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# Key determinants of consumers' decision making on the purchase of wristwatches on the Serbian market

Кључне детерминанте одлучивања потрошача о куповини ручних сатова на тржишту Републике Србије

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Abstract: The COVID-19 pandemic and other global challenges that have appeared in the past years have caused market transformation and crucial changes on the demand side, forcing manufacturers and retailers to rethink their sales and marketing strategies. In particular, high-frequency durable consumer products such as wristwatches have proven to be sensitive. This paper aims to analyze the consumers' needs and define the indicators that directly influence the decisions to buy wristwatches in the Serbian market. The research was organized in two phases. Theoretical research has identified indicators influencing purchase decisions, such as price, brand, design, ease of use, and warranty. Empirical research examined their influence on the purchase decision depending on different segments of respondents: gender, age, education, and employment status. The obtained results showed significant differences as to how the mentioned indicators influence the purchase decision, depending on the demographic indicators. According to these results, a series of measures was proposed to improve the sales and marketing strategy for placing wristwatches on the Serbian market. Guidelines for future research are outlined in the paper.

Keywords: consumer behaviour, purchase decision, retail, wristwatches, the Republic of Serbia. JEL classification: D12, L81, M31.

Сажетак: Пандемија вируса ЦОВИД-19 и други глобални изазови који су се појавили протеклих година довелу су до трансформације трижишта и пресудних промена на страни потражње, и присилили произвођаче и трговце на мало да размотре своје продајне и маркетиншке стратегије. Нарочито су се трајна роба широке потрошње као што су ручни сатови показала осетљивом на те процесе. Циљ овог рада је анализа потрошачких потеба и дефинисање индикатора који директнуо утичу на одлуке о куповини ручних сатова на тржишту Републике Србије. Истраживање је организовано у две фазе.

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Треоријским истраживањем су идентификовани показатељи који утичу на одлуке о куповини, као што су цена, бренд, дизајн, лакоћа коришћења и гарантни рок. Емпиријским истраживањем је испитан њихов утицај на доношење одлука о куповини у зависности од различитих сегмената испитаника: пола, година старости, нивоа образовања и запослености. Добијени резултати показали су значајне ранлике у погледу начина на који наведени показатељи утичу на одлучивање о куповини, у зависности од демографских показатеља. У складу са тим резултатима, предложен је низ мера за унапређивање продајне и маркетиншке стратегије за пласман ручних сатова на тржишту Републике Србије. У раду су назначене и смернице за даљње истраживање.

Кључне речи: понашање потрошача, одлука о куповини, малопродаја, ручни сатови, Република Србија. ЈЕЛ класификација: D12, L81, M31.

### Introduction

A wristwatch is an instrument, device, or a gadget measuring time, that is, telling the time, worn on a strap or a metal bracelet round your wrist. (Collins Dictionary, 2022; Britanicca Dictionary, 2022). It represents a product reflecting an individual's need to determine the time of day precisely. However, for most consumers today, this is of secondary importance. Namely, in parallel with the improvement of wristwatch functions, it has also become an integral element of an individual's style. There is an increasing focus on different aspects and details of the watch that speak about the owner's social status, fashion style, self-evaluation, personality expression, etc. (Malhotra, 2020). The wristwatch has become one of the key fashion accessories for men and women, even children. This is especially important to understand because a wristwatch is one of the durable consumables that have a longer life span and are used for many years. Therefore, these factors are most often the basis of the need to buy a new watch, especially by customers who already own one.

The global watch industry is highly profitable, with an estimated annual sales of 49 billion USD (McKinsey, 2021). It has seen a decline in sales since 2016, especially of luxury wristwatches, primarily because China launched a campaign aimed at limiting gifts to government officials and thus reducing the corruption level in the country. A further drop in revenue of 25-30% in this segment occurred in 2020 due to the impact of the COVID-19 pandemic (McKinsey & Company, 2021; Gouveia et al., 2021). The global industry is highly concentrated with the dominance of Swiss luxury watch manufacturers, known for precision, quality, innovation, etc. The Swiss watch industry achieved exports of over 15 billion Swiss francs in 2021 (Statista, 2022). The wristwatch has evolved, from mechanical and quartz, all the way to smart ones, which is a modern innovation. Smartwatches are surely a consequence of the development of mobile digital technologies characterized by access to information anywhere at any time (Perry et al., 2001). Mobility implies that we are talking about wearable devices. Wearable technology and wearable devices are phrases used for smart electronic devices used every day that can be worn, such as clothing accessories or fashion accessories (Almuraqab, 2021; Wright & Keith, 2014). Smartwatches also enable monitoring numerous parameters that can be extremely important to an individual, for example, related to their health condition, sports activities, etc. In addition to implementing the latest technologies in the watch industry, the development of mobile digital technologies and devices affects this industry in a way that raises the question of choosing between existing alternatives. There are opinions that mobile devices

