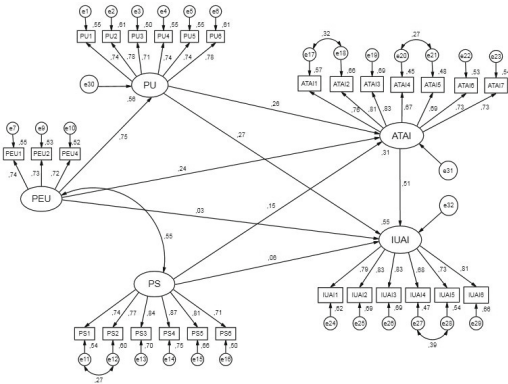# Časopis za ekonomiju i tržišne komunikacije

Economy and Market Communication Review

Structural equation model results

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ORIGINALNI NAUČNI RAD / ORIGINAL SCIENTIFIC PAPER

MISLEADING OR BENEFICIAL? ASSESSING THE EXPLOITATION POTENTIAL OF STOCK BUYBACK ANNOUNCEMENTS IN THE MALAYSIAN STOCK MARKET

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Abstract: In the traditional sense, stock buyback announcements are generally perceived as advantageous news. However, with the evolution of the capital market, some scholars argue that such declarations possess the potential for exploitation as a means to artificially inflate stock prices, thereby deceiving investors. Consequently, within the framework of the Efficient Market Hypothesis and the Theory of Asymmetric Information, we employed an event study approach to empirically investigate 30 listed companies in Malaysia that announced stock buybacks in the before June 2022. To fortify the robustness of our research findings, we employed Market Model and the Fama-French Three-Factor Model to estimate Average Abnormal Returns and Cumulative Average Abnormal Returns. The outcomes indicate that stock buyback announcements are still regarded as favorable news in the Malaysian stock market, bestowing investors with significant positive average cumulative abnormal returns. Nevertheless, the Malaysian capital market may witness premature leakage of stock buyback information, thereby accentuating the existence of information asymmetry. We contend that corporate leadership can harness stock buyback announcements as a mechanism to stabilize stock prices and infuse confidence in investors. Concurrently, market regulators should augment transparency and regulatory measures to ensure fairness among all market participants.

Keywords: Buyback Announcement; Event Study Method; Average Abnormal Returns; Cumulative Average Abnormal Returns; Malaysian Capital Market

JET classification: G14; G32; G38

INTRODUCTION

Share repurchase, also known as stock buyback, pertains to a capital maneuver wherein a company procures funds to repurchase its own shares from the secondary stock market utilizing cash or debt issuance. Otchere & Ross (2002) contended that stock buybacks have progressively emerged as the most prevalent mechanism for stock management among market investors. Certain scholars posit that share buybacks possess the capacity to refine a company's financial leverage and optimize its capital structure by manipulating the supply of shares (PeiZhi & Ramzan, 2020; Zhu et al., 2014). In recent years, the practice of listed companies engaging in self-directed repurchases of their corporate stock within the market has become a customary financial undertaking.

In the Malaysian context, the practice of share buybacks by companies in the market gained official endorsement from the regulatory authorities overseeing the financial landscape subsequent to the Asian financial crisis in 1997. The oversight of buyback activities was established under Section 67A of the revised Companies Act 1965 and Section 112(2) of the Companies Act 2016. Since then, the disclosure of share buyback announcements has gradually garnered significance within the market's considerations. Khin et al. (2011) noted that the Malaysian stock market, while not fully mature, witnesses investors bestowing heightened attention upon share buyback announcements as a means to accrue profits. Tan (2010) posited that Malaysian firms exhibit a proclivity towards engaging in share buybacks during bear markets, thereby bolstering market confidence.

Within the realm of the capital market, certain scholars posit that stock buybacks convey a positive message regarding future earnings prospects, subsequently triggering a wealth effect that typically uplifts the company's share price (Aït-Sahalia et al., 2012; Raad & Wu, 1995; Vermaelen, 1981). I In the Malaysian context, Isa and Ghani (2011) observed that the primary objective behind stock buybacks is to stabilize the company's share price during periods of market turbulence. However, a degree of skepticism persists among scholars. Stonham (2002) scrutinized stock buyback practices in the U.S. market and contended that there exists flexibility in terms of buyback methodologies, with buybacks conducted in the open market exerting less control over the share price. Similarly, Fried (2005) and Chan et al. (2010) highlighted the potential for managers to announce buybacks merely to convey a misleading signal. Through empirical analysis, they discovered instances wherein companies experienced underperformance in terms of earnings subsequent to announcing a repurchase. Our comprehensive review of the existing literature revealed a dearth of scholarly focus on this phenomenon within the Malaysian context.

Henceforth, the objective of this study resides in the exploration of whether share buyback announcements retain a noteworthy positive influence on a company's stock returns during the post-epidemic era. Drawing upon the tenets of the Efficient Market Hypothesis Theory, we undertake an empirical investigation encompassing 30 publicly listed companies that proclaimed buyback announcements in Bursa Malaysia before June 2022. Employing the Event Study Method, our analysis aims to ascertain whether buyback announcements by listed companies continue to engender substantial cumulative abnormal returns within the post-epidemic era. Additionally, we endeavor to unravel the duration of the impact exerted by buyback announcements on the share price of listed companies.

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The structure of this study is delineated as follows: The subsequent section entails a comprehensive review of pertinent event literature and theory. Section 3 elucidates the Methodology and Data sources employed in this study. In Section 4, we present the empirical findings and furnish a concise elucidation thereof. Finally, Section 5 encapsulates the conclusions derived from this study.

LITERATURE REVIEW
Shares Buyback Announcement

Stock buyback operations have witnessed an increasing prevalence within the market, emerging as a pivotal tool for optimizing a company's capital structure by adjusting its financial leverage through the manipulation of share supply (PeiZhi & Ramzan, 2020; Zhu et al., 2014). Following the aftermath of the Asian financial crisis, Malaysia introduced amendments to Section 67A of the Companies Act, enabling listed companies to engage in the repurchase of their own shares. The underlying objective was to utilize share buybacks as a means of fostering stability in stock prices and instilling confidence within the capital market (Isa & Ghani, 2011; Tan, 2010). Consequently, corporate share buyback endeavors have proliferated in Malaysia, with Hwa & Bacha (2002) surveying 131 prominent Malaysian corporations, out of which 88 had formulated share buyback plans. Grullon & Ikenberry (2000) observed an inverse correlation between share prices of numerous companies and market volatility subsequent to the announcement of a share buyback. This phenomenon engendered substantial interest among investors seeking to capitalize on market news and generate profits within the then-developing Malaysian stock market (Khin et al., 2011).

Prior research has commonly asserted that stock buyback announcements in the open market yield abnormal stock returns over an extended time frame during the buyback period (Baker & Wurgler, 2002; Comment & Jarrell, 1991; Vermaelen, 1980). Nevertheless, through a longitudinal analysis of stock prices of 450 firms spanning from 1984 to 1990, Stephens & Weisbach (1998) discovered the persistence of Abnormal Returns even in the absence of actual stock buybacks following the announcements. In the Malaysian context, Hwa & Bacha (2002) posited that the act of announcing a share buyback program holds greater significance than the actual execution of share repurchases, as more than 65% of the companies in their sample solely made announcements without carrying out the buybacks. Such findings have raised suspicions among academics that company managers may have utilized stock buyback announcements as a means to facilitate improper gains by disposing of their holdings (Chan et al., 2010; Fried, 2005). Through empirical analysis of repurchase transactions within the United States spanning from 2004 to 2006, Bozanic (2010) concluded that firms operating in competitive industries display a tendency to curtail buybacks, with the volume of stock buybacks exhibiting a negative correlation with subsequent stock returns. Similarly, evidence from Malaysia suggested that managers' motivations exert a significant impact on the post-buyback share price movements of firms (Latif & Mohd, 2013).

Event Study Method

The event study methodology, initially introduced by Ball & Brown, (1968),entails selecting a specific event for research purposes and examining the changes in

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stock returns before and after the event. This approach enables the exploration of the event's impact on price fluctuations and the returns of the sample stocks.

In the Malaysian capital market, Kwan, J. H., & Kwan, S. S (2011) employed the event study method to analyze a sample of 41 distressed companies. The empirical findings indicated that poor corporate governance is associated with lower share price performance of the company. Ismail & Rahman (2012) conducted an empirical analysis using the event study method on 76 companies with the highest market capitalization in Malaysia. Their research revealed that there is no significant positive relationship between the level of publication and disclosure of the company's quarterly reports and the company's share price performance.

However, when it comes to company stock buyback announcements, research in Malaysia is relatively limited. Isa & Ghani (2011) conducted a study on buybacks of listed companies in Malaysia using the event study method, but their focus was primarily on comparing share prices between large and small firms. In a notable study, data from 21 Malaysian companies that had conducted share buybacks were analyzed using the event study method. Due to the market's immaturity, the researcher concluded that it was challenging for investors to achieve Abnormal Returns (Abdullah, 2007).

Asymmetric Information Theory

The Theory of Information Asymmetry, developed by Akerlof (1978), Spence (1978) and Stiglitz & Weiss (1981), and formalized in 2001, posits that in a market economy, the two parties involved in a transaction possess differing levels of knowledge regarding the relevant information. The party possessing more comprehensive knowledge holds a relatively advantageous position, while the other party, with limited information, is at a disadvantage. Bester (1987) argued that sellers typically possess more extensive knowledge of the product, while buyers have limited knowledge, creating an opportunity for the party with superior information to mislead the other party and pursue their own interests at the expense of the less-informed party.

Hence, corporate stakeholders who possess privileged information may exploit stock buyback announcements by selling their own shares or refraining from taking actual action. This behavior allows them to generate unjustified profits and can result in the share price failing to rise or even declining, contrary to investors' expectations (Bozanic, 2010; Chan et al., 2010; Fried, 2005; Latif & Mohd, 2013). Asymmetric information theory serves as the underlying theoretical framework for this study, providing a foundation to explore and analyze these dynamics.

Efficient Market Hypothesis Theory

Fama (1970) introduced and formulated the Efficient Market Hypothesis (EMH), also known as the Theory of Efficient Market Hypothesis. According to this theory, in an efficient market, rational investors possess timely access to all available market information, which is swiftly incorporated into stock prices. Simultaneously, fluctuations in stock prices reflect changes in market information (Fama, 1976), Consequently, investors' psychological expectations regarding the future performance of listed companies can be inferred from daily closing prices over time (Bromiley et al., 1988).

Numerous scholars have examined the efficiency of the Malaysian Stock Market, generally categorizing it as a Semi-strong Form Market (Dua et al., 2010; Erdaş,

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2020; Hussin et al., 2010, Malek & Saidin, 2014; Shaharuddin et al., 2018; Tee et al., 2018). As per the definition of a semi-strong market, stock prices adequately reflect historical market information and publicly available information about listed companies. The semi-strong efficient market hypothesis provides a relevant theoretical foundation for conducting research analysis using the event study method to investigate the impact of stock buyback announcements on stock prices.

DATA SOURCES AND RESEARCH METHODOLOGY
Data Sources
The data collection methodology employed in this study draws inspiration from Karoushi (2014) and Fisal et al. (2016). Data was collected from Bloomberg Finance Web, focusing on listed companies on the Bursa Malaysia (KLSE) that made share buyback announcements in the market before June 2022. To ensure the empirical results accurately reflect the Malaysian stock market returns, the studied companies were screened based on the following criteria:

1. The company must be in a healthy financial position without any losses for more than three years.
2. The company should not have any history of securities scandals, such as stock price manipulation.
3. No other confusing events should have been reported before and within one month after the date of the buyback announcement.
4. Daily earnings data should be available during the estimation and review periods.

After the screening process, the study obtained the daily closing prices of 30 companies during the event period and observation period, as well as the corresponding KLSE Composite Index. Additionally, daily data on the market risk-free rate of return, the market capitalization factor simulated portfolio return, and the book-to-market ratio simulated portfolio return before June 2022 were downloaded from Bloomberg Finance Web for further analysis.

RESEARCH METHODOLOGY
The Event Study Method is employed in this research to analyze the market reaction to stock buyback announcements. This method involves observing and calculating changes in stock prices over a specified period before and after the announcement of a stock buyback, aiming to understand the impact of the event on the listed company's value. In the context of this study, a stock buyback announcement can be perceived by the market as either positive or negative news. If the market views the announcement positively, it is anticipated that the stock price of the announcing company will increase, resulting in a positive extraordinary return. Conversely, if the market perceives the announcement as negative, the stock price may decrease, leading to a negative Average Abnormal Returns.

To assess whether the stock buyback announcement has a positive signaling effect, the study employs Average Abnormal Returns and Cumulative Average Abnormal Returns as measures. These metrics help evaluate the extraordinary return by comparing it to expected returns, allowing for an assessment of the market effect of stock buyback implementation by listed companies in Malaysia. A positive signaling

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effect would be indicated by a positive extraordinary return, reflecting a favorable market response to the announcement. Conversely, a negative Average Abnormal Returns would suggest a less favorable or negative market reaction.

To ensure the robustness of the findings, the study employs the Market Model and the Fama-French Three-Factor Model to estimate the Abnormal Returns of the sample companies. These models provide different approaches to account for market factors and potential confounding variables, enhancing the reliability of the analysis.

OBSERVATION WINDOWS

The event day of the announcement of the stock buyback by the listed company is taken as t= 0. If the announcement day coincides with the stock market closure or the suspension of the stock, the first trading day after the announcement of the stock buyback plan is chosen as the event day. The time axis of this study is shown in Figure 1.

Figure 1: Timeline Diagram of the Study
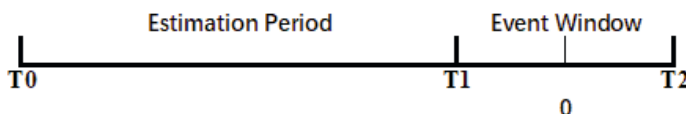
Source: Prepared by the authors

Referring to Madichie (2009), Sheppard (2014) and He et al. (2023) for the choice of event window period, we take the previous 160 days of the event as the estimation period of the event i.e., T0 = -180 and set the event period as 10 days before and after the announcement of stock buyback by the listed company i.e., T1 = -10 and T2 = 10.

Market Model

In this study, we adopt a regression model to analyze the relationship between stock returns and the overall portfolio returns of the market. The model is based on the work of Sharpe (1963), who argued for a stable linear relationship between these variables.

$$E(R_{it}) = \alpha_i + \beta_i \times R_{mt} + \varepsilon_{it} \tag{1}$$

In equation (1), $E(R_{it})$ represents the expected return of listed company i at day t, and R_{mt} represents the investment return of the KLSE Composite Index at day t. The model aims to estimate the expected return of the listed company based on its exposure to the market return.

The parameters in the model are α_i, which represents the intercept or constant term specific to company i, β_i, which represents the coefficient or sensitivity of company i to the market return, and ε_{it}, which represents the error term.

Fama-French Three-Factor Model

Fama & French (1992) proposed the Fama-French three-factor model by combining size risk and value risk factors. Thus, we build Equation 3 based on this model.

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$$E(R_{it}) = \alpha_i + \beta_1 \times (R_{mt} - R_{ft}) + \beta_2 \times SMB_t + \beta_3 \times HML_t + R_{ft} + \varepsilon_{it} \tag{2}$$

In this study, Rf denotes the risk-free rate of return at day t, HMLt is the difference between the stock returns of small and large firms at day t, and SMBt is the difference between the stock returns of firms with high and low book-to-bill ratios at day t.

Abnormal Returns and Average Abnormal Returns

Daily Abnormal Returns are calculated as follows:

$$AR_{it} = R_{it} - E(R_{it}) \tag{3}$$

The Average Abnormal Returns can be obtained by averaging the ARs of all the sample companies

$$AAR_{i,t} = \frac{1}{N} \sum_{i}^{N} AR_{it} \tag{4}$$

Cumulative Abnormal Returns and Cumulative Average Abnormal Returns

The Cumulative Abnormal Returns are cumulatively summing the ARs of all companies in the [t1, t2] periods:

$$CAR_i[t1, t2] = \sum_{t=t1}^{t2} AR_{it} \tag{5}$$

The Cumulative Abnormal Returns were averaged over all companies in the [t1, t2] periods:

$$CAAR_i[t1, t2] = \sum_{t=t1}^{t2} AAR_{it} \tag{6}$$

Student's T-test

To test whether the results are statistically generalizable, we introduced the T-Test to test whether the estimated results of AARs and CAARs are significantly non-zero, which principle show in the Equation 8 and 9:

$$T_{AAR_t} = \frac{AAR_t}{\sqrt{\frac{\sum_{t=1}^{N} (AR_{it} - AAR_t)^2}{N-1}} / \sqrt{N}} \tag{7}$$

$$T_{CAAR(t1,t2)} = \frac{CAAR(t1,t2)}{\sqrt{\frac{1}{N(N-1)} \sum_{i=1}^{N} \left(CAAR_{it} - CAAR(t1,t2)\right)^2}} \tag{8}$$

Boehmer-test

In order to test the robustness of the statistical test, this study introduced the test method of Boehmer et al. (1991) to test the results, the Boehmer test uses a standardized cross-sectional approach to make the variance of events robust. The test methodology is as follows:

$$SAR_{it} = AR_{it} / \left[\widehat{SAR_t} \sqrt{1 + \frac{1}{N} + \frac{(R_{mt} - \bar{R_m})^2}{\sum_{t=1}^{N} (R_{mt} - \bar{R_m})^2}}\right] \tag{9}$$

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Where:

$$\widehat{SAR_{it}} = \frac{AR_{it}}{\sigma(AR_{it})}$$

Boehmer-test of average abnormal return ($AARt$), to test whether the average abnormal return at day t during the event window is significantly non-zero

$$Z_{AAR_t} = \frac{\frac{1}{N}\sum_{i=1}^{N} SAAR_t}{\frac{1}{N(N-1)}\sqrt{\sum_{i=1}^{N}\left(SAAR_t - \sum_{i=1}^{N}\frac{SAAR_t}{N}\right)^2}} \tag{10}$$

Where:

$$SAAR_t = \frac{1}{N}\sum_{i=1}^{N} SAR_{i,t} = \frac{1}{N}\sum_{i=1}^{N}\frac{AR_{i,t}}{\widehat{SAR_{it}}}$$

Similarly, $CAAR$'s Boehmer test method is as follows:

$$Z_{CAAR_t} = \frac{\frac{1}{N}\sum_{i=1}^{N} SCAAR(t1,t2)}{\frac{1}{N(N-1)}\sqrt{\sum_{i=1}^{N}\left(\frac{1}{N}\sum_{i=1}^{N}\frac{CAR_{i,t}}{\widehat{SCAR}_{i,t}} - \sum_{i=1}^{N}\frac{SCAAR(t1,t2))}{N}\right)^2}} \tag{11}$$

EMPIRICAL RESULTS AND DISCUSSION

Utilizing the statistical software Stata 17, we employ a comprehensive analysis to derive the Average Abnormal Returns and Cumulative Average Abnormal Returns during the event period pertaining to the selected 30 sample companies. Initially, our investigation revolves around evaluating the normality of the cumulative abnormal returns computed via both models, employing Skewness and kurtosis tests as our assessment measures. The ensuing outcomes of these tests are meticulously documented in Table 1.

Table 1: Skewness and kurtosis tests for Normality

Model	Variable	Pr(skewness)	Pr(kurtosis)	Adj chi2(2)	Prob>chi2
Market Model	AAR	0.8627	0.4012	0.78	0.6757
	CAAR	0.7413	0.5612	0.45	0.7985
Fama-French Three-Factor Model	AAR	0.2643	0.3651	2.31	0.3146
	CAAR	0.7226	0.6263	0.35	0.8374

Source: Author's calculations

According to the results, the skewness and kurtosis tests are conducted to assess the normality of the distributions of AAR and CAAR calculated using the Market Model and the Fama-French Three-Factor Model. The skewness test measures the symmetry of the distribution, while the kurtosis test examines the shape of the distribution (whether it has heavy tails or is more peaked than a normal distribution). The p-values associated with these tests indicate the probability of observing the given skewness and kurtosis values if the data followed a normal distribution.

For the AAR and CAAR estimates of both the Market Model and the Fama-French Three-Factor Model, the p-values for both the skewness and kurtosis tests are relatively

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high. This suggests that the calculated AAR and CAAR values conform to or closely approximate a normal distribution. Based on the normality assumption of the distributions, the significance of the AAR and CAAR estimates can be tested using the t-test.

Presented in Table 2 are the computed Average Abnormal Returns encompassing a ten-day period preceding and following the event. Notably, there is a noteworthy decline in the occurrence of negative AARs subsequent to the event. Specifically, within the Market Model, negative AARs were observed on only two days between the 0 and 10-day timeframe. Conversely, within the Fama-French Three-Factor Model, although negative AARs were recorded on two days within the same interval, they failed to meet the criteria for statistical significance. In contrast, during the interval spanning from -10 to -1 days prior to the event, the Market Model exhibited a negative AAR for a duration of five days, representing 50% of the total analyzed period. Moreover, the Fama-French Three-Factor Model reported a negative AAR for six days during the same interval, with two days successfully surpassing both the T-test and Boehmer-test.

Upon comparing the two estimated models, it is discernible that the AARs derived from both models exhibit a consistent trend, thereby affirming the robustness of the study's findings. Notably, on the first day of the event, the Market Model exhibits an AAR of 0.0185, accompanied by a T-Test outcome that indicates statistical significance at the 1% level. Similarly, the Fama-French Three-Factor Model presents an AAR of 0.0137 on the same day, signifying statistical significance at the 5% level. Hence, we contend that the event in question possesses the potential to generate significant positive Average Abnormal Returns.

Table 2: Average Abnormal Returns in Event Window Periods

t	Market Model					Fama-French Three-Factor Model				
	AAR	T-Test	Sig	Boehmer	Sig	AAR	T-Test	Sig	Boehmer	Sig
-10	-0.0109	-2.0319	**	-2.8202	***	-0.0060	-1.1086		-1.2858	
-9	-0.0029	-0.5289		-0.3119		-0.0004	-0.0765		0.4739	
-8	-0.0095	-1.7649	*	-1.0296		-0.0122	-2.2216	**	-2.0275	**
-7	0.0153	2.8448	***	3.5564	***	0.0138	2.5365	**	3.3205	***
-6	0.0026	0.4905		0.3672		0.0040	0.7358		0.4735	
-5	0.0050	0.9186		0.7176		0.0059	1.0913		0.7318	
-4	-0.0022	-0.4054		0.1198		-0.0010	-0.1895		0.4080	
-3	-0.0089	-1.6416		-1.4838		-0.0107	-1.9497	*	-1.7891	*
-2	0.0000	0.0055		0.6775		-0.0033	-0.5994		-0.1358	
-1	0.0096	1.7742	*	1.1744		0.0079	1.4393		1.5967	
0	0.0040	0.7415		0.9238		0.0100	1.8285	*	1.4852	
1	0.0185	3.4454	***	2.0378	**	0.0137	2.5149	**	1.5620	
2	0.0025	0.4633		0.8703		0.0075	1.3825		1.1228	
3	-0.0040	-0.7388		-0.6371		-0.0055	-0.9937		-0.7650	
4	0.0062	1.1492		0.8195		0.0049	0.8928		0.9378	
5	0.0106	1.9771	**	2.2818	**	0.0109	2.0016	**	2.1878	**
6	-0.0031	-0.5859		-1.2183		-0.0025	-0.4517		-1.2689	

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7	0.0132	2.4547	**	3.0678	***	0.0136	2.4790	**	4.2150	***
8	0.0066	1.2259		1.5625		0.0093	1.7125	*	1.7035	*
9	0.0163	3.0394	***	1.7814	*	0.0108	1.9922	**	1.3059	
10	0.0020	0.3795		0.6851		0.0064	1.1673		1.0243	

Note: ***, **, and * are significant at 1%, 5%, and 10% significance levels, respectively

Source: Authors' calculations

The results from Table 3 indicate that the Cumulative Average Abnormal Returns (CAAR) for the full event period (CAAR [-10,10]) exceed 0.07 in both models, and they pass the significance tests, demonstrating statistical significance. This suggests that stock buyback announcements have a positive and significant impact on abnormal returns throughout the event period.

It is worth noting that the CAAR [-10, -1] period shows negative values, implying that the increase in CAAR is primarily driven by the abnormal returns observed after the event. This observation is further supported by the positive value of CAAR [0,10], indicating that abnormal returns continue to increase over time. For the periods after the event, namely CAAR [0,1], CAAR [0,5], CAAR [0,7], and CAAR [0,10], both models show positive and statistically significant values. The increasing trend of these CAARs suggests that stock buyback announcements have a consistently positive and significant impact on sample returns during the event window.

However, it is interesting to note that CAAR [-1,0] exhibits positive values in both models. While most of the significance tests confirm statistical significance, the Boehmer test in the market model does not show significance. This finding suggests that the market may have obtained information regarding the stock buybacks in advance, potentially leading to the positive CAAR values during that period.

Table 3: Cumulative Average Abnormal Returns in Event Window Periods

Period	Market Model					Fama-French Three-Factor Model				
	CAAR	T-Test	Sig	Boehmer	Sig	CAAR	T-Test	Sig	Boehmer	Sig
[-10;10]	0.0710	2.7872	***	1.7292	*	0.0770	3.0219	***	1.7157	*
[-5;5]	0.0413	2.2772	**	1.2536		0.0404	2.2175	**	1.2135	
[-1;1]	0.0321	3.3927	***	2.0477	**	0.0316	3.3368	***	2.3774	**
[-10; -1]	-0.0019	-0.1090		-0.0311		-0.0020	-0.1177		0.2826	
[-5; -1]	0.0035	0.2840	**	0.5698		-0.0012	-0.0947		0.4793	
[-1;0]	0.0136	1.7462	*	1.3408		0.0179	2.3035	**	2.0258	**
[0;1]	0.0225	2.9223	***	2.1103	**	0.0237	3.0627	***	2.3069	**
[0;5]	0.0379	2.8331	***	2.5847	**	0.0415	3.1002	***	2.8319	***
[0;7]	0.0479	3.1033	***	2.6332	***	0.0526	3.3979	***	3.0177	***
[0;10]	0.0729	4.0191	***	3.2084	***	0.0791	4.3504	***	3.5262	***

Note: ***, **, and * are significant at 1%, 5%, and 10% significance levels, respectively

Source: Authors' calculations

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According to Figure 2, a remarkable similarity in the AAR and CAAR trends is observed between the Market Model and the Fama-French Three-Factor Model. This signifies the accuracy and reliability of the calculation process used to estimate Abnormal Returns and Cumulative Abnormal Returns for the sample companies in this study.

Notably, starting from -1 to 3 days prior to the event, there is a steep upward surge in the AAR, which subsequently propels the growth of CAAR. On the day -1, CAAR surpasses the baseline of 0. The CAAR exhibits a consistent upward trajectory since the occurrence of the event. Additionally, there is a reduction in the number of days with AAR values below the 0 baseline following the event. Hence, it can be inferred that the event has a positive influence on both Cumulative Average Abnormal Return and Average Abnormal Return for the sample companies.

Figure 2: The Trend of CAARs and AARs in Event Window Periods

The Trend of CAARs and AARs in Event Window Periods
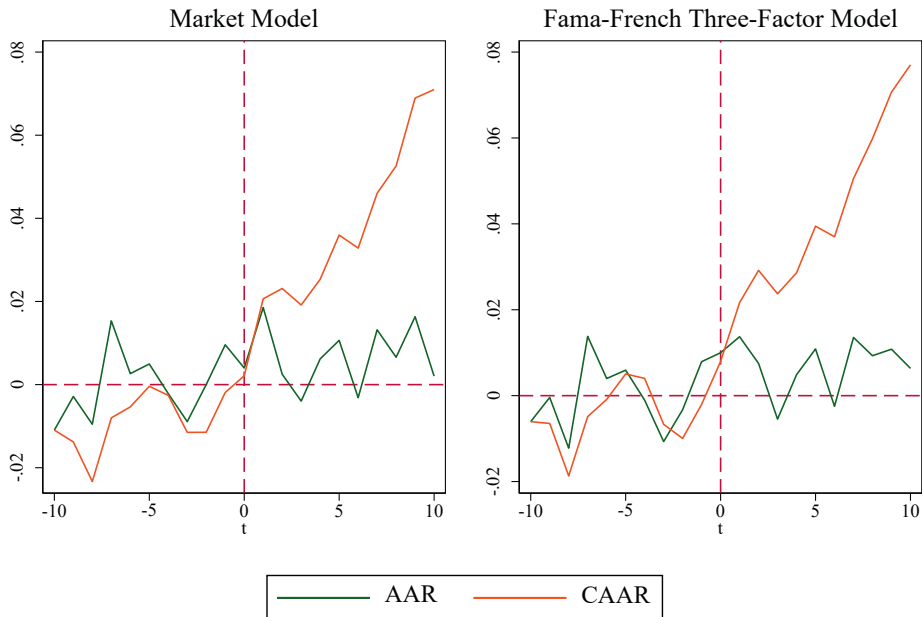
Source: Prepared by the authors

Based on our analysis of Malaysian trading data before June 2022, our findings align with existing research indicating that stock buyback announcements result in positive cumulative abnormal returns in the long term (Baker & Wurgler, 2002; Comment & Jarrell, 1991; Vermaelen, 1980). Additionally, our findings support the prevailing view among scholars that Bursa Malaysia operates as a semi-strong market (Dua et al., 2010; Erdaş, 2020; Hussin et al., 2010, Malek & Saidin, 2014; Shaharuddin et al., 2018; Tee et al., 2018). Furthermore, our study reveals that although investors were able to achieve positive cumulative abnormal returns from the share buyback an-

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nouncement, these positive returns were already evident before investors received the news. This suggests that the company management may have leaked the news early, which is consistent with Bester (1987) assertion that market news mismatch can be detrimental to investors.

However, our findings diverge from the perspectives presented by Abdullah (2007) and Ismail & Rahman (2012), who asserted that investors would not achieve abnormal returns due to the immaturity of the market. We posit several potential explanations for this discrepancy. The first rationale could be associated with the global financial market downturn, as discussed by Petrusheva (2016), Dias et al. (2020) and Victor et al. (2021), They contend that the Covid-19 pandemic has profoundly impacted financial markets, creating significant uncertainty about the future and posing substantial risks of enduring market recession. In light of this, as Tan (2010) and mentioned, certain listed companies in the Malaysian stock market have opted to engage in share buybacks as a means to bolster investor confidence. Another plausible factor is the deliberate manipulation of share prices by the management of listed companies through buyback announcements, as highlighted by Chan et al. (2010), Fried, (2005), and Latif & Mohd (2013). This strategic approach can lead to a sharp upsurge in the cumulative abnormal return of the stock subsequent to the buyback announcement. Substantiating evidence for this explanation can be derived from the Average Abnormal Return on the day before the event (-1 day) and the Cumulative Average Abnormal Return during the [-1,0] period.

CONCLUSION

To examine the impact of share buyback announcements on Average Abnormal Returns and Cumulative Average Abnormal Returns received by investors in the post-epidemic era in Malaysia, we employ the Event Study Method within the framework of Asymmetric Information Theory and Efficient Market Hypothesis Theory. Our empirical analysis encompasses 30 Malaysian listed companies that publicly disclosed share buyback announcements before June 2022, utilizing available data. To ensure the robustness of our findings, we calculate Abnormal Returns and Cumulative Abnormal Returns for the sample stocks using both the Market Model and the Fama-French Three-Factor Model.

Our findings indicate the following:

1. Stock buyback announcements exert a positive influence on the returns of stocks. Investors perceive these announcements as favorable tidings and are inclined to offer a premium for the shares of companies disclosing their intent to repurchase.

2. Empirical evidence gleaned from a sample of publicly listed firms that have declared buyback reveals a Cumulative Abnormal Average Return that progressively ascends from the day preceding the announcement. Consequently, investors stand poised to derive benefits from these buyback declarations within the market.

3. It is plausible that premature leakage of stock buyback information in the Malaysian capital market occurs, thereby resulting in the positive CAAR for stocks even before the official release of buyback announcements.

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Our findings hold significant implications for various stakeholders in the Malaysian capital market. Firstly, the positive influence of stock buyback announcements on stock returns suggests that investors perceive these announcements as favorable signals. This implies that share buybacks are considered value-enhancing actions that can generate confidence and attract a premium for the shares of companies engaged in these repurchase activities. This finding has practical implications for company management and investors who can utilize share buybacks as a strategic tool to enhance shareholder value.

Furthermore, our study makes a valuable contribution to the existing body of knowledge concerning the efficient market hypothesis and asymmetric information theory in the Malaysian context. The observed progressive augmentation in the Cumulative Abnormal Average Return (CAAR) commencing from the day preceding the announcement signifies investors' foresight of future price appreciation and their willingness to retain the stock throughout the buyback duration. This discovery lends support to the proposition that the Malaysian capital market may not exhibit complete efficiency, given the apparent leakage of information preceding the official disclosure of buyback announcements. Consequently, this paves the way for further investigations aimed at unraveling the mechanisms underlying such leakage and its implications for market efficiency and equity within Malaysia. Moreover, our study provides valuable insights into the theory of asymmetric information. The potential occurrence of premature information leakage regarding stock buybacks in the Malaysian capital market, leading to positive CAAR even before the official dissemination of buyback announcements, highlights the presence of information asymmetry. This leakage raises concerns pertaining to equitable market practices and emphasizes the necessity for enhanced transparency and regulatory measures to ensure equitable access to information for all participants in the market.

This study can inform future scholarly discussions on the benefits of stock buyback announcements for investors. However, due to the limitations of the sample, our findings may not fully reflect the market results, and as the buyback events of the sample companies selected for this study are concentrated before June 2022, this may result in the findings being influenced by the market environment. Hence, in future studies, scholars can utilise a richer sample of companies and an event-date sample with a larger period span to validate the results of this study in order to obtain more robust results.

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ORIGINALNI NAUČNI RAD / ORIGINAL SCIENTIFIC PAPER

A STUDY ON ADOPTION OF ARTIFICIAL INTELLIGENCE USE IN MOBILE BANKING

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Abstract: *The aim of this study is to investigate the factors affecting the attitudes and intentions of individual users for the use of artificial intelligence in mobile banking. The data were obtained by survey method from university students using mobile banking applications. 397 forms were accepted as valid out of a total of 418 questionnaire forms, and these data were analyzed with the structural equation modeling. It is revealed that the perceived usefulness positively affects the perceived ease of use and the attitude and intention to use artificial intelligence in mobile banking. At the same time, it was determined that the perceived ease of use and perceived security affected the attitude positively but the intention negatively. The attitude of using artificial intelligence in mobile banking affects the intention positively. It will be beneficial for banks if customers trust the use of artificial intelligence in mobile applications and engage in activities that will facilitate the use of these technologies. In this study, the effects of perceived usefulness, perceived ease of use and perceived security factors on the intention to use artificial intelligence in mobile banking were investigated and it was aimed to fill the gap in the literature.*

Keywords: *Mobile banking, artificial intelligence, technology acceptance model*

JET classification: *G20, M00, M31*

INTRODUCTION

As in every sector, companies in the service sector want to keep their existing customer portfolio, and they try to expand this portfolio as well. From this point of view, especially banking sector applications in the service sector are in the first place in the evaluation of technology-based alternatives. To make this goal sustainable, a need for strategic knowledge has arisen for banks that are uneasy about investing in technology-based alternatives. To enable their customers to quickly integrate into technological developments regarding their decision-making models, the issue of eliminating this lack of knowledge (Dabholkar, 1996) has long attracted the attention of marketing

practitioners and academics (So et al., 2016) and various studies have been carried out on this subject (Barczak et al., 1997; Ricard et al., 2001).

