable, so $40.54 \%$ of them agree and $32.43 \%$ completely agree that love these sports products because they are in trend.

The answers of $31.53 \%$ and $33.03 \%$ that they agree to buy in places where the product they are looking for can be easily found, proves that the internal organization in the store where sports clothes and shoes are sold is very important, but also a wider range of products is needed to enable customers to choose and choose one that is acceptable to them.

Because time is very important and these consumers want to waste as little time as possible, especially waiting for payment, which can be seen from their answers; $28.53 \%$ and $32.53 \%$ agree that they do not want to waste time making the payment. According to this, the sellers should provide all the methods of payment, such as payment by payment card, payment in installments, with invoices, etc.,
and for $25.53 \%$ the time for the realization of the transaction is not very important. Additional services are a tactic used by companies and sellers to attract consumers, but on the other hand, it is also very tempting to consumers.

This method is practiced in the form of various actions, such as "pay one, get two" or by giving an additional gift, which can be seen from their answers: $45.05 \%$ and $32.73 \%$ agree that they want additional services and a small percentage who do not like: $4.5 \%$ and $4.8 \%$. Regarding the significance of the model, the results show that $\mathrm{P}=0.5863$ is positive, which proves that the model is significant and acceptable. Also, the coefficient of determination is $\mathrm{R}^{2}=0.77$, i.e., $77 \%$, the independent variables give information about the dependent variable, i.e., deciding on the purchase of the original sportswear and footwear largely depends on the stated factors.

The results of this research indicate that the brand is particularly important so that Adidas and Nike in the Republic of Macedonia have become part of the culture of original sportswear and footwear, which means that they have been and remain a trend for most surveyed high school students.

The sample of the research included 666 respondents, and there were several respondents that limited the value of the results because it is clear that a larger number means more experiences and more answers that are relevant and important.

The obtained and presented results can serve the companies Adidas, Nike, Reebok, Puma, and Lacoste, which are manufacturers and sellers of original sports clothes and shoes, as indicators for correcting production and sales policies, as well as for more frequent research of consumers, especially the target group where there are very frequent changes in their behavior.

These results can also be used by the Organization for Consumer Protection, as an indicator when creating, correcting, and supplementing the regulations for the protection of consumer rights. The results of the research are very useful because they will help further research on this issue. Consumer behavior is a very complex and changing problem, so a continuous study is required that will always include all changes in the environment.

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## APPENDIX

Table A.1. Logistic regression

| Logistic regression |  |
| :--- | ---: |
| Dependent $Y$ | Buying sportswear and footwear |
| Method | Enter |
| Sample size | 666 |
| Cases with $Y=0$ | Overall model fit |
| Cases with $Y=1$ |  |
|  |  |
| Null model -2 Log likelihood | $152(22.82 \%)$ |
| Full model -2 Log likelihood | $514(77.18 \%)$ |
| Chi-squared | 715.453 |
| DF | 648.505 |
| Significance level | 66.948 |

Table A.2. Coefficients and standard errors

| Variable | Coefficient | Std. error | $\boldsymbol{P}$ |
| :--- | :---: | :---: | :---: |
| Age | 0.0112 | 0.26821 | 0.0790 |
| Gender | 0.017666 | 0.20534 | 0.9314 |
| Education | -0.75597 | 0.22030 | 0.0006 |
| Family members | -0.36583 | 0.25824 | 0.1566 |
| The number of employees in the family | 0.38664 | 0.14095 | 0.0061 |
| The family's monthly income | 0.25029 | 0.093644 | 0.0075 |
| Family situation | -0.75785 | 0.28936 | 0.0088 |
| How do you treat yourself? | -0.61944 | 0.21042 | 0.0032 |
| Do you prefer sports shoes? | -1.22665 | 0.27752 | $<0.0001$ |
| Constant | 4.8968 |  |  |

Table A.3. Odds ratios and 95\% confidence intervals

| Variable | Odds ratio | 95\% confidence interval |
| :--- | :---: | :---: |
| Age | 1.1018 | 0.9469 to 2.7096 |
| Gender | 1.2418 | 0.6806 to 1.5222 |
| Education | 0.4696 | 0.3049 to 0.7231 |
| Family members | 0.6936 | 0.4181 to 1.1506 |
| The number of employees in the family | 1.4720 | 1.1167 to 1.9404 |
| The family's monthly income | 1.2844 | 1.0690 to 1.5432 |
| What is your family situation? | 0.4687 | 0.2658 to 0.8264 |
| How do you treat yourself | 0.5382 | 0.3563 to 0.8130 |
| Do you prefer sports shoes? | 0.2933 | 0.1702 to 0.5052 |

Table A.4. Hosmer \& Lemeshow test

| Chi-squared | 6.5460 |
| :--- | :---: |
| DF | 8 |
| Significance level | $\mathrm{P}=0.5863$ |

Table A.5. Contingency table for Hosmer \& Lemeshow test

| Group | $\boldsymbol{Y = O}$ |  | $\boldsymbol{Y = 1}$ |  | Total |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Observed | Expected | Observed | Expected |  |
| 1 | 34 | 35.953 | 32 | 30.047 | 66 |
| 2 | 26 | 25.028 | 46 | 46.972 | 72 |
| 3 | 16 | 18.835 | 50 | 47.165 | 66 |
| 4 | 14 | 15.286 | 50 | 48.714 | 64 |
| 5 | 16 | 12.785 | 44 | 57.215 | 60 |
| 6 | 18 | 13.217 | 52 | 62.583 | 70 |
| 7 | 10 | 11.465 | 64 | 57.614 | 74 |
| 8 | 6 | 8.386 | 60 | 62.890 | 66 |
| 9 | 6 | 7.110 | 64 | 54.065 | 70 |
| 10 | 6 | 3.935 | 52 | 58 |  |

Table A.6. Classification table (cut-off value $\mathrm{p}=0.5$ )

| Actual group | Predicted group |  | Percent correct |
| :--- | :---: | :---: | :---: |
|  | 0 | 1 |  |
| $Y=0$ | 24 | 128 | $15.79 \%$ |
| $Y=1$ | 18 | 496 | $96.50 \%$ |
| Percent of cases correctly classified |  | $78.08 \%$ |  |

Table A.7. ROC (receiver operating characteristic) curve analysis

| Area under the ROC curve (AUC) | 0.696 |
| :--- | :---: |
| Standard error | 0.0247 |
| $95 \%$ confidence interval | 0.660 to 0.731 |