(primarily phones) will significantly reduce the need to wear wristwatches. On the other hand, there are opposing standpoints that smartwatches will replace mobile devices due to their attractiveness in terms of size, position on the body, and the possibility to be worn always and everywhere by an individual (Bonino et al., 2012), as well as incorporating all the functions of mobile phones. Regardless of these dilemmas, it can be stated that there will still be a need for an individual to carry with him a device based on which he will be able to determine the exact time at any moment in any place and which will satisfy certain aesthetic characteristics.

Based on the previous observation, *the paper's aim* is to understand the consumers' decision-making process on the purchase of durable consumer goods with a high frequency of purchase. The subject of this paper is to analyze consumer needs and define indicators that directly influence the decision to buy wristwatches in the Serbian market. The research was conducted on the national market based on an anonymous questionnaire. Respondents were segmented based on demographic characteristics: gender, age, education, and work status. *The obtained results* show significant deviations in the influence of various indicators on making a decision on the purchase of watches, depending on the demographic characteristics for making purchase decisions and, depending on this, to tailor their sales and marketing strategies to a specific segment of consumers.

The structure of the paper is as follows: 1) The *Theoretical background* analyzes the current state and future trends in the wristwatch market. The chapter lists and defines clearly the key indicators impacting the purchase decision; 2) *The Methodology* chapter presents the research goal, set hypothesis, research sample and statistical analysis, and data processing method; 3) In the *Research results*, the set hypotheses are tested and the results are presented clearly; 4) The *Discussion* chapter includes the interpretation of the obtained results, according to results of similar studies, and a series of measures for improving sales and marketing strategies for placing wristwatches in the Serbian market and 5) *The Conclusion* summarizes the most significant research results, points out its shortcomings and gives guidelines and suggestions for future research.

# 1. Theoretical background

The COVID-19 pandemic and the changes in the market, which caused a decline in sales and income during the previous years, have led to the transformation of the market and forced the manufacturers of wristwatches to rethink their marketing strategies. Projections of the global wristwatch market indicate that it will grow at an average growth rate of 4.8% between 2021 and 2026, from \$62.8 billion in 2021 to \$78.2 billion in 2026 (Global Market Estimates, 2022). It is currently facing an increase in demand for luxury brands and new product models, as well as an increasing number of strategic alliances and partnerships (Market Research, 2022). In addition, the digitization of business, growth of online shopping, a greater presence of all supply chain participants on social networks, etc., contribute to the expansion of the market, especially in the coming years. According to

forecasts, the luxury watch market, which consists of luxury brands with product offerings priced between \$3,601 and \$30,000 and ultra-luxury with prices above \$30,000, should see slower growth rates of 1 to 3% annually from 2019 by 2025 (McKinsey & Company, 2021). Among the luxury brands, Swiss companies stand out, and above all Rolex, which as the leader, having achieved a market share of 28.8% and an estimated turnover value of CHF 8 billion in 2021. It was followed in the same year by Omega with 7.5% and Cartier watches with 6.9 market share (Statista, 2022). In addition, the pre-owned watch market, as projections indicate, will become the fastest-growing segment, with sales valued at \$29 billion to \$32 billion by 2025, driven by the demand generated by younger consumers, collectors, and cost-conscious buyers (McKinsey & Company, 2021). On the other hand, stagnation or decline in sales of mid-brand watches, priced between \$180 and \$3,600, is expected.

Given that a wristwatch today represents one of the most frequent consumer durables, as well as an indispensable fashion accessory, several studies investigated the needs of customers and the determinants that influence them when making purchase decisions (Durge, 2022; Deloitte, 2021; Bölen, 2020; Cervellon et al., 2019). Common to the mentioned studies is that the following appeared as the most influential indicators of the purchase decision in almost all markets covered by the research: price/value ratio, brand, design, ease of use, and warranty.