When these studies are examined, it can be said that the effect of technological innovations on applications in the banking sector is mostly in the direction of self-serving (Jung & Allaway, 2002). In this context, applications such as ATM, internet banking, telephone banking, television banking, credit cards, point of sale (POS) terminals can be listed (Ricard et al., 2001). Eventually, with the acquisition of this feature by smart phones, which have adopted technology-based service innovation in the banking sector and which people carry along with them in the last ten years, the m-banking application has developed further and achieved the success of being the best application in which these technologies are used (Silva et al., 2013). The concept of m-banking, which will be explained in detail in the literature section, can be expressed as a wireless service distribution channel that provides increasing value to its customers in banking transactions (Pousttchi & Schuring, 2004).

As mentioned above, these technologies, which can be described as self-service, are the most effective way to gain competitive advantage in banking sector by making banking transactions more valuable, increasing customer value and reducing costs (Bhatt & Bhatt, 2016; Shaikh & Karjaluoto, 2015). This technology, which allows customers to carry out these transactions on their own everywhere at any time without having to talk to a bank employee, is an indicator of a radical change in the banking sector (Shaikh & Karjaluoto, 2015). Apparently, this has changed people's interaction with banks (Choudrie et al., 2018).

It is noteworthy that the studies conducted so far on customers' adoption of m-banking technology mainly focus on factors such as attitudes and intentions (Bhatt & Bhatt, 2016). These factors are PEU, PU, PS and lack of technological skills (Shankar & Kumari, 2016). However, in the studies in which these factors are revealed, it can be said that the issues related to the real adopted decisions are somewhat weaker (Harrison, 2017). Therefore, it is important to focus on studies dealing with the relationship between customer perception and actual use to fill this gap.

Another prominent point in the researches on the use of m-banking is the diversity in customer perception (Nijssen et al., 2016). Some customers may be prejudiced against using this technology on their own and prefer traditional methods. However, the customers who avoid interacting with bank personnel prefer m-banking more (Lee, 2017). Therefore, the decrease in human interaction is a sign that m-banking applications will develop further. Actually, the integration of AI and algorithm-based service interactions into m-banking applications is the most obvious example of this sign (Iberahim et al., 2016).

McCarthy, the inventor of AI, defines AI as the science of making intelligent machines that can think like humans (McCarthy, 2004). Nilsson, (1990), on the other hand, describes it as a theory that aims to imitate natural intelligence. In the simplest terms, they are operating systems that exhibit cognitive functions such as perception, analysis, problem solving, thinking, and decision making. These explanations highlight the existence of some issues that need to be emphasized in AI, which are human responses and intelligent programming. The two main components of AI are data and cloud technologies (Isbank, 2022). Many applications can be mentioned when approaching AI, which is a comprehensive subject, from the m-banking framework.

AI chatbots make a significant contribution to the completion of routine banking transactions by simulating conversation with developed programs and interacting with customers. Applications such as bill payment, portfolio management, cost savings, real-time fraud detection are among AI m-banking services (Bahrammirzaee, 2010).

When talking about models for m-banking use, although the industry focuses on the use of AI, customers who do not want to interact with this technology should not be ignored. Therefore, besides AI supported models, it is necessary to include not only technology-based models but also non-technology-based models. In this context, increasing the number of studies comparing the general understanding in m-banking with AI m-banking will contribute to the literature more (Yalif, 2018). In that case, it can be predicted that a more personalized strategy with relational marketing and customer orientation will be implemented in the AI interactive m-banking application of the future (Ngo & Nguyen, 2016).

To fill the gaps in the literature, this research aims to examine the factors affecting the intention of individual users to use AI in m-banking within the framework of the expanded TAM. Mainly, the factors affecting the decision processes in the use of AI m-banking by potential customers were discussed. Various studies have been conducted on the Y generation on this subject so far (Choudrie et al., 2018) and the presence of the generation Z, in other words the millennial generation, has started to increase in banking services, and therefore we focused on the generation Z. Considering that 30% of the world's population is the generation Z (Mccrindle, 2022), it can be said that the representatives of this generation constitute an important mass for banks. This will also contribute to the creation of banking solutions that meet the demands of Generation Z (Kim & DeVaney, 2016). Likewise, most of the generation Z bank customers are constantly active on social media and they always look for alternative payment tools (Toplin, 2019). According to a study conducted by Raddon Research Insights in 2017 and whose participants are generation Z, 30% of the participants think that there will be no need for traditional banking in the future (Financial Brand, 2019). This makes models such as technology-based and AI in m-banking even more attractive. In short, Generation Z is the new playground of the banking industry (Aldred, 2019).

This study contributes to the literature in various ways. In the first place, it deals with the use of m-banking both from the perspective of technology-based applications and with a focus on people. On the other hand, perception towards AI interactive applications has been measured experimentally. The main difference of the study is to measure the level of generation Z customers' adoption of AI interactive applications in m-banking. Various models such as TAM and service/human interaction were used to reveal this difference. Offering strategic suggestions for those who carry out these practices is one of the contributions of the study.

The rest of the study is structured as follows: An intensive literature review was made regarding m-banking, AI, TAM. Secondly, the research model was developed and related hypotheses were given controversially. In the third part, the methodology was presented to test the hypotheses and the results were discussed. Finally, strategic recommendations were presented for further research and managerial implications.

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LITERATURE BACKGROUND
Mobile Banking (MB)

Mobile banking or m-banking can be explained as the act of carrying out financial transactions online with the help of mobile devices such as mobile phones or tablets (Shaikh & Karjaluoto, 2015). What makes m-banking effective is that it offers the opportunity to manage financial transactions without the need for face-to-face interaction with bank employees. Besides financial transactions, non-financial transactions are also carried out in m-banking. Balance inquiry, money order, account management, bill payment and PIN change are among the transactions that can be done easily in m-banking (Luarn & Lin, 2005).

As we enter the third millennium, the emergence and spread of mobile communication technologies has enabled mobile commerce to be built on solid basis (Schierholz et al., 2007). m-Banking offers various benefits to both potential bank customers and retail banking users, which are the two main elements of banking.

On the one hand, it provides a popular environment such as ubiquitous banking, flexibility and interaction for customers to perform their banking transactions (Cunningham et al., 2009), on the other hand, it forms a strong bond between retail banking users and their customers. In this respect, m-banking is a powerful marketing tool for retail banking users (Cheah et al., 2011). In addition, increasing operational efficiency and reducing costs are among the advantages of m-banking for banks (Curran et al., 2003).

Researches on m-banking reveal that some customers approach m-banking with prejudice due to technological abstinence. This type of customer is also far from edopting m-banking. Because they do not perceive m-banking as an ease of use (Laukkanen, 2007). However, despite this type of customer, the volume of m-banking has increased especially in the last ten years, with the widespread use of smart phone technology. For example, a study conducted in 2018 found out that nearly half of US adults used a mobile phone to access a bank account in 2017. The same research sees the anxiety about accessing banking services and account management tools as the first step of customers towards understanding how to tap into the potential of mobile financial services (Merry, 2018).

A review of the m-banking literature reveals that various factors are influential in the adoption of m-banking. First of all, technology has an effect on customer attitude and intention to adopt m-banking technology (Shaikh & Karjaluoto, 2015). The effect of non-technological factors is also mentioned. PS, PEU, and PU are among these factors (Shankar & Kumari, 2016; Bhatt & Bhatt, 2016). Risk and security are also included in the literature as an effective factor in the adoption of m-banking (Shankar & Kumari, 2016; Bhatt & Bhatt, 2016).

Artificial Intelligence (AI)

In the literature, there are various approaches and explanations about AI. Based on the assumption that it can describe any aspect of learning or any feature of intelligence, McCarthy stated that it is possible to build a machine that can simulate it (McCarthy et al., 1955). Haugeland (1985) sees it as an exciting new effort to make computers think and describes this technology as machines with real minds. Charniak & McDermott, (1985) defined it as the examination of mental abilities using numerical

models. Rich & Knight (2009) defined AI as the study of how the things that humans are good at now will be done by computers in the future. Nilsson (1998) defines AI as human-made intelligent responses. Russell & Norvig (2010) consider AI in four approaches: think like a human, act like a human, think logically and act logically. In the light of these explanations, it can be said that McCarthy is the one who contributed the most about AI. In fact, it can be stated that AI is its own invention, owing to a two-month workshop (Russell & Norvig, 1995). Alan Turing's "litmus test" also made significant contributions to AI. According to Turing, (1950) (Turing test), the important thing is not whether a computer will think, but whether it will imitate humans.

All sectors need AI in global competition. One of these sectors is banking. Analysts predict that the banking industry will be able to generate more than $1 trillion worth of additional benefits by 2030, thanks to AI technology. Many technological opportunities offered by AI, such as natural language processing (NLP) and machine learning, bring along various advantages in achieving this goal (Isbank, 2022). In this respect, there are many applications developed by banks with AI technologies. Fraud method, focused marketing campaigns, sentiment analytics, optimization, real-time translation, voice recognition, digital assistants and branchless banking are among these applications (Digalaki, 2021). Examples of personal assistants, which are applications developed by banks with AI technology, can be listed as follows:

Table 1. Examples of personal banking assistants developed with AI technology

Bank Name	Personal Assistant (AI)	Bank Name	Personal Assistant (AI)
Absa Bank	ChatBanking	HDFC Bank	EVA
American Express	Chatbot	HSBC	VCA
Bank of America	Erica	İşbank	Maxi
Capital One	Eno	JPMorgan Chase	COIN
CaxiaBank	Gina & Neo	Nordea	Nova
Citibank	Citibot	Santander	Chatbot
Commonwealth Bank Australia	Ceba	SEB	Aida
DBS	POSB Chat Banking	Swedbank	Nina
Finansbank	Q	Wells Fargo	Chatbot
Garanti BBVA	Ugi	Yapı Kredi	Chatbot

Source: Authors

The AI literature focuses on the four approaches mentioned by Russell & Norvig, (2010) in different disciplines such as sciences, health sciences, and information sciences. In marketing, which has an important place in social sciences, researchers are interested in how people perceive interaction with AI (Huang & Rust, 2018). Likewise, acting pragmatically has a special importance for customer service in marketing. In financial transactions where customers are more meticulous, what is expected from AI is the final result, such as doing the right thing (Zhou, 2012). When the rational aspect

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of AI is evaluated, customers' perceptions and ATAI can be more understandable at this point (Payne et al., 2018).

Technology Acceptance Model (TAM)

This model, which is put forward theoretically, clarifies the reasons for techno-logical use (Davis, 1989). It is a very effective theory in explaining user acceptance of technologies such as m-banking (Silva et al., 2013). There are two motivational factors that explain why people use technology, namely usefulness and ease of use (Davis, 1989). However, security and risk have limited the effectiveness of this theory in be-havioral adaptation prediction (Shen et al., 2010). Therefore, since the theorem focuses on beliefs, it claims that the two main motivational factors, usefulness and ease of use, are related to beliefs, not technology (Venkatesh & Morris, 2000). In the literature, there are other studies (Taherdoost, 2018; Legris et al., 2003) describing the effects of these two variables on the intention to use technology.

TAM is a general model that explains information technology-related behaviors with the fewest variables. That is, according to TAM, the probability of using technol-ogy depends on its PU and ease of use. Therefore, these two motivational factors have an impact on the acceptance of new technology (Davis, 1989). It is also very common to investigate the effect of other factors such as security and risk on using m-banking (Shankar & Kumari, 2016).

METHODOLOGY
Research Model and Hypotheses

For decades, banks have continuously developed products with which their cus-tomers can interact with them with the help of new technologies. They introduced ATMs in the 1960s and electronic, card-based payments in the 70s. 24/7 online bank-ing was adopted in the 2000s, and then mobile-based banking became widespread in the 2010s (Biswas, Carson, Chung, Singh, & Thomas, 2020). M-banking services have eliminated the problems of users arising from time and place restrictions, enabled them to perform their transactions at the desired place and time, and provided the opportunity to receive fast, easy and low-cost service (Gu et al., 2009; Zhou, 2012; Akturan & Tezcan, 2012). In addition, banks that want to increase their service quality to a higher level have integrated the use of AI into their mobile applications. In this way, they can gain benefits such as improving business processes, optimizing service efficiency, improving customer experiences, establishing effective customer relations, increasing competitive power and responding quickly to internal and external changes (Ghandour, 2021).

In this study, using the extended TAM (Figure 1), the factors affecting the IUAI in m-banking are investigated.

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Figure 1. Research Model
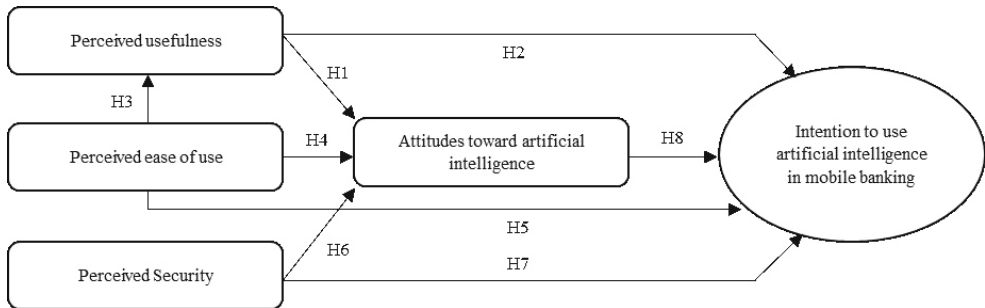
Source: Authors

Perceived Usefulness (PU): PU can be defined as the degree to which people believe that using an application will increase their performance at work. At this point, people tend to use or not to use their preferred application to the extent that they believe it will contribute more to their work (Davis, 1989). When the studies are examined, it is understood that the perceived usefulnes has a positive effect on the intention to use m-banking (Cheong & Park, 2005; Wessels & Drennan, 2010; Lin, 2011; Giovanis et al., 2019; Purohit & Arora, 2021). The use of AI in m-banking, on the other hand, provides banks with an increase in speed, accuracy and efficiency (Kaya, 2019), improves the experience of users, offers personalized services and increases the efficiency of the services they receive (Vijai, 2019). It is thought that these benefits can positively affect people's ATAI and their IUAI in m-banking. Accordingly, the following hypotheses were developed:

H1. Perceived usefulness has a positive effect on attitudes towards artificial intelligence in mobile banking.

H2. Perceived usefulness has a positive effect on the intention to use artificial intelligence services in mobile banking.

Perceived Ease of Use (PEU): PEU is defined as the degree of belief that using a system is effortlessly easy. When the previous studies are examined, it is seen that the PEU has a positive effect on the intention to use m-banking (Lin, 2011; Safeena et al., 2012; Akturan & Tezcan, 2012). Malaquias & Silva (2020) and Köksal (2016) state that PEU plays an important role in adopting m-banking technologies. However, there is a positive relationship between PEU and PU (Gu et al., 2009; Malaquias & Silva, 2020). Based on this information, the following hypotheses were developed:

H3. Perceived ease of use has a positive effect on perceived usefulness in mobile banking.

H4. Perceived ease of use has a positive effect on attitudes towards artificial intelligence in mobile banking.

H5. Perceived ease of use has a positive effect on the intention to use artificial intelligence services in mobile banking.

Perceived Security (PS): PS risk refers to the perception of possible loss of control over the transactions performed or the financial information owned (Akturan & Tezcan, 2012). At this point, if m-banking users do not feel any concern about security, they will find bank applications useful and will be more willing to use them (Gu et al., 2009). When the studies are examined, the decrease in security in m-banking causes a

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decrease in the trust of the users and thus creates a negative effect on their intention to use (Shankar & Kumari, 2016; Tertia & Nurbasari, 2022; Wessels & Drennan, 2010). At the same time, Featherman & Haili (2016) state that when users evaluate a technology-based service, they develop a set of risk beliefs about this service. Perceptions of high risk may negatively affect their attitudes and intentions towards the use of services containing new technology. Accordingly, the following hypotheses were developed:

H6. Perceived security has a positive effect on attitudes towards artificial intelligence in mobile banking.

H7. Perceived security has a positive effect on the intention to use artificial intelligence services in mobile banking.

Attitudes Towards Artificial Intelligence (ATAI): When users' attitudes towards a service are positive, their intention to use that service is equally strong (Ajzen, 1991). This is also the case for a technology-based application. An easy-to-use and useful application provides a positive attitude and therefore affects the intention to use it positively (Rampersad et al., 2012). Based on this information, the following hypotheses were developed:

H8. Attitudes towards artificial intelligence have a positive effect on the intention to use artificial intelligence services in mobile banking.

Method and Sample Size

In this study, a survey was conducted within the framework of the scale created by expanding the TAM to determine the attitudes of m-banking application users towards AI in m-banking and the factors affecting their IUAI. The data were obtained from the students studying at the Faculty of Business Administration of Selcuk University through a questionnaire sent to their e-mails. 21 of these forms, which contain missing information and were decided not to be used, were not included in the analysis and 397 forms were used. Basic information about the participants is shown in Table 2.

Table 2. Demographic characteristics of the participants

Variable	N	(%)	Variable	N	(%)
Gender			*Bank Preference*		
Female	187	47.1%	Yapı Kredi	58	8.5%
Male	210	52.9%	Akbank	23	3.4%
Age (years)			Garanti BBVA	52	7.6%
18	21	5.3%	TEB	9	1.3%
19	85	21.4%	İşbank	49	7.2%
20	108	27.2%	Finansbank	30	4.4%
21	81	20.4%	Kuveyt Türk	27	4.0%
22	38	9.6%	ING Bank	5	0.7%
23	18	4.5%	Denizbank	14	2.0%
24	10	2.5%	Türkiye Finans	4	0.6%
25 and above	36	9.1%	Ziraat Bank	315	46.1%
Monthly Income			Vakıfbank	57	8.3%

Under 1.000 TL	245	61.7%	Halkbank	23	3.4%
1.000-1.999 TL	55	13.9%	Others	17	2.5%
2.000-2.999 TL	43	10.8%			
3.000-3.999 TL	14	3.5%			
4.000-4.999 TL	7	1.8%			
5.000 TL and above	33	8.3%			
n = 397					

Source: Authors

Scales and Analysis Method

All of the scales used in this study were obtained from previous studies. The use of the scales in other studies and their high reliability were important criteria to be prefered. However, the cronbach alpha values of all scales are above the generally accepted value of 0.70. A 5-point Likert type scale was used for a total of 29 items in the questionnaire. The items in the scales and their sources are shown in Table 3.

Table 3. Scales and sources

Constructs	Items	Measures	Resources
Perceived Usefulness	PU1	M-banking enables me to accomplish banking activities more quickly	Pikkarainen et al. (2004) Al-Jabri & Sohail (2012) Lin (2011) Yiu et al. (2007) Al-Somali et al. (2009) Igbaria et al. (1995) Cheng et al. (2006)
	PU2	M-banking enables me to accomplish banking activities more easy	
	PU3	M-banking gives me greater control over financial banking activities	
	PU4	M-banking allows me to manage my finance effectively	
	PU5	M-banking enables me to accomplish more banking activities	
	PU6	I think m-banking is useful	
Perceived Ease of Use	PEU1	I find m-banking easy to use	Pikkarainen et al. (2004) Pala & Kartal (2010) Al-Somali et al. (2009) Igbaria et al. (1995) Cheng et al. (2006)
	PEU2	Learning to use m-banking is easy for me	
	PEU3	Learning to use m-banking does not require a lot of mental effort	
	PEU4	I find interaction with the m-banking services clear and understandable	
Perceived Security	PS1	I trust the technologies used in m-banking	Pikkarainen et al. (2004) Payne et al. (2018) Cheng et al. (2006)
	PS2	I trust in the ability of a m-banking to protect my privacy	
	PS3	I trust in m-banking as a bank	
	PS4	Using a m-banking is financially secure	
	PS5	I am not worried about the security of a m-banking	
	PS6	Information about my transactions may not be tampered by others	

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Attitudes Toward AI	ATAI1	I would enjoy using AI	Payne et al. (2018)
	ATAI2	I want to use AI	
	ATAI3	I think that AI is essential	
	ATAI4	I am confident that i can use	
	ATAI5	AI is not intimidating	
	ATAI6	AI is exciting	
	ATAI7	Overall, i would be comfortable interacting with AI	
Intention to Use AI in Mobil Banking	IUAI1	Comfort using AI for paying bills	Payne et al. (2018)
	IUAI2	Comfort using AI for having a conversation with AI concerning your accounts	
	IUAI3	Comfort using AI for managing my accounts	
	IUAI4	Comfort using for getting personalized investment advice	
	IUAI5	Comfort using for getting personalized spending advice	
	IUAI6	Overall comfort banking with AI	

Source: Authors

SPSS 21 and AMOS 21 programs were used to analyze the data obtained in this study. First, the reliability of the scales was tested, and then exploratory factor analysis was performed to determine the factor structures. Then, it was determined whether the measurement model was sufficient with confirmatory factor analysis. Finally, the hypotheses in the study were tested with structural equation modeling.

RESULTS
Reliability and Exploratory Factor Analysis
Cronbach's alpha value was calculated to test the reliability of the scales. These values calculated for all scales are between 0.812 and 0.910 and are above the commonly accepted value of 0.70 (Cheng et al., 2006). Exploratory factor analysis was performed to determine the factor structures of the items forming the scale. Principal component analysis and direct oblimin rotation method were used in the analysis. In addition, eigenvalues for each factor were required to be greater than 1 and factor loadings were required to be greater than 0.60 (Nunnally, 1978). As a result of the analysis, it was determined that the factor loads of the scales varied between 0.660 and 0.855 and ensured the validity. The cronbach alpha values of the scales and the exploratory factor analysis results are shown in Table 4.

Table 4. Factor analysis

Constructs	Items	Loadings	Constructs	Items	Loadings
Perceived Usefulness (α = 0.884) (variance explained = 7.723%)	PU1	0.833	Attitudes Toward AI (α = 0.901) (variance explained = 38.153%)	ATAI1	0.748
	PU2	0.741		ATAI2	0.775
	PU3	0.692		ATAI3	0.784
	PU4	0.782		ATAI4	0.705
	PU5	0.701		ATAI5	0.764
	PU6	0.696		ATAI6	0.766
				ATAI7	0.762
Perceived Ease of Use (α = 0.812) (variance explained = 4.250%)	PEU1	0.668			
	PEU2	0.817	Intention to Use AI in Mobil Banking (α = 0.908) (variance explained = 6.076%)	IUAI1	0.800
	PEU3	0.789		IUAI2	0.820
	PEU4	0.706		IUAI3	0.752
				IUAI4	0.784
Perceived Security (α = 0.910) (variance explained = 10.374%)	PS1	0.761		IUAI5	0.855
	PS2	0.846		IUAI6	0.660
	PS3	0.832			
	PS4	0.804			
	PS5	0.833			
	PS6	0.754			
Total variance explained = 66.576%					

Source: Authors

Confirmatory Factor Analysis

Confirmatory factor analysis was performed to confirm the structure determined by exploratory factor analysis. When the results of the analysis were examined, it was understood that some of the fit index values were below the acceptable level and the PEU3 item was removed from the scale. In addition, covariances were established between PS1 and PS2, ATAI1 and ATAI 2, ATAI 4 and ATAI 5, and IUAI4 and IUAI5. When the results obtained by repeating the analysis were examined, it was determined that the fit indices were above the values accepted in the literature (Hu & Bentler, 1999; Schermelleh-Engel et al., 2003; Hair et al., 2014). The fit indices of the scale are shown in Table 5.

Table 5. Fit indices

Fit indices	Suggested	Obtained
Chi-square		610.569
df		336
Chi-square significance	≤ 0.05	0.000
Chi-square/df	$0 < x2/df \leq 3$	1.817
GFI	≥0,90	0.902
NFI	≥0,90	0.914
CFI	≥0,95	0.959
RFI	≥0,90	0.903

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TLI	≥0,95	0.954
IFI	≥0,90	0.959
RMSEA	≤0,05	0.045

Source: Authors

Path Analysis

Path analysis, the last step of the structural equation model, was performed to test the hypotheses. At this point, firstly, the fit indices of the model were examined. When the fit indices are examined, it was seen that they were above the recommended values (Table 6).

Table 6. Fit indices of the model

Fit indices	Suggested	Obtained
Chi-square		621.846
df		337
Chi-square significance	≤ 0.05	0.000
Chi-square/df	0<x2/df ≤3	1.845
GFI	≥0,90	0.900
NFI	≥0,90	0.913
CFI	≥0,95	0.958
RFI	≥0,90	0.902
TLI	≥0,95	0.953
IFI	≥0,90	0.958
RMSEA	≤0,05	0.046

Source: Authors

Figure 2. Structural equation model results
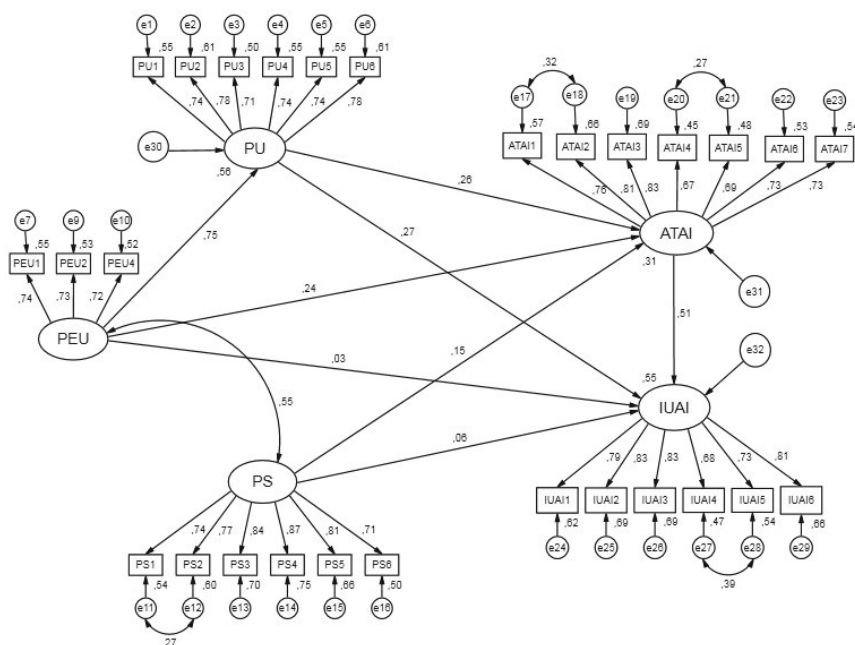
The path diagram formed as a result of the analysis is shown in Figure 2, and the results of the hypothesis test are shown in Table 7.

Table 7. Hypothesis test results

No.	Hypothesis path	Estimate	S.E.	C.R.	Standardized estimate (β)	p	Hypothesis result
H1	ATAI ← PU	0.315	0.108	2.906	0.265	0.004**	Supported
H2	IUAI ← PU	0.298	0.086	3.450	0.271	0.000*	Supported
H3	PU ← PEU	0.772	0.070	11.027	0.750	0.000*	Supported
H4	ATAI ← PEU	0.293	0.131	2.235	0.240	0.025***	Supported
H5	IUAI ← PEU	0.032	0.103	0.305	0.028	0.761	Not Supported
H6	ATAI ← PS	0.174	0.074	2.345	0.146	0.019***	Supported
H7	IUAI ← PS	0.068	0.058	1.162	0.061	0.245	Not Supported
H8	IUAI ← ATAI	0.474	0.056	8.539	0.512	0.000*	Supported

Notes: $*p<0.001$, $**p<0.01$, $*** p<0.05$

Source: Authors

As seen in Figure 2 and Table 7 where the results of the structural equation model are presented, PU has a positive effect on ATAI ($\beta = 0.265$, $p < 0.01$) and IUAI in m-banking ($\beta = 0.271$, $p < 0.001$). While PEU has a positive effect on PU ($\beta = 0.750$, $p < 0.001$) and ATAI ($\beta = 0.240$, $p < 0.05$), it has a negative effect on the IUAI in m-banking ($\beta = 0.028$, $p = 0.761$). While PS has a positive effect on ATAI ($\beta = 0.146$, $p < 0.05$), it has a negative effect on IUAI in m-banking ($\beta = 0.061$, $p = 0.245$). ATAI have a positive effect on the IUAI in m-banking ($\beta = 0.512$, $p < 0.001$). According to these results, while H1, H2, H3, H4, H6, H8 were accepted, H5 and H7 were rejected.

DISCUSSION

For decades, the TAM has been used to determine people's attitudes and behaviors. This model has been expanded over time and has been the subject of research within the framework of m-banking and some technologies used in m-banking. In this study, the TAM was expanded and the effects of PU, PEU and PS on ATAI and IUAI were investigated. PU can be expressed as the belief that customers, by using a product, will gain advantage, their job will be easier, and thus they will gain more benefits. At this point, customers will have a positive ATAI and using AI in m-banking if they perceive that they can perform their transactions easily and faster, and generally provide advantages with the use of AI in m-banking. Research results show that PU has a positive effect on ATAI and IUAI in m-banking. Thus, the H1 and H2 hypotheses were accepted.

PEU means that customers' intention to use a product may change depending on whether the product is easy or difficult to use. Therefore, facilitating the use of m-banking applications based on AI will positively affect customers' intention to use them. According to our research, it is concluded that PEU has a positive effect on PU and ATAI, and a negative effect on the IUAI in m-banking. This negative effect reveals the necessity of developing AI applications in mobile applications in a user-friendly way in line with customer expectations. At this point, hypotheses H3 and H4 were accepted, but hypothesis H5 was rejected.

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Customers' doubts about security emerge as one of the important factors that affect the adoption of the use of a product, system or technological innovation. According to the information obtained from the study, it was concluded that PS had a positive effect on ATAI and a negative effect on the IUAI in m-banking. This result shows that although consumers' ATAI are positive in terms of security, their IUAI in mobile applications is negative. At this point, eliminating security concerns in mobile applications will enable more people to use banking services. Thus, the H6 hypotheses were accepted, and the H7 hypothesis was rejected.

Positive attitudes of customers towards a product also positively affect their intention to use that product. According to the results of the study, it was determined that ATAI positively affect the IUAI in mobile applications. Accordingly, the H8 hypothesis was accepted.

CONCLUSION

In this study, which was carried out based on the TAM, the factors affecting the IUAI in m-banking were investigated. The results obtained from this study, which is thought to contribute to the relevant literature, make it possible to make both theoretical and administrative implications.

The theoretical contribution of this research is the development of a model to determine customers' IUAI in m-banking in the context of generation Z. In addition, it reveals how developing technology has an impact on customers' attitudes and intentions. This research, which emerged by expanding the TAM, can also contribute to the deficiency in the literature.

From an administrative point of view, it was determined that usefulness, ease of use, security and attitude have important effects on the formation of IUAI in m-banking, as it is stated in the literature. It was determined that PU has a positive effect on attitudes and IUAI. While PEU has a positive effect on ATAI, it seems to have a negative effect on intention. This negative effect should not be in a structure that causes difficulties for customers and, as a result, reduces the use of AI applications used by banks in m-banking. In addition, PS has a positive effect on attitude and a negative effect on intention. At this point, it would be appropriate to take the necessary measures to minimize the perceived risks in the mobile applications of banks.

AI, which has more and more areas of use every day, will enable the development of products and services offered in m-banking and facilitate banking transactions for customers. At this point, it will show that these technologies have a facilitating effect, and it will be for the benefits of banks to engage in activities that will eliminate the customers' concerns about AI.

This study has some limitations that should be evaluated in future studies. This model, which was first created by expanding the TAM, includes certain factors. The research can be carried out more comprehensively by adding other factors that may affect the attitude and IUAI. Secondly, the sample used in the research includes university students. Increasing the sample size in future studies will improve the limitation in the generalization of the results. Third, the study is for a specific age group. Studies on different age groups may yield different results.

Results and discussion represent part of the paper in which results of the research conducted are explained and compared to similar research, the limits of the interpreted results are analysed, as are their significance and potential implications.

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ORIGINALNI NAUČNI RAD / ORIGINAL SCIENTIFIC PAPER

THE REASONS FOR HUMAN ERRORS IN BANKS AND EMPLOYEES' MINDSETS

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Abstract: This study is devoted to operational risk management in banks. One of the factors are human errors. According to the different studies, banks face a lot of challenges in managing human errors and cultivating employee's mindset. The aim of the paper is to identify the reasons and the frequencies of human errors in banks, to understand employees' attitude towards mistakes and to discover the gaps in managing operational risk in banks. By collecting and analyzing the survey data from the finance sector's employees globally and empirical evidence, the research is aimed to provide potential operational risk management solutions for banks, making the subject relevant. The qualitative method utilized in this study is based on factors influencing operational risk management. The key results are that employees' attitude, knowledge, automation, fat finger error, process documentation, support from colleagues, and attentional issues have significant relationships with the reasons for human errors in banks and thus has the impact on operational risk management in banks. Also, the research provides deeper conclusions about the frecuencies of human errors, employees mindsets and management response towards the mistakes in banks.

Keywords: operational risk management, human errors, mindset

JET classification: G21

INTRODUCTION

One of the main challenges facing the finance banking sector today is operational risk. Its management entails taking the appropriate steps to ensure quality transactions and the provision of top-notch customer service (Grody, A. D., Harmantzis, F. C. and Kaple, G. J., 2006). According to the definition, operational risk is "the risk of direct or indirect loss, coming from inadequate or failing internal processes, people, and systems, or from external events" (BCBS, 2001). Any loss caused by insufficient or failing internal systems, people, and procedures can be categorized as a direct event. Adegoke (Adegoke, 2020), Hale (Hale, 2011), Trusova et al. (Trusova, Hryvkivska,

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Melnyk, Gerasymova, & Maksym, 2021), Chapelle (Chapelle, 2019) examined internal process risk management and recommends that there should be strong internal control system that can cater for any failure of internal control process. Examples of indirect events include floods, terrorist attacks, political regime or government changes and natural disasters (Delija, 2015); (Gadzo, S. G., Kportorgbi, H. K. & Gatsi, J. G., 2019). Internal losses typically affect back offices, with financial market activities first, retail next, and then the IT department. (Chapelle, 2019). This paper is devoted to direct events, mainly human errors, and employees' mindsets in banks. The aim of the article is to determine the causes and frequency of human error in banks, as well as the attitudes of employees towards errors and the shortcomings in operational risk management in banks. The main objective of this research work is to examine human errors and employees' mindsets in banks. The research questions of this paper are: What are the reasons for human errors in the banks? What are employees' mindsets and behavior towards human errors? What is the management attitude to the employees' mistakes? What are the gaps in operational risk management?

Research Hypotheses:

H1: Human errors are common occurrences in daily routines and the potential for errors is present in many aspects of the banking industry.

H2: There is a relationship between reasons for mistakes (such as finger errors, lack of knowledge, lack of documentation, lack of support from the colleagues, lack of attention, mindset, and accountability for employees 'mistakes) and proposed independent variables in the model, such as employee age, working experience and working environment.