The *price/value* ratio is a significant determinant when purchasing, since the customer unconsciously analyzes whether the price is in line with his assessment of the product value. The customer's perception creates an image of a satisfactory or unsatisfactory quality level, good or bad, which they then compare with the price he paid. The price represents what he gives up or what he sacrifices to get the product (Zeithmal, 1988). Therefore, the company must create a quality that the customer will recognize. He should feel the satisfaction of buying and using the product because it creates a perceived value for the customer as a result of his perceived gain or loss. According to Kotler, customer price/value ratio is the difference between the real value the customer receives and the costs he pay to obtain the product (Hong & Zhuqing, 2012). Creating value for the customer is achieved in the stages of product development, communication programs, distribution channels, and pricing. In the first three phases of value creation, costs are incurred, while just the price is the instrument of the marketing mix through which revenues are generated (Netseva-Porcheva, 2011).

In the conditions of strong market competition, the *brand* represents one of the most important resources that the company possesses (Matović et al., 2019). Brand possesses its identity, that is, it has a personality. Brand personality is defined as a set of human characteristics associated with a particular brand (Aaker, 1997). It evokes certain associations in consumers, so they are often not fully aware of their motives and emotions when they make a purchase decision. The decision-making process is simplified by the fact that when purchasing, they are primarily guided by their views of the brand's characteristics, and not by the characteristics of the product itself. This suggests that there is a significant influence of the brand on the consumers' perception of product quality (Filipović & Šapić, 2020; Teas & Agarwal, 2000; Dodds et al., 1991). Consumers are

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attracted to certain brands because they can identify with them. They attribute to them traits that correspond to their perception of their personality, that is, the way they perceive their lifestyle, values, or ideals. The greater the congruence between the experience of one's personality and the brand's personality, the greater the consumer's preference and loyalty toward a particular brand (Govers & Schoormans, 2005, Abosag et al., 2020).

Each product, each brand, has a suitable *design*. It can be a crucial factor in the process of making a purchase decision because the physical appearance represents the first impression that the customer gets not only about the product but also about the company. Its role is to contribute to differentiation from competing products and to be aesthetically attractive to the customer. Numerous studies have shown that a large percentage of purchase decisions (about 73%) are made exclusively at the point of sale, so packaging and product design should ensure that the brand is recognized and stands out (Rettie & Brewer, 2000). Therefore, companies invest significant resources in the process of creating innovative designs that will be in line with the needs of their target group (Miletić et al., 2021). The design creation process can be defined as a series of creative steps which the designer uses to develop appropriate design solutions for a specific client (Cheng, 2018).

The term *ease of use* is very often identified with the usability of the product in a narrower sense. It is defined as the product's ability to be used by people easily and effectively (Keinonen, 1997). Ease of use as a determinant is of particular influence for products that imply a higher level of technology and complexity because it has a calming effect on the customer by strengthening his belief and self-confidence that he will be able to use the product easily.

In marketing, the *warranty* has a special place. On the one hand, it represents a means of protecting the rights of consumers, while on the other hand, it represents a means of promoting producers. It provides customers with the necessary assurance or security that the product meets the appropriate level of quality, that is, the product is the same as the manufacturer promoted and presented it in the market. A warranty is a contractual relationship that regulates the issue of providing compensation to the buyer by the issuer of the warranty (manufacturer or supplier), by the terms of the warranty, and in situations when the product does not fulfill its predefined characteristics or functions within the warranty period (Ullah & Islam, 2011).

The novelty of the paper is the systematization and precise analysis of the impact of all the mentioned variables (indicators) on the consumers' decisions to buy wristwatches. In this way, the gap in research will be filled, because not a single academic study on the Serbian market has dealt with this issue. Given that previous research (Gajić, 2022; Puška et al., 2018; Witek, 2016) indicated the existence of differences in making purchase decisions according to the demographic characteristics of consumers, special emphasis in the research is directed towards the importance of gender, age, education, and employment status. Defining the importance of indicators and demographic characteristics of consumers for making a purchase decision is important to take adequate measures to implement a more

effective sales and marketing strategy for the placement of wristwatches in the Serbian market.

# 2. Methodology

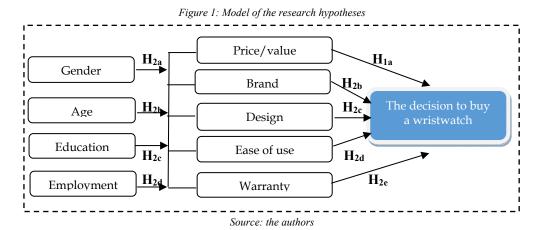
#### 2.1. Research aim and research hypotheses

The objective of the research is to analyze and define the influence of various indicators on the decision to buy wristwatches in the Serbian market. Based on the results of previous research, price/value ratio, brand, design, ease of use, and warranty were selected as key indicators influencing the purchase decision. To obtain the most objective results, the influence of the given indicators had to be tested separately depending on the gender, age, education level and employment status of the respondents. Based on the subject and goal of the research, the following two basic and several supporting research hypotheses were created:

 $H_1$ : Indicators such as price/value ratio, brand, design, ease of use, and warranty have a statistically significant impact on the consumers' decision to purchase a wristwatch. In order to confirm the basic hypothesis  $H_1$ , it should be preceded by five supporting hypotheses:  $H_{1a}$ : Price/value ratio has a statistically significant impact on the consumer's decision to purchase a wristwatch;  $H_{1b}$ : Brand strength has a statistically significant impact on the consumer's decision to purchase a wristwatch;  $H_{1c}$ : Design has a statistically significant impact on the consumer's decision to purchase a wristwatch;  $H_{1c}$ : Design has a statistically significant impact on the consumer's decision to purchase a wristwatch  $H_{1d}$ : Ease of use has a statistically significant impact on the consumer's decision to purchase a wristwatch  $H_{1d}$ : Ease of use has a statistically significant impact on the consumer's decision to purchase a wristwatch and  $H_{1c}$ : The warranty length has a statistically significant influence on the consumer's decision to buy a wristwatch.

H<sub>2</sub>: The influence of price/value, brand, design, ease of use, and warranty on the purchase decision of a wristwatch is statistically different by demographic characteristics of consumers. In order to confirm the basic hypothesis H<sub>2</sub>, it should be preceded by four supporting hypotheses: H<sub>2a</sub>: The influence of the price/value ratio, brand, design, ease of use, and warranty on the purchase decision of a wristwatch, statistically differs depending on the gender of the consumer; H<sub>2b</sub>: The influence of price/value ratio, brand, design, ease of use, and warranty on the purchase decision of a wristwatch, statistically differs depending on the consumer's age; H<sub>2c</sub>: The influence of the price/value ratio, brand, design, ease of use, and warranty on the purchase decision of a wristwatch are statistically different depending on the consumer's level of education; H<sub>2d</sub>: The influence of price/value ratio, brand, design, brand, design, ease of use, and warranty on the purchase decision of a wristwatch are statistically different depending on the consumer's level of education; H<sub>2d</sub>: The influence of a wristwatch is statistically different depending on the consumer's level of education; H<sub>2d</sub>: The influence of a wristwatch is statistically different depending on the consumer's level of the purchase decision of a wristwatch are statistically different by and, design, ease of use, and warranty on the purchase decision of a wristwatch is statistically different depending on the consumer's employment status. The set research hypotheses are illustrated by Figure 1.

# Key determinants of consumers' decision making on the purchase of wristwatches on the Serbian market



#### 2.2. Research variables

The established research hypotheses and the subject of the research require testing based on one dependent and a larger number of independent variables (interval and grouping). The dependent variable is the decision to buy a wristwatch on the Serbian retail market, which was evaluated on a Likert scale (0-5 scale) through three statements. Indicators of making a purchase decision appear as independent variables: price/value ratio, brand strength, design, ease of use, and warranty length (Durge, 2022; Deloitte, 2021; Bölen, 2020; Cervellon et al., 2019). The impact of the given indicators was also evaluated based on three statements of the Likert-type measurement. The grouping independent variables are the demographic characteristics of consumers: gender, age, level of education, and employment status.