The paper's structure consists of a brief introduction of the problem, literature review that provides relevant background information about the topic, as well as the most recent studies pertinent to the paper. Further the paper includes detailed information about the implementation details of the methods. Afterwards the data that was collected and the results of the statistical tests that were performed are described in the research results and discussion section. Finally, the paper provides conclusions that include the explanation of the hypotheses, the assessment and contribution of the research's findings, the overview of limitations and the recommendations for further studies.

LITERATURE REVIEW

Human errors are a common and significant source of operational risk in various industries. These errors can lead to financial losses, accidents, reduced productivity, and damage to an organization's reputation. Human error is defined differently by the researchers, though they all have a common feature. A course of action that has negative consequences or does not provide the anticipated result is called a human error (Kanki, 2018). A significant part of the label human error's history is covered in the preface to Woods et al.'s book "Behind Human Error." (Woods D., 2010). They also point out that human error is an attribution after the fact and when people fail, they learn from it and adapt their activities. Error in human behavior refers to actions that were not intended by the actor, did not follow the expectations of the rules or an external observer, or led the task or system beyond what was considered appropriate (Senders, 1991). When describing human errors and estimating their frequency, human error dependence is also an important issue. The primary methods used in the quanti-

fication of human error are: Technique used for human error rate prediction (THERP), that was developed by Swain in 1983; Success Likelihood Index Method (SLIM), that was proposed by Embrey et al. (1984) for nuclear industry; Human error assessment and reduction technique (HEART), that was created by Williams in 1986; Absolute probability judgment (Humphreys, 1995). Afterwards Kirwan (Kirwan, 1997) in his studies investigated these methods and claimed that HEART has "a reasonable level of accuracy" but is not better than the other techniques.

The designation of human error is made after the fact and is subject to bias in retrospective. A simplified chain of events frequently becomes the event model after the result is understood. Error orientation is a personality characteristic that specifically applies to how people respond to and think about errors at work (Rybowiak V., Garst H., Frese M., Batinic B., 1999). Lazarus and Folkman (Lazarus, R. S., & Folkman, S., 1984) suggested that it could be viewed as a coping method. For instance, one approach to dealing with mistakes would be to hide them rather than admitting them or by trying to maintain calm in a mistaken circumstance so that you can deal with it and learn from it. The relationship between how people react to mistakes and their level of work involvement has been the subject of research ((Matsuo, 2019); (Maden, 2015)). According to Matsuo (2019), learning goal orientation has a positive effect on workplace engagement. According to Bipp and Demerouti's (Bipp, T., & Demerouti, E., 2015)) research, learning goal orientation influence work engagement, workplace innovation and behavior of employees. Additionally, it was discovered that job crafting mediated the link between learning goal orientation and job crafting. Job crafting (Wrzesniewski, A., & Dutton, J. E., 2001) is the process of self-initiated transformation that employees undertake to align their work with their personal preferences, motives, and passions. For example, reducing lowering production numbers or focusing on other preferred tasks in general, improving the quality of interaction, or choosing to interact less with people that cause them psychological stress. Therefore, positive error orientation will also generate proactive job crafting behaviors, people are more likely to invest in job crafting when they perceive mistakes as opportunities to learn and grow. Operational risk is indeed closely related to an organization's culture, decision-making processes, and the alignment between planned and actual business outcomes (Chernobai, A., Ozdagli, A., Wang, J., 2021). The management role is also important. Studies (Muhtaseb, H., Eleyan, D., 2021)show that financial-statement analysis, product profitability analysis, and total quality management are most closely related to operational risk management in the banking sector, confirming the importance of monitoring and reporting findings to management. According to other authors (Erzurumlu, Y.O., Avcı, G., 2021) two elements: organized internal governance mechanisms, which entail structured controls and monitoring, and adequate reporting to senior-level management in banks are the most crucial for ensuring that the banks' processes and products are transparent for shareholders. Employees can learn useful information from supervisor comments to improve their work processes and work more independently as they gain task-specific competency (Zhou, 2003). However, by creating a culture that values learning and encourages individual initiative, leaders can use feedback to improve followers' growth in addition to their performance on tasks (Park, 2021). Regularly giving feedback to subordinates influences the structures that keep and regulate behavior. Behavior regulation is always connected to changing an approach of action when mistakes are discovered. The impact of workload on the frequency of operational

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risk events in banks was examined by Xu et al., (Xu Y., Tan T.F.; Netessine, S., 2021). They discovered that when there is a high workload, multitasking causes employees to make more standard errors, and when there is a low workload, performance-seeking risks are more likely to be taken. They concluded that hiring flexible employees might significantly reduce operational risk incidents by 3.2% –10%. This can be accomplished by giving employees flexibility in their job duties, such as the ability to move business lines or branches within the same organization on a quarterly basis. According to other findings (Chernobai, A., Ozdagli, A., Wang, J., 2021), the activities of banks outside the typical banking industry significantly raised the frequency of operational risk incidents. The findings of their studies demonstrated that higher complexity raises operational risk across all business lines for banks, including their core banking business. Complexity is the enemy of safety. Making progress means learning how to manage the complexity that results from reaching greater capacity levels while faced with limited resources (Woods, D.D., Patterson, E.S., and Cook, R.I., 2006).

The main motivating factor behind this study's execution is the huge amount of research on operational risk management techniques, however, to the best of researcher's knowledge and extent of literature review, there haven't been latest studies that analyze human errors from banks employees' mindsets perspective. The study attempts to fill in the gaps in the literature by looking into operational risk management practices and analysis of human errors in banks and banks employees' mindsets towards the errors.

METHODS

This study utilized the survey approach, which entails posing questions to participants and compiling their replies (Gujarati, 2004). The survey research approach was chosen because it fully displays the opinions, experiences, facts, mindsets, and behaviors of the respondents. The QuestionPro program was used to produce the survey, and Amazon Mechanical Turk, a crowdsourcing marketplace that enables researchers to complete time-consuming projects by distributed employees online, facilitated the distribution of the questionnaire via LinkedIn. The IBM SPSS Statistics -22-win64 tool was used to analyze the data. The population of the study is made up of people who work in the financial sector worldwide, primary bank employees, as the study focuses on operational risk management in banks, mainly human errors and the main survey research question is to find the gaps in operational risk management. The survey method is employed since it is challenging to obtain published data because it may be deemed sensitive or hidden. Therefore, primary data were chosen for this study. It also provides high-quality original research that is free of bias and outside perspectives. We have not concentrated on the precise tasks or positions held by bank workers; as a result, the questionnaires were designed for all staff, regardless of work experience, seniority, or level of responsibility, based mostly on their experience. The sort of tool utilized to collect data for this study was a questionnaire. The survey's design was created to be user-friendly and straightforward to promote respondents' attentive participation. Twenty-two questions make up the survey: eighteen questions are designed based on coding numbers with possible detailed responses, which were built based on the literature review, personal observation, data review of the Operational Riskdata eXchange Association (ORX), and proposed model. Four questions are designed simply, and rate respondents' opinions based on their responses as to whether they strongly agree (yes) or strongly disagree (no). The collected data were measured using

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descriptive and inferential statistical techniques in line with the proxies for the dependent and independent variables. The descriptive statistical tool indicates the characteristics of respondents. The inferential statistical tool displays the model's measurement outcomes. Afterwards, data was evaluated utilizing statistical approaches including frequencies and Analysis of Variance and the hypotheses were tested.

RESEARCH RESULTS AND DISCUSSION
Response Rate

The distribution of questionnaires and the number of completed questionnaires are summarized in Table 1 below. 583 (90.81%) of the 642 questionnaires that were distributed received a response. The retrieved questionnaire passed data screening, and each item was determined to be valuable. Thus, 583 completed and returned questionnaires or 90.81% of the total given questionnaires were used for the analysis. The response rate is deemed sufficient for statistical reliability (Yun G.W., Trumbo C.W. , 2000).

Table 1. Summary of Response Rate

Items	No of Copies	Percentage (%)
Copies of Questionnaire Distributed	642	100
Copies of Questionnaire Completed	583	90.81

Source: Author's calculation based on questionpro. The reasons of mistakes in the banks and employee's mindsets survey, 2023.

Missing Values and Normality Test

As missing values are one of the primary challenges in data processing, the gathered data was verified to identify them (Tabachnick, B.G., & Fidell, L.S., 2013). Quantitative variables include response IDs (cases) and Q1 through Q22, 22 questions total. According to Hair at al. (Hair, 2014), the data should be checked for missing values and researchers should utilize 10% as a tolerable threshold for missing data. According to descriptives univariate statistics (MVA test), missing data elements were insufficient in the data set to be considered. Tabe 2 illustrates case processing summary and there are no missing values in Q1- Q22, meaning that all questions were answered.

Table 2. Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Q1 - Q22	642	100.0%	0	0.0%	642	100.0%

Source: Author's calculation based on SPSS 22.0

The acquired data was screened and analyzed for normality to determine whether variables may be assumed to be regularly distributed. This is an essential decision since, unless sample sizes are very large, most parametric statistical tests assume that

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variables are normally distributed (Wayne, 1990). Table 3 below provides the results of the normality test. K-S test showed that statistic takes value 0.239 (Q1). Significance value provided by SPSS (quoted under Sig. for Kolmogorov-Smirnov and Shapiro-Wilk test) is .000 (reported as $p < .001$) proved that these variables are statistically significantly different from a normal distribution, meaning that we reject the null hypothesis that data is normally distributed.

Table 3. Tests of Normality

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Q1	.239	642	.000	.881	642	.000
Q2	.261	642	.000	.840	642	.000
Q3	.410	642	.000	.673	642	.000
Q4, 1	.370	642	.000	.632	642	.000
Q4, 2	.388	642	.000	.625	642	.000
Q4, 3	.389	642	.000	.624	642	.000
Q4, 4	.455	642	.000	.560	642	.000
Q5	.183	642	.000	.936	642	.000
Q6	.157	642	.000	.941	642	.000
Q7	.169	642	.000	.941	642	.000
Q8	.151	642	.000	.943	642	.000
Q9	.153	642	.000	.953	642	.000
Q10	.143	642	.000	.949	642	.000
Q11	.158	642	.000	.954	642	.000
Q12	.143	642	.000	.952	642	.000
Q13	.151	642	.000	.949	642	.000
Q14	.145	642	.000	.952	642	.000
Q15	.157	642	.000	.951	642	.000
Q16	.143	642	.000	.952	642	.000
Q17	.183	642	.000	.940	642	.000
Q18	.236	642	.000	.868	642	.000
Q19	.241	642	.000	.867	642	.000
Q20	.291	642	.000	.846	642	.000
Q21	.195	642	.000	.896	642	.000
Q22	.226	642	.000	.882	642	.000

Source: Author's calculation based on SPSS 22.0

Characteristics of Respondents

The characteristics of respondents are shown in this section. Statistics cover age distribution, geographic distribution, the distribution of experience in the finance sector, working environment, for example if employee is working in the office or has remote working conditions. Table 4 presents the results and shows that most of the respondents

that participated in this study are between the ages of 25-44, meaning that 41.6% of the sampled respondents are between the ages of 25-34 and 34.1 % of the sampled respondents are between the ages of 35-44. While 12.5 % of the total respondents are between ages of 18-24, respondents above 45 years representing 11.8 % of total respondents. Moreover, as indicated in Table 4, 285 respondents constituting 44.4% of the total responses have been working in finance sector within a period of six to ten years and 203 respondents constituting 31.6% of the total responses have been working in finance sector less than five years. On the other hand, 114 respondents, which constitute 17.8 % of the total response, have been working within a period of eleven to fifteen years and only 5.9% of total respondents have been working in the finance sector for more than fifteen years. Also, from the Table 4 it can be deduced that, 67.6 % of sampled respondents work in the office, 22.9 % work in hybrid conditions, meaning that employees are expected to attend the office at least one day per week while being permitted to work remotely and 8.6% perform their work remotely. Information about geographic characteristics of respondents are as follows: 90.8% are from the United States of America, 4.1 % from Europe (DE, FR, GB, IT, LV, NL), 3.6 % from India and 1.4 % from Canada.

Table 4. Descriptive Statistics of the Respondents

Characteristics		Frequency N = 642	Percent
Age	18-24	80	12.5
	25-34	267	41.6
	35-44	219	34.1
	45-54	60	9.3
	55-64	13	2.0
	Above 64	3	.5
Year of work experience in finance sector	0-5 years	203	31.6
	6-10 years	285	44.4
	11-15 years	114	17.8
	15-20 years	25	3.9
	21 years and above	13	2.0
Working environment	In the office	434	67.6
	Hybrid (office and remote)	147	22.9
	Remote (at home, etc.)	55	8.6
Country code	BR	1	.2
	CA	9	1.4
	DE	6	.9
	FR	3	.5
	GB	3	.5
	IN	23	3.6
	IT	2	.3
	LV	3	.5

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| NL | 9 | 1.4 |
| US | 583 | 90.8 |

Source: Author's calculation based on SPSS 22.0

As the result, the above mentioned implies that, the data collected about age distribution, work experience distribution and working environment is suitable due to long and competent years of services of respondents and experience in different working conditions.

The variables for proposed model

The variables for the proposed model are shown in Figure 1. The independent variables (age, working experience, working environment, geography) were discussed in the previous section, the dependent variables were selected based on the literature review provided in section 1 ((Adegoke, 2020); (Hale, 2011); (Trusova, Hryvkivska, Melnyk, Gerasymova, & Maksym, 2021); (Chapelle, 2019); (Woods D., 2010); etc.). The survey includes all the variables considered in Figure 1, meaning that the model allows us to understand the main reasons for human errors in banks. The survey structure supports three main factors: people risk management, internal process risk management and technology risk management. To understand the main reasons of human errors, we extracted independent variables such as fat finger error, lack of knowledge, support from colleagues, lack of attention, mindset of employees, management attitude, lack of instructions/procedures, lack of automation and IT controls.

Figire 1. Model "The Reasons for Human Errors in Banks".
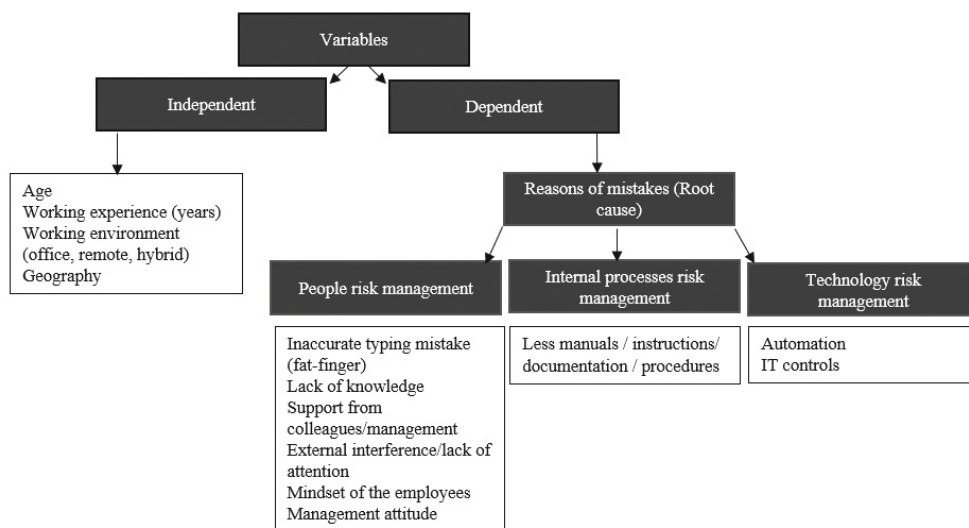
Source: Author's construction, The Reasons for Human Errors in Banks, and Employees' Mindsets. 2023.

Before going to the reasons of mistakes questionaries, respondents were asked to mark what is considered the "mistake" for them and select all the answers that apply (4 max). Possible answers: fat-finger error (typing mistake) (1), any deviation from the

process (2), wrong action, statement, or judgement (3), produces a result that is not correct or not intended (4). According to the definition of "mistake" all four answers are correct in the survey, meaning that in the best-case scenario respondents should select all answers, although respondents picked the most suitable for them. Table 5 proves that only 10.75 % of respondents understand the definition of mistakes to the full extent and selected all possible answers and more than a half of respondents, which is equivalent to 56.23%, have selected only one answer. At the same time 12 respondents representing 1.87% of all respondents do not know the definition of mistake or have not understood the question at all.

Table 5. Definition of mistakes, answers (n) selected

Answers selected (N)	Frequency N = 642	Percent
4	69	10.75
3	67	10.44
2	133	20.72
1	361	56.23
0	12	1.87

Source: Author's calculation based on SPSS 22.0

Table 6 provides detailed description of answers selected by respondents. N = 2568 means that 642 respondents were able to select 2568 answers, 4 responses maximum per respondent, however selected only 1104, that is less than a half. This outcome once more proves that the respondents do not comprehend what mistakes are. The results show that more than half of the respondents that participated in this study, *any deviation from the process* consider as a mistake (59%). However, 59.2% of respondents do not consider *wrong action, statement, or judgement* as the mistake (have not selected this answer). Moreover, 44.4% of respondents have chosen *fat-finger error* and 40.8% selected *wrong action, statement, or judgement.* An interesting finding was that only 27.7 % of respondents picked up -*produces a result that is not correct or not intended*, meaning that 72.3% do not consider this statement as a mistake. This supports Kanki (Kanki, 2018) and Woods (Woods D., 2010) in their studies and it implies that human error includes wider scope, than mistakes.

Table 6. Definition of mistakes, structure of responses

What is considered a mistake? N = 2568	Selected		Not Selected	
	Frequency	Percent	Frequency	Percent
fat-finger error (typing mistake)	285	44.4	357	55.6
any deviation from the process	379	59	263	41
wrong action, statement, or judgement	262	40.8	380	59.2
produces a result that is not correct or not intended	178	27.7	464	72.3
Total	1104		1464	

Source: Author's calculation based on SPSS 22.0

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Based on the proposed variables outlined in the model "The Reasons for Human Errors in Banks," Table 7 provides characteristics of responses. The results show that most of the respondents (58%) make inaccurate typing mistakes, so called fat-finger errors, between 1-3 mistakes per week. 32.9 % of respondents claim that they find or correct their "fat-finger" errors themselves once per week, 29.9 % of respondents confirm that their mistakes are corrected by somebody else in the organization and 28.8 % of respondents find their colleagues' fat-finger errors also 1 per week. Respondents also have similar opinions about errors due to lack of knowledge. Most of the respondents which constitute 74.3 % of the total responses make 1-3 mistakes per week or at least 1 mistake per month, meaning that organizations should increase knowledge of personnel. 27.4 % claim that their mistakes due to lack of knowledge are corrected once per week and 23.5 % confirm that it happens once per month (50.9% total). Another finding is respondents argue that they lack documentation in their organizations. More than half of respondents (51.9%) complain that they make 1 mistake per week or month due to lack of procedures/documentation and they correct such colleagues' mistakes at least once per week. Respondents also assert that their errors result from their colleagues' lack of help and 1 to 3 mistakes are made by 48.3% of respondents each week. However, respondents state that they assist their coworkers: 25.9% of respondents help to correct mistakes weekly, 22.6% - from 2 to 3 times per week and 12.8% claim that they help daily. The results described above, support the findings of the studies (Adegoke, 2020); (Hale, 2011); (Trusova, Hryvkivska, Melnyk, Gerasymova, & Maksym, 2021); (Chapelle, 2019) that strong internal control system is crucial in any organization, as it helps safeguard against the failure of internal control processes.

Table 7. Reasons for human errors, structure of responses (percent, %)

Reasons of mistakes N = 642/Percent =100		Daily	2 -3 per week	1 per week	1 per month	1 per quarter	1 per year	never
Fat-finger error (inaccurate typing mistake)	employees' errors that are found/corrected by themselves	6.5	25.1	32.9	22.4	6.1	3.7	1.1
	errors that are found/corrected by somebody else in the organization	7.6	20.6	29.9	26.5	6.5	3.6	2.8
	colleagues' errors that are found/corrected by respondents	6.7	25.1	28.8	22.7	7.6	3.6	2.6
Mistakes due to lack of knowledge	employees' errors that are found/corrected by themselves	7.8	23.2	26	25.1	6.5	5.1	3.4
	errors that are found/corrected by somebody else in the organization	6.5	20.2	27.4	23.5	10.4	5.3	3.3
	colleagues' errors that are found/corrected by respondents	8.4	21.8	25.5	26.2	7.6	4.2	3
Mistakes due to lack of documentation	employees' errors that are found/corrected by themselves	6.9	17.4	29	22.9	10.7	6.2	3.6
	errors that are found/corrected by somebody else in the organization	6.2	19.6	25.2	25.5	11.1	4.5	4.5
	colleagues' errors that are found/corrected by respondents	5.6	18.7	28.8	26.2	9.5	4.7	3.3

Mistakes due to lack of support from the colleagues	employees' errors that are found/ corrected by themselves	6.9	23.8	24.5	23.4	10.6	4.5	3.1
	colleagues' errors that are found/ corrected by respondents	5.8	21.7	27.9	23.7	10	5	2.8
	respondents help their colleagues to correct the mistakes	12.8	22.6	25.9	21.7	7.2	5	1.6
Mistakes due to external interference/lack of attention (noise, etc.)		9	24.1	28.2	17.4	8.9	4.2	4.7

Source: Author's calculation based on SPSS 22.0

Regarding the mistakes due to lack of attention, 28.2 % of employees make such mistakes once per week, and 24.1 % are suffering 2-3 times per week. To minimize such mistakes, we suggest prioritizing tasks and focusing on the most important tasks first, and then allocating the attention accordingly. Employees with flexibility and multitasking skills can adapt quickly to the changing situation, prioritize and are able to manage their time effectively. This supports (Xu Y., Tan T.F.; Netessine, S., 2021) conclusions in the studies, that hiring flexible employees might significantly reduce operational risk incidents by 3.2% –10%.

Table 8 shows descriptive statistics of frequencies of mistakes. Statistics indicate that around 28 % of employees in the banks make human errors on average 1 per week (mean, median, mode), 24% of employees make one error each month and 22% of employees make 2 to 3 errors per week. This proves the first hypothesis H1, that human errors are common occurrences in daily routines as most of the bank employees make mistakes at least once per week. Low standard deviations and small variance coefficients indicate that data points are close to mean (Beyer, 2002). Some data is positively skewed with leptokurtic, and some data is negatively skewed with platykurtic (Navarro, 2022)

Table 8. Descriptive statistics of frequencies of mistakes

	Daily	2 -3 per week	1 per week	1 per month	1 per quarter	1 per year	never
Mean	7.43846	21.83846	27.69231	23.63077	8.66923	4.58462	3.06154
Standard Error	0.52349	0.67686	0.63966	0.68232	0.50464	0.20843	0.27281
Median	6.9	21.8	27.9	23.5	8.9	4.5	3.1
Mode	6.5	25.1	28.8	26.2	6.5	3.6	2.8
Standard Deviation	1.88748	2.44047	2.30632	2.46014	1.81952	0.75149	0.98365
Sample Variance	3.56256	5.95590	5.31910	6.05231	3.31064	0.56474	0.96756
Kurtosis	5.37363	-0.85340	0.69903	2.45732	-1.74422	0.28234	0.64039
Skewness	2.10893	-0.30083	0.70573	-1.22316	-0.08058	0.49818	-0.33181
Range	7.2	7.7	8.4	9.1	5	2.6	3.6
Minimum	5.6	17.4	24.5	17.4	6.1	3.6	1.1
Maximum	12.8	25.1	32.9	26.5	11.1	6.2	4.7

Source: Author's calculation based on SPSS 22.0

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Employee mindset shapes the culture of the organization. A positive and optimistic mindset can improve the working environment and build trust in the organization (Woods D., 2010). The results presented in Table 9 show the mindsets of employees towards their mistakes and management attitude to it. It can be deduced that 37.1% of respondents feel sad when they find their mistakes, 30.2% of respondents remain neutral. However, when coworkers make a mistake, 37% of employees stay neutral. Moreover, in 35.8% of cases, management's response to employee errors is neutral. On the other hand, employees can feel management's reaction in 25.5% of situations – sad, 22.4% - happy and in 12.5% even angry reaction, but there is no evidence that management improves the situation. Another finding is that 15.9 % of employees feel angry when they find somebody's mistake and 3.3 % of employees become angry when they discover their own errors. This supports (Chernobai, A., Ozdagli, A., Wang, J., 2021) and (Erzurumlu, Y.O., Avcı, G., 2021); that operational risk is closely related to an organization's culture and proper internal governance mechanisms, which include structured controls, monitoring, and reporting to senior-level management, are crucial for ensuring transparency in banks. Encouraging employees to report their mistakes is a fundamental aspect of a healthy and productive organizational culture.

Table 9. Mindset of the employees, structure of responses (percent, %)

Feeling N = 642/Percent =100	Neutral	Happy	Sad	Angry
When employee finds his mistake	30.2	25.9	37.1	3.3
When employee finds somebody's mistake	37.7	17.8	25.1	15.9
Management attitude to the employees' mistakes	35.8	22.4	25.5	12.5

Source: Author's calculation based on SPSS 22.0

Creating an environment where employees are comfortable reporting their mistakes can ultimately lead to a more resilient and accountable organization, better equipped to manage risks, and improve performance. Who is accountable for mistakes or demonstrates responsibility when the error occurs? Table 10 provides evidence that 47% of respondents are accountable for their mistakes and feel their own fault. However, 19.9 % of employees feel that they need IT/system improvements in their organizations and 15.1% of employees criticize their documentation /manuals / instructions/. At the same time 11.8% of staff believe their management is responsible for their errors and only 2.3% of employees rebuke their colleagues. Another situation is when employees' coworkers make mistakes. Statistics show that in 31.9 % cases employees blame systems /IT/ automation, in 22.1% documentation, in 21.7% workers blame their colleagues and in 20.6% workers believe their management is to blame for their colleagues' errors.

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Table 10. Accountability for mistake (percent, %)

Accountability for mistake N = 642 / Percent =100	Employee	Documentation /Manuals / Instructions	Systems /IT/ Automation	Management	employees' colleagues
employees' mistake	47	15.1	19.9	11.8	2.3
employees' colleagues' mistakes	-	22.1	31.9	20.6	21.7

Source*: Author's calculation based on SPSS 22.0

Restatement and Test of Hypothesis Two

H2: There is a relationship between reasons for mistakes and proposed independent variables in the model, such as employee age, working experience and working environment.

To test the second H2 hypothesis of this research, we utilize a one-way ANOVA, or Analysis of Variance, to discover whether a link exists between one independent variable and three dependent variables, meaning to understand significant effect of factors described in the model. Age of respondents, working experience in the finance sector, and working environment are considered as independent variables, as stated in section 3.4. These variables have been examined, and the results are shown in Table 11. If Sig < 0,05, then this will result in significant effects (95% factor impacts the result, Sig < 0,01 -factor impacts the result 99%).

Table 11. One-way ANOVA

Dependent variables	Factors		
	Age. Sig.	Working experience. Sig.	Working environment. Sig.
Definition of mistakes - fat-finger error	.000	.000	.118
Definition of mistakes - any deviation from the process	.095	.266	.018
Definition of mistakes - wrong action, statement, or judgment	.005	.012	.000
Definition of mistakes - produces a result that is not correct or not intended	.819	.192	.049
Error rate, fat-finger employees' errors that are found/corrected by themselves	.002	.000	.000
Error rate, fat finger errors that are found/corrected by somebody else in the organization	.042	.000	.000
Error ration, fat finger colleagues' errors that are found/corrected by respondents	.005	.000	.000
Error rate due to lack of knowledge, employees' errors that are found/corrected by themselves	.028	.000	.000
Error rate due to lack of knowledge, errors that are found/corrected by somebody else in the organization	.006	.000	.000
Error rate due to lack of knowledge, colleagues' errors that are found/corrected by respondents	.056	.001	.000

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Error rate due lack of documentation, employees' errors that are found/corrected by themselves	.433	.000	.000
Error rate due to lack of documentation, errors that are found/corrected by somebody else in the organization	.035	.000	.000
Error rate due to lack of documentation, colleagues' errors that are found/corrected by respondents	.253	.000	.000
error rate due to lack of support, employees' errors that are found/corrected by themselves	.035	.000	.000
Error rate due to lack of support, colleagues' errors that are found/corrected by respondents	.061	.000	.000
Error rate due to lack of support, respondents help their colleagues to correct the mistakes	.009	.000	.000
Error rate due to external interference/lack of attention (in the office noise, etc. at remote	.334	.001	.000
Mindset, when employee finds his mistake	.053	.006	.000
Mindset, when employee finds somebody's mistake	.018	.015	.000
Accountability for employees' mistakes	.031	.006	.000
Accountability for employees' colleagues' mistakes	.000	.000	.000
Mindset of employees regarding management attitude to the employees' mistakes	.113	.000	.000

Source*: Author's calculation based on SPSS 22.0

The results show that all independent variables, age, working experience and working environment factors impact all the dependent variables with at least 95%. Meaning that working experience and working environment factors influence possible reasons of mistakes provided in the model significantly with 99%, however, age factor influences with at least 95%.

Therefore, we accept the second hypothesis H2, that there is a relationship between reasons for mistakes such as finger errors, lack of knowledge, lack of documentation, lack of support from the colleagues, lack of attention, mindset, and accountability for employees 'mistakes and proposed independent variables in the model, such as employee age, working experience and working environment.

CONCLUSIONS

To achieve the purpose of the study the authors conducted quantitative research by creating a survey, collecting data from 583 respondents from financial sector worldwide and testing two hypotheses to determine whether human errors are common occurrences in daily banking routines and if there is a relationship between reasons for

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mistakes and proposed independent variables in the model, such as employee age, working experience and working environment.

Based on the discussion of findings earlier stated in the previous chapter it can be concluded that human errors and employees' attitude to their errors significantly influence operational risk management in the banks. Eight dependent variable (fat finger error, lack of knowledge, support from colleagues, lack of attention, mindset of employees, management attitude, lack of instructions/procedures, lack of automation and IT controls), and three independent variables (age, working experience, working environment) were used to measure the main reasons of employees mistakes in the banks, that support the main factors of operational risk management in banks: people risk management, internal process risk management and technology risk management. All variables were found significant. Two hypotheses were proved, and this implies that if banks focus on the reasons for human errors, then their operational risk management will be improved. Another finding of the study is that the employees' attitude and accountability for mistakes have direct relationships with the reasons for human errors in banks. When it comes to managing operational risk effectively, it's essential for management to focus not only on knowledge and documentation but also on the mindset and well-being of employees.

A notable limitation of our study pertains to the demographic composition of the survey respondents drawn from the Amazon Mechanical Turk platform. Individuals utilized the service during the research period predominantly comprise office workers from the United States of America. Therefore, future investigations stand to benefit from a more expansive and diverse participant pool from other geographies.

Another limitation of the present research pertains to the indirect losses of operational risk. Considering this limitation, that was described in the introduction section of the paper, it is imperative for future research to direct its attention toward the external events, such as terrorist attacks, political regime or government changes and natural disasters.

Delving into these limitations would enable a more holistic understanding of the complex interplay between direct and indirect events of operational risk. By considering and addressing these concerns, researchers can contribute to a more well-rounded and responsible approach to addressing issues of operational risk management.

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ORIGINALNI NAUČNI RAD / ORIGINAL SCIENTIFIC PAPER

KEY EMIGRATION FACTORS OF STUDENTS IN SLAVONIA & BARANJA REGION IN CROATIA

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Abstract: *The aim of this research is to examine the intention of students in Croatian region of Slavonia & Baranja about the possibility of going abroad after completing their studies and to identified push and pull factors which influence the most the decision to emigrate. The research is based on a survey conducted on a sample of 420 students in the Croatian region of Slavonia & Baranja. The study uses descriptive statistical analysis and multi-variant analysis–factor method. Research results according to respondent's perception, showed that the majority (61%) expressed intention to stay in Croatia. Data identified unemployment, low paying job and low standard of living in Croatia as main push reasons for their intention to migrate and better standard of living and higher quality of life, better opportunities for career development and better and more stable job as main pull reasons for their intention to migrate. The results also recognized "economic and social reasons" as main push reasons and "economic and non-economic (personal) reasons as main pull reasons. The research findings confirmed the hypotheses of the paper that economic factors are the main push and pull motives for migration for students in Slavonia & Baranja.*

Keywords: *migration, students, push factors, pull factors, Slavonia & Baranja*

JET classification: *J60*

INTRODUCTION

Migrations have always existed, and in today's era of globalization and increasing digitization and availability of information, as well as the removal of barriers to people's mobility, have become a phenomenon characteristic of the development of every country in the world. The high intensity of emigration from Croatia, with a diaspora of about the same number as in the country, indicates the low level of development of the country and that in the future the inhabitants will seek salvation in emigration. This is the main reason for emigration, and in addition, there are various attractive factors of developed countries for a better life. In recent years, Croatia has witnessed large migration especially among youth.

The trend of emigration of young people from Croatia was triggered by the economic crisis in 2008 and has continued until today. Except the young population, the

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emigration of the highly educated population also increased, i.e. the "brain drain" process. According to European Commission „High emigration of highly-skilled workers can have detrimental effects on a society. Concerns about loss of talent are present for many regions of the world, in particular in developing countries, which are often left with shortages in critical professions due to the prospect of higher pay from abroad. " (Eu Science Hub, 2023.) Universities are considered as key sources of the economic development of country. So, studying student migration trends is a significant because it impacts on socio-economic development.

Researchers have developed a variety of theoretical frameworks to explain and predict human migration behavior. „The oldest theory of migration is Ravenstein's Laws of Migration (Ravenstein, 1885)., which claimed that the call for labor in the canters of industry and commerce is the prime cause of the flow of migration in the UK. " (Chi Jin, Jansen, Boumeester, & Boelhouwer, 2022.) Also, (Lee, 1966.) in his article "A Theory of Migration" states that there are four main categories of factors that influence migration: factors related to the place of origin and factors related to the destination, obstacles the migrant encounters on the way, and personal factors.

Students emigrate under the influence of various factors. To better understand the motivations that make people to emigrate this study adopts the push and pull factors. „Push and pull factors are forces that can either induce people to move to a new location or oblige them to leave old residences, they can be economic, political, cultural, and environmentally based. Push factors are conditions that can drive people to leave their homes, they are forceful, and relate to the country from which a person migrates. " (Krishnakumar & Indumathi, 2014.) The pull factors to migration are the opposite of push factors. The push factors influencing migration can be categorized into three variables: economic, social and political factors. (for example, lack of employment, Low living standard, natural disasters, security…) The pull factors refer to the aspects that attract migrants to some country. (employment opportunities, higher standards of living, higher wages…) According to (Lee, 1966.) the most important push factors are: 1) weakening of a certain resource, demand crisis, 2) loss of job, 3) discrimination of a potential migrant, whether it is political, religious, ethnic or some other discrimination, 4) alienation from family or wider communities, 5) war or natural disaster. On the other hand, he lists pull factors: 1) the possibility of employment, 2) higher income in the place of immigration, 3) the possibility of training and acquiring a higher level of education, 4) better climatic conditions and better housing conditions, 5) merging with family and relatives and 6) cultural and social content. They are often useful elements of a new country that encourage people to immigrate there in search of a better life.