## 2.3. Research sample

The research was carried out electronically through a Google form survey on a random sample of 137 users of wristwatches on the Serbian market during the period from September to November 2022. The sample is uniform in terms of employment status and level of education, whereas minor deviations can be read in the gender of the respondents (female respondents 71.5%) and age (80.3% of respondents are youths). The objective reasons for the indicated deviations in the sample are the lack of interest of older consumers, primarily male, to participate in this type of research. Table 1 presents detailed view of the structure of the research sample.

Ord.no.	Demographic characteristics	Sample structure		Demographic characteristics	Sample structure	
1	Gender	number	(%)	Education	number	(%)
2	Male	39	28.5	Elementary	2	1.5
3	Female	98	71.5	High school	35	25.5
4	Age			College	19	13.9
5	Up to 20	20	14.6	University	81	59.1
6	21 - 30	90	65.7	Employment		
7	31-40	4	2.9	Employed	43	31.4
8	41 - 50	17	12.4	Unemployed	15	10.9
9	51 - 60	6	4.4	Students	74	54.0
10			1	Entrepreneurs	5	3.6
19	TOTAL	137	100.0		137	100.0

Table 1: Structure of the research sample

Source: the authors' calculation

Cronbach's alpha, Skewness, and Kurtosis coefficients were applied to determine the relevance of the selected questions and scales. Table 2 presents values of these coefficients.

Indicators	Cronbach's alpha	Kurt.	Skew.	
Price/ value ratio	0.754	-1.263	0.461	
Brand strength	0.920	-1.137	-0.318	
Design	0.861	945	-0.403	
Ease of use	0.759	-1.362	0.068	
Warranty length	0.817	-1.221	-0.329	
Purchase decision	0.784	-1.078	0.461	

Table 2: Reliability of the selected scales

Source: the authors' calculation

Results from the table above demonstrate that the set of indicators is closely grouped and there are no statistically significant deviations in the coefficients. This means that the selected questions can be used to examine consumer attitudes when making decisions about buying wristwatches on the Serbian market.

#### 2.4. Data processing method

The research was carried out electronically based on a created questionnaire using Google Forms. The questions in the questionnaire were created based on similar research and indicators that were tested in the studies of Durga, 2022; Deloitte, 2021; Bölen, 2020; Cervellon et al., 2019. The created questionnaire was forwarded to small retailers and retail chains in the Serbian market (Mercator, Idea, Lidl, Delhaize, Universeport, Aroma) who marketed it further to their customer bases. The first group of questions consists of generally informative demographic data. After that, using a Likert scale, the respondents

ranked the influence of individual indicators on deciding to buy wristwatches. Each indicator was tested through three statements as follows: Price/value ratio – price is an indicator of quality; I choose a watch regardless of price and price is the principal choice when buying; Brand – I buy branded watches; a brand is not a measure of quality and watches with a weaker brand attract me more; Design - I choose watches with a striking design; design is key when choosing a watch and modern design compromises the functionality of the watch; Ease of use – functionality is a measure of the quality of the watch; the watch should have as few secondary functions as possible and the watch must be accurate and precise; The length of the warranty – I pay attention to the warranty when I buy a watch; the warranty is proof of quality and the warranty constraints and conditions me when choosing a watch. The return rate of completely filled questionnaires was 33.4% (137/410).

IBM SPSS Amos 23 software was used to analyze and process the collected data. Hypotheses were tested using the SEM method (Path Analysis). Differences in the influence of demographic indicators were assessed through Multiple Regression Analysis.

# 3. Research results

The respondents' answers are presented in Table 3. The table contains the most important characteristics of descriptive statistics (Mean, Max., Min., Standard error - SE, and standard deviation - SD).

Indicators	Mean	Max.	Min.	SE	SD
Price/ value ratio	4.05	5.00	2.00	0.0740	0.8863
Brand strength	3.81	5.00	2.00	0.9203	1.1138
Design	4.17	4.00	1.00	0.0332	0.6314
Ease of use	3.54	4.00	1.00	0.0850	1.0407
Warranty length	2.97	5.00	1.00	0.1314	1.0702

Table 3: Indicators of descriptive statistics

Source: the authors' calculation

The respondents have given the highest average score (M=4.17) to the indicator of wristwatch design, considering the appearance of the watch to be the most important determinant in deciding the purchase. The price (M=4.05) is also seen as a significant variable, linking only a high price to a higher quality wristwatch and vice versa. The brand received medium marks (M=3.81), and this indicator shows the largest deviations. Half of the respondents consider it completely unimportant, while the rest of the respondents give it crucial importance. The respondents have put slightly less importance on the ease of use (M=3.54), considering that it is implied in using the watch. The length of the warranty takes up the last place (M=2.97), bearing in mind that our consumers still do not have a sufficiently high awareness and culture about the importance of complaints and warranties. The highest degree of agreement in the answers can be seen in the case of design

(SD=0.6314), which shows that the scores for this indicator were uniform in the vast majority of respondents. On the other hand, the deviations are most expressed with the brand (SD=1.1138).

Table 4 presents the individual contributions of each independent indicator using the "Enter" method. The model is statistically significant (F (120; 4) = 3.48; p < 0.01), which means that the set of tested variables is significant on the purchase decision of a wristwatch in the Serbian market.

Indicators	Stand. coeffic	ient	t	Sig.	
Indicators	Beta	St. error	ι		
(const.)	0.847	0.983	3.521	0.001	
Price/ value ratio	0.784**	0.701	1.223	0.000	
Brand strength	0.726*	0.672	0.921	0.036	
Design	0.937**	0.522	1.008	0.000	
Ease of use	-0.411	0.681	1.107	0,150	
Warranty length	0.523	0.873	0.872	0.064	

Table 4: Indicators of individual contributions of independent indicators

\*\* Correlation is significant at the level 1%, Correlation is significant at the level 5%

#### Source: the authors' calculation

Design ( $\beta$ =0.937; p<0.01) and price/value ratio ( $\beta$ =0.784; p<0.01) stand out as indicators that are statistically significant in predicting the decision to buy a wristwatch. A noticeable connection can also be seen with brand strength ( $\beta$ =0.726; p<0.05). A positive correlation is noticeable with all three indicators, which implies that with the increase in the value of these indicators, consumers exclusively consider their influence crucial for making a purchase decision. There are no statistically significant correlations with the remaining two indicators.

The determined existence of a connection between the independent variables (indicators) and the dependent variable (purchase decision) enables testing of the basic hypothesis  $H_1$  and the first group of supporting research hypotheses  $H_{1a}$  -  $H_{1e}$ . The necessary tests will be carried out utilizing the Path Analysis method. Table 5 presents the results of the conducted testing.

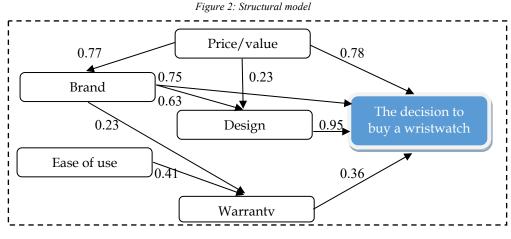
Ord. no.	Path	Path coefficient	<i>t</i> value	Result
1	Price/ value ratio » purchase decision	0.780	10.611	Support
2	Brand » purchase decision	0.751	4.141	Support
3	Design » purchase decision	0.953	2.077	Support

Table 5: Path analysis

4	Ease of use » purchase decision	0.442	11.051	Reject
5	Warranty » purchase decision	0.359	10.226	Support
6	Price/ value ratio » Brand	0.771	1.4300	Support
7	Price/ value ratio » Design	0.232	1.506	Support
8	Price/ value ratio » Ease of use	0.021	14.001	Reject
9	Price/ value ratio » Warranty	0.744	3.227	Reject
10	Brand » Design	0.627	9.011	Support
11	Brand » Ease of use	0.114	3.527	Reject
12	Brand » Warranty	0.225	7.260	Support
13	Design » Ease of use	0.354	10.611	Reject
14	Design » Warranty	0.482	4.141	Reject
15	Ease of use » Warranty	0.407	14.001	Support

Source: the authors' calculation

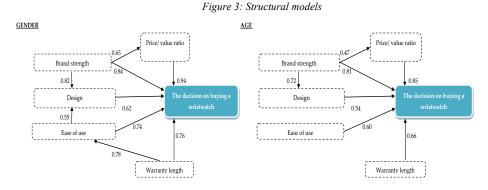
The table above shows that the price/value ratio, brand strength, design, and warranty length have a statistically significant influence on the decision to buy a wristwatch in the Serbian market. This means that the main hypothesis  $H_1$  is partially accepted because the supporting hypotheses  $H_{1a}$ ,  $H_{1b}$ ,  $H_{1c}$  and  $H_{1e}$  are accepted. For ease of use, no statistically significant impact is detected, which means that  $H_{1d}$  is rejected. Certain significance exists in the mutual influence between indicators, which we see in Figure 2, which presents a structural model, that is, an illustration of the way of their influence.