According to the "Global Competitiveness Report 2019. released by the World Economic Forum, Bosnia and Herzegovina (BiH), Croatia, North Macedonia, and Serbia are among the top-ranked countries with the biggest brain-drain in the world." (World Economic Forum, 2019.) It is evident from these results that Croatia is quite affected by this phenomenon. According to the results of the Croatian National Statistical Institute, in the period between the two population censuses (2011 and 2021), Croatia remains without its own population. "The large number of 329268 people left Croatia." (Croatian Bureau of Statistics, 2022.) As for the age structure of emigrants, "the largest share in 2021 is the population aged 20-39" (Croatian Bureau of Statistics,

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2022.), which indicates the fact that the majority is young. "If a country sees a large number of its highly-skilled workers go abroad to work, the remaining population will be older and have a lower potential for productivity." (Eu Science Hub, 2023.) Migration today in Croatia reflects people's attitudes that Croatia does nothing for their well-being and that they simply have to look for a better life for themselves and their families.

When it comes to emigration in search of a better standard of living, Eastern Croatia leads the way among Croatian regions. According to data on population migration in 2021, "Brod-Posavina County (-1,268 persons), Vukovar-Srijem County (-1,261 persons) and Osijek-Baranja County (-1,222 persons) had the largest negative balance of total population migration." (Croatian Bureau of Statistics, 2022.) In addition, the area of Slavonia & Baranja, which includes five counties (Brod-Posavina, Osijek-Baranja, Vukovar-Srijemska, Požeško-Slavonska and Virovitica-Podravska) is the area on the territory of the Republic that, according to official data, has the most unfavorable demographic figures for years, which is considered the most demographically endangered part of the Republic of Croatia, but also a below-average populated area in its entirety. The assumption is that "in 2030, Eastern Croatia will have a fifth less population than in 2011" (Živić, 2017.)

Precisely for these reasons, the goal of the paper is to collect and analyze data on the intention of the students of Slavonia & Baranja region to migrate after completing their studies, as well as their main factors (push and pull) that would influence the intention to migrate. The ultimate goal is to determine the most important individual push-pull factors that influence the intention to migrate. The purpose of the work is to contribute to research that deals with research on migration and the phenomenon of "brain drain".

The research is based on the following research questions:
1. Do students think about leaving Croatia after completing their studies?
2. Do students prefer to leave Croatia for the long term or go to a specific one period and come back?
3. What are the individual push-pull factors that most influence the intention to migrate?
4. What are the area that the most influence to migrate?

Hypothesis 1 (H1). Economic factors are the main push motives for migration for students in Slavonia & Baranja region.

Hypothesis 2 (H2). Economic factors are the main pull motives for migration for students in Slavonia & Baranja region.

The paper is structured as follows. The next section provides an overview of the theories of migration intention among students and introduces the push and pull factors. The third section describes the data collection process and statistical methods. The fourth section presents the findings, followed by a discussion. The paper concludes with the main findings in conclusion.

LITERATURE REVIEW

Research theme of the relevant empirical research papers related to the migration is extremely extensive, but research papers related to the Croatian migration are more modest. Some research conducted on the topic of migration focused only on the

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perception of young people. But an important and sometimes neglected aspect of the critical approach is certainly the perception and attitudes of students, especially since students are the ones who represent the greatest potential of knowledge. So far in Croatia there is no research on the students from Slavonia & Baranja region on migration intention.

(Škreblin Kirbiš, 2019.) on a sample of 118 students of economy of a private university in Zagreb, investigated the tendency to emigrate, attitudes related to emigration and past international experience as possible predictors of the intention to live and work abroad. The results showed that 20% of students are inclined to emigrate, 30% are undecided, and 50% are not inclined to emigrate. The general attitude of students towards Croatia is slightly positive, and it is shown to be a significant and important predictor of the tendency to emigrate in addition to attractive factors. (Zdrilić & Sokolović, 2022.) analyzed migration intentions of Croatian students. Results showed that students who has financial problems and have someone live abroad have a stronger intention to migrate. Results also identified three groups of factors relevant to migration intentions: socioeconomic environment, human capital development and personal relationship. (Rajković & Horvatin, 2017.) had a special focus on young people from Slavonia, who masse go to live and work in Ireland. In addition to the main economic motive for emigration, psychological dissatisfaction, positive experiences of previous migrants, the possibility of quickly finding a job, simple bureaucratic procedures, knowledge of the English language, etc. stand out. The research carried out on 553 students of various faculties of the University of Zagreb on the intention to leave conducted by Šverko I. (2005) indicates that students intend to go abroad (75,3%) because of the better economic conditions offered to them there, and then because of better opportunities for education and training. (Šverko, 2005.)

(Marušić & Marković-Denić, 2018.) examined the attitudes of 180 students in their final year of medicine at the University of Belgrade about emigration after completing their studies. The results showed that two thirds of final year students want to leave the country after completing their studies in search of employment and professional advancement. (Gherhes, Dragomir, & Cernicova-Buca, 2020.) analyzed 1782 Romanian engineering students from the five major technical Romanian universities in relation to their migration intentions, motivations, and destinations. Results showed that students are inclined to migrate in a significant proportion and the economic factor being the main migration driver. (Fouarge, Özer, & Seegers, 2019.) investigated the relationship between personality traits and individuals' intentions to migrate on 7412 university students in Germany. Results showed that more open and extravert students are more likely to consider moving abroad while more conscientious and agreeable students are less inclined to migrate. (Hajduch, Orosova, & Stefanakova, 2019.) explore migration intention of 474 university students from Slovakia. Results showed that students who want to leave their home country report a higher level of emigration self-efficacy, more positive migration experience and also more frequent migration experience. (Šeherčehajić & Ramić, 2022.) investigated the emigration attitudes of 203 students at the University of Sarajevo. Results showed that students strongly desire to emigrate abroad for better working conditions, lifestyle, and opportunities for improvement. (Todorović, Stojiljković, & Ćirić, 2019.) examine the main reasons of 355 university students to leave Serbia. Results showed that about 36.2% of students

planned to leave country and the most common reasons is searching for a work (46%). (Kostrzewa, Bonior, Polak, & Domagala, 2022.) analyzed the intention of migration and identified the factors affecting their intentions to migrate among 236 students in Poland. The analysis confirmed the high interest in migration. The key push and pull factors were economic issues, work in better infrastructural conditions, opportunities for better work–life balance and opportunities for professional development. (Nateter & Lavrič, 2022.) analyzed migration intention in 10 countries of Southeast Europe: Albania, Bosnia and Herzegovina (B&H), Bulgaria, Croatia, Kosovo, Macedonia, Montenegro, Romania, Serbia, and Slovenia. Findings showed that the level of socio-economic development in a country affects the emigration desire of young people. High levels of emigration desire among young people, surpassing less-developed countries such as Croatia, Romania, or Bulgaria. (Petreska, Prodanova, & Kocarev, 2022.) pointed out that students' personal and social expectations, and the higher education services' quality and resources, shape brain drain responses. Analysis was on 1150 students from public universities in the Republic of Macedonia. (Czibere & Racz, 2019.) analyzed what causes and motivations lie behind international migration, and what factors influenced young Hungarians to work or study abroad. It also discussed the factors that increase or hinder the migratory propensity, and the differences of opinion between young women and men.

Numerous international studies have attempted to examine the factors influencing the student migration. (Cameron, Farivar, & Coffey, 2019.) explore employment and migration intentions and outcomes of international graduate alumni from two Australian universities. Results have strategic implications for the promotion of Australian higher education to overseas markets. (Gesing & Glass, 2019.) examined students' mobility intentions at ten U.S. research universities. Results suggest that economic push-pull factors influence intent to stay in the U.S., while political, social, socioeconomic, and sociopolitical reverse push-pull factors influence intent to return to their home country. (Piguet, Nassa, Ndiaye, Oumarou, & Wade, 2022.) analyzed 4000 African students' emigration intentions. Results show taht only a minority of students wish to leave and then only temporarily, to improve their human capital upon return. (Sylla, Quadih, Barkanan, Hassoune, & Nani, 2021.) estimated the prevalence of migration intention of 251 final year medical student in Morocco. Findings showed that the 70.1% of final year students had intention to leave the country, of which 63.6% were female. The main pull and push factors are: better training, better working conditions and quality of life. The students intended to leave the country because they were not satisfied about formation and salary. There wasn't significant association between the migration intention and socioeconomic profile of students. (Chi Jin, Jansen, Boumeester, & Boelhouwer, 2022.) explore explore beliefs and background factors that influence 1242 university students' intention to develop in first-tier cities after graduation. (Afridi, Muhammad, & Afrid, 2021.) analyzed the personal, internal and external factors affecting migration intentions of 220 Business Students of Pakistan. the results show that all the internal factors, i.e. the home country push factors and the academic pull factors from abroad, affect the migration intentions of the business students. Personal factors also affect migration intensions. Female student is least intended to go abroad as compared to male students. Young age students are more interested in shifting abroad as compared to older age students. The research has practical impli-

cations as for as policy making for evaluating student migration intentions. (Weerasinghe & Karunarathne, 2022.) analyzed factors affecting the migration intention on Undergraduates students in Sri Lanka. migration intention among female respondents is higher when compared to migration intention among male respondents. Nearly 69% of management undergraduates who participated in this survey have an intention to migrate. Pull factors such as international career and international experience have been recognized as key important factors. Apart from pull factors, political instability has been highlighted as a significant push factor that affects the migration intention of management undergraduates.

Various studies have explored the push and pull theory and factors: (Khalid & Urbanski, 2021.) study hinged on the Push-Pull Migration model. They investigated how economic, political, environmental, and social factors impact on workers decision to migrate. The results show the significance of economic pull factors such as availability of jobs and high wages as the main drivers of migration. Push factors also contributed in different ways to strengthen the resolve of migrants to leave their countries in search of better opportunities, like; unemployment, low paying job, political instability, repressive dictatorships regimes, and social factors. (Mihi- Ramirez & Kumpikaite, 2014.) investigated 1250 students' attitudes to migration in Lithuania. Results showed the main migration motivations identified are economic reasons. (Charsley & Show, 2006.) elaborated on the role of encouragement by family members seeking to reunite with migrated relatives has been quoted as a major reason for migration. (Carabal & Calvo, 2021.) explained that the social factors pushing migration are based on the human desire to achieve better quality of life. Migrants are pushed by social factors such as the need for better education for themselves and their families. (Urbanski, 2022.) founded that among the pull factors considered, economic factors (prospects for higher wages, improved living standards, personal development, job opportunities, good welfare standards and labor demands) have the highest influence on migration.

METODOLOGY

Methodologically, this paper is a quantitative descriptive analysis of 420 survey responses by university students in Slavonia & Baranja region about their migration intentions.

Sample of respondents

The target population of this study consist of 420 university students in Slavonia & Baranja region, including bachelors, masters, and Ph.D. students. The universities in this research refer to Higher Education Institutions. This research targeted students who were enrolled at two universities: University Josip Juraj Strossmayer in Osijek, University in Slavonski Brod, and Polytechnic in Vukovar and Polytechnic in Virovitica. By selecting all faculties, all six scientific and artistic fields: biotechnical, artistic, technical, social, natural science and the humanistic field. In addition, student's permanent place of residence is the area of Slavonia & Baranja region.

For the purpose of data collection, an online survey method was used on the Google Forms platform. The survey was conducted between January 1th, 2023 and April 1th, 2023 in selected faculties. The research survey consists of first part, where respondents filled in basic information about themselves. The second part addressed

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the students' intent to migrate (none, temporally and permanent). The respondents had several statements at their disposal and all measurements were taken using 5-point Likert scales (ranging from 1 = strongly disagree to 5 = strongly agree). The third part of questions consisted of certain statements that were marked as potential factors (push and pull) for emigration from Croatia, where respondents indicated how much they agreed with each statement using a Likert scale from 1 to 5. Part of the questionnaire was partially adapted from the paper "Student intentions to go abroad: The size of the potential 'brain drain' and its determinants in 1995, 1997, and 2004" (Šverko, 2005.) and push and pull factors were partially adapted according to (Lee, 1966.)

Data processing methods

Statistical data processing was done using the methods of descriptive and analytical statistics in the software package SPSS. Descriptive statistical parameters were calculated for all variables. In addition, it was also used factor analysis, with which it examined the dimensionality.

RESULTS AND DISCUSSION

The results of the research are based on the survey "Student's intention on emigration".

Table 1. Socio-demographic characteristics of the survey participants

Characteristics		Total (N)	%
Gender	Male	138	32,86
	Female	282	67,14
Years	18-30	352	83,80
	31- 40	42	10
	41-50	25	6
	51 -60	1	0,23
University	University in Slavonski Brod	175	41,6
	University J.J. Strossmayer in Osijek	133	31,6
	Polytechnic in Vukovar	69	16,43
	Polytehnic in Virovitica	43	10,23

Source: author

Table 1 shows that over half (83,80%) of the respondents are young population (18-30) of which 32,86% are male and 67,14% are female. Although the male to female ratio seems to be unequable, according to UNESCO „it is visible rapid increase in women's educational attainment, which has tripled globally between 1995 and 2018 in female enrolment in higher education: in 74% of the countries with data as well as in all regions, women are overrepresented, except for Central and Southern Asia, where there is parity, and sub-Saharan Africa, where men are overrepresented with 73 female students enrolled for every 100 males." (UNESCO, 2021.) The largest share of respondents is studying at University of Slavonski Brod (41,6%) and the smallest share

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in Polytehnic in Virovitica. Social sciences are the most represented (65,95%) than technical sciences (12,14%) and biomedicine and healthcare (5,48%) which is in accordance with the data "according to the scientific and artistic fields to which the study programs refer, the most represented is the field of social sciences (43.1%), followed by the field of technical sciences (26.0%), the field of biomedicine and healthcare (12.2%), the field of humanities (6.3%), biotechnical sciences (4.6%), natural sciences (3.8%), arts (2.1%) and interdisciplinary sciences (1.9%)." (Croatian Bureau of Statistics, 2022.) According to student status 68,57% are full-time students and 31,43% are part-time students which is again in line with the data that there are more full-time students. "In 2021/2022. In Croatia 72.6% of students were enrolled in full-time studies, and 27.4% in part-time studies." (Croatian Bureau of Statistics, 2022.)

Table 2. Descriptive indicators measuring variables for emigration intention

Variable	Answers 1 & 2	Answers 3	Answers 4 & 5
Intention to stay in Croatia	(61) 14,52%	(81) 19,28%	(258) 61,43%
Emigrate and return to Croatia	(319) 75,9%	(57) 13,57%	(44) 10,48%
Permanent emigration abroad	(370) 88,09%	(20) 4,76%	(30) 7,14%

Source: author

Table 2. shows that that 61,43% of students are intended to stay in Croatia, 10,48% are intended to emigrate and return to Croatia and 7,14% are intended to emigrate.

Table 3. Descriptive indicators measuring variables for emigration intention

Variable	M	Median	Mode	Min	Max	SD	Skew	KURT	STD. ERR
Intention to stay in Croatia	3,77	4,00	4,00	1,00	5,00	1,15	-0,80	-0,11	0,06
Emigrate and return to Croatia	1,96	2,00	1,00	1,00	5,00	1,04	1,02	0,40	0,05
Permanent emigration abroad	1,60	1,00	1,00	1,00	5,00	0,93	1,85	3,04	0,04

Source: author

Table 3. shows that students mostly agree with the statement that they have intention to stay in Croatia which indicates a low tendency to emigrate. Accordingly, students at least agree with the statement they will permanent emigrate abroad. Also, statement for emigration and return to Croatia have low level of acceptance. These results are different from the results presented in the literature review where the percentage of students inclined to emigrate is much higher. The obtained value of the Cronbach's alpha coefficient is .735 and confirms the consistency in the answers of the respondents through different scales, which indicates that the reliability can be considered acceptable. In this study, only migration intentions were addressed and not the actual migration behavior. However, it has been found that migration intentions are good predictors of future migration (van Dalen & Henkens, 2008.). (Wanner, 2021.) also investigated relationship between remigration intentions and actual behaviors and to

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verify whether remigration intentions can predict migrants' actual behaviors and pointed out the relationship between migrants' intentions and behaviors is even stronger.

Table 4. Descriptive indicators measuring variables of push factors

Variable	M	Median	Mode	Min	Max	SD	Skew	KURT	STD. ERR
Natural disaster (earthquake, floods, Covid-19)	2,48	2,0	3,0	1,0	5,0	1,14	0,34	-0,68	0,05
Closing the company	3,21	3,0	4,0	1,0	5,0	1,19	-0,14	-0,94	0,05
Bad economic situation	3,70	4,0	4,0	1,0	5,0	1,09	-0,62	-0,26	0,05
Low paying job	4,02	4,0	5,0	1,0	5,0	1,01	-0,97	0,38	0,04
Unemployment	4,15	4,0	5,0	1,0	5,0	1,02	-1,30	1,27	0,04
Low standard of living	3,96	4,0	4,0	1,0	5,0	0,98	-0,89	0,42	0,04
Corruption	3,81	4,0	5,0	1,0	5,0	1,12	-0,69	-0,31	0,05
Poor public services	3,52	4,0	4,0	1,0	5,0	1,09	-0,37	-0,55	0,05
Dissatisfaction with state management	3,56	4,0	3,0	1,0	5,0	1,13	-0,27	-0,82	0,05
Inability to advance	3,96	4,0	5,0	1,0	5,0	1,05	-0,86	0,06	0,05

Source: author

Table 4. shows that the respondents mostly agree that unemployment is the most push factor for intention of emigration. Right up to it low paying job. Respondents at least agree with natural disasters. All the results are quite high. The obtained value of the Cronbach's alpha coefficient is .889 and confirms the consistency in the answers of the respondents through different scales, which indicates that the reliability can be considered very good.

Table 5. Descriptive indicators measuring variables of pull factors

Variable	M	Median	Mode	Min	Max	SD	Skew	KURT	STD. ERR
Higher salary compared to the one in Croatia	3,95	4,00	4,00	1,0	5,0	1,05	-0,9	0,26	0,05
A better and more stable job	4,09	4,00	4,00	1,0	5,0	0,96	-1,12	0,99	0,05
Better standard of living and higher quality of life	4,12	4,00	5,00	1,0	5,0	0,94	-1,10	0,88	0,05
Better opportunities for career development	4,11	4,00	5,00	1,0	5,0	0,95	-1,01	0,62	0,05
Better training in the profession	3,98	4,00	4,00	1,0	5,0	1,03	-0,95	0,29	0,05
More pleasant nature and climate	2,89	3,00	2,00	1,0	5,0	1,25	0,17	-1,00	0,06

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Better public services (education, health, social)	3,56	4,00	4,00	1,0	5,0	1,11	-0,45	-0,56	0,05
A better political system	3,43	3,00	3,00	1,0	5,0	1,17	-0,29	-0,78	0,06
Relatives abroad	2,73	3,00	2,00	1,0	5,0	1,25	0,23	-0,96	0,06
Recommendations and positive experiences of friends	3,00	3,00	3,00	1,0	5,0	1,19	0,04	-0,92	0,06
Partner abroad	3,54	4,00	4,00	1,0	5,0	1,22	-0,53	-0,57	0,06
Traveling and getting to know new people and cultures	3,23	3,00	4,00	1,0	5,0	1,29	-0,15	-1,11	0,06

Source: author

Table 6. show that the respondents mostly agree that better standard of living and higher quality of life and better opportunities for career development are the most pull factor for intention of emigration. Respondents at least agree that relatives abroad and more pleasant nature and climate are intention for emigration. Family did not prove to be a strong attractive factor which is surprising. The obtained value of the Cronbach's alpha coefficient is .901 and confirms the consistency in the answers of the respondents through different scales, which indicates that the reliability can be considered excellent. The Kaiser–Meyer–Olkin test score (KMO) for push variables is 0.881, and for pull variables is 0,899 confirmed the adequacy of the sample and Bartlett's Test of Sphericity was significant ($p < 0.01$) and supported the factorability of the items. Considering this, the data are suitable for the application of factor analysis. A correlation matrix for push factors is made and shown in Table 6.

Table 6. Correlation matrix for push factors

Variable	Correlations, marked correlations are significant at p < ,05000 N=420									
	ND	CC	BES	LPJ	U	LSL	CR	PPS	DSM	IA
ND	1,000									
CC	,362	1,000								
BES	,231	,605	1,000							
LPJ	,217	,450	,685	1,000						
U	,234	,412	,574	,739	1,000					
LSL	,242	,372	,547	,687	,774	1,000				
CR	,257	,368	,475	,464	,454	,488	1,000			
PPS	,203	,300	,430	,438	,418	,474	,642	1,000		
DSM	,162	,384	,479	,453	,354	,407	,678	,718	1,000	
IA	,177	,327	,455	,562	,571	,551	,483	,548	,530	1,000

Source: author

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Table 7. Total Variance Explained for push factors

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5,205	52,051	52,051	3,224	32,241	32,241
2	1,163	11,627	63,677	2,661	26,611	58,853
3	1,012	10,119	73,796	1,494	14,943	73,796
4	,734	7,339	81,135			
5	,480	4,798	85,932			
6	,366	3,663	89,595			
7	,338	3,382	92,977			
8	,266	2,662	95,639			
9	,239	2,390	98,029			
10	,197	1,971	100,000			

Source: author

Table presents the eigenvalues, the percentage of variance, the cumulative eigenvalue and the cumulative percentage of variance associated with each other. It reveals that first three factors explain approximately 73.8% of total variance. Dimension 1 (factor 1) describes 32.2% of the total sample variance. Dimension 2 (factor 2) describes a total of 26.6% of the sample variance. Factor 1 and 2 together describe a total of 58.8% of the variance of the sample. Dimension 3 (factor 3) describes a total of 14.9% of the sample variance. Factors 1, 2, and 3 together describe a total of 73.8% of the variance of the sample.

Table 8. Rotated Component Matrix for push factors

Rotated Component Matrix			
	Component		
	1	2	3
1	,879	,185	,136
2	,836	,254	,177
3	,818	,270	,115
4	,650	,296	,383
5	,575	,527	,015
6	,208	,873	,141
7	,254	,848	,089
8	,280	,773	,219
9	,041	,090	,855
10	,378	,194	,692

Source: author

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Table shows the loading of varimax rotated factor matrix for three - factor model. Factor 1 contains economic variables: unemployment, poorly paid work, low living standards and bad economic situation and can be called ECONOMIC REASONS. An important criterion for dividing migration is according to its cause: economic and non-economic migration. "Economic migrations occur due to the migrant's intention of employment, ensuring a higher standard of living, in the area of reception or in the homeland, if it is a matter of temporary migration or labor force circulation. Non-economic migrations are most often characterized by political, climatic, cultural-social, family and other reasons." (Kavain, 2022.) Factor 2 contains social variables: impossibility of advancement, dissatisfaction with state management, poor public services and corruption and can be called SOCIAL REASONS. The variable "impossibility of advancement" is equally represented in factor 1 and factor 2, and we distributed it in factor 2. Factor 3 contains two hard-to-connect variables (climate and industry), and since the first two dimensions (factor 1 and factor 2 describe a total of 58% of the variance, this third factor can be excluded from the interpretation and reduction of the dimensionality of the sample, as reduction is usually accepted for research dimensions that describe more than 50% of the variance of the sample.

Table 9. Correlation matrix for pull factors

Variable	Correlations, marked correlations are significant at p < ,05000 N=420											
	1	2	3	4	5	6	7	8	9	10	11	12
1	1,000											
2	,798	1,000										
3	,715	,826	1,000									
4	,708	,781	,810	1,000								
5	,614	,679	,702	,825	1,000							
6	,265	,278	,344	,359	,423	1,000						
7	,476	,538	,567	,559	,606	,578	1,000					
8	,464	,480	,465	,505	,499	,485	,672	1,000				
9	,295	,262	,262	,279	,326	,445	,406	,453	1,000			
10	,381	,368	,348	,377	,413	,450	,488	,475	,678	1,000		
11	,255	,267	,306	,291	,291	,290	,367	,293	,426	,406	1,000	
12	,341	,330	,312	,383	,386	,366	,362	,398	,362	,318	,285	1,000

Source: author

Table 10. Total Variance Explained for pull factors

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6,096	50,796	50,796	4,318	35,983	35,983
2	1,643	13,693	64,489	3,421	28,506	64,489
3	,832	6,934	71,423			
4	,732	6,097	77,520			
5	,652	5,431	82,951			

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6	,514	4,284	87,235
7	,399	3,326	90,561
8	,320	2,669	93,230
9	,279	2,324	95,554
10	,248	2,071	97,624
11	,153	1,272	98,896
12	,133	1,104	100,000

Source: author

Table presents the eigenvalues, the percentage of variance, the cumulative eigenvalue and the cumulative percentage of variance associated with each other. It reveals that first two factors explain approximately 64.5% of total variance. Dimension 1 (factor 1) describes 35.9% of the total sample variance. Dimension 2 (factor 2) describes a total of 28.5% of the sample variance. Factor 1 and 2 together describe a total of 64.5% of the variance of the sample.

Table 11. Rotated Component Matrix for pull factors

Rotated Component Matrix		
	Component	
	1	2
1	,898	,186
2	,885	,249
3	,883	,211
4	,825	,209
5	,785	,340
6	,065	,826
7	,201	,777
8	,206	,696
9	,439	,613
10	,520	,603
11	,145	,594
12	,287	,508

Source: author

Table shows the loading of varimax rotated factor matrix for three - factor model. Factor 1 contains variables: A better and more stable job, better opportunities for career development, a better standard of living and a higher quality of life, a higher salary compared to the one in Croatia, better training in the profession and relatives abroad and can be called ECONOMIC REASONS. Factor 2 contains variables: recommendations and positive experiences of friends, more pleasant nature and climate, a better political system, better public services (education, health, social), partner abroad and traveling and getting to know new people and cultures can be called NON-ECONOMIC (PERSONAL) REASONS. Knowledge of pull, but also push factors of a certain

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country, is necessary a prerequisite for creating a quality migration policy.

The research does not confirm the research by (Šverko, 2005.) that the majority of respondents intend to go abroad from Croatia, but it also does not confirm other research such as (Sylla, Quadih, Barkanan, Hassoune, & Nani, 2021.) at the world level about the high percentage of going abroad after completing their studies. On the other hand, research confirms research such as (Troskot, Prskalo, & Šimić Banović, 2019.) that economic factors (especially unemployment or inability to find a suitable job in the profession) are the main push and pull motives for emigration in Croatia. Most research points to the fact that migration is primarily motivated by economic factors. These results are not surprising considering that people almost always emigrate with the purpose of improving their material conditions. (Sprenger, 2013.)

CONCLUSION

In the last ten years, Croatia has been marked by intensive emigration of the population abroad. The same dynamics of emigration from Croatia will most likely continue in the future unless there are drastic changes in the institutional system to combat the causes and symptoms of existing negative migration trends. The analysis of the research results indicates that majority (61%) of young people - students in Slavonia & Baranja expressed intention to stay in Croatia, 10,48% are intended to emigrate and return to Croatia and 7,14% are intended to emigrate for permanent. According to factor analysis hypothesis H1 which states that economic factors are the main push motives for migration for students in Slavonia & Baranja is accepted. Also, hypothesis H2 which states that economic factors are the main pull motives for migration for students in Slavonia & Baranja is accepted. Data identified unemployment, low paying job and low standard of living in Croatia as main push reasons for their intention to migrate and better standard of living and higher quality of life, better opportunities for career development and better and more stable job as main pull reasons for their intention to migrate. Consequently, "economic and social reasons" are the main push reasons and "economic and non-economic (personal) reasons are main pull reasons.

This work contributes by introducing a clear time horizon to our measure of intentions, we are able to differentiate between individuals who intend to migrate temporarily and permanently. This research aims to contribute to further research on the subject of migration intentions of the students of Slavonia & Baranja, since there is still little relevant research on this topic in the Republic of Croatia. The collected data on migration intentions will provide information on the basic characteristics of potential migrants from Slavonia & Baranja and their reasons for making the decision to emigrate.

However, the intention of emigration can be limiting. The basic limitation refers to the impossibility of predicting whether and when migration will occur and whether migration will be permanent or temporary. Also, data was collected from Slavonia & Baranja. This research can be a starting point for more detailed research - to include students from all universities in the Republic of Croatia.

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ORIGINALNI NAUČNI RAD / ORIGINAL SCIENTIFIC PAPER

CONSUMER INNOVATIVENESS AND FASHION PURCHASING BEFORE AND DURING COVID-19 PANDEMIC

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Abstract: *The subject of this paper is the analysis of the fashion products consumers' innovativeness and consideration of fashion purchasing, before and during COVID-19 pandemic. The goal of the paper is to examine the speed of adoption of new fashion products, as well as to learn how consumers of different degrees of innovativeness behave when buying fashion products, before and during the pandemic, in Serbia, considering the frequency of purchases and the factors that influence fashion purchasing. The results of empirical research, conducted in Serbia between March and June 2021, prove that a significant percentage of consumers are innovators (5%) and laggards (44%). The frequency of ordering fashion products has been in decline during the pandemic among all categories of consumers. Innovators most often ordered fashion clothing items before and during the pandemic, while early adopters most often ordered footwear and fashion accessories before the pandemic. During the pandemic early adopters share the first place with innovators. Before the pandemic, influencers were the most important factor for innovators, and during the pandemic for early adopters. During the pandemic, the geographic origin of a fashion product has become more important to innovators, early adopters and early majority.*

Keywords: *consumer, innovativeness, fashion products, frequency of purchase, COVID-19 pandemic*

JET classification: *M3*

INTRODUCTION

The economic crisis stemming from the COVID-19 pandemic is affecting the global economy (Sethi, Ranjan Dash, Kumar Swain, & Das, 2021), which has also challenged Serbian fashion retailers to adapt their practices to the new consumer buy-

ing behavior. During the pandemic, the ability to shop physically has been limited due to social distancing restrictions (Sheth, 2020) and customers have been forced to buy goods online. Like most other industries, the fashion industry has had to adapt to changing customer behavior during the pandemic and to involve more innovations in their marketing and selling processes.

During the challenging situations and especially long-lasting crises, the way customers and companies engage in two-way interaction can have an immediate and lasting impact on customers' trust and loyalty. Adapting to current circumstances and innovations on both sides greatly simplify this whole process. There are numerous external influences on the consumers of fashion products, sometimes they are hidden and sometimes they are obvious and immediate (Slijepčević, 2019).

The subject of this paper is the analysis of the fashion products consumers' innovativeness and consideration of the purchase of fashion products, before and during COVID-19 pandemic. The aim of the paper is to examine the behavior of consumers of different categories according to the degree of innovativeness (in terms of the speed of adoption of new fashion products), in relation to the degree of importance of certain factors for the purchase of fashion products and the frequency of fashion purchasing in terms of ordering, purchase of a certain type of fashion products and the influence of influencers, observed for the period before and during the pandemic, in Serbia.

The specificity of the paper is reflected in the buying behaviors of consumers of fashion products in Serbia, before and during the pandemic, including a comparative analysis of consumer innovativeness and fashion purchasing (considering the importance of certain factors for fashion purchasing and the frequency of fashion buying in terms of ordering, purchase of a certain type of fashion products and the influence of influencers). Based on the review of the literature and the authors' assumptions, the following research hypotheses were defined: Null hypothesis H0 – There is no statistically significant difference in the responses of the respondents from Serbia in relation to the frequency of purchasing fashion products, as well as in relation to the degree of importance of factors for buying fashion products, both for the period before and during the pandemic, caused by the differences in the respondents' categories according to the degree of innovativeness (innovators, early adopters, early majority, late majority, laggards); Alternative hypothesis H1 – There is a statistically significant difference in the respondents' answers in relation to the frequency of purchasing fashion products, both for the period before and during the pandemic, caused by consumer categories according to the degree of innovativeness; Alternative hypothesis H2 – There is a statistically significant difference in the respondents' answers in relation to the degree of importance of factors for buying fashion products, both for the period before and during the pandemic, caused by consumer categories according to the degree of innovativeness.

INNOVATION AND CONSUMERS

Innovation is an extremely broad term, and therefore the definitions used in empirical research are varied. Innovation represents an idea, practice or object that is considered new (Rogers, Diffusion of Innovations (3th Edition), 1983). It is an empowering process in the context of acquiring or improving abilities, that is, increasing usefulness (Gunday, Ulusoy, Kilic, & Alpkan, 2011). It provides companies with strategic direction to address the challenges they face while striving for a sustainable com-

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petitive advantage (Rogers, 2003); (Gunday, Ulusoy, Kilic, & Alpkan, 2011). Also, through innovation, new knowledge is created and diffused, strengthening economic potential through the development of new products and more productive operating methods (OECD, 2005).

Therefore, innovation can be said to represent the application of a new or significantly improved product, service or process, marketing method or new organizational method in business, organization and working conditions of employees or relations of a business entity with the environment (European Commission, 1996). They do not necessarily have to be new to the market or to the whole world, but they could be new to the organization (Zanello, Fu, Mohnen, & Ventresca, 2015) or the country (Stanković & Đukić, Strategijsko upravljanje portfolijom inovacija, 2015). Innovations ensure efficiency, improvement of product quality, cost reduction, greater customer satisfaction, increase in sales and profits, greater market share and differentiation in relation to competitors (Jovičić, Gagić, & Sekulić, 2016) and represent a critical success factor and the basis for improving the competitiveness of the economy and society (Stanković, Đukić, & Popović, 2014).

The tendency of consumers to accept and buy fashion products may be related to the level of innovation of such products. Rogers defined innovativeness in his time-of-adoption method as "the extent to which an individual adopts new ideas relatively earlier than the other members of his/her social system" (Rogers, 1983). In this context, the ability of consumers to innovate is precisely related to their acceptance of new products and services. Different consumer groups based on innovativeness were identified with their adoption rates in Rogers' Diffusion of Innovation Theory (Rogers, 1983) and were the subject of various researches (Dickerson & Gentry, 1983); (Goldsmith & Reinecke Flynn, 1992); (Danneels & Kleinschmidt, 2001); (Steenkamp, 2001); (Mattila, Karjaluoto, & Pento, 2003); (McDonald & Alpert, 2007); (Lyu, Hahn, & Sadachar, 2018); (Pan, Xin, & Li, 2021). Mentioned consumer categories based on innovativeness are: Innovators, Early Adopters, Early Majority, Late Majority, Laggards.

FASHION PURCHASING

Opinion leaders, who can collect and select information to influence public attitudes or behavior (Reinecke Flynn, Goldsmith, & Eastman, 1996), are beginning to exert more influence online. With this in mind, it could be said that word of mouth (defined as the informal dissemination of information about consumer experiences with a particular product (Anderson, 1998) plays a crucial role in fashion promotion and the sales process. In general, various studies have shown that word of mouth claim is more effective than other promotional elements such as an advertisement, direct sales or direct mail (Buttle, 1998); (Warring, 2013) responsible for 20-50% of all purchasing decisions (Bughin, Doogan, & Vetvik, 2010). Customer feedback is now available to a large number of other customers on the Internet (Citrin, Sprott, Silverman, & Stem, 2000) so a considerable influence on the success of the goods and services can be expected (Hennig-Thurau & Walsh, 2003), at online tools such as tweets, online reviews, and blogs which are in a sense "big data" sources of real exchange behavior (Berger, 2014). Some interesting statistics show that 88% of customers had the highest level of trust in a brand when a friend or family member recommended it. Also, the top four

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most popular ways to recommend a brand or company are word-of-mouth, Facebook, Google, and Twitter (Todorov, 2021).

Internet and social media play vital role in helping consumers find the products they are looking for (Sudha & Sheena, Impact of Influencers in Consumer Decision Process: the Fashion Industry, 2017); (Perčić & Perić, The Analysis of Direct Marketing Media Usage and Effectiveness, 2022). Influencer marketing has been widely considered in recent years, especially in fashion industry (Chetioui, Benlafqi, & Lebdaoui, 2020). Social media influencers (opinion leaders) are integrated into a brand's brand communication on social media platforms, where influencer marketing is an extension to the concept of word-of-mouth marketing (Sudha & Sheena, 2017); (Bakker, 2018). Influencers are deemed to be the most cost-efficient and -effective marketing trends, and they have positive impact on consumers' purchase intention (Lim, Radzol, Cheah, & Wong, 2017); (Sudha & Sheena, 2017); (Herjanto, Adiwijaya, Wijaya, & Semuel, 2020).

The results of one study among Chinese consumers indicated that brand consciousness, social comparison and fashion innovativeness have a significant impact on attitudes toward purchasing luxury fashion goods (Zhang & Kim, 2013). Another study set an examination of consumer innovativeness as a personality trait and looked at the hedonic, social, cognitive and functional motivational elements behind consumer innovativeness. The results proved that hedonic innovativeness had a positive impact on customer attitudes. Furthermore, motivational elements of innovation, with the exception of hedonic motivation, positively influence purchase intention (Seyed Esfahani & Reynolds, 2021). In another study of outdoor-related consumer products, the empirical findings reveal that innovating users can be reliably distinguished from non-innovating ones by characteristics such as the benefit they expect from using products and the level of expertise they have in the use of the products (Lüthje, 2004).

The arrival of the COVID-19 generated a world crisis. The pandemic has caused changes in consumer behavior habits (Nikolić, Perčić, & Nećak, 2022). The fashion industry was hit hard, and had to undergo abrupt transformations to adapt to the new normal (Seibel, Santos, & Silveira, 2021). The global fashion industry faced exceptionally challenging conditions under COVID-19 restrictions through 2020 and 2021, and after those two years, the fashion industry has been considering the possibilities to overcome the crisis (McKinsey, 2022). On the other hand, changes in current environment affect consumers' buying behavior (Ong, Cleofas, Prasetyo, & Chuenyindee, 2021); (Saiki, Kandiah, Adomaitis, & Jones, 2021); (Seibel, Santos, & Silveira, 2021); (Le Rolland, 2022); (Sumarliah, Usmanova, Mousa, & Indriya, 2022). Consumers increasingly buy via social media (McKinsey, 2022). The revenue of the global apparel market was estimated to be around US$1.5 trillion in 2021 and is predicted to increase to approximately US$2 trillion by 2026 (Smith, 2023). The countries that account for the majority of this apparel demand are the USA and China. High percentage of US consumers (43%) said they would increase their fashion spending in 2021, with clothing for work and special occasions (McKinsey, 2022). High percentage of consumers (74%) say that they have been more influenced to shop via social media during the pandemic than they were before the pandemic, and 70% cite clothing as one of the product categories they shop for most on social media (McKinsey, 2022). Fashion is the largest single category sold via social media in the US (McKinsey, 2022). Prod-

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uct discovery and engagement with brands on social media is already commonplace across most global markets, with customers used to seeing brand activity and references alongside social exchanges with one another and influencers (McKinsey, 2022). While Western markets may still lag China in rates of adoption, shopping via social networks has gained a global foothold and is poised to grow in the year ahead (McKinsey, 2022). By 2027, worldwide social commerce sales are set to reach over $600 billion (GlobeNewswire, 2020).

The choice of materials, packaging, and the disposal of scraps of production are factors that stand out as important to consumers during the pandemic (Seibel, Santos, & Silveira, 2021). It has become important to add sustainable value to the brand. Sustainability priorities are critical to favourable consumer behaviour and implicitly to business during the pandemic (Vătămănescu, Dabija, Gazzola, & Cegarro-Navarro, 2021).

METHODOLOGY

Survey research was conducted in written form, via a questionnaire. The online questionnaire was designed specifically for the purpose of this research and was distributed to respondents aged 18 through 72, in the period between 24 March and 21 June 2021. Respondents from all regions of Serbia were included. The survey examined how innovative the consumers in Serbia are in terms of the speed of adoption of new fashion products, as well as whether there is a statistically significant difference in the behavior of consumers of different categories according to the degree of innovativeness in relation to the degree of importance of certain factors for the purchase of fashion products, as well as the frequency of buying fashion products in terms of the way of ordering and paying, buying a certain type of fashion product and the influence of influencers, observed in the period before and during the pandemic. The used random sample consists of 1,002 respondents (male 26%, female 74%). The sample includes respondents of all levels of vocational education: lower education (1%), secondary education (27%), higher education (7%), high education (32%), master's degree (15%) and doctor of science/arts (18%), from all regions of Serbia (Vojvodina 10%, Belgrade 65%, Šumadija and Western Serbia 18% and Southern and Eastern Serbia 7%). According to monthly income, the structure of the sample is as follows: up to 50,000 RSD - 43% of respondents; 50,000-70,000 RSD - 20% of respondents; 70,000-100,000 RSD - 14% of respondents; over 100,000 RSD - 7% of respondents. The statistical error of the sample is 3%. SPSS was used for data processing and analysis. The following quantitative statistical methods were used: descriptive statistics (frequency distribution, arithmetic mean) and comparative statistics (ANOVA). Some questions in the questionnaire were formulated in the form of a five-point Likert scale. When it comes to the frequency of buying fashion products, the answers considered (in tables 3 and 4), were: almost always, often, sometimes, rarely and never (which are assigned the values 5, 4, 3, 2 and 1, respectively). When it comes to the degree of importance of the tested factors that influence the purchase of fashion products, the answers considered (in tables 6 and 7), were: it is very important to me, it is important to me, sometimes it is important to me, it is not so important to me, it is not important to me at all (which were assigned values 5, 4, 3, 2 and 1, respectively).

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RESULTS

According to the results of the research shown in Table 1, laggards (44%) are the highest percentage of consumers of new fashion products in Serbia. They are followed by the early majority (35%), the late majority (11%), while early adopters and innovators make up the least numerous consumer categories with 5%.

Table 1. Distribution of the respondents according to consumer category with regard to the speed of adoption of new fashion products

Consumer category – question	Percentages
Laggards – I don't like to change the habits and products I'm prone to	44%
Late majority – I restrain from new fashion products (I only become a user of a product when most of the people around me have it)	11%
Early Majority – I embrace new fashion products and become their user before the vast majority (the "average")	35%
Early Adopters – When I see a fashion product for the first time on others, I quickly become a user of the same (I like to give advice and information)	5%
Innovators – I am the first to become a user of the product (I follow events related to a fashion product that I am interested in, outside the borders of our country)	5%

Source: Authors

According to Rogers (2003, p. 281), the structure of consumer categories according to the speed of adoption of new products looks like this: Innovators 2.5%, Early Adopters 13.5%, Early Majority 34%, Late Majority 34% and Laggards 16%. Compared to Rogers' structure, it can be concluded that twice as many consumers are innovators in Serbia when it comes to fashion products; that there are fewer consumers in the category of early adopters; that the percentage participation of the early majority is matched; that there is a smaller percentage of consumers in the late majority, and that almost three times more consumers make up the laggards. The most dominant category shows us that, on average, consumers in Serbia do not like to change their habits and clothing products.

Looking at how important the design of a fashion product was for certain categories of consumers according to the degree of innovativeness before the pandemic, it can be seen that design is important to all innovators, as well as to early adopters (96%) and the early majority (93%). The design of a fashion product is important for 87% of consumers of the late majority and for 92% of the laggards. And when looking at the importance of fashion product design during the pandemic, a slight decline in its importance can be observed among all categories.

There is a decrease in the frequency (sum of responses of respondents *almost always* and *often*) of ordering fashion products through domestic websites during the pandemic compared to the period before the pandemic, by at least 50%, looking at all categories of consumers according to the degree of innovativeness. Before the pandemic, 83-92% of consumers of all categories often ordered fashion products through domestic websites, and during the pandemic, 32-42% of consumers have ordered this type of product through domestic websites.

There is an increase in the frequency of ordering fashion products through foreign websites during the pandemic compared to the period before the pandemic, except

for the late majority. Before the pandemic, the innovators were the largest percentage of consumers who ordered fashion products through foreign websites (28%), and during the pandemic, this category of consumers have ordered through foreign websites in the largest number (56%), which is an evident increase of 50%.

Innovators were the highest percentage of consumers who frequently ordered via Instagram before the pandemic (16%) and during the pandemic (12%). Innovators were also the highest percentage of consumers who frequently ordered via Facebook before the pandemic (8%). During the pandemic, early adopters were the highest percentage of consumers who frequently ordered via Facebook (20%).

Innovators frequently ordered clothing fashion items in the largest percentage before the pandemic (84%) and during the pandemic (68%). Laggards frequently ordered the mentioned products in the smallest percentage before the pandemic (42%), and the late majority frequently ordered in the smallest percentage during the pandemic (23%).

Before the pandemic, early adopters made up the largest percentage of consumers (68%) who frequently ordered footwear as fashion products (68%) and fashion accessories (44%). The late majority was the smallest percentage who often bought footwear before the pandemic (28%) and during the pandemic (11%), and also the smallest percentage who frequently ordered fashion accessories before the pandemic (8%) and during the pandemic (6%). During the pandemic, innovators frequently ordered footwear (40%) and fashion accessories (32%) in the highest percentage (40%).

According to the ANOVA, there are numerous statistically significant differences in the responses of different categories of consumers according to the degree of innovativeness, in relation to the frequency of ordering fashion products, both before and during the pandemic, when the following dependent variables were considered: ordering fashion products through foreign websites, ordering fashion products through Facebook, ordering fashion products which were promoted by influencers (domestic, foreign), ordering clothing and fashion products, ordering footwear, ordering fashion accessories. Further, there is no statistically significant difference in the responses of respondents of different categories of consumers in relation to the frequency of ordering fashion products through domestic websites, both before and during the pandemic, which would mean that all categories of consumers according to the degree of innovativeness order equally through domestic websites. The details of this test for all examined variables are presented in Table 2.

Table 2. Testing the statistically significant difference in the respondents' answers according to consumer categories (according to the degree of innovativeness) in relation to the frequency of purchasing fashion products, before and during the pandemic (ANOVA test)

Purchasing fashion products...	Before the pandemic					During the pandemic				
	Sum of Squares	df	Mean Square	F	p	Sum of Squares	df	Mean Square	F	p
...through domestic websites	1.146	4	0.287	0.408	0.803	7.142	4	1.785	1.343	0.252
...through foreign websites	41.211	4	10.303	10.732	0.000*	77.140	4	19.285	17.107	0.000*
...through Instagram (domestic products)	8.211	4	2.053	2.289	0.058	17.036	4	4.259	4.411	0.002*

...through Facebook (domestic products)	51.906	4	12.977	16.778	0.000*	76.408	4	19.102	19.913	0.000*
...in physical stores	10.961	4	2.740	1.578	0.178	11.072	4	2.768	1.759	0.135
...which were promoted by domestic influencers	26.867	4	6.717	11.567	0.000*	31.209	4	7.802	14.401	0.000*
...which were promoted by foreign influencers	35.909	4	8.977	18.921	0.000*	36.539	4	9.135	21.476	0.000*
...i.e. clothing items	42.283	4	10.571	12.424	0.000*	61.096	4	15.274	16.056	0.000*
...i.e. footwear	53.353	4	13.338	12.285	0.000*	49.742	4	12.435	11.556	0.000*
...i.e. fashion accessories	69.663	4	17.416	16.203	0.000*	103.386	4	25.846	27.070	0.000*

* An asterisk indicates the existence of a statistically significant difference (where $p < 0.05$).

Source: Authors

According to Table 3, which shows the mean values for each question regarding the frequency of buying fashion products in relation to the category of consumers (according to the degree of innovativeness), the findings presented in the previous section were also confirmed this way. Before the pandemic, innovators and early adopters bought fashion products most frequently compared to other categories (early majority, late majority and laggards). Innovators most often bought through foreign websites and Instagram; they most frequently bought products promoted by influencers (foreign, domestic); and they bought clothing (fashion) items more frequently.

Table 3. Mean values for the frequency of buying fashion products before the pandemic

Before the pandemic, I bought fashion products...	Innovators (N = 50)	Early adopters (N = 50)	Early majority (N = 353)	Late majority (N = 106)	Laggards (N = 443)
...through domestic websites	4.36	**4.52**	4.41	4.42	4.37
...through foreign websites	**2.84**	2.48	2.50	2.02	2.20
...through Instagram (domestic products)	**2.16**	2.08	1.93	1.77	1.85
...through Facebook (domestic products)	2.04	**2.24**	1.82	1.49	1.47
...in physical stores	1.96	**2.44**	2.38	2.17	2.27
...which were promoted by domestic influencers	**1.76**	**1.76**	1.61	1.40	1.32
...which were promoted by foreign influencers	**1.80**	1.76	1.56	1.30	1.24
...i.e. clothing items	**4.04**	3.80	3.54	3.26	3.28
...i.e. footwear	3.60	**3.80**	3.20	2.89	2.97
...i.e. fashion accessories	2.96	**3.28**	2.89	2.30	2.48

* The highest values for each question related to the frequency of purchasing a fashion product in relation to consumer categories (according to the degree of innovativeness) are highlighted.

Source: Authors

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During the pandemic, innovators and early adopters bought fashion products most frequently compared to other categories of consumers (Table 4). Innovators most often bought through foreign websites and Instagram; they most often bought clothing items; and just as often footwear and fashion accessories as early adopters. Early adopters shop most frequently through Instagram and Facebook; and they most often buy products promoted by foreign and domestic influencers. It is interesting that the early majority most often buy fashion products through domestic websites.

Table 4. Mean values for the frequency of buying fashion products during the pandemic

During the pandemic, I bought fashion products...	Innovators (N = 50)	Early adopters (N = 50)	Early majority (N = 353)	Late majority (N = 106)	Laggards (N = 443)
...through domestic websites	3.00	3.16	**3.34**	3.17	3.24
...through foreign websites	3.20	2.88	2.68	1.92	2.46
...through Instagram (domestic products)	**2.20**	**2.20**	1.93	1.70	1.75
...through Facebook (domestic products)	2.08	**2.52**	1.92	1.45	1.52
...in physical stores	2.08	2.32	**2.35**	2.09	2.15
...which were promoted by domestic influencers	1.76	**1.88**	1.56	1.32	1.29
...which were promoted by foreign influencers	1.64	**1.92**	1.50	1.38	1.20
...i.e. clothing items	**3.84**	3.52	3.27	2.79	2.99
...i.e. footwear	**3.32**	**3.32**	3.01	2.49	2.74
...i.e. fashion accessories	**2.88**	**2.88**	2.75	2.04	2.16

* The highest values for each question related to the frequency of purchasing a fashion product in relation to consumer categories (according to the degree of innovativeness) are highlighted.

Source: Authors

According to the ANOVA, there is a statistically significant difference in the respondents' answers according to the degree of importance of fashion product design in relation to the mentioned categories of consumers (according to the degree of innovativeness), both before and during the pandemic.

For all consumer categories, the method of payment had an approximate importance before the pandemic and it was important for 40 to 45% of consumers, while an increase in the importance of the method of payment for purchased fashion products can be observed for all categories during the pandemic. The payment method is important for the largest percentage of innovators (68%) during the pandemic. For the period before the pandemic, there is no statistically significant difference in the responses according to consumer categories in relation to the degree of importance of the method of payment for fashion products, but for the period during the pandemic, there is a statistically significant difference between the mentioned variables.

The existence of a number of statistically significant differences in the respondents' answers according to consumer categories in relation to the degree of impor-

tance of factors for purchasing fashion products, both before and during the pandemic, was determined. The results of this test are shown in Table 5.

Table 5. Testing the statistically significant difference in the respondents' answers according to consumer categories (according to the degree of innovativeness) in relation to the degree of importance of factors for purchasing fashion products, before and during the pandemic (ANOVA)

Factors:	Before the pandemic					During the pandemic				
	Sum of Squares	df	Mean Square	F	p	Sum of Squares	df	Mean Square	F	p
quality of materials and workmanship	6.542	4	1.635	2.519	0.040*	3.995	4	0.999	1.897	0.109
product design	6.631	4	1.658	3.936	0.004*	12.931	4	3.233	6.136	0.000*
product originality	62.863	4	15.716	14.853	0.000*	78.534	4	19.633	18.391	0.000*
geographical origin	28.687	4	7.172	5.230	0.000*	30.556	4	7.639	5.810	0.000*
brand awareness	52.101	4	13.025	12.432	0.000*	61.809	4	15.452	14.101	0.000*
packaging	41.768	4	10.442	9.800	0.000*	52.005	4	13.001	11.276	0.000*
price	21.637	4	5.409	5.409	0.000*	19.751	4	4.938	7.444	0.000*
discount	6.678	4	1.670	1.936	0.102	7.951	4	1.988	2.273	0.060
method of payment	3.450	4	0.963	0.518	0.722	17.004	4	4.251	2.877	0.022*
place of purchase	12.501	4	3.125	2.143	0.074	6.949	4	1.737	1.557	0.184
how and by whom the product is promoted	48.072	4	12.018	9.104	0.000*	32.309	4	8.077	7.487	0.000*
that the product is promoted by an influencer	24.758	4	6.189	9.895	0.000*	31.010	4	7.752	13.465	0.000*
friend's recommendation	4.304	4	1.076	0.988	0.413	3.579	4	0.899	0.800	0.525

* An asterisk indicates the existence of a statistically significant difference (where p < 0.05).

Source: Authors

According to Table 6, for the period before the pandemic, for the category of consumers who are the fastest adopters of new fashion products (innovators), the following factors that influence the purchase of fashion products are the most important compared to other categories of consumers: product design, product originality, brand awareness, discounts, how and who promotes the product and that the product is promoted by an influencer. For the early adopters, the following factors are the most important compared to other consumer categories: packaging, place of purchase and friend's recommendation. For the early majority, the following factors are the most important: quality of materials and workmanship and geographical origin, and for the late majority: price and method of payment, which means that they are the most price sensitive. It is also interesting that the innovators mentioned discounts as an important

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factor for purchasing, which would mean that they are very rational buyers when it comes to fashion products.

Table 6. Mean values for the degree of importance of the tested factors for the purchase of fashion products according to consumer innovativeness (according to the speed of adoption of innovations – new fashion products) before the pandemic

When, before the pandemic, I was deciding which fashion product to buy, it was important to me...	Innovators (N = 50)	Early adopters (N = 50)	Early majority (N = 353)	Late majority (N = 106)	Laggards (N = 443)
...quality of materials and workmanship	4.12	4.32	**4.35**	4.09	4.28
...product design	**4.64**	4.52	4.50	4.38	4.37
...product originality	**4.56**	3.84	3.81	3.55	3.49
...geographical origin	1.96	2.36	**2.65**	2.30	2.56
...brand awareness	**3.00**	2.52	2.78	2.38	2.34
...packaging	2.76	**2.84**	2.62	2.11	2.32
...price	4.08	4.08	3.89	**4.38**	3.94
...discount	**4.08**	3.76	3.81	4.00	3.81
...method of payment (online, cash on delivery)	3.20	3.24	3.15	**3.34**	3.16
...place of purchase (physical store, online store)	3.48	**3.52**	3.21	3.40	3.43
...how and by whom the product is promoted	**2.96**	2.60	2.59	2.28	2.21
...that the product is promoted by an influencer	**1.76**	1.68	1.59	1.38	1.30
...friend's recommendation	3.20	**3.40**	3.19	3.13	3.12

* The highest mean values for each tested factor in relation to consumer categories according to the degree of innovativeness are highlighted.

Source: Authors

According to Table 7, for the period during the pandemic, the following factors that influence the purchase of fashion products are the most important for innovators compared to other categories of consumers: product design, product originality, brand awareness, discounts, how and by whom the product is promoted (which coincides with the most important factors mentioned by innovators for the period before the pandemic) and the method of payment (which was the most important factor for the late majority before the pandemic). For the early adopters, the following factors are the most important compared to other categories of consumers: the quality of materials and workmanship (which before the pandemic was the most important factor for the early majority), packaging, recommendations from friends and that the product is promoted by an influencer. For the early majority, the following factors are the most important: geographical origin and how and by whom the product is promoted, and for the late majority: price (which was the most important for this group of consumers even before the pandemic) and place of purchase (which before the pandemic was the most important for the early adopters).

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Table 7. Mean values for the degree of importance of the tested factors for the purchase of fashion products according to consumer innovativeness during the pandemic

When, during the pandemic, I was deciding which fashion product to buy, it was important to me…	Innovators (N = 50)	Early adopters (N = 50)	Early majority (N = 353)	Late majority (N = 106)	Laggards (N = 443)
…quality of materials and workmanship	4.32	**4.44**	4.37	4.19	4.29
…product design	**4.56**	4.20	4.38	4.19	4.18
…product originality	**4.40**	3.64	3.77	3.34	3.34
…geographical origin	2.16	2.40	**2.73**	2.25	2.50
…brand awareness	**2.96**	2.76	2.73	2.26	2.27
…packaging	2.80	**2.84**	2.57	2.21	2.19
…price	4.12	4.00	4.01	**4.47**	4.03
…discount	**4.16**	3.80	3.90	4.13	3.93
…method of payment (online, cash on delivery)	**3.84**	3.72	3.57	3.75	3.43
…place of purchase (physical store, online store)	3.64	3.68	3.58	**3.87**	3.66
…how and by whom the product is promoted	**2.20**	2.16	**2.20**	2.02	1.82
…that the product is promoted by an influencer	1.76	**1.84**	1.54	1.38	1.26
…friend's recommendation	3.20	**3.32**	3.07	3.15	3.09

* The highest mean values for each tested factor in relation to consumer categories according to the degree of innovativeness are highlighted.

Source: Authors

DISCUSSION

Regarding the consumer research in Serbia according to the speed of adoption of internet media as a marketing innovation (Perčić, Perić, & Kutlača, 2019), there are as many as 12% innovators, 9% early adopters, 27% early majority, 14% late majority and 32% laggards. Compared to the speed of adoption of fashion innovations, there are far fewer innovators (5%), as well as early adopters (5%), more early majority (35%), less late majority (11%), and more laggards (44%). According to this, it can be concluded that the vast majority of consumers in Serbia are traditionalists who do not like to change their habits.

All categories of consumers, except for the late majority, have increased the frequency of ordering via foreign websites during the pandemic, with innovators leading the way with 50%. A drastic drop in the frequency of ordering fashion products via domestic websites was recorded during the pandemic, by at least 50% among all categories of consumers. Innovators in the largest percentage frequently ordered fashion products via Instagram, before and during the pandemic, and they most frequently purchased via Facebook before the pandemic. Early adopters are the most numerous when it comes to frequently ordering via Facebook during the pandemic. The frequency of ordering fashion clothing items, footwear and fashion accessories has been in decline during the pandemic compared to the period before the pandemic among all categories

of consumers. Innovators most often ordered fashion clothing items before and during the pandemic, while early adopters most often ordered footwear and fashion accessories before the pandemic. During the pandemic early adopters share the first place with innovators. Before the pandemic, for innovators, the most important factor was that the fashion product was promoted by influencers. For early adopters, the mentioned factor is the most important during the pandemic.

The research results show that before the pandemic there was a statistically significant difference between consumer categories (according to the degree of innovativeness) in relation to the importance of the quality of materials and workmanship. There was no statistically significant difference in terms of the payment method before the pandemic, but it has appeared during the pandemic. Before the pandemic, the payment method was the most important factor in purchasing fashion products for the late majority, and during the pandemic for innovators. Both for the period before and during the pandemic, the existence of a statistically significant difference was established for how and by whom the product is promoted and that the product is promoted by an influencer. Before the pandemic, influencers were the most important factor for innovators, and during the pandemic for early adopters.

Before the pandemic, the most important factors for buying fashion products were: quality of materials and workmanship, product design, product originality, price and discount, while during the pandemic: quality of materials and workmanship, product design, price, discount, method of payment (online, cash on delivery) and place of purchase (physical or online store). It can be concluded that quality of materials and workmanship, product design, price and discount are constant factors of importance for the purchase of fashion products, regardless of economic and other circumstances. During the pandemic, the importance of the following factors has decreased among all categories of consumers: product design, product originality, brand awareness, packaging, how and by whom the product is promoted, friend's recommendation, while on the other hand, the importance of the following factors has increased: quality of materials and workmanship, price, discount, method of payment and place of purchase. During the pandemic, the geographic origin of a fashion product has become more important to innovators, early adopters and early majority, while it has become more important for early adopters to buy fashion products promoted by influencers.

As it has been proven that there is a statistically significant difference in the respondents' answers according to consumer categories (according to the degree of innovativeness) in relation to: 1) the frequency of buying fashion products, both for the period before and during the pandemic, the alternative hypothesis H_1 is confirmed; 2) the degree of importance of factors for the purchase of fashion products, before and during the pandemic, the alternative hypothesis H_2 is also confirmed. As both alternative hypotheses are confirmed, the null hypothesis H_0 is refuted, which was the aim of the research. Therefore, it was not confirmed that there are no statistically significant differences in the answers of respondents from Serbia according to the frequency of buying fashion products, as well as to the degree of importance of factors for the purchase of fashion products, for the period before and during the pandemic, caused by the differences in the consumer categories according to the degree of innovativeness.

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CONCLUSION

Based on the obtained results, we learned about the specific preferences of consumers of fashion products in Serbia, which are significant for participants in the domestic fashion market. In Serbia, the number of innovators is twice as large as the theoretical number of consumers who tend to be the first to buy a new product and follow it on the market outside Serbia. This fact is an indicator to global fashion brands as well as specialized marketing agencies that the appearance on the local market requires research and as precise as possible knowledge about the preferences of consumers in local markets. On the other hand, it is a signal to domestic producers of fashion products that domestic consumers of fashion products are innovators to a sufficient extent that they should be taken into account with their needs, above all the loyal consumers, and introduced first of all, in a targeted and personalized manner, with their new products, in order to properly compete with global brands. During the pandemic, the degree of importance of the method of payment has increased, unlike in the period before the pandemic. Before the pandemic, the payment method was the most important factor in purchasing fashion products for the late majority, while during the pandemic it was for innovators. The frequency of ordering via foreign websites has increased during the pandemic, with innovators leading the way with 50%, while the frequency of ordering fashion products via domestic websites has dropped drastically, by at least 50%. It is a signal for domestic manufacturers that they should significantly improve their online presentation, online shopping and delivery of goods emulating global fashion brands. Innovators most often ordered fashion clothing items both before and during the pandemic. Instagram is the dominant network when it comes to the fashion industry, and therefore some future research should focus on what exactly consumers buy on Facebook and what on Instagram and what their user experiences are like when shopping on these social networks. The above data are important for manufacturers of fashion products, i.e. they indicate the need to be present on both social networks and that on each they need to develop relationships with their consumers and include them in their activities in order to connect them as strongly as possible with their brand. Quality of materials and workmanship, product design, price and discount are constant factors of importance for the purchase of fashion products, regardless of economic and other circumstances. During the pandemic, the importance of the following factors has increased: quality of materials and workmanship, price, discount, method of payment and place of purchase, while the importance of product design has decreased.

The fashion industry has suffered a significant drop in sales during the pandemic. This was contributed by a completely new way of living and working from home, the absence of various festivities, socializing on a private and business level (Ristić, Pajvančić-Cizelj, & Čikić, 2020); (Krstić, Tomanović, & Stanojević, 2022). Demand for fashion products has actually decreased, and the very atmosphere of uncertainty has obviously contributed to consumers buying in smaller quantities. Fashion consumer behavior has not been widely discussed during the pandemic despite the fashion industry being heavily affected. In order to respond to new consumer habits, brands need to be present in the digital environment (Seibel, Santos, & Silveira, 2021); (Llorens, Carrasco, Bueno, Herrera-Viedma, & Morente-Molinera, 2022). Brands that are thinking ahead about long-term growth of commerce via social media while recognizing the permanent changes in global consumer buying habits, should use social media

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platforms. The obtained results of the research are important for future marketing and sales activities, primarily of domestic manufacturers of fashion products, but also of global fashion brands and specialized marketing agencies that represent their interests on the domestic fashion market. The limitations of the research are reflected in the fact that data on promotional and marketing activities of fashion product manufacturers, budgets and distribution of budgets on social networks, and their impact on consumers of fashion products, both before and during the pandemic, are not included. The limitation is also reflected in the larger number of female respondents who are more ready to fill out the survey than males. The study didn't cover all categories of fashion products, all factors that influence consumer behavior like circular economy, situational factors, hedonic and utilitarian motives. It would be useful to conduct research on the period of the year with the highest frequency of buying fashion products, as well as on what contributed to the increased purchase of fashion products through foreign websites. Analysis of consumption habits according to generations, before and during the pandemic, will be given in another paper by the authors.

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PREGLEDNI NAUČNI RAD / OVERVIEW SCIENTIFIC PAPER

PROBLEMS OF UNDERSTANDING AND APPLYING METHODOLOGY OF SOCIAL SCIENCES

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Abstract: *The research in social sciences is still very much present in the academic world. This paper is another effort that tries to shed light on the methodology of research in social sciences with the detection of obstacles that interfere with its use, especially regarding values. This paper will explain the nature of research practice in social sciences as well as the difficulties regarding the research method, which would define the objective holding that a researcher has to implement. Furthering from the subject of study is, for that matter, needed especially regarding the values, because very little research in this field is of so-called "pure nature". For that matter, very few people explore the methodology by itself because most of the research is applied research, which is widely used in multiple disciplines. Each science uses different research methods in the areas of its research. They use the methods and procedures that were developed by the research methodologists with the goal of increment of understanding of their own sciences and further development of the base of social knowledge, as well as strengthening and improving their own science. This callback on the methodology of research is focused, primarily on, the aspect of scientific research, and that is the very methodology the scientific research follows with the goal of eliminating mistakes that quite a few researchers make, disregarding the difference between the method and the methodology. A great number of definitions of methodology confirm its complex nature but also state the fact that methodology can be observed with theoretical, technical, and organizational aspects. The theoretical aspect implies the questioning of laid-out hypotheses, theories, comprehensions, styles, terminology, etc. Technical aspects relate to the process of gathering, observing, arranging, and measuring the data, while the organizational aspect relates to securing the rational technology in implementing scientific research.*

Keywords: *Science, methodology, methods, research*

JET classification: *Z19, C18*

INTRODUCTION

The study of methodology enables a wider and more comprehensive acquaintance with science and its active side, i.e., an understanding of what scientists do in

their work space or in the field, as well as to become better acquainted with the methods and means by which they arrive at certain knowledge, such as and to understand the logic that connects the various procedures of scientific activity into a thought unit. In more recent scientific works that present the results of some research, it is easy to see the effort to explain the procedures and means used in the research. In this way, the researcher provides other researchers, and everyone else who is interested in those results, with data on how they were arrived at. This is justified, but also useful for several reasons. "First, it facilitates the verification of research results, on the other hand, the transfer and generalization of positive methodological experience is significantly accelerated. However, presenting the methodological experiences gained in individual researches is not enough for a faster development of science. For a broader understanding and faster generalization of the research experiences of a certain science, it is very useful for a special discipline to systematically study the active side of science. That is the task of scientific methodology"

The methodology of scientific research work aims to make the researcher systematic in his thinking, proposals and research, freed from intellectual stagnation, oriented towards creativity, renewal of critical, systematic and organized analysis. The scope of knowledge and experience in scientific methodology and research methods and techniques eliminates any arbitrary judgments of researchers as well as falling into scientific naivety. This approach marks the path leading to the discovery of truth in science by means of a set of general rules that dominate the functioning of the mind and determine its operations until it reaches a certain result.

The scientific approach to the research of certain phenomena does not set any initial limitations and conditions, which is characteristic of a non-scientific approach. The openness of scientific research is confirmed by the theses of Berger (Berger P., 1995), in which he points out that those who need certainty should not accept science. Let them, as he points out, pray in their chosen ideological sanctuary and let them decide their choice with their own conscience. A scientist must not offer the certainty of prophetic truth or an irrefutable hypothesis. It is the moral and intellectual obligation of scientists. Science must be open to change because scientists do not invent the truth, they discover the truth.

By interpreting various phenomena, we increase the scientific value what helps a person to predict. The proces of prediction does not mean metaphysical guesswork or knowing the future, but rather the ability to predict what might happen if things go in a certain direction, and this anticipation includes the meaning of a high degree of possibility. In achieving the three basic goals (interpretation, prediction and control), all sciences depend on the scientific method, because it is characterized by accuracy, objectivity and the testing of facts as a test that removes all doubt, knowing that scientific facts are not fixed, but are facts that have reached high degree of truthfulness.

SCIENCE AND ELEMENTS OF SCIENCE, POSTULATES OF SCIENCE

Even after all our scientific and philosophical explanations and understanding, the secret remains untouched, because if it were clarified and understood, there would be no more secret. If we could know everything, there would be nothing to believe in.
Đuro Šušnjić

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About science and social development

It is human to strive for knowledge, says Aristotle (Aristotel, 2001) and thus he showed us man's path to science through the history of his development. Science is immanent to man because knowledge enriches the life of an individual and society, and in it, it is possible to seek theoretical as well as practical application. "Theory is always built on a series of definitions and established connections between the concepts with which we understand and explain experiential facts, or, on the other hand, with which we create the foundations and starting points for some other theories. Practice as the practical application of knowledge in everyday situations is always a conscious human activity that connects the theoretical with the empirical. At the same time, it can always be expected that the empirical verification of theoretical knowledge can confirm the existing knowledge or partially or completely change it. Practice is also taken as a check, a criterion of the truth of a certain theory." (Pavić Ž; Šundalić A., 2021). Today, more than ever before, education and science are particularly positioned in terms of the role they play both for global development and for the development of each individual society, which is best visible in the changes brought to the world by highly sophisticated technologies. The involvement of science in all social processes of modern technologies makes science a primary human activity.

Everywhere people build on foundations that can be seen, says Đ. Šušnjić, but science builds on the invisible. Experiential science is based on supra-experiential assumptions or principles. That is why it is important to notice that everything we think and do in science depends on our assumptions, and assumptions form the foundation of science even though they themselves do not constitute science nor can they be verified by the methods of science. Science rests on certain philosophical assumptions and therefore it cannot be philosophically neutral. The starting point in understanding science is its characteristic discursive (conceptual, logical) thinking and experiential research. The foundation of a scientist's thought means that it rests on certain assumptions that he is convinced are fruitful, but he does not know that they are true. "*The first* assumption that scientists believe in is that truth exists. Only the one who believes there is truth will go in search of it; he who does not believe that it exists will not even look for it (skepticism, agnosticism, solipsism, nihilism). *The second* assumption that scientists believe in is that truth can be known. If it can be known then the search for truth makes sense; if it cannot be found out why should we seek it, except to find out that nothing can be found out. *The third* assumption that scientists believe in is that knowing the truth is valuable in itself, because the truth itself is a value. Only the one who believes that knowing the truth is valuable in itself, will decide to dedicate his life to discovering and creating that value" (Šušnjić Đ., 1999)When a scientist decides *to do* science, he must be aware of the research implications of accepting a value commitment. Also, the passion or thirst for discovering the truth represents the scientist's inner impulse or motive that drives him to search for the truth. There are a large number of definitions that determine the nature and meaning of science as a social activity, and the key question that arises is the question of the position of science in society and society's attitude towards it. In order to understand the methodology of scientific work, the first question that needs to be answered is the question of what science is. Science, therefore, is a kind of rational-experiential knowledge about the world, it is a relatively independent, closed and exclusive system of ideas, beliefs and practices. Scientific

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work, that is, scientific thinking represents a specific way of thinking, the goal of which is to be true. If one starts from the many definitions of science that try to define science as a special social activity, a special form of social consciousness, it can be defined as the totality of true knowledge about oneself and the world that surrounds them, which people come to by certain methods, and which are characterized by objectivity, generality, systematicity, precision, and development.