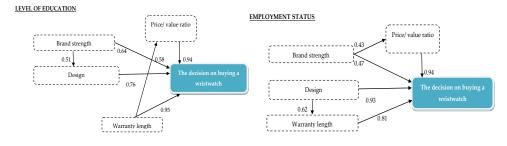
Source: the authors

Given that respondents with different demographic characteristics participated in the research, it is necessary to examine whether the influence of indicators on making a purchase decision differs among certain demographic groups. The "Enter" method confirmed that the regression model is statistically significant for all demographic categories. For gender (F (120; 4)=3.48; p<0.01), the model predicts 52.7% of the criterion variance, for age (F (120; 4)=3.48; p<0.05) the model predicts 62.6% of the variance of the criteria, for the level of education (F (120; 4)=3.48; p<0.05) the model describes 41.9% of the variance of the criteria and for the employment status (F (120; 4)=3.48; p<0.01) the model describes 49.1% of the criterion variance.

In addition to the price/value ratio and design indicators, which are statistically significant for the purchase decision for all demographic categories, the influence of other indicators varies depending on the analyzed category of respondents. For example, in terms of gender, female respondents point out the ease of use ( $\beta=0.740$ ; p<0.05) and brand (B=0.922; p<0.01), while men prefer the length of the warranty (B=0.774; p <0.01). Older respondents consider the length of the warranty ( $\beta$ =0.844; p<0.01) and ease of use  $(\beta=0.556; p<0.05)$  to be important, while for younger respondents it is the brand  $(\beta=0.817;$ p < 0.01) and watch design ( $\beta = 0.960$ ; p < 0.01). Respondents with a higher level of education prefer the warranty ( $\beta$ =0.738; p<0.01) in contrast to those with a lower level of education who support brand strength ( $\beta$ =0.6720; p<0.01). When it comes to employment status, employees give the most support to price and quality ( $\beta$ =0.966; p<0.01), entrepreneurs to the brand ( $\beta$ =0.573; p<0.01), while for the unemployed, it is a warranty ( $\beta$ =0.870; p<0.05). The obtained results confirmed the second research hypothesis  $H_2$ , as well as supporting hypotheses  $H_{2a} - H_{2d}$ , and we conclude that the differences that exist in the demographic categories of respondents are statistically significant in predicting the differences that appear in the influence of various indicators on the decision to buy a wristwatch. The following figure (Figure 3) presents the influence paths of the indicators, especially for each of the analyzed demographic categories.



#### Key determinants of consumers' decision making on the purchase of wristwatches on the Serbian market



#### Source: the authors

Based on the results presented, it is noticeable that, depending on the demographic category of the consumer, some indicators related to making a purchase decision appear. For instance, in the case of gender, there is a statistically significant influence of the ease of use, that is, the watch functionality is an important category that determines the purchase decision, primarily among female respondents. On the other hand, this indicator is not significant when consumers are classified according to their level of education and employment status. In the same way, the length of the warranty is the strongest among respondents of different levels of education, at the same time influencing the quality itself, that is, the watch value. Furthermore, brand strength is of more importance among younger consumers, while older consumers prefer a lengthier warranty and ease of use. Finally, employed respondents prefer a fair price-to-value ratio and the design of the wristwatch itself.

#### 4. Discussion

The need for the conducted research arose from the fact that in recent years, the buying habits of consumers on the market have been changing rapidly, especially in the segment of deciding on the purchase of a wristwatch. The decline in demand for classic watches (McKinsey & Company, 2021; Gouveia et al., 2021) and the sharp growth in the placement of smartwatches (Almuraqab, 2021) led to the projection of a five-year growth rate of global demand for wristwatches of 4.8% (Global Market Estimates, 2022), with significantly changed consumer behavior patterns. Based on the conducted research and confirmed hypotheses, it follows that the price/value ratio, the brand strength, the design/appearance of the watch, and the length of the given warranty are the most influential regarding the decision to buy a wristwatch. It partially confirms the results of previous studies (Durge, 2022; Deloitte, 2021; Bölen, 2020; Cervellon et al., 2019) which consider these indicators as unavoidable determinants that influence consumers when making purchase decisions. The research also confirmed significant differences in the impact of these indicators depending on the demographic characteristics of consumers. A specific consumer segment shows preferences for different indicators. For instance, women prefer the ease of use, over-50-year-olds have a preference for the length of the given warranty, under-30-year-olds for the strength of the brand, highly educated consumers for the warranty, employees for the price, etc. Such conclusions can represent a roadmap for