"If in a science there are markedly different understandings about the basic characteristics and basic principles of the scientific method, and not only about the most effective research approaches, that is the best sign that that science has not progressed much in the exact respect. The more exact a science becomes, the more unique its theory becomes, the more agreement among scientists is established on an increasing number of theoretical issues, as a greater number of hypothetical theoretical positions become more and more fully and convincingly proven by their multiple confirmations. By unifying theoretical understandings, viewpoints on the method are also beginning to converge and the differences are no longer related to the general principles of the methods, and especially not to the general criteria used to evaluate the scientificity of various research procedures. Differences begin to arise mainly from other sources, and above all from the different substantive nature of the problems that are examined in a certain case. But if science has reached a certain level of exactness, the existing methodological differences become less obstacles in the mutual understanding of various scientific currents and the mutual use of research results. In any case, the method is very closely connected with the entire scientific activity and as an integral part of it, it can only be understood from that general framework" (Milić V., 1965.).

Without knowledge of scientific laws, an individual's knowledge would be limited to his own experience, and any prediction would be illusory. Every scientist has the intention of reaching general laws, but almost as a rule he discovers special, socially conditioned regularities. Scientific law as a general, constant, necessary and essential relationship between phenomena is reflected in the form of relationships between concepts. Scientific laws describe what happens in reality and how people actually behave. Scientific laws are like statements of a descriptive nature as opposed to social norms which are prescriptive in nature. Social norms prescribe rules and scientific laws describe facts, so social norms are made and scientific laws are discovered. The law is, therefore, something more than an empirical generalization, because it is derived from theory. He relates and explains the facts, and the theory connects and explains the laws. The truth of the law is proven not only by the fact that it logically follows from the theory, but is also verified by the facts. Until the actual conditions under which the laws apply are specified, they are only relations between concepts, not relations between phenomena.

Postulates of science and the ethical dimension of science and scientific research work

Science is a rational effort, points out (Šušnjić Đ., 1999), which task is to discover the truth about part of reality. "A naïve view of science opposes any opinion about science that comes from outside science. One can engage in scientific research without ever asking himself what science is, what is its structure, how it differs from other forms of cognitive and spiritual questioning, what foundations it is built on, what

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is a scientific revolution, what is truth and what are the standards of truth in science, is there progress in scientific knowledge, what are the possibilities and limits of science in explaining and understanding significance, what is its ultimate meaning... These questions disturb any naive or pre-critical view of science, in the first place the scientist himself" (Šušnjić Đ., 1999).

If the term science means human knowledge about nature, man and society that relatively corresponds to objective reality, then three basic characteristics of science emerge from that starting point:

- It is the work of man and is the result of his thought and practical activity;
- Knowledge is objective, because it corresponds to objective reality, and
- Scientific knowledge is relative, because this correspondence is never complete, but always partial and approximate

The mentioned characteristics determine the basis of scientific knowledge. According to the definition of the philosophy of science, that is, the science of scientific knowledge, the system of scientific knowledge about nature, man and society is based on the following constitutive methodological principles, that is, postulates:

- Objectivity,
- Reliability,
- Generality,
- Systematicity.

These methodological postulates of scientific activity on which scientific knowledge is based are not universal and generally valid like logical rules that are valid regardless of time and place. Their content and validity largely depend on the specific circumstances of the historical development of certain sciences. However, they also cannot be changed arbitrarily, because they prescribe which knowledge is scientific and which is not. Each of their changes always means a change in the understanding of science and its limits according to other forms of human activity and human knowledge.

Reflecting on science and sciences, Šušnjić correctly notes that there must be something similar among different sciences, because each of them is a rational construction and reconstruction of reality. If two sciences do not have any common content, feature or relationship, then their inclusion in the same class (science) has no logical and methodological justification. He further points out that if different sciences did not have the same characteristics in their work (logical structure, standards of truth, rules of good work, task, meaning, etc.), then every theory of science would be impossible: the science of science would be a worthless effort.

Ignorance is not dangerous until it is used, but misuse of knowledge can have disastrous consequences. The nuclear bomb that was used in Japan and the nuclear threat today best confirm the previous thesis.

"In the second half of the 20th century, the Cold War relations between East and West brought about a big change in terms of the purpose of science, the way in which scientific research is conducted, as well as the increase in financial resources available to scientists. The development of nuclear weapons and the post-war arms race between the USA and the Soviet Union led to a significant increase in government financial investment in science, which led to important scientific and technological discoveries. This change is usually marked as a shift from "small science", in which science is based on the individual work of individual scientists, towards "big science" characterized by: a)

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large budgets, b) a large number of scientists working together and c) large research institutions. At the end of the 20th century, large corporations (industry) become the biggest investors in scientific research, which calls into question the objectivity of scientific research and its general social benefit. Scientists cease to be the "masters" of scientific achievements, their discoveries are appropriated by research clients, mostly large international corporations. Since the use of scientists, science and scientific achievements for the general benefit of humanity is less and less focused on the private and particular interests of individuals and corporations, the question of ethical responsibility has arisen before science and scientists. Today's science is characterized by a combination of uncertainty about the riskiness of applying scientific discoveries and the commercialization of science, which can affect the objectivity of scientists, i.e. on which issues will be researched more and which less" (Pavić Ž; Šundalić A., 2021).

"Technological processes in production have the character of a scientific process and direct application of the results of scientific research of human knowledge and abilities. Science, knowledge and ability of people become the main content of productive forces. It is about new sciences and knowledge, whose change is in interaction with changes in technique, technology, economy and society. Under the influence of scientific and technological progress, new factors appear in the process of production and traffic, such as information, space and time. There is an expansion of education of incredible proportions and dynamics, and the number of scientific organizations and scientific workers is growing by geometric progression. In this way, education escapes social control, and the possibility of misuse of knowledge also increases with geometric progression. military industry, genetic engineering and the production of genetically modified organisms, artificial intelligence, the announcement of the installation of chips in the body of people with data on each person is introducing us at the speed of light into the twilight zone. Multinational companies are winning an absolute monopoly on knowledge, subordinating it to the logic of profit and controlling the human mind, and during that time, schools have lost the race with education that Lock spoke about." (Barašin O., 2015).

Researchers must adhere to ethical norms to ensure trust, accountability, mutual respect and fairness. The generally accepted view of the scientific community is that there are some ethical considerations that researchers must keep in mind, especially during the process of collecting and presenting the collected data. It primarily refers to the right to privacy of the individuals involved. Participation in research must be voluntary and the individuals involved must have the right to partially or completely withdraw from the process. All participants must give their consent to participate in the research process, and the data they provide must be treated as confidential and ensure complete anonymity of participants who could be identified. Ethical considerations include how participants respond to the researcher's methods in the data collection process, as well as how it will affect the way data is analyzed and presented. The behavior and objectivity of the researcher is the basis of the ethical code of the research procedure.

METHODOLOGY OF SCIENTIFIC WORK
Definition and constituent parts of the methodology of scientific work

Methodology is a branch of epistemology that deals with the study of scientific knowledge about things and phenomena. Knowledge of methodology allows for a wid-

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er and more comprehensive introduction to science and its active side, i.e., it allows to see what scientists do in the research process, to get to know better the ways and means by which scientists reach certain knowledge and to understand the logic that connects the most diverse scientific procedures activities into a single thought unit. "Ever since Durkheim, social scientists have spared no effort in describing research methods. A huge number of texts have been written on methodology, but they have also given rise to numerous controversies on methodological issues. The twentieth century was a period of great expansion and institutionalization of research into social reality and its methodology. To conclude, not only the methods as such, but also the relationships between different methods and methodological approaches have changed significantly during the observed period." (Alastalo M., 2008). In the continuation of the discussion, Mario Alastalo states that there were numerous methodological discussions both within the quantitative (eg on sampling, questionnaire construction, statistical testing and causality) and qualitative approach. Often, less attention is paid to these controversies than to the clash of paradigms that garners the most attention. The impression is that some problems often appear in writing about methods and methodology. It follows that there is one relationship between theories and methods, and the other is the relationship between qualitative and quantitative methods. The first one went there only wondering if there had been changes in the mutual relations between methods and theory during the past period so that methods were more often seen as things of a technical nature, and not as theories of reality in themselves. The controversy between qualitative and quantitative approaches is the most debated topic, which is why it has often come up with different names (case study vs. statistical method, participant observation vs. survey, qualitative vs. quantitative).

If methodology is viewed as a way of gaining new knowledge, it can be said that it has three parts:

- The logical part, which includes the rules and norms of true thinking,
- Scientific-theoretical, which includes basic scientific-theoretical knowledge, a categorical-conceptual framework important for the subject of research,
- Memory-technical part, which includes research methods, techniques and instruments, as well as actions related to the organization and implementation of research.

When it comes to the classification of methodology, Sakan points out that methodology can be classified according to different criteria, and the main subject is generality. According to the criteria of the subjects, Sakan classifies them into the methodology of natural and social sciences. According to the criterion of generality, the methodology is classified into general methodology, special methodologies and methodologies of certain sciences. Generally speaking, the methodology of science has two basic functions: (Sakan, M., 2005)

- To build criteria and develop procedures for proving the truth of scientific positions and
- To contribute to connecting various theoretical understandings of the subject into a unique theoretical system of science

In the scientific works that present the results of some researches, one can notice the effort to clearly explain the procedures and means used in the research. In this way, the researcher provides other researchers, as well as everyone else who is interested in

the research results, with data on how he got them. This is useful for a number of reasons. First, it ensures the verifiability of the research results, and on the other hand, it significantly speeds up the transmission and generalization of positive methodological experience. However, presenting the methodological experiences gained in individual researches is not enough for a faster development of science. For a broader understanding and faster generalization of the research experiences of a certain science, it is very useful for a special discipline to systematically study the active side of science. That is the task of scientific methodology. "Methodology, on the other hand, as a logical discipline that studies the method, develops its logical principles, tries to systematize and evaluate the research experience of a science, is much more independent in relation to the basic research activity of a particular science. If it were not to a much greater extent independent of the basic research activity of science, it would not be able to successfully perform its primary function, which consists in the logical-epistemological criticism of the entire scientific-research practice in all its logical, technical, organisational and startegic aspetcs." (Milić V., 1965.).

Sakan (Sakan, M., 2005), points out that the true meaning of the term methodology can best be understood from its nominal definition, which states that "methodology is a complex word consisting of two parts: "method" and "logos". The term method (Greek methodos) means a way, a way of examining, a way of thinking and a way of working. The term "logos" (Greek logos; Latin logica) means letter, concept, reason, teaching, word, knowledge, science-science of method. From this nominal definition, two meanings of the term methodology - narrower and broader - are most often derived. In a narrower sense, methodology is the science of scientific methods used in scientific research. In a broader sense, methodology is the science of the entirety of all forms and methods of research, from the methodological approach and design, through the organization and implementation of research to the creation of a press release. In addition to methods, Sakan points out, the subject of methodology includes the entire research process, then planning and organizing research, as well as material support (means) of research. Methodology is, therefore, a criticism of science from the aspect of scientific correctness (objectivity, precision, reliability, validity, etc.) of its findings. Since methodology is close to logic, many theorists consider it a logical discipline.

Methodology cannot be equated with scientific theory.[1] It is primarily a logical-epistemological critical analysis of various methodological procedures and the overall state of a science. One of the key tasks of the methodology is the construction of criteria based on which the veracity and scientific usability of certain findings are determined. Methodology, therefore, develops rules for checking and proving scientific attitudes, because in science it is not enough to discover something, but also to prove the accuracy of each new knowledge. It is extremely important to know that from discovery to proof and from scientific assumption to scientific knowledge is a very

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[1] "A hypothesis is an attempt to rationally solve a practical or theoretical problem in order to avoid the path of trial and error. Hypotheses are informed guesses, because they are based on the researcher's previous experience and knowledge of the phenomena he is studying. A hypothesis is the heart of scientific research around which everything revolves." (Šušnjić Đ., 1999). "The large number of definitions of hypotheses that can be found in the methodological literature indicates the fact that, historically, a large number of scientists have dealt with the problem of defining hypotheses and that this problem is still current" (Šušnjić Đ., 1999).

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long and arduous journey. In its logical function, and above all when it elaborates the criteria of truthfulness and scientific usability of certain knowledge, as well as the procedures of verification and proof, the methodology cannot be dependent on any particular scientific theory, no matter how general it may be. Binding to any scientific theory puts the methodology in a state where it cannot verify the basic theory. As a result, she is in a very unenviable position when examining the accuracy of narrow knowledge.

Vojin Milić points out that in every more fully developed methodological idea, three main groups of problems can be analytically distinguished: "(1) logical, (2) technical and (3) scientific-strategic." It should be underlined that any reasonable methodological idea must look at these logical, technical and scientific-strategic problems in an inseparable unity." (1965). According to Milić, this is often not achieved. Everything related to the way of forming scientific concepts and the way of analyzing their content constitutes logical problems, as well as the examination of the logical structure of scientific generalizations, laws, theories. In considering the role of hypotheses and their various types and types in scientific research, as well as the very complex tasks of building research procedure rules, it is important to understand that they should enable the most complete verification of scientific knowledge.

The term method is derived from the Greek word "methodos", which in translation means a path towards something. The method can be graphically explained as a path that the researcher should take in order to reach the goal, i.e. to solve a scientific problem. Along the way, the scientist goes through many challenges where he has to make decisions about the conceptualization and reconceptualization of methods. The scientific path is mostly marked, but it still needs to be "cleared" again from time to time, with the use of tools or procedures that are important for solving research problems. In this respect, the scientific method can be explained as a set of cognitive and epistemological premises, logical and procedural rules that science as an activity applies in the scientific research process. The research method can also be seen as a concretization of the scientific method, a way or way of combining several specific procedures depending on the subject, goals and design of the research that leads to new scientific knowledge. The methods of sociological and humanistic sciences are very diverse. There are qualitative and quantitative, and it is about understanding and explaining, case studies and comparative analyses. Through secondary analysis, known data from earlier research can be reanalyzed and processed on the basis of newly posed questions, and if it is primary research, then it under-examines new own knowledge gathered using some of the adequate data collection techniques. The researcher-scientist decides whether to undertake a transversal or longitudinal analysis of the data, whether to choose from a smaller number of cases or whether to conduct a single comprehensive study. Purely theoretical e.g. are often used. scientific theoretical or philosophical issues of research problems, where the issue of methods is determined in a completely different way and they do not have an empirical object of research.

Logical framework of the methodology

The logical side of the research defines basic concepts, principles of classification, etc. Science does not convince itself of the truth of its views by any means and at any cost. The views must be based on logically acceptable testimony. The conceptual definition of the methodology of science comes down to the conclusion that it is a

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branch of logic that studies the scientific method and as such must be viewed as an integral part of logic. It is important to note that, in contrast to methods, methodology can be more closely defined as a logical discipline that studies the method as a way of researching and establishing scientific knowledge and thus evaluating the research experience of science. It should be said that logic provides valid or correct thinking and reasoning, while methodology provides verified and true thinking and reasoning. It is very important for the scientist to keep in mind that false statements can be as logical as true statements. It follows from this that a true opinion must be correct, and a correct opinion does not have to be true.

"In science, there are several orientations and systems of logic. One of the important bases of division are the modalities of truth (as forms of existence) and valences of truth that express the essence of logic by containing certain essential properties of logical axioms and logical axiomatics as the essence of a logical system. On the basis of logical valences (*which we define as cognitive values of attitudes and judgments of knowledge*), *we distinguish bivalent, trivalent and polyvalent logics.*" (Miljević I. M., 2007)

Classical bivalent logic, when it comes to the truth of knowledge, distinguishes only two cognitive values, namely truth and error, between which and beyond which there is no third value of knowledge. This essential characteristic of the classic logic of simple truth or simple error (delusion) is also expressed in the elementary logical laws of thought, according to which every position is either only true or only false, whereby every question must be answered either with an absolute "yes" or an absolute "no". ". However, even the simplest examples of practical thinking, as stated by Miljević, show that the cognitive value of many views on complex and changing objective determinism cannot be treated either as an exclusively simple truth, or as a simple error, i.e. delusion (for example, a person is not simply "healthy" or simply "sick", the weather is not simply only "beautiful" or only "ugly", and such a situation is even more obvious when it comes to judgments about processes, relationships, future events and phenomena in effort, etc.).

"There is no doubt, therefore, that if one accepts the point of view that the cognitive value of attitudes does not have to be pure truth or pure error, but that there are attitudes whose cognitive value is undetermined or uncertain, that is, whose cognitive value can be partial truth or partial delusion (in different degrees), classic bivalent logic, as one-sided and limited, must be replaced by another logic that allows for a greater number of cognitive values. Therefore, first trivalent and then polyvalent value systems were introduced into logic" (Miljević I. M., 2007). As following, Miljević points out that the multivalent logic of probability, understood as basic logic, is particularly significant for science, according to which the basic logical value of knowledge is precisely probability. All positions on the empirical reality of the organization of matter and material organization are, according to this understanding, only to a lesser or greater degree probable, but never completely probable, that is, true. The main reason for this approach is the understanding that there are statements that cannot be claimed to be either true or false. Of course, the question arises, what is their cognitive value, what is their valence? According to the probabilistic understanding, the answer to that question is that we cannot consider such statements as judgments or assertions (which would have to be true or false), but should be treated as probable propositions, that is, as so-called "positive". The term "posit" means a bet on a certain outcome of some kind of event, which is never certain, but only to a certain extent probable. Therefore, the statement about that

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outcome can be neither true nor false, but only probable. And the category of probability itself has a "fictitious meaning", because it is the relative frequency of a series or series of events and attitudes in this series, not an individual event.

SCIENTIFIC METHODS
Definition of methods

Is a method methodology?

There is no single understanding of the term scientific method, and it is most often defined as the way to arrive at scientific truth. Šamić believes that the scientific method is usually a set of various procedures and processes by means of which scientific truths are arrived at. (Šamić M., 1984). Confusion between the terms "methodology" and "methods" in research is common, especially when they are sometimes used interchangeably. Methods and methodology in the research process refer to two related but different things: "method" is the technique used in data collection, and "methodology" is the underlying theory and analysis that explains how research is or should be. is happening. Methodology can also be defined as a set of principles and ideas that influence the design of a research study, and methods are practical procedures used to generate and analyze data. Thus, if these definitions were to be summarized, it can be concluded that methods cover technical procedures or steps in conducting research, and methodology provides an explanation of the basic reasons why certain methods are used in the research process.

In order to better understand the nature and function of methodology, it is crucial to explain the difference between methodology and method. This difference is often neglected, which leads to various misunderstandings, and some important tasks of the methodological study of scientific activity cannot be set clearly enough. A method is a way of research that is applied in a science and it is an inseparable part of its research activity. As an inseparable part of science, the method has almost merged with the theoretical concepts of that science and develops in the closest contact with those tasks that science needs to solve in a certain period. The basic understanding of the method is one of the essential elements of the basic concept of a science and has, in addition to research-operational, constitutive importance for science. Many sciences study the same parts of reality and can be distinguished only on the basis of their different basic cognitive goals and, depending on that, different research approaches. It is not a rare phenomenon that in some science there are several methods and different understandings about the way of organizing scientific activity. These different understandings can arise from different general theoretical viewpoints, but also from the different nature of the problem, especially if a stream or school in science begins to predominantly deal with a certain type of research problem.

As for the scientific method or scientific culture, it is a set of techniques and procedures designed to investigate newly discovered or observed phenomena and knowledge, or to correct and supplement old information or theories. Although the nature of scientific methods varies according to the nature of science, there are distinctive differences that mark the difference between scientific research and research from other forms of research and knowledge development.

According to Šušnjić, four theoretical paths are used for a more concrete explanation and understanding of social reality:

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- Individual description or individualization (a method of examining certain phenomena when we describe a certain type through one selected pheno-menon),
- Holistic approach or totalization (the principle that emphasizes that the whole is superior to its parts and that the parts must fit harmoniously into the whole because every truth is a whole. the analysis of a phenomenon implies its) separation from the whole with other phenomena, but after the analysis it must be returned to the whole and understood as a whole of real connections.),
- Contextualization - dependence on the environment (every phenomenon can be explained and understood only if it is connected to external conditions),
- Examining form instead of content or formalization (contents are change-able, forms are constant, so it is possible to fit different contents into the same form).

"Scientific techniques can be divided into theoretical and empirical. Thus, for example, linking concepts into hypotheses, including them in a deductive theoretical system and extracting possible connections, belongs to a theoretical technique or skill. Empirical techniques or routines can include those related to performing measure-ments, methods of collecting and processing data, planning experiments, etc. Theoret-ical techniques require logical culture and imagination, empirical techniques require practice and repetition" (Šušnjić Đ., 1999). "The classical social analyst avoids any rigid system of procedure; he strives to develop, and to use, social imagination in his work. The method is, above all, a discussion about how to ask questions and how to answer them, with a certain guarantee that the answers are of more or less lasting value. Theory, above all, means the need to pay special attention to the words that are used, especially to the degree of their generality and their logical relationships. The primary goal of both is clarity of conception and economy of procedure and, what is most important right now, the liberation of stimulating the social imagination rather than restricting it. (Mils R., 1998). The method is the way that the researcher chooses between several scientific methods and procedures in proportion to the research object, in order to deal with his problem in accordance with specific research steps, in order to find a solution for it or for some results related to it. "The scientific method, there-fore, represents a set of different procedures based on objectivity, reliability, precision, systematicity and generality that are applied in scientific research and work with the aim of researching and presenting the results of scientific research work in a scientific discipline. (Metzinger, T.Č.; Marko, T., 2020).

According to, it can be said that the methodology is more comprehensive. When it comes to methodology, it concerns all parts of scientific research, from specifying its elements, conditions and rules that regulate them. The meaning of the methodology of scientific research as a process or intellectual activity (induction and interpretation of reality) differs from the question of logical methods. The content of the methodology describes the way of organizing and comprehensively presenting the parts of scientif-ic research and the commitment to its implementation in stages. Methodology in its broadest sense is the philosophy of scientific research and the thoughts associated with scientific research. The purpose of knowing the methodology as a general method is aimed at avoiding mistakes that are usually made by a novice researcher.

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Classification of scientific methods

Some methods are more suitable for investigating external behavior, while others are more practical for investigating internal experience. To put it more clearly, some methods are more suitable for examining form, and others are more suitable for examining the content of social reality. When it comes to research methods, they can be grouped into two groups:

- For the research of the objective facts of life (statistics, content analysis, survey, comparative method, observation of external behavior, historical method, etc. science of the external man are most often used)
- For the examination of the so-called subjective experiences and experiences (certainly more suitable techniques are: projective techniques, attitude scaling, in-depth interview, diary analysis, case study analysis), confessions, open conversations, self-observation, etc. (the science of the inner man).

"The research method cannot be indifferent to theory, because it determines exactly what and how the scientist will search and select from the world of facts. If I, while researching religion, pay attention exclusively to its institutional form, then it is clear that one or more research techniques suitable for studying the external behavior of believers will come into consideration; if I, in examining religion, pay attention exclusively to its private or personal significance and meaning; then it is clear that I will choose one or more techniques suitable for studying the inner experience of believers. If the research technique is not in the service of theory, then the technique becomes an end in itself" (Šušnjić Đ., 1999).

Research in science is unthinkable without methods and without them not a single step can be taken, but, points out Šušnjić, the true step in science is precisely the one when the old one is abandoned and a new method of thinking and research is discovered.[2] You can never do without a method, sometimes you have to go against

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[2] In their methodological analysis, Vidicki and Stojšin follow a partly chronological and partly problematic approach: they show, successively, attempts to overcome methodological dogmatism within the framework of developing first triangulation, then multimethod research, and, finally, combined methods. Triangulation can also exist within the limits of special orientations (qualitative or quantitative). It does not represent a specific effort to overcome the limits of the mentioned orientations (or approaches). Every ambitious sociologist uses multiple methods and sources of data collection. Vidicki and Stojšin see triangulation as equal to multi-method and combined research. Triangulation (or complementarity, whether of sources and methods of data collection, or other procedures), a question in a logical sense more general and different from the problem of the relationship between quantitative, qualitative, multimethod and mixed (or mixed, or combined) research. Triangulation is directly related to validation (the question of whether what is claimed to be researched is researched), as well as to one aspect of objectivity (that is, comprehensiveness) of science. Multimethod and combined methods belong to the issues of the theory of scientific information, that is, to the field of sociological methodology, which Durkheim would call "rules related to the observation of social facts". In other words, unlike triangulation, the latter questions are directly related to the epistemological foundations of the types of measurements and their research consequences. (Ilić V., 2023) or combined) research. Triangulation is directly related to validation (the question of whether what is claimed to be researched is researched), as well as to one aspect of objectivity (that is, comprehensiveness) of science. Multimethod and combined methods belong to the issues of the theory of scientific information, that is, to the field of sociological methodology, which Durkheim would call "rules related to the observation of social facts". In other words, unlike triangulation, the latter questions are directly related to the epistemological foundations of the types

the method, of course the old ones.[3] In this sense, Mills points out that the formulation that well illustrates the classic point of view about the position of methods is that many authors instinctively manage to approach solving problems in the right way. However, after studying the methodology, they become aware of the many hidden and other dangers that lie in wait for them. The result, says Mills, is that they lose their earlier security, which leads them down a wrong or detour route. And that is why Mills advises that such scientists stay away from methodology and calls for each person to be his own methodologist and to focus on work. This means that the development of science is parallel to the development of scientific methods.[4]

General procedure and phases of scientific design and research

Mapping different objects of social sciences is an almost impossible task when it is known that everything related to human behavior as an individual or a member of a community will certainly be the subject of social science studies. This area is quite complex and therefore it is necessary to establish a methodology of scientific research. Social science studies study various aspects of human behavior as a rational being. In this sense, providing methodologies for several disciplines such as economics, politics, anthropology, etc. it seems impractical at first glance. And indeed, all social sciences in their research methodology are based on the collection of various data as a basic technique. The goal is an objective analysis of the collected data, their understanding and,

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of measurements and their research consequences. (Ilić V., 2023) or combined) research. Triangulation is directly related to validation (the question of whether what is claimed to be researched is researched), as well as to one aspect of objectivity (that is, comprehensiveness) of science. Multimethod and combined methods belong to the issues of the theory of scientific information, that is, to the field of sociological methodology, which Durkheim would call "rules related to the observation of social facts". In other words, unlike triangulation, the latter questions are directly related to the epistemological foundations of the types of measurements and their research consequences. (Ilić V., 2023) Multimethod and combined methods belong to the issues of the theory of scientific information, that is, to the field of sociological methodology, which Durkheim would call "rules related to the observation of social facts". In other words, unlike triangulation, the latter questions are directly related to the epistemological foundations of the types of measurements and their research consequences. (Ilić V., 2023). Multimethod and combined methods belong to the issues of the theory of scientific information, that is, to the field of sociological methodology, which Durkheim would call "rules related to the observation of social facts". In other words, unlike triangulation, the latter questions are directly related to the epistemological foundations of the types of measurements and their research consequences. (Ilić V., 2023).

[3] The new "synthetic" method of studying history had some important philosophical implications. That method was based on the belief that the historian can gain true insight into the true meaning of the works and activities he studies. However, in order to achieve this, he had to distance himself from the concepts, value standards and categories characteristic of his age and learn to replace them with the appropriate concepts, value standards and categories of the period he is studying. This means that no standards and concepts have timeless value. Every age has its own value system; each age showed its deepest essence only to those who approached it by leaving their own contemporary standards." (Manhajm K., 2009)

[4] "Progress in method is, therefore, most likely to be realized in the form of a modest generalization arising from work in progress. Therefore, in our individual practice, and in the organization of our scientific discipline, we should maintain a state of very close reciprocity of influence between methods, on the one hand, and work in the process of realization, on the other." (Mils R., 1998).

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above all, their explanation, what takes to the term "explanatory method" (Dirkem E., 2012)and to reach conclusions aimed at improving human experience. In this way, we present the constitutive stages of scientific research methodology, generally accepted stages in social sciences, because they are considered necessary for any research work, whether it is a case study, thesis, or expertise.

In order to describe an effective methodology, it is necessary to present the selected methods and explain the methodological approach that will be used in the research of the defined research problem. The methodological approach can be quantitative, qualitative or mixed. Also, it is necessary to establish a methodological link and explain the relevance of the chosen methodological approach to the overall research design. It should be kept in mind that the connection between the defined methods and the research problem should be clear, which means that the methodology must be adequate to achieve the research goal. In the description of the research methodology, it is necessary to list and describe the instruments for conducting the research and how they will be used in the research process. These tools and instruments can be surveys, interview questionnaires, observations, etc. If the methods involve archival research or analysis of existing data, background information should be provided for the documents, including the name of the original researcher, as well as how the data were originally created and collected. In the continuation of the elaboration of the methodology, it is necessary to explain how the results of the collected data will be analyzed. Depending on the methods used, statistical analyzes can be used or theoretical perspectives explored to support an explanation of the observed behavior.

The sampling procedure is a vital component of the description of the methodology. In this sense, it is important to explain the reason for the described sampling procedure. For example, if statistics are used in research, it is necessary to state why this particular method was chosen, as well as the sampling procedure. If an interview will be conducted, it should be described how the participants will be selected and how the interview will be conducted.

Research limitations should be avoided and possible limitations encountered in the research process should be addressed, such as practical limitations that may affect the data collection process. If there are potential problems that may be encountered in the process, they should be listed and the reason why we choose to use this methodology despite the risk should be explained. In writing the methodology, the inclusion of irrelevant details should be avoided, and the methodology section should be clear and thorough. Details that do not contribute to the understanding of the chosen methods should not be included in the methodology section. Irrelevant information includes unnecessary explanations of basic procedures. Basic procedures should only be explained if they are unconventional and unfamiliar.

CONCLUSION

At the end of this discussion, it can be concluded that the methodology of science describes what scientists do and prescribes how they should work in order to arrive at scientific truth. Methodology is not only a description, but also a regulation that provides the criteria for successful work in science. It is important to understand that methodology is necessarily different from science, because science is descriptive and methodology is mostly prescriptive. The key role of methodology is the prescription of

norms in science such as logical, technical, organizational and strategic. Šušnjić rightly points out that in order to be scientifically true, the methodology must be in accordance with the scientific practice it describes, and to be normative it cannot be in accordance with scientific practice, because it prescribes criteria for how science should be done. This is the reason why the position of methodology is paradoxical because it is both descriptive and normative, i.e. description and regulation at the same time. It is important to know that the methodology does not reveal truths, but shows the paths that lead to the truth. The methodology of science, therefore, shows not only how scientists actually work, but also how they should work in order to reach scientific discoveries or new truths about the world. The language of methodology is twofold and serves to describe what scientists do and to prescribe how they should work in order to arrive at true knowledge about reality. It is important to know that when someone learns the known scientific methods, it does not mean that he will be able to make scientific discoveries, knowing the scientific methods only makes it easier to work on discovering the truth. Science is mostly done by people who do not live from science, but for science.

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PREGLEDNI NAUČNI RAD / OVERVIEW SCIENTIFIC PAPER

STRATEGIC MANAGEMENT OF THE RISKS OF ATTRACTING FOREIGN DIRECT INVESTMENTS - NEW FINANCIAL CHALLENGES

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Abstract: *At the time of the coronavirus pandemic COVID 19, many economies, including the Serbian economy, are facing an unknown cause of many problems, which is bringing many companies into crisis. In such conditions, the strategic approach and way of thinking becomes crucial for the survival or recovery of companies and even the economy of a country. This is especially the case with small underdeveloped and developing economies, which are particularly affected by the pandemic. In such conditions, foreign direct investments are a decisive factor in the survival and recovery of the economy, and decisions of this type are strategic. Especially in the conditions of a pandemic, investors are sensitive when making strategic investment decisions, and economic freedoms are an important factor in that. The aim of this paper is to determine the impact of economic freedoms in Serbia on making strategic decisions on foreign direct investment, and thus the development of Serbia. The results of the research show the existence of a positive correlation between these factors on the development of Serbia. The econometric model of Pearson Correlation and Greene's multiple correlation analysis model was used in the analysis.*

Keywords: *Strategic decision making, foreign direct investment (FDI), economic freedoms, Serbia development*

JET classification: *L1, M21, M11*

INTRODUCTION

Foreign direct investment (FDI) decision-making is a strategic decision influenced by a number of factors. Whether to invest depends on economic conditions, but also on economic freedoms. Less economic freedoms also mean higher country risk, as well as an unstable investment area. That is why the assessment of economic freedoms is very important when making strategic decisions on foreign direct investments in the Serbian economy. This concept is especially important if strategic decision-making is influenced by "force majeure", as in the case of coronavirus COVID 19. With 3.9 billion euros of foreign direct investment in 2021, it only shows how foreign direct investment (FDI) important for the economy of Serbia, and decisions of that type, strategic, of the highest importance and level.

Expectations of an increase in the level of foreign investment are also based on the level of economic freedoms, which significantly affect investors. The results of the research show a significant impact and positive correlation of economic freedoms on strategic decisions on foreign direct investment in Serbia. The role and importance of the impact of economic freedoms on strategic decisions on foreign direct investment significantly affect the economic development of Serbia, a particularly sensitive issue in the COVID 19 coronavirus pandemic, when strategic decisions were associated with even greater risks and vulnerabilities. The COVID-19 pandemic affected foreign direct investment in the world and expectations regarding the trend of foreign direct investment in Serbia.

The liberal economy, access to infotmation, international competition with homogenization of culture as changes in the global economic enviroment are significant factors that affect the competitive position of enterprises. In addition to the above factors, the process of globalization, increased competition and the struggle for market participation, significantly affect the mobility of foreign capital, which significantly affects the development of their countries. Countries in transition continue to see foreign direct investment as a key instrument in the process of transforming their economies and generally the basis of development. Foreign investment is a form of investment, where a foreign investor retains ownership rights, and manages and controls the company in which he invested, in order to achieve long-term benefits. For small and underdeveloped countries, it is extremely important to create conditions on the basis of which strategic decisions will influence foreign direct investment. Today, capital knows no boundaries, and we can say that the capital market is global. Only countries working to increase confidence, greater security, reduce risk and greater economic freedoms can attract foreign direct investment. The inflow of foreign direct investments affects the increase of economic activity, process monitoring, adjustment and harmonization of business conditions, market positioning and great development potential, as well as greater efficiency.

The effects of FDI are very complex when looking at the relationship between FDI and economic development, and are highly dependent on the effects of foreign direct investment as well as areas. If FDI is focused on the most productive areas in the country, economic development will be achieved. The values of FDI in Serbia from 2018 (358,102,436.8 million euros) until today, are constantly decreasing. In 2020, the value of FDI amounted to EUR 129,893,962.4 million. Foreign direct investment in less developed countries such as Serbia will be under additional pressure in 2022/2023.

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years, due to the impact of the COVID-19 pandemic. The decline in global foreign direct investment in 2022 is estimated at 30-40% as a result of the pandemic. The Heritage Index of Economic Freedoms is the result of joint work by the Heritage Foundation and the Wall Street Journal. According to the index of economic freedoms for 2020, published by the prestigious American "The Heritage Foundation", (Foundation., 2019) Serbia ranks 66th in the world out of 186 ranked countries.

The Nobel laureate, Professor Joseph Stigliz, in market-oriented economies, believes that companies are most often to blame for the crisis. There are many causes. The biggest untruth is that market mechanisms alone will lead to the solution of problems and lead to the recovery of companies. In this sense, economic freedoms are the focus of analysis and observation. In connection with the above, it is necessary to influence the creation of a general strategy for the impact of foreign direct investment on the development of Serbia.

The methodological concept of the research includes an econometric model, which is based on the research period from 2002-2021. years. The model involves and models the parameters of strategic decision - making, based on multiple correlation - Pearson Correlation and Greene's multiple correlation analysis model was used in the analysis.

A REVIEW OF LITERATURE THROUGH PREVIOUS RESEARCH

Underdeveloped and developing countries do not have enough accumulation and therefore a lower degree of automation of production, which would enable faster economic development and the creation of internationally competitive domestic products. Foreign direct investment in such a situation is an essential factor in generating economic growth and development. A large number of parameters influence strategic decision-making on foreign direct investment, and economic freedoms are one of the most important, which is the research focus of the paper.

According to Kim (2010), foreign direct investment is characterized as horizontal, vertical and conglomerate (Kim, 2010). When there is situation in which the investor establishes the same type of business abroad because he operates in his own country. If we have investment in which different but related business activities are established or purchased abroad from the main activity of the investor it referes to the vertical investment. Conglomerate means combinig the revious ones.

There are several factors that contributed to Serbia being among the leaders on the world list of countries that, in relation to their gross domestic product, attracted the most direct foreign investments. One of the important factors is certainly that Serbia is a candidate country for the European Union, which has a Stabilization and Association Agreement with the EU, as well as trade agreements with several other countries. In addition to the above, it is important to point out the fact that Serbia has a relatively cheap labor force, at least in comparison with Western Europe, as well as in Eastern and Central Europe, and the fact that the country has a relatively educated and trained labor force. It is important to mention good transport communication with Western and Southeastern Europe, subsidies from the Serbian government to foreign investors, but also construction land for the construction of various plants and production lines. Foreign direct investment (FDI) has financed projects in various sectors, most notably the manufacturing, automotive components, food, tobacco and construction industries.

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Unfortunately, the coronavirus COVID-19 affected the decline in foreign direct investment in Serbia in 2020 and 2021, which significantly affected the country's economic activity.

Strategic decisions of investors are necessary for the realization of FDI, but also the improvement of conditions for investments is necessary, and it is also necessary to create an economic environment suitable for FDI. Foreign investments are a key factor in the development of the modern economy, and together with trade they represent an important lever of the general platform of development of Serbia. Therefore, decisions from this category are certainly from the strategic category. In relation to the previous, strategic decisions are unique in nature, non-routine, concern general goals, address the most important issues and the broader picture of the entire company, are related to strategies and are often unrepeatable and inevitable. Developing countries with high public debt and unfavorable economic situation show great interest in attracting as many foreign investments as possible, as is the case with Serbia. The driving force of the new development is certainly foreign direct investments that integrate the economic system of Serbia into the world economic system, on the basis of which negative economic tendencies can be overcome with the help of the inflow of international capital.

Economic freedoms are an important factor in strategic decision-making and individuals are allowed to decide for themselves rather than have options imposed on them by the political process or the use of violence, theft or fraud by others (Gwartney, 2017). If we look at research, there are several research studies on the impact of FDI on economic performance. The classification and systematization of studies was performed by Sovbetov and Moussa (Sovbetov & Moussa, 2017). Quazi in its research points to an extensive literature on various variables that affect FDI, the most significant being market size or trade openness (Quazi, 2007). Most of the literature refers to the impact of the index of economic freedoms on FDI based on the structure of the index of economic freedoms. Therefore the transparency of economic policies is a strategic issue for investors, especailly fot those focused on FDI.

The positive correlation between economic freedoms, foreign direct investment and economic development affects market trends, resource allocation, better productivity, better production and business portfolio, and return on investment. In general, an important prerequisite for successful foreign direct investment is that clear and predictable economic policies regarding the liberalization of investment and trade regimes can be a powerful tool in attracting FDI, Drabek and Payne (Drabek & Payne, 2001) (Šamu & Hunjet, 2020). In addition to the above, the process of globalization also plays an important role. Economic globalization has meant that we have become more integrated, more interdependent, which means that there is a greater need for collective action Stiglitz (Stiglitz, 2008). So far, several studies have been conducted on the relationship between economic freedoms, economic development and foreign direct investment. Pearson et al. (Pearson, Nyonna, & Kim, 2012) based on his research endeavor analyzes the effects of economic freedoms and other economic factors on state-level FDI in the United States. The results showed a significant positive effect and correlation of the impact of economic freedoms on FDI in all US states.

The basic results of a study conducted by Fofana show the existence of the impact of economic freedom on foreign direct investment in 25 Western European and 26

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sub-Saharan countries in the period from 2001 to 2009 (Fofana, 2014). In this regard, the basis of his analysis was related to the parameters of economic freedoms, such as the size of the economy, population size, legal system and rule of law, and regulatory variables such as the size of government, freedom of international trade and labor regulations, credit. The basic results of empirical research have shown that the aggregate index of economic freedom has no significant effect on FDI in Africa. One of the major restrictions within his empirical study was insufficient observation number.

It is certainly important to mention the issue of responsibility for making strategic decisions. Without the implementation and realization of strategic decisions, they remain just a "letter on paper", and their role is insignificant. Responsibility for the implementation of strategic decisions lies, no more and no less, at all levels of management, the highest level, the middle level of management and the lowest level of management. Some approaches, especially the older ones, believe that the responsibility lies only with the top managers of the company. According to a broader understanding, their main responsibility is related to social responsibility (respect for social responsibility and other related issues) and the general strategy related to achieving the goals of the entire organization. Thus, according to Nordhaus, (Nordhaus, An Economic Theory of Technological Change., 1969) growth can be provided on the basis of knowledge that grows exogenously. According to the same approach, Nordhaus stated that the rate of economic growth of 3% compared to the previous year represents a continuation of the trend of economic recovery (Nordhaus, Evolution of Modeling of the Economics of Global Warming: Changes in the DICE model, 1992-2017. , 2018). Hayrdaroglu was analyzed by BRICS countries namely, Brazil, Russia, India, China and South Africa over the term 1995-2013.This scholar analyzed the interaction findings indicate that economic freedom is positively associated with economic growth, further, and FDI is positively related to economic growth. It is also confirmed that just an index of government size is negatively associated with economic growth (Hayrdaroglu, 2016).

Hypothesis research

Some theorists, such as Kurečić and Kokotović, explored the long-term link between political stability and the FDI for small economies, and concluded that there was a positive correlation. Also in this study, part of the analysis related to large and developed countries was missing (Kurecic & Kokotovic, 2017). Researcher state that in retail and manufacturing industries there wass a significant contribution to economic growth, whic had an impact on the increase in employment compared to the previous year (Gregory, Romer, & Weil, 1992). Trade relations research has been the focus of many researchers, and the most significant ones are below. In his seminal paper on "Optimum Tariffs and Retaliation" (Johnson, 1953) Harry Johnson explored how policy interdependence between governments can be modeled as a non-cooperative balance of the two countries' customs game (see also).

Mayer (Mayer, 1981) and Riezman (Riezman, 1982) similarly explored access to negotiated trade agreements, viewing them as the equilibrium outcomes of two-state negotiation games, which affect the creation of conditions for FDI. Positive effects from FDI inflows are also related to the "increase in labor productivity through technological transfers, management and marketing proficiency that enables long term technological progress and economic growth." Boghean and State (Boghean & State,

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2015). On institutional quality, Estrin (Estrin, 2017) found that it plays an enormous role in the impact of FDI on labor markets and that "stronger and fairer institutions are therefore crucial to obtain the benefits of FDI for the labor market".

Research hypothesis Ho: There is an impact of economic freedoms on foreign direct investment, which affects the economic development of Serbia, measured by gross domestic product.

In addition to other research on the same issue, research by Liu & Mao (2019) has provided „strong evidence from the world's largest developing country on the effectivness of using tax incentives to promote firms investment and productivity". Whalsh and Yu stated that macroeconomics variables have a significant impact on the attraction of foreign investment in highly developed countries then in developing countries. (Walsh & Yu, 2010). Economic freedom means the degree to which a market economy is in place, where the central components are voluntary exchange, free competition, and protection of persons and property. (Caetano & Caleiro, 2009). Ferreira et al. (Ferreira, Carreira, & Serra, 2016) observed moderating effect of corruption on the ability to attract FDI. This study is focused on a more narrow issue and does not cover our research question (Ferreira, Carreira, & Serra, 2016) (Radovanović, Grandov, & Filijović, 2019)

The data show that the share of developing countries in global trends in foreign direct investment (FDI) is growing, so there is a growing interest in researching and studying the strategic approach to these processes. In this regard, the number of research studies investigating the role and importance of FDI, as a strategic resource for the development of small and underdeveloped countries, increasing productivity, technological progress and a better business environment, Sekkat and Veganzones-Varoudakis (Sekkat & Veganzones-Varoudakis, 2007) is growing. Issues of economic freedom are increasingly occupied by the research space, given its effects on the level of trust of agents, as well as the level of strategic decisions on FDI (Voyer & Beamish, 2004).

RESEARCH METHODOLOGY AND SAMPLING

The research focus has been on the Economic Freedom Index, based on the Heritage Foundation, in recent years, to analyze the impact and correlation of the index and FDI. Based on UNCTAD, investors have two strategies at their disposal, the amount of foreign direct investment is declining in developed countries and shifting to developing countries, contributing to their growth. In addition to the above, it is worth mentioning the strategy that investors are applying and refers to the trend, to indirectly reach cheaper resources and cheaper labor through quality FDI. If we look at underdeveloped countries, the development of production capacities certainly contributes to the development of the economies of those countries.

Viewed from the angle of economic freedoms, Serbia records a value of 67.2, which positions it on the 54th position of the world list for 2021. Observed from the angle of key parameters, its value increased by 1.2 points, primarily due to the improvement of the assessment of the tax burden. Also, thanks to the parameters of monetary freedom (81.1) and the parameters of market freedom (77.2). Among the worst rated parameters are government integrity (45.0), government spending (49.6), financial freedom (50.0) and judicial effectiveness (50.6). Prodlem research refers to the impact of economic freedoms on strategic decision-making on foreign direct investment in Serbia and the impact on its development.

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Given the subjectivity of economic freedom, an appropriate methodology consists of using fuzzy logic clustering, (Caetano & Caleiro, 2009). The time period of the research scope covers the period 2001-2021. years. The Heritage Index of Economic Freedoms is jointly published by The Heritage Foundation and The Wall Street Journal, and is based on an analysis of 10 specific components of economic freedoms, namely: business freedom, trade freedom, fiscal freedom, government sector spending, monetary freedom, investment freedom, financial freedom, property rights, absence of corruption, freedom of labor and labor. Each of the 10 economic freedoms is rated using a scale from 0 to 100. Each of the previously listed parameters influences strategic decisions on foreign direct investment.

The causal and causal relationship was defined by Granger and Sims, who believe that when the residual values of the variable xt have the power of explanation in the regression of the variable yt on the residual values of yt and xt. Granger's causality is absent when equal, and states that in the conditional distribution the lag values of yt do not add information to explain the movement of xt beyond what the lag variable of xt itself provides (Greene, 2003). The model is called the VAR model and includes the optimal delay length of each variable in each equation. For our analysis, VAR model with nine endogenous variables (LGDPt, LFDIt, LBCIt, LGDt, LICTSt, LSFPt, LIt, LEFt, LEAt).

Table 1. Research variables - operationalization

| Variable	Initials	Interpretation
Gross domestic product	LGDPt	GDP - refers to the value of products and services in a period of one year.
Foreign direct investment	LFDIt	Foreign direct investment (FDI) represents investments by foreign investors in another country, with the aim of realizing investments.
Index of Economic Freedoms	LBCIt	The Index of Economic Freedom covers the areas regulated by the government's economic policy, the rule of law, government, efficiency and the market.
Business freedom	LGDt	Business freedom implies decision-making and management without any pressure.
Trade freedom and freedom of labor and labor	LICTSt	It includes respect for trade freedoms in the market, human resource management and market freedom.
Fiscal freedom and monetary freedom	LSFPt	It refers to not creating a monetary and fiscal policy suitable for investments.
Government sector spending	LIt	Control of spending at the public level, cost control and better business conditions.
Investment freedom and financial freedom	LEFt	It implies free investments, availability of financial resources under equal conditions.
Property rights and absence of corruption	LEAt	It implies the creation of a legal framework in which the rule of law, the fight against corruption and the transparent work of the courts are respected.

(Source: World Bank, 2021, UNCTAD, 2012, OECD, 2021)

LGDPt = F(*LFDIt, LBCIt*)
LBCIt = F(*LGDt, LICTSt, LSFPt, LIt, LEFt, LEAt*)

and can be expressed as follows (Greene, 2003).

Graph 1. Conceptual model of strategic decision-making - the influence of economic freedoms on foreign direct investments and the economic development of Serbia
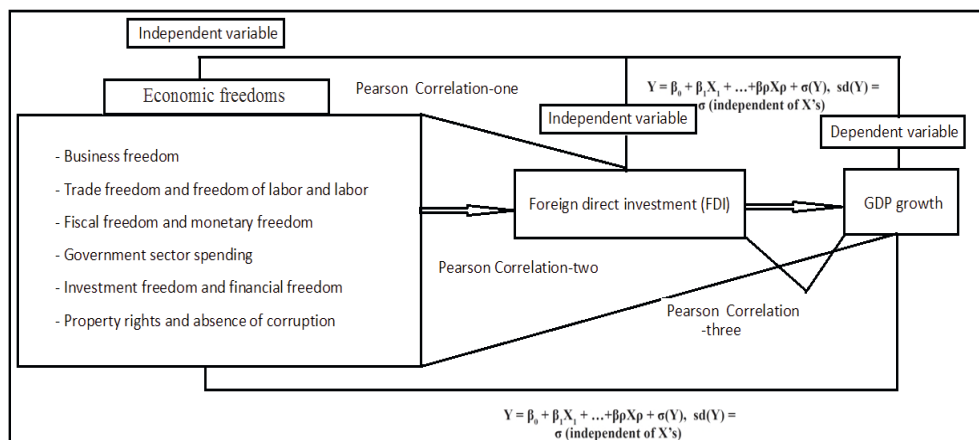
Source: Authors based on Greene, 2003

The strategies to find an appropriate model include the forward method in which we start by assuming the very simple model i.e. a straight line (Y = a + bX or Y = b0 + b1X). Then we find the best estimate of the assumed model. If this model does not fit the data satisfactory, then we assume a more complicated model e.g. a 2nd degree polynomial (Y = a + bX + cX2) (Draper & Smith, 1998)

In the multiple linear regression model, Y has normal distribution with mean (Draper & Smith, 1998):

$$Y = \beta_0 + \beta_1 X_1 + ... + \beta\rho X\rho + \sigma(Y), \ sd(Y) = \\ \sigma \text{ (independent of X's)}$$

Y - dependent variable (indicator of the impact of economic freedoms and foreign direct investment on the economic development of Serbia, measured by GDP). The variables of the multiple linear regression model in the above form, express the average regular, quantitative relationship between the dependent variable Y and ρ of the independent variables, $\beta 0 + \beta 1 + ... + \beta\rho$. These variables, in essence, represent estimates of the parameters of the regression model.

The model parameters $\beta_0 + \beta_1 + + \beta_\rho$ and σ must be estimated from data.
β_0 = intercept and shows that for level zero relative importance
$\beta 1 \ \beta\rho$ = regression coefficients, show the relative assessments of the development of the economy of Serbia for the unit change of variables of economic freedoms and foreign direct investment
$\sigma = \sigma_{res}$ = residual standard deviation
β_1 equals the mean increase in Y per unit increase in Xi , while other Xi's are kept fixed. In other words βi is influence of Xi corrected (adjusted) for the other X's. The estimation method follows the least squares criterion. The partial correlation coefficient is given in the following form Draper and Smith (1998):

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$$R^2_{Y/X_1X_2} = \frac{r^2_{x_1y} + r^2_{x_2y} - 2r_{x_1y}r_{x_2y}r_{x_1x_2}}{1 - r^2_{x_1x_2}}$$

$$r_{yx_1 \cdot x_2} = \frac{r_{yx_1} - r_{yx_2} \cdot r_{x_1x_2}}{\sqrt{1 - r^2_{yx_2}}\sqrt{1 - r^2_{x_1x_2}}}$$

The results of research based on the conceptual model are given on the basis of econometric analysis.

Table 2. The value of the economic index of freedom in Serbia (2001-2021)

Index Year	Overall Score	Property Rights	Government Integrity	Judicial Effectiveness	Tax Burden	Government Spending	Fiscal Health	Business Freedom	Labor Freedom	Monetary Freedom	Trade Freedom	Investment Freedom	Financial Freedom
2001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2002	46.6	30.0	10.0	N/A	89.8	74.8	N/A	40.0	N/A	46.8	88.4	10.0	30.0
2003	43.5	30.0	10.0	N/A	79.8	89.2	N/A	40.0	N/A	34.2	68.4	10.0	30.0
2004	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2006	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2007	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2008	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2009	56.6	40.0	34.0	N/A	85.9	46.3	N/A	56.0	70.0	65.8	78.0	40.0	50.0
2010	56.9	40.0	34.0	N/A	83.2	41.4	N/A	58.9	72.2	64.5	75.2	50.0	50.0
2011	58.0	40.0	35.0	N/A	83.6	41.9	N/A	59.0	68.9	66.0	75.2	60.0	50.0
2012	58.0	40.0	35.0	N/A	84.1	39.3	N/A	56.5	68.7	68.0	77.9	60.0	50.0
2013	58.6	40.0	33.0	N/A	84.2	40.3	N/A	60.2	70.4	65.3	77.9	65.0	50.0
2014	59.4	40.0	34.0	N/A	83.1	38.6	N/A	59.3	70.1	66.9	77.0	75.0	50.0
2015	60.0	45.0	42.0	N/A	82.4	27.1	N/A	57.8	70.4	72.2	78.2	75.0	50.0
2016	62.1	50.0	41.0	N/A	84.3	44.1	N/A	60.2	66.2	77.5	77.8	70.0	50.0
2017	58.9	50.3	38.2	40.2	83.3	40.3	46.9	62.9	65.9	80.8	77.8	70.0	50.0
2018	62.5	46.2	36.5	48.2	83.5	40.6	67.0	68.3	69.2	82.9	87.4	70.0	50.0
2019	63.9	50.1	37.2	44.8	82.0	45.1	90.1	72.9	67.4	80.0	77.0	70.0	50.0
2020	66.0	55.4	44.0	46.8	83.7	49.7	94.1	72.6	66.9	80.7	78.0	70.0	50.0
2021	67.2	57.9	45.0	50.6	92.5	49.6	94.6	71.0	67.3	81.1	77.2	70.0	50.0

Source: www.heritage.org

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Based on the previous data, the movement of the index of economic freedoms and variables that build a given platform is visible. Also, the movement of the index of economic freedoms from 2001 is visible, from when the index of economic freedoms is calculated until 2019, 2020 and 2021 (the years affected by the corona virus COVID 19). Data on the movement of foreign direct investment (FDI) and gross domestic product (GDP) are given below.

Graph 2. Movement of foreign direct investment (FDI) and gross domestic product (GDP) of Serbia in the period 2001 -2021. years
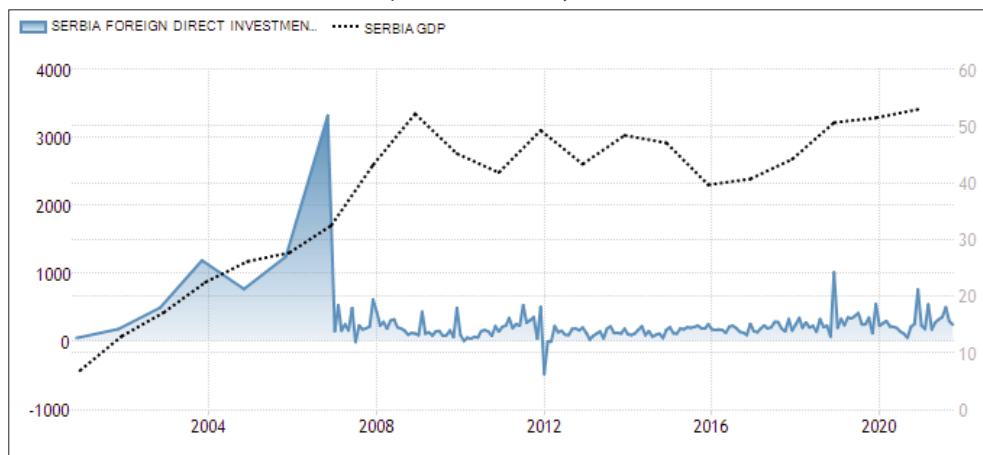
Source: Authors based on World Bank

The previous chart presents data on the movement and trend of GDP and foreign direct investment in the period 2002-2021. The value of performed works in construction in 2021 recorded a real growth of 17.1%, compared to the previous year. Turnover in retail trade achieved a real growth of 9.8%, while turnover in wholesale trade was nominally higher by 22.0%. Foreign trade in euros, in 2021, compared to 2020, shows an increase in exports by 25.5% and an increase in imports by 24.0%. Within the sector of accommodation and food services in 2021, the real growth of catering is estimated at 72.7%, while the number of tourist nights increased by 29.7%. In 2021, compared to 2020, an increase in the physical volume of traffic of 39.9% and telecommunications of 2.9% was registered. If we look at the values of GDP, the average GDP in the observed period grew. If we put foreign direct investments in the focus of observation, we can say that they have not changed much at the average level. There was a growth trend until 2019, which was stopped due to the consequences of coronavirus COVID 19. It is estimated that the total economic activity in the Republic of Serbia in 2021, measured by real trends in gross domestic product (GDP), increased by 7.5% compared to 2020. Gross fixed capital formation in 2021 shows a real growth of 14.1%, compared to the previous year. In 2021, agricultural production recorded a decline in physical volume of 5.0%. In the same period, industrial production grew by 6.3% and manufacturing by 5.5%.

It is important to point out that the inflow of funds through FDI is not just an inflow of capital, but is the basis for increasing trade flows, economic growth and de-

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velopment and job creation. Based on the above, the movement of FDI is influenced by several macroeconomic, socio-political, corporate and technological factors. It is important to mention that one of the most comprehensive studies conducted by UNCTAD in early 2017 and which included CEOs of leading global companies as the most important factors influencing FDI flows stated: the economic situation of Asian developing countries, the US economy, economic the situation in the European Union, oil prices, changes in tax regimes, exchange rate volatility and rising interest rates. Based on this platform, as a result of the research, most respondents see technological change and the digital economy as positive factors driving cross-border investment, despite the risk of cyber attacks and data security.

FINDINGS AND DISCUSSION

Based on the input parameters, the following research results were obtained (2009-2021).

Table 3. Results of the econometric model research

|	Index Score	FDI (milion $)	GDP (milion $)
Observations	13	13	13
Mean	60,6231	2.938.965.126,6559	47.104.529.804,3554
Stdevp	3,2976	1.071.099.928,6195	12.529.447.810,9047
Variance	10,8741	1.147.255.057.088.600.000,0000	156.987.062.446.185.000.000,0000
Coefficient of variation	0,0544	0,3644	0,2660
Median	59,4000	2.894.615.965,2376	47.062.206.677,6539
Max	67,2000	4.930.532.020,1456	57.335.142.657,3210
Min	56,6000	1.275.339.755,6279	39.655.958.842,5478
Coefficient of determination-one	0,23114877		
Coefficient of determination-two		0,48644708	
Coefficient of determination-three			0,454885597
Pearson Correlation-one	0,480779336		
Pearson Correlation-two		0,697457583	
Pearson Correlation-three			0,674452072
Correlation	0,539698256	0,539698256	0,539698256
(1-α)	0,95	0,95	0,95
α	0,05	0,05	0,05

Source: Authors based on research results

The results of the research based on the econometric model show that there is a significant correlation between economic freedoms and GDP in Serbia (0.697457583).

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This trend mainly depends on freedom of trade, tax burden and monetary freedom, which contributes to the confirmation of the research hypothesis of Ho's work.

The second part of the analysis shows that there is a correlation between economic freedoms and FDI in Serbia (0.447779336) and a significant correlation and impact on GDP (0.674452072). This is a consequence of many other parameters that determine FDI in Serbia, such as country risk, economic environment, ease of starting a business and others. An impact research model based on a strategic approach is given below.

Graph 3. - Conceptual model of strategic decision-making - the impact of economic freedoms on foreign direct investments and the economic development of Serbia - Research results
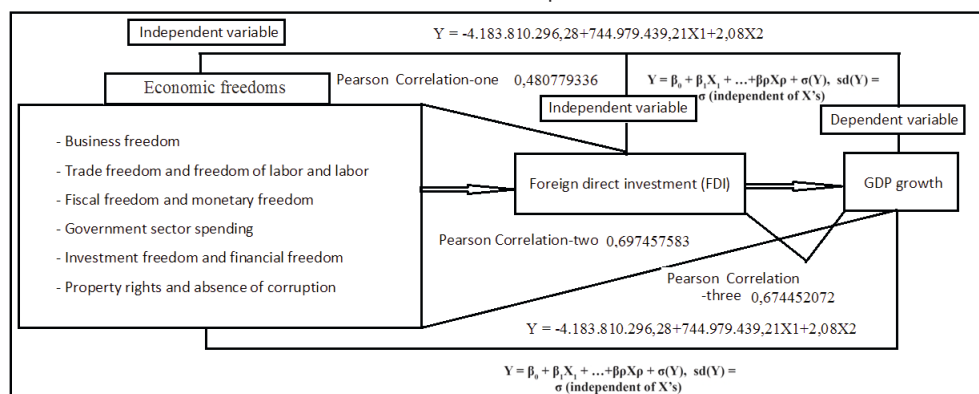
Source: Authors based on research results

Conceptual model of strategic decision-making - the impact of economic freedoms on foreign direct investments and the economic development of Serbia - Research results, becomes an important factor in strategic decision making.

The paper investigates the impact of the strategic concept with two independent variables (economic freedoms and foreign direct investment) on the economic development of Serbia and the interconnectedness of the impact. Theoretical implications relate to the model of strategic decision-making and the impact of research variables on economic development, which is especially important for countries whose development depends on FDI. In addition to research goals focused on results and impact measures, we have systematized the most important scientifically proven and empirically proven benefits of applying the concept of strategic decision making, as well as the most important parameters of its improvement. The cause-and-effect relationship between independent and dependent research variables is explained, as well as the interdependence and interconnectedness. The strategic decision-making model includes 12 research subvariants that build an index of economic freedoms, which can be individually modeled and measure their impact on foreign direct investment and strategic decision-making, as well as Serbia's development, measured on the basis of GDP.

Also, the influence of all individual parameters of the index of economic freedoms is built into the integral model of strategic decision-making, which is a research contribution. The practical contribution is reflected in the results of the application of

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the model in Serbia. The results of the practical research confirmed the research hypothesis of the paper. The practical implementation is also reflected in pointing out the importance of applying the model, especially from the point of view of Serbia, which should work on improving economic freedoms, which are an important factor in strategic decision-making.

The results of the research show that there is an impact of economic freedoms on making strategic decisions on foreign direct investment, which significantly directly affects the growth of GDP in Serbia. Based on the research platform and the econometric model, the results show that foreign direct investment depends on all factors that influence and build economic freedoms. The parameters of the econometric model that have an impact are country risk, trust, experiences of other countries, influences of informal groups, etc. The results of the research are comprehensive, from the beginning of the calculation of economic freedoms for Serbia until today. It is also important to point out the variability between the research platform, especially created during the coronavirus COVID 19, when making investment decisions is under even greater pressure and risks. Based on the previous, in general, only a strategic approach and way of thinking can balance and establish the above correlation with higher goals, which will affect the growth of the Serbian economy.

Viewed through the values of economic freedoms in Serbia, we can say that there is constant progress, which can be seen in the previous chart. Some of the most deserving parameters are certainly tax and fiscal consolidation and assessments in these areas. Also extremely important is the impact of FDI, which has been growing every year. Based on the above, this should certainly instill confidence in foreign direct investors. In order to convince investors, a constant growth trend is needed, which should continue in the future, which requires improvement in areas such as property rights, the efficiency of the judiciary and the integrity of government. As well as a high degree of economic, social and political integration and harmonization at all levels. This will certainly be important in the future, in the context of the coronavirus and the COVID 19 pandemic.

The outbreak of the COVID-19 pandemic has caused a number of negative economic consequences that threaten the decline in gross domestic product (GDP), employment, public revenues, investment and exports, as well as other consequences. At the center of events are multinational corporations - companies whose top management makes strategic decisions on investing foreign direct investment in other companies and countries, such as Serbia. The future depends on several factors, such as the impact of coronavirus COVID 19, state-level economic policy makers and creating conditions and economic environment to attract foreign direct investment, economic freedoms and business confidence in the Serbian economy and integrated into strategic decisions on foreign direct investment FDI .

CONCLUDING REMARKS

Indicators of the business environment, economic freedoms and foreign direct investment (FDI) point to the conclusion that there is a strong need for structural reforms that would ensure an increase in the growth rate of the Serbian economy. Although Serbia does not have a general strategy for attracting FDI, significant progress has been made in recent years. Although the COVID 19 coronavirus pandemic has

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greatly slowed the inflow of foreign capital, there are positive developments in Serbia. The COVID-19 pandemic poses a major challenge for strategic decision-making on foreign direct investment, especially in small underdeveloped countries such as Serbia. The experiences of developed countries can be good for Serbia as well. If we look at the most developed ones, we can see that the governments of many countries are applying measures to eliminate bottlenecks in the supply chain, such as China, developed countries in Europe and the United States. The consequences of COVID-19 may be greatest in countries not yet severely affected, including developing countries with weak health systems and small open economies that are heavily dependent on international trade and investment, such as Serbia.

Parameters that influence strategic decisions, and are directly related to economic freedoms, are certainly tax incentives, because foreign investors choose a country that has lower taxes. In order to attract foreign investments, attraction strategies are needed, which include programs for improving the skills of the workforce and taking advantage of increased competition, as well as the resource potential of the country, which Serbia certainly has in abundance.

Based on the model of strategic decision-making and the application of the econometric model, the obtained results show that there is a significant correlation between economic freedoms and GDP in Serbia (0.697457583). Trend-based research results largely depend on freedom of trade, tax burden, and monetary freedom. Also, the analysis shows that there is a correlation between economic freedoms and FDI in Serbia (0.480779336) and a significant correlation and impact on GDP (0.674452072), which confirms the research hypothesis H0, that there is an impact of economic freedoms on foreign direct investment. , which affects the economic development of Serbia, measured by gross domestic product. This is a consequence of many other parameters that determine FDI in Serbia, such as country risk, economic environment, ease of starting a business and more. An impact research model based on a strategic approach is given below.

The strategy for attracting foreign investment should include changes in national laws, financial measures aimed at reducing taxes and providing various financial incentives, which is one of the decisive factors. In addition to the above, it is necessary to include the social and political environment, ease of doing business, starting a business, quality and reliability of infrastructure and utilities, and employment opportunities for professional and educational workers. Also removing administrative barriers to investment, strengthening the investment potential of the SME sector by joining global value chains, adapting education and the labor market to the needs of investors, creating a supportive environment for investment in research, development, innovation and KET technologies, strengthening investment potential in the tourism and development sector regional infrastructure.

Strategic decisions and the way of decision-making are most important here. However, we are witnessing a large number of strategies that have not been implemented, where the phase of action and implementation in the results and achieved goals has failed. Strategic decisions, strategic thinking and decision-making will certainly be the basis for improvement, development of the Serbian economy and attracting foreign direct investment (FDI) in the future.

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STRATEGIC MANAGEMENT OF SUSTAINABLE TOURISM DEVELOPMENT ON THE EXAMPLE OF KOZARA NATIONAL PARK

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Abstract: *The sustainable development of tourism represents a positive approach in development, its intentions are to reduce the discrepancies that arise in the relations between the tourism industry, local communities, the environment and tourists. Protected areas, and especially national parks, are important tourist destinations. The principles of sustainable tourism help managers to organize and improve the areas they manage. In this sense, the strategic approach of sustainable development of tourism represents the aspiration of management structures to launch initiatives that will not degrade natural resources. Of particular importance in the development of tourist destinations are their elements and attractive factors, on the basis of which their further development and organization is directed. The concept of sustainable development, as the most important challenge and task at the beginning of the 21st century, should be based on an integral holistic approach, which implies the mutual connection of all factors that participate in the development of tourism. In modern business conditions, it is necessary to improve the management of tourist areas, with the aim of preserving them, as well as improving the quality of development. This implies the definition of indicators that ensure the measurement of various economic, physical and sociocultural impacts, which originate from tourism. The success of the operation of the "Kozara" National Park depends on quality strategic management, i.e., formation of strategic harmony between the destination's resources, on the one hand, and threats and opportunities, on the other. The aim of this paper is to point out the need to apply strategic management of sustainable development of tourism in the National Park "Kozara", and to define an adequate strategy to ensure the effectiveness of the National Park "Kozara" as a protected tourist destination.*

Keywords: *strategic management, sustainable development of tourism, tourist destination, National Park "Kozara"*

JET classification: *Q56*

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INTRODUCTION

The intensity of negative effects on the environment will depend on the number of tourists visiting certain areas, which manifests itself in the reduction of air and water quality, increased noise, changes in the appearance of the landscape, damage to flora and fauna, etc. (Inskeep, 1991) . Environmental protection received its global framework in 1972 at the UN Conference in Stockholm and in 1992 at the Conference on Environmental Protection in Rio de Janeiro, where it was emphasized that environmental protection is a global issue, but that the local community must also participate in the processes of environmental protection. The main document on environmental protection issues is Agenda 21 (Global Program of Action on Sustainable Development), in which it is clearly emphasized that environmental protection represents an integral part of overall human development. Every activity, when planning and making decisions, must respect the requirements of the environment as much as possible, in order for its development to be permanent, otherwise it can lead to self-destruction (UNEP, 1994)

The expansive and uncontrolled development of tourism during the past few decades, accompanied by many unwanted ecological, social and cultural consequences, imposes the need to bring this activity under the concept of sustainable development. The sustainability of the development of tourism, as well as other activities, depends, above all, on the ability of the environment to provide a stable and long-term basis for development. There is a clear demand for all participants and holders of tourism activities to adapt to this new development philosophy and way of thinking (Jovičić D., 2002)

The goal that should be strived for and that should be maximally supported is the coordinated development of tourism, based on an integral or complex approach, which places equal emphasis on five components: achieving economic profit, preserving the environment, affirming social integrity, nurturing the cultural peculiarities of the local population and optimally satisfying tourist needs. That is why sustainable tourism is shown schematically as an equilateral triangle, because it should, at the same time, contribute to the achievement of goals on five different levels, none of which must become dominant in relation to the others (Muller, 1993).