the creators of the sales and marketing strategy to target their activities on the domestic market towards a certain segment of consumers. In practice, this would entail taking the following measures:

- Clear segmentation of the national market according to the specified categories of consumers into male - female, under 30 years of age, from 30 to 50 and over 50 years of age, highly educated - low educated, employed - unemployed entrepreneurs - students).
- 2) In wristwatch advertising techniques, highlight the priority indicators for the target consumer segment. For example, if a retailer is addressing younger consumers, emphasize the brand of the wristwatch or the length of the warranty if they are unemployed and the like.
- 3) Minimize the importance of indicators that have no impact on consumers. For example, ease of use among the younger population and employees, brand strength among the elderly, etc.
- 4) Continuously monitor changes on the global market and adapt the domicile placement of wristwatches to global trends.

Only in this way, by accepting the mentioned recommendations, manufacturers and retailers of wristwatches will be able to count on success and survival in the domestic market. Otherwise, if they do not follow and accept the changes in the behavior patterns of watch buyers/consumers, they will not be able to cope with the increasingly tough competition mainly from Chinese and South Korean companies.

# Conclusion

Today, more than ever, the global market is exposed to substantial changes in the norms of consumer behavior, especially when purchasing durable consumer goods. This phenomenon is particularly noticeable in fast-growing industries such as wristwatches. An increasing number of brands and manufacturers are appearing, as well as models, which is especially visible in the segment of smartwatches. In other words, the offer of watches on the world market is one of the most diverse in the world; there are practical watches from any price category, watches with different functions and mechanisms, etc. In addition to using smartphones, computers, and other devices, consumers use and buy watches. However, the motive for purchase has changed. It has moved from the basic function of the watch, which is to show the time, to the watch as a fashion detail, brand, status symbol, investment tool, etc. When looking at the marketing aspect of the watch industry, one should consider the most significant demand factors, the most important of which are the price/value ratio, design, brand, and ergonomic features of the watch. In addition to having an irreplaceable role in everyday life, a watch has a functional, status and aesthetic purpose. Hence the need for a large study that would look at the needs of consumers and define the indicators that directly affect the decision to buy wristwatches in the Serbian market. The goal of the work was to precisely define the importance of specific indicators that determine the decision to buy a wristwatch in the domestic market. Given that previous research points to significant indicators such as price/value ratio, brand, design, ease of use, and warranty, research hypotheses were set and tested through Multiple Regression Analysis and Path Analysis methods. The hypotheses confirm that the price/value ratio, brand strength, design/appearance, and warranty length have a statistically significant impact on the purchase decision. Also, the research showed that depending on the demographic categories of consumers such as gender, age, education, and employment, the intensity and manner of influence of these indicators changes. Based on the obtained results, a set of recommendations was proposed that the creators of the sales and marketing strategy should implement to improve the conditions for the placement of wristwatches on the Serbian market.

The shortcomings of the research lie in the limitation of the sample to the Serbian market and the examination of domestic consumers. The reason for choosing such a sample is the technical impossibility of conducting research outside the borders of Serbia, as well as the familiarity of the authors of the study with the employment conditions and the position of consumers in the domestic market. The structure of the questionnaire itself can also be a shortcoming. Namely, based on previous studies, questions with pre-prepared answers were selected in the questionnaire, which can lead to the conclusion that respondents were guided toward some of the statements offered.

As guidelines for future research, we suggest conducting a large-scale study that would include the Western Balkans and Southeastern Europe and a comparative analysis of data between EU and non-EU countries. In the sample itself, more open-ended questions should be included, which will leave respondents free to record their realistic observations and attitudes. In this way, a more complete scientific and academic contribution to the problem of identifying the determinants that determine consumers' decisions to buy wristwatches will be obtained.

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