The concept of sustainable tourism, first of all, requires essential ethical changes in all participants of the tourism process, from the tourism industry as the carrier and creator of the offer, to tourists as users of these services. If a consensus is reached around important basic ethical principles as a prerequisite for action and they become a key component in the decision-making process, positive results can be expected in the development of tourism on a sustainable basis. In order to end poverty in the world, as well as to provide prosperity and opportunities for everyone on a healthy planet, the 2030 Sustainable Development Agenda was launched in 2015, which was supported by all UN member states, adopting a program of 17 goals, within the 15-year plan for realization of the stated goals (UN, 2023)

The stated reasons impose the need to apply the concept of sustainable development, which focuses on the necessity of strategic thinking about the future development of tourist destinations. It is especially necessary to apply this concept to the oldest natural assets and tourist resources, which are national parks (Vukosav & et., 2015) The sustainability of tourism development in national parks depends on the ability of

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the environment to provide a stable and long-term development basis for these tourist resources. It is up to all participants and holders of tourism activities to adapt to this new development strategy and way of thinking. In addition, the success of a tourist destination will increasingly depend on its sensitivity in relation to the intensity of consecutions in the environment (Vukosav & et., 2015).

The touristic capabilities of national parks represent a high degree of originality and creativity in the presentation of aesthetic and curiosity values, which fully evokes the authenticity of a certain area (Jovičić D. , 1997) In order to position the "Kozara" National Park as a successful tourist destination, a continuous and comprehensive development of strategic management is needed, based on the principles of sustainable tourism development.

LITERATURE REVIEW

Strategic management can be defined as a permanent process of adapting the organization (enterprise) to the environment while simultaneously influencing the environment, in accordance with the purpose and goals of the enterprise (Ansoff, 1981). Tourism is a complex and open system, the management of which requires an integral approach both internally and externally. In order to achieve the effectiveness and efficiency of the tourism system, adequate management should integrate and coordinate the development of all its segments and subsystems such as supply, demand, physical and institutional elements. In addition to internal integration and coordination, planning is necessary to integrate tourism into the context of the general economic and sociocultural development of the state, region or some other spatial unit, its specificities and material resources. It is the best way to unite communal services, traffic, catering, tourism, trade, agriculture, environmental protection and other activities into a harmonious whole (Jovičić D. , 2002).

A strategic approach to tourism management and planning brings about a fundamental change, according to which the focus is no longer on making a plan, but on the planning process, which is based on the appreciation of the complexity of changes occurring in the environment of the destination (Gunn, 1998). Accordingly, strategic planning is focused on systemic anticipation and change management, with the aim of promoting regular development and increasing economic, social and environmental benefits. The strategic management of a tourist destination is understood to mean the choice of the appropriate path by which the tourist destination should secure a competitive position on the tourist market in the long term, as well as a plan of actions based on anticipated conditions in the environment, all with the aim of adapting to market conditions and achieving defined goals business (Dobre, 2004). Successful strategic management of a tourist destination must have the following characteristics:

- The strategy must concentrate on the totality of activities of the tourist destination,
- The strategy must ensure a successful and permanent alignment of the activities of the tourist destination with its environment. There is a certain danger if the management first develops the missions, goals and guidelines of the tourist destination, and only then takes into account the importance and impact of the environment,
- The strategy must be oriented towards the issues of internal limitations (es-

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pecially the problem and inelasticity of the offer),

• Strategic management must be oriented towards long-term decisions, which have a decisive influence on the growth and development of the destination (Dobre, 2004).

Achieving the business goals of a tourist destination depends on its ability to satisfy the needs and wishes of consumers (tourists) with an adequate combination of market performance instruments, i.e., finding their optimal combination through the choice of strategic alternatives. Defining the choice of strategies is a rather complex process, especially because with the emergence of numerous destinations, a large number of different tourist products appear, as well as the great possibility of market segmentation into small homogeneous groups of consumers (Vukosav & et., 2015)That's why in designing the management strategy of tourist destinations, the basic question is, what kind of product, to which market and how to get a foothold in the selected market. Well-positioned tourist destinations constantly adapt their strategy to the demands of tourists, and the strategy itself begins and ends with selected market segments. The application of the concept of strategic management in the national park in the current turbulent conditions is an effective way of management in order to create a strategic harmony between the resources of the destination and the threats and opportunities acting from the environment (Vukosav & et., 2015)

The starting point for the development of tourism must be a valid spatial plan of the national park, as a basic lever for the protection and development of these assets. The spatial plan of the national park provides opportunities for the realization of such a spatial organization which would avoid or reduce to a minimum ecological risks present, under the condition of the long-term programs of protection and development of national parks. These programs should include the evaluation, ranking and protection of natural and cultural values and define the overall development structure of the national park, bringing it under the level of sustainable ecological development (Jovičić D. , 1997). In designing the overall development strategy of tourism in national parks, a more active role of state enterprises or institutions that manage these assets is necessary. This implies the improvement of their staffing, along with the hiring of experts for certain aspects of tourist development, who would prescribe precise instructions and firm standards for the work of companies that provide services to tourists in the park. Business entities that are granted concessions on certain properties in the national park in order to serve tourists must be under the permanent control of the national park administrations, in order to timely register any excessive phenomenon in nature as a consequence of their inadequate work (Jovičić D. , 1997)

In addition to the abovementioned, visitor management is of particular importance. The term visitor management must be treated strategically, because it is very important in the domain of management of protected areas, with a rapid increase in visitors. For the protected area, it is important to know precisely that the management of visitors leads to increased participation of tourists, as well as raising their awareness regarding the protection of the natural and cultural features of the area in which they are staying. The concept of sustainable visitor development includes tourists and strategies related to tourist destinations and maintaining a quality experience for current and future visitors (Štetić & Šimičević, 2009).

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RESEARCH METHODOLOGY

Strategic management of the sustainable development of tourism in the Kozara National Park (https://npkozara.com/) is a process that includes several steps:

- Analysis of the tourist destination,
- Determination of comparative indicators of sustainable development of tourism in the National Park "Kozara",
- Strategy formulation,
- Directing the tourist destination.

Indicators of real impacts on the environment should provide the measurement of those physical and sociocultural impacts, which exclusively originate from tourism, independently of the impact of other activities. Practice shows that such indicators are very difficult to identify, because tourism is only one of the activities that has an impact on a certain spatial entity, which means that the impacts are complex, cumulative and depend on the specifics of the specific place and region. The European Union has shown great activity in order to determine indicators for assessing the sustainability of tourism development. In accordance with such efforts, a team of EU experts conducted case studies on the example of different European tourist areas and places. Based on the results of published research, a list of comparative indicators of sustainable tourism was proposed, through which research is conducted on the effects of tourism development in the countries of the European Union.

The indicators used for the purposes of the analysis of the "Kozara" National Park are classified into five groups:

- Economic indicators, which show the economic effects of tourism in a tourist place or area,
- Tourist satisfaction, refers to the degree of tourist satisfaction with the quality of tourist facilities and services provided and their opinion on the attractiveness of the motive, the state of the environment and the socio-cultural peculiarities of the receptive place,
- Social indicators reflect the social integrity of the local community from the aspect of the subjective well-being of the resident population in the tourist region or place,
- Cultural indicators express the degree of preservation of the cultural identity of the local community under the influence of tourists coming from areas with different cultural characteristics,
- Indicators of the state of the environment should provide a picture of the state of the environment and the impacts that tourism has on certain media.

The stated methodological principles correspond to the concept of strategic management of sustainable development of tourism in the National Park "Kozara", in order to improve business and efficient growth and development of the tourist destination.

RESEARCH RESULTS

Kozara Mountain is located in the northwestern part of Bosnia and Herzegovina. It is a low mountain between the Pannonian Plain in the north and the Dinarides in the south, and is bordered by the Sava, Una and Vrbas rivers. The central part of Kozare Mountain, with an area of 39.07 square kilometers, was declared a national park in 1967. The main reason for the declaration of the "Kozara National Park" was

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the historical aspect related to the events of the Second World War, with the aim of protecting the cultural, historical and natural values of the Kozara mountain.

The central part of the "Kozara" National Park is dominated by the Mrakovica plateau (806 m.a.s.l.), where the memorial zone with a memorial complex and a museum are. The Park area is elongated in the north-south direction, so that its length is 7 km, and its width is 3-6 km. "Kozara" National Park extends to the territories of the municipalities of Prijedor, Kozarska Dubica and Gradiška. Thanks to the dense complexes of deciduous and coniferous forests, the wealth of flora and fauna, clear streams and glades, the Kozara mountain was nicknamed the "Beauty of the Region".

In Bosnia and Herzegovina, since 2008, the World Bank project "Forest and Mountain Protected Areas Project" - FMPAP, whose general goal is to strengthen institutional and technical capabilities for sustainable management of protected areas and natural resources, has been implemented. The focus of the project on the territory of Republika Srpska is to improve the management of protected areas, as well as to expand and develop the capacity of existing protected areas. Within the framework of the mentioned project, a management plan for NP "Kozara" was prepared.

Despite the fact that it is a quality document, the subject of research into the sustainable development of a tourist destination, in many ways exceeds the scope of such a plan. Namely, the management of each tourist destination should analyze its situation and competitive position in detail and, depending on the above, formulate a management strategy. In this sense, we will use a situational analysis to determine the overall circumstances for the development of tourism by analyzing the environment of the tourist destination.

1. *Political factors* are factors that the destination cannot influence and must adapt to. Despite the fact that the war conflict on the territory of BiH ended less than three decades ago, constant political instability conditions a noticeable decrease in tourist visits.

2. *Economic factors* related to the amount of free funds and the paying power of the tourist clientele, have a decisive role in the placement of products and services in tourist destinations, including in the National Park "Kozara". Bearing in mind that the management of NP "Kozara" in the current circumstances can count mainly on domestic clientele, all the more, the current economic crisis affects the significantly reduced number of tourist visits, compared to the pre-war period.

3. *Ecological factors* in tourist destinations such as national parks represent a fundamental reason for visiting, especially knowing that tourism is much more than other activities conditioned by the quality of the environment. In this sense, the management of the "Kozara" National Park is doing everything (and at a high level) in order to improve overall, environmentally responsible behavior.

Management of tourist destinations should consider their overall situation and competitive position and formulate a strategy based on that. However, the question arises - on the basis of which to choose the appropriate strategic alternative, that is, on the basis of which information and predictions to choose the appropriate strategies. In this regard, a high-quality SWOT analysis as a result of an internal and external analysis of the environment in which the tourist destination is located can best serve.

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Strengths
- Existence of conditions for the development of various types of tourism (excursion, sports-recreational, congress, event, hunting, etc.),
- Natural motifs of high values,
- Memorial and historical center of special importance,
- Cultural and historical motives,
- Favorable tourist-geographic position,
- Diverse plant and animal life,
- Favorable position in relation to emission markets,
- The beauty of nature and the environment.

Weaknesses
- Seasonality of tourist traffic,
- Inadequate climatic conditions for more intensive valorization during the winter season,
- Relatively weak tourist equipment,
- Lack of accommodation capacities of higher categories,
- Weak marketing activity,
- State of traffic infrastructure,

Possibilities
- Wide contractile zone,
- Greater degree of urbanization,
- Better promotion of available resources,
- Improvement of sports tourist offer,
- Stronger positioning in the market,
- Better valorization of summer content,
- Eco-tourism.

Threats
- Failure to apply the principles of sustainable development of tourism,
- Risks of further urbanization and saturation of space,
- Conflicts regarding development options,
- Inadequate behavior of tourist clientele in protected natural resources,
- Possibilities of polluting the environment (water, soil, air),
- Unfavorable economic, social and political environment,
- Acquiring a negative image of an unsafe destination,
- Weak purchasing power of citizens.

SWOT analysis is a very suitable tool for identifying and classifying the possible choice of key strategies and policies to achieve the desired goals. It is a very suitable technique for every tourist destination in order to gain knowledge about the strengths and weaknesses of that destination. The SWOT analysis of the "Kozara" National Park was done based on the analysis of influential elements and factors, natural and cultural potentials, as well as the analysis of the overall attractiveness of the "Kozara" National Park. Part of the results were obtained by field research and interviewing the management of the National Park "Kozara" and the holders of tourist offers within the Park, and the other part by market analysis.

A seriously prepared SWOT analysis provides a better insight into the immediate connection and alignment of the tourist product and the mission of the destination,

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as well as the quality of the tourist offer, as a measure of the standard and general image of the tourist product. The aforementioned analysis enables a better determination of market opportunities, which relate to the degree of current and future tourist demand for given tourist products.

In order to qualitatively determine the general and strategic goals of a tourist destination, it is necessary to identify its key tourist products. This means, within the overall offer, decide which tourism products deserve more support, which should be maintained, and which should be reduced or omitted from the offer. That is why it is necessary to carry out a portfolio analysis of the destination.

Table 1. Portfolio of National Park "Kozara"

		SIGNIFICANCE OF THE MISSON		
		Great importance	**Middle importance**	**Low importance**
Q U A L I T Y	**High**	Excursion and eco-tourism (MO-H) Decision: -Increase the quantity -Pay extremely close attention to the protection of the environment	Congressional tourism (MO-H) Decision: -Increase the quality of the offer -Increase the accommodation capability	Sanatorium tourism (MO-M) Decision : - "Kozara" National Park is an aerial spa and it is necessary to increase the quantity
	Middle	Sports and recreational tourism (MO-H) Decision: -Increase the quantity -Increase the capacity	Event tourism (MO-M) Decision: -Increase the quality of the preexisting ones -Come up with new events	Hunting tourism (MO-L) Decision: - Increase the quantity -Increase the promotion abroad
	Low	Children and youth tourism (MO-L) Decision: Establish sports and ecocamps as well as schools in nature	Wellness (MO-L) Decision: - Significantly improve the quality of the offer within the current capacities	

Market opportunities: H-high, M-middle, L-low

Source: Author's adaptation according to the matrix: Kotler, Fox, 1985 (Kotler & Fox, 1985)

High-quality strategic management of tourist destinations, and especially national parks, implies optimal guidance by profiling adequate management goals. Certainly, the basic function of the "Kozara" National Park is the preservation of the natural environment in its original form, but also a scientific-research, cultural, educational and, of course, tourist-recreational function. In this sense, bearing in mind that the "Kozara" National Park is a complex spatial-functional area with specific natural, ecological and economic values, the main goals of management and spatial planning would refer to:

• Sustainable use of natural resources,
• Protection of the cultural, historical and natural heritage of the Park,
• Establishing a system of general protection, preservation and improvement of the basic functions of the Park,
• Defining areas for biodiversity conservation, usage regimes and monitoring,

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- Defining the protection regime and use of forests, water resources and land,
- Developing tourism in the National Park,
- Allowing all categories of visitors to use the Park,
- Determining the "ecological capacity" of natural zones, ways and purposes of visiting the Park,
- Preservation of traditional knowledge and experiences in the process of managing natural resources,
- Determining the area for construction within the boundaries of the National Park "Kozara", in a manner appropriate to the regime of protection and arrangement of the space,
- Construction of diverse recreational infrastructure and accompanying information content,
- Determination of spatial planning documentation for detailed arrangement and design, as well as possible construction in accordance with the purpose and zoning of the space,
- Building better accessibility to the Park and internal mobility in the Park,
- Strengthening the capacity of the Park administration,
- Establishing financial mechanisms for sustainable management of the Park,
- Establishing a database on protected natural values and cultural assets and species of flora and fauna,
- Assessment of the degree of endangerment of species and habitats in accordance with the IUCN classification,
- Strengthening of information and technical services and services,
- Defining the visiting regime,
- Protection of drinking water sources and land use and development,
- Solving the problem of waste water,
- Joint planning of activities with local organizations in the area,
- Renovation and maintenance of existing and creation of new recreational infrastructure,
- Diversification of accommodation capacities,
- Education of the local population for the provision of tourist services,
- Active cooperation with other parks in the area,
- Providing a system for waste collection and recycling (partially taken over and modified from the "Spatial Plan of the Special Purpose Area National Park "Kozara" 2011-2031)

Strategic goals must be based on the need to protect the cultural-historical and natural heritage, on the sustainable use of natural resources, on the need to strengthen the administration, accessibility of the National Park "Kozara", sustainable financing and development of tourism. The aforementioned set of proposed goals clearly shows that their formulation depends on the character and specificity of a certain tourist destination, and they are modified and corrected over time, then new ones are introduced, while some previously defined ones are suppressed and even eliminated.

Comparative indicators of sustainable development of tourism in the National Park "Kozara"

1. Economic indicators:

1) *The seasonal nature of tourist traffic* has economic and ecological impli-

cations. The high concentration of tourists in the period of the full season leads to increased pressures, which leads to increased saturation of space and the appearance of negative ecological effects. Bearing in mind that part of the Kozare mountain, due to historical events during the Second World War, received the status of a National Park, the mentioned circumstance explains the fact that in the period leading up to the civil war in B&H (1992-1995), an incomparably higher tourist traffic was registered. The then high level of tourist traffic was based to a large extent on the ideological relationship of social organization.

At the beginning of the war conflicts on the territory of Yugoslavia, there was a sharp decline in total tourist activities, where the National Park "Kozara" was certainly not an exception. After the events of the war, there is a slow revival of tourist activities, but the tourist traffic has not even reached the pre-war level. Even for the period of immediate post-war consolidation, there are no relevant data on tourist visits.

Table 2. Number of visitors of National park "Kozara" 2011-2015.

Month / Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	In total
2011.	9500	4500	3320	5380	7580	1500	8700	9300	6160	3740	1840	220	63720
2012.	11500	3500	3000	4500	12650	7530	7910	7340	6870	3000	2800	2400	78000
2013.	5000	10000	4500	4000	13000	9500	9500	8500	6000	5320	2550	2740	80610
2014.	5500	6900	6340	4000	8220	8380	8000	12240	4300	4700	3500	2920	75000
2015.	10000	15000	7000	4500	13500	9500	9324	11400	4800	3100	4100	2700	94924
2016.	12200	3600	7500	5900	15000	8500	12000	15900	8600	7900	3900	2200	103200
2017.	23000	6500	6500	10000	16500	10500	16000	15000	6000	9000	5000	4000	128000
2018.	9000	19000	10000	10000	19000	10000	14000	12000	10000	7000	4800	5200	130000
2019.	18000	10000	12000	6500	9500	8000	8000	16500	13500	12000	4500	3500	122000
2020.	13000	17000	6700	300	8500	11700	13100	22200	14400	10400	6800	3500	127000
2021.	21400	5895	3000	3400	8200	5100	5700	25000	8500	5700	2600	4400	98895
2022.	18290	5205	4800	2400	10259	7500	5700	12000	3700	7100	2300	4700	83954

Source: Administration of the National Park "Kozara"

As can be seen in the Table 2., the number of tourist visits during the year is quite evenly distributed, which is very important both from an economic and ecological point of view. However, as can be seen, the management of the "Kozara" National Park has approximate numbers of tourist visits, which is a shortcoming that will be eliminated by the more up-to-date work of the info center in the park. In the course of the past few years, progress has been made to enrich the overall offer by introducing various contents - cycling tours, walking tours, hiking, some new events and the like. It should be emphasized that the local population still does not have a sufficient need for a summer stay in the mountains, so those whose financial means allow it go to the sea abroad in the summer. It should also be said that the climate conditions on the Kozari mountain during the summer period represent a great opportunity for vacation. And yet, the fact is that "Kozara" National Park still holds the image of a very popular

tourist place from the pre-war period, when several hundred thousand visitors came to Mount Kozara every year.

2) *The relationship between the number of overnight stays and accommodation capacity*. Unfortunately, we could not get this data, which is also an important indicator, because the Park Administration does not have this type of data. The reason for this is the adaptation and reconstruction of accommodation facilities over the past years, as well as frequent changes in ownership, which managed the same accommodation facilities.

3) *The coefficient of local tourism growth* represents the direct and indirect impacts that tourism consumption and employment have on the local economy. In the area of the "Kozara" National Park, the development of tourism initiated the development of a number of other activities, which were not previously present in this area. These are activities whose products and services are essential components of the overall tourist offer in order to increase the functionality of the tourist destination. Thanks to traffic, both internal and external connections with the near and far surroundings are achieved. The development of tourism in the National Park initiated the construction of various types of transport infrastructure - ski lifts, bicycle paths, hiking trails, hiking trails, parking lots, etc. Then, capturing springs, water supply, garbage removal, clearing snow from roads, are also activities that help the better functioning of the overall development of tourism.

With the proclamation of the "Kozara" National Park in 1967, there was a significant decrease in the exploitative function of forestry, but the landscape-aesthetic and health-attractive functions of the forest complexes strongly contributed to increasing the level of tourist attractiveness of the park. We also expect that the holders of the tourist offer of the National Park will achieve more intensive cooperation with local farmers, with the aim of marketing local agricultural products and affirming the production of healthy food.

2. Tourist satisfaction:

The only extensive visitor survey was conducted in 2014. This survey, with a very comprehensive approach, made it possible, at least at that moment, for the National Park Administration to get to know the opinions and needs of visitors. Those evaluations later served the managers to remove certain shortcomings and improve the Park's operations. We have received firm assurances that with the more active work of the info center, surveying tourists will become a regular practice, which will enable better insight into the needs and satisfaction of visitors.

3. Cultural indicators:

This indicator refers to the parameters that show how the intensity of tourism development in a certain tourist destination affects the local population, as well as the ratio of the number of accommodation facilities and the number of local population. There are no permanent settlements in the area of the National Park, because in the period from the proclamation of the park in 1967 and in 1971, the entire permanently settled population moved out. These are the reasons why this indicator cannot be determined on the example of the "Kozara" National Park.

4. Social indicators:

This type of indicator primarily refers to the percentage of tourism's participation in the local net social product. Bearing in mind that the "Kozara" National Park

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spatially occupies parts of three municipalities, this fact complicates specifying the answer to this question from the very beginning. However, starting from the fact that the Park Management is located in the municipality of Prijedor, we can assume that at today's low level of realized tourist consumption and realized income, the National Park "Kozara" still has a symbolic effect on the local social product of the municipality of Prijedor.

As for the percentage of tourists who do not come through tour operators, we can only conclude that it is still dominant. Namely, before the start of the civil war, when, for historical and ideological reasons, the National Park was visited by guests from the entire former Yugoslavia, an incomparably greater number of visits were realized through organized bookings and collective visits. Nowadays, there are indications that such a trend could return again, and for such a thing the Park Management will have to show much greater organizational and marketing readiness.

5. Indicators of the state of the environment:

According to the data obtained from the National Park Administration, no new facilities are currently planned for construction, but only the adaptation of the existing ones, and this is an activity that is mostly already coming to an end. This data is encouraging from the aspect of environmental protection. However, we believe that if there is an increase in the number of tourist visits in the coming period (which is realistically expected due to the weakening of the economic crisis), the existing accommodation capacities will not be sufficient. Also, we must mention that in the peripheral parts of the park (zone of the weekend settlement "Bešića poljana") deviations were observed from the spatial plan in the construction method.

National Park "Kozara" has major problems with accessibility, because it is connected by an asphalt road with the main traffic corridors only by a co-pass through Kozarac - a populated place at the foot of the mountain. True, there are approaches to the Park from two other alternative directions, but they are of very poor quality and are practically impassable in certain periods of the year. In the absence of organized transportation in the post-war period, the use of private cars for tourist arrivals prevails. Of course, this trend can potentially cause a number of negative effects in the sensitive nature of the National Park, such as - an increase in the amount of exhaust gases, increased noise levels, and the like.

Two ski lifts with a total length of 950 m are currently operating in the "Kozara" National Park. Comparing the length of the ski-lifts with the number of commercial beds - 167, we get a ratio of 5.7:1, which, from the point of view of the EU criteria, indicates that infrastructure facilities of this type meet the needs of stationary tourists.

"Kozara" National Park abounds in clean and potable springs and streams. The area of the park represents the hydro-potential hub of Kozara Mountain, with many permanent and occasional watercourses. Most of these watercourses are unused. The "Mrakovica" complex uses water from the "Bijele vode" source, while the "Benkovac" complex uses water from the Zovik stream. However, in addition to exceptional natural hydro-potentials, insufficient organization of water supply, and the absence of source protection can be noticed. A special problem is the collection of wastewaters in the form of septic tanks, without data on their quality and permeability, which endangers the quality of groundwater. We believe that these problems need to be solved ur-

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gently by collecting and purifying waste water from existing facilities, with treatments that will guarantee maximum protection of nature and preservation of hydro potential in the park.

There are no significant sources of air pollution in the park area. The presence of the central boiler room of the "Monument" hotel, which uses fuel oil as an energy source, has no particular impact on the environment. Other facilities of the park use biomass for heating. In addition to the above, the only source of pollution is the access road Kozarac - Mrakovica. In general, the mentioned sources of pollution are not able to seriously threaten the environment and air quality.

The Park currently has a well-organized waste collection and removal system, which is regularly removed by the Municipal Company from Prijedor, which is very important because the amount of waste is constantly increasing.

Timely identification and monitoring of pollution sources and degradation of environmental elements (water, air, soil) is possible by continuous recording of the current situation on the ground (instrumental monitoring). Unfortunately, there is still no permanently established monitoring system for the basic inorganic elements of the environment in the park. When it comes to biological monitoring, that is, the control of plant and animal life as constituent elements of the environment, the situation is more favorable. In this regard, the monograph "Flora of the Kozara National Park" written in 2007 is particularly noteworthy. During this research, an impressive biodiversity of 657 species of vascular plants, systematized in 7 classes, 40 orders and 94 families, was established. Out of a total of 657 registered species, 640 are flowering plants and 17 are ferns. Among the flowering plants are 114 species of dendroflora (77 autochthonous and 37 allochthonous) and 526 herbaceous plants (Bucalo & al., 2007).

For high-quality and optimal management of the park, it is necessary to include a much wider range of monitoring activities grouped into several categories, such as: development factors, marketing factors, economic factors, ecological and socio-cultural factors, and institutional factors. Although the comparative indicators of the sustainable development of tourism in the National Park "Kozara" have been presented quite extensively, it is still not enough to determine the precise values of the indicators in terms of their precise numerical interpretation (green, yellow or red zones).

A general assessment that would be defined on the basis of established indicators for assessing the carrying capacity of the area and determining optimal standards for tourists requires more complex and detailed analyses. Taken as a whole, summarizing the analysis of the development of tourism and nature protection of the Kozara National Park, we can say that in addition to certain shortcomings in the management approach of the Park, the overall natural potential is very well preserved.

DISCUSSION

The management of national parks is an extremely complex job, as it includes a large number of coordinated activities that are carried out in several stages, which includes: analysis of resources, identification of potential problems of endangering the environment, initiation of projects that are in line with environmental preservation, assessment of the impact of such activities, establishing a monitoring system, etc. Defining the management strategy imposes the need to determine different strategic options for realizing the goals of the tourist destination.

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The SWOT analysis of the "Kozara" National Park showed great strength, but also certain weaknesses, as well as opportunities and threats for the development of tourism in the coming period. In this sense, the main strategic potentials of the National Park would refer to:

• Natural motifs of high values,
• Memorial and historical center of special importance,
• The existence of conditions for the development of various forms of tourism.

Portfolio analysis indicated a wide range of tourism development opportunities. Of course, certain types of tourism such as excursion, eco-tourism and sports-recreational tourism have greater importance within the National Park, but in general, none of the offered types of tourist activity should be eliminated as a whole, but only to a greater or lesser extent work on their improvement. Otherwise, a wide range of tourist potentials and opportunities for tourism development implies a detailed analysis of the strategic goals of the Park's management, as well as the obligation to realize the set goals.

During 2012 and 2013, the administration of the National Park "Kozara" adopted two important documents in which it was elaborated about the most important goals of the management and development of tourism in the park. Comparing these planning documents with earlier documents of a similar character, we must say that these are higher quality documents in which the goals of tourism development are viewed in a more complex way. Special emphasis is placed on the protection of the environment, as a vital prerequisite for achieving the long-term goals of tourism development, as well as all other complementary activities in the park. Welcoming the approach of the Park Administration, that environmental protection must become an integral part of the development of tourism, we express our satisfaction with the demonstrated determination of the Administration, to realize the aforementioned principles in practice. The emphasis is on non-risky activities (walking tours, cycling tours, schools in nature) that do not disturb the ecological balance, but awareness of the importance of nature protection is spread through educational content.

We believe that these and similar documents should promote the basic strategic goal, which is focused on ensuring quality growth, by enriching it with those types of offers that are adapted to the capacities of the environment. Precisely for these reasons, we can generally state that tourism and the environment are treated in an integral way in the area of the National Park "Kozara". Also, there is a necessary degree of coordination between the tourism industry and organizations in charge of tourism and environmental protection.

Table 3. The zoning proposal of the National Park "Kozara"

1. The most protected zone	Bijela kosa – Zečiji kamen – Zofik, Šupljikovac - Glumine
2. Actively protected zone	Pašini konaci – Tisova kosa – Moštanička vrela – Kozarački kamen – Vrnova glava i Bijela voda – Kriva strana – Gola planina
3. Zone for use	Memorial zone Mrakovica, Tourist and sports-recreational complexes on Mrakovica, Youth recreation complex, the remaining hamlets of Bešići, Mazgali, Bešić poljana, Jakupovići and Jankovići, all forests and meadows outside zones 1 and 2.

Source: Spatial plan of the special purpose area National Park "Kozara" 2011-2031 (Institut za građevinarstvo – IG, 2012)

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Zoning is the basic and most important element of the planning and organization of tourist destinations, which define zones with different purposes and levels of use. In accordance with the above, the zoning proposal of NP "Kozara" is based on the principles of protection and preservation of natural and cultural values.

Regardless of the quality of the zoning procedure, if its results are not applied consistently in practice, such proposals are usually of no value. Every tourist destination should have good and controlled traffic access. Due to pronounced climbs and large bends, as well as the fact that the main access road to the National Park passes through the inhabited town of Kozarac - the road network can be considered a limiting factor in the development of tourism in the park. It would be good if a possibility was found to relocate the part of the road that passes through Kozarac, although in the current circumstances we express our doubts about the possibility of realizing the proposed initiative, because such an undertaking requires large financial resources. In order to promote public transport and more environmentally friendly modes of transport, the Administration of the National Park "Kozara" organized a weekend bus service in cooperation with the Klekovača Mountaineering Society a few years ago. Unfortunately, due to insufficient interest, after some time that line was discontinued. As far as tourist signage is concerned, the management of the National Park "Kozara" deserves all the praise. This refers to the access to the park, then to the signaling of pedestrian paths, bicycle paths, the memorial zone, springs, etc.

The application of economic instruments should ensure that the economic sector and tourists who create pollution in the environment bear the costs of eliminating such pollution and stimulate them to reduce pollution as much as possible. In order to realize the project of catchment of water sources and cleaning of watercourses, the Park administration was assisted by the World Bank, IPA-funds of the EU, the Ministry of Trade and Tourism of the Republic of Srpska and the Ministry of Agriculture, Water Management and Forestry of the Republic of Srpska. Part of the funds collected from fees for construction land and the use of tourist facilities could be directed to special dedicated funds for environmental protection, with the aim of overall protection of nature and raising the awareness of tourists.

Although the tourist offer based on natural tourist motives dominates in national parks, projects based on traditional ethnic motives and their inclusion in the offer would further contribute to the affirmation of the park. However, we are convinced that the more active operation of the info center will lead to the completion of the overall tourist offer. After all, high-quality IT support is necessary in order to validly perform monitoring, analytical-research work and implement tourism development programs in the "Kozara" National Park.

CONCLUSION AND RECOMMENDATIONS

The goal of strategic management is to ensure the long-term and coordinated development of the tourist destination. The sustainability of tourism development, as well as other activities, depends on the ability of the environment to provide a stable and long-term development basis. The previous presentation clearly confirmed the assumption that the National Park "Kozara" as a tourist destination has very high-quality preconditions for the sustainable development of tourism. In order to improve tourism in the National Park, it is necessary to:

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- Modernize existing tourism capacities, and build new ones exclusively according to the standards of sustainable tourism development,
- Improve marketing activities and promotion of tourist potentials,
- Provide the necessary professional personnel, both for the Park Administration, and for personnel serving the tourism industry.
- This approach obliges the Park Management, all the more so since this tourist destination has a really wide range of possibilities for tourism development, which implies:
- Excursion tourism, with additional equipment and arrangement of picnic areas and recreational trails,
- Sports-recreational tourism, arranging ski slopes and other sports facilities,
- Mountain tourism,
- Spa tourism (air spa),
- Cultural and event tourism, presenting objects of cultural and historical importance,
- Children and youth tourism, by building sports and eco-camps,
- Hunting tourism, by arranging hunting lodges and arranging and equipping hunting grounds.

By changing the quality of accommodation facilities, as well as increasing their number, new forms of tourist content (hostels, spa resort, apartment complex), but also fields for adventure sports and golf courses will be introduced in the coming time. The need for continuous training arises, among other things, as a consequence of opening up to the outside world and international cooperation. Thus, at the end of 2010, the implementation of the project "Bike for tourism without borders" (BIKE 4 TWF) began, which was financed from the IPA - Cross border cooperation (CBC) fund between Bosnia and Herzegovina and Croatia. The project is intended for the development of tourism in the border area between the "Kozara" National Park and the "Lonjsko Polje" Nature Park. In addition to the mentioned example, the National Park "Kozara" has excellent cooperation with the National Parks "Sutjeska" and "Una". Mutual competition additionally obliges these types of tourist destinations to successfully control the quality of services, which cannot be achieved without close cooperation and coordination between destination managers and individual providers of the offer. We sincerely hope and believe, that with diligent work and commitment, the management of the National Park "Kozara" will continue to protect and improve the tourist values of the Park in accordance with the postulates of sustainable development of tourism, and thanks to such an approach, it will be possible for Kozara mountain to preserve the epithet "Regional Beauty".

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PREGLEDNI NAUČNI RAD / OVERVIEW SCIENTIFIC PAPER

THE IMPACT OF MICROTRANSACTIONS ON THE DEVELOPMENT OF COMPUTER GAME BUSINESS MODELS

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Abstract: The paper deals with the impact of microtransactions on the development of new business models in the field of computer games, caused by various monetized offerings within computer games, as well as other platforms such as gaming consoles and smartphones. The paper also examines the reasons for the emergence of business models based on microtransactions in the video game industry and the influence of the industry's transition towards a consumer-oriented model. The central hypothesis of the paper is that microtransactions have a strong impact on the development of business models in the entire video game industry, and that over time, the value of products monetized in this way increases, despite consumers' efforts to prevent this development direction of the industry. The paper conducted research on a population of consumers of video game content, mainly students of the Faculty of Organization and Informatics at the University of Zagreb, as well as respondents from other EU countries. The conclusion is that the number of microtransactions and the number of business models based on microtransactions will continue to grow in the future, but there are ways to combat those forms of microtransactions that have negative effects on consumers, especially minors, and, in some situations, even illegal.

Keywords: business model, video games, microtransactions

JET classification: M21, M15, L86

INTRODUCTION

Consumer video games first appeared in the 1970s. Over time, an increasing number of people have found relaxation, entertainment, and ways to spend their free time playing video games. In recent years, some individuals have even turned gaming into

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concrete professions or occupations. With the development of technology, the gaming industry has reached annual profits several times larger than even the music and film industries. Mobile gaming has greatly contributed to the economic importance of the gaming industry. These mobile games are often monetized by incorporating an in-game shop where consumers or players can spend their money on various items, such as virtual cosmetics or virtual currencies that provide in-game advantages or enhance the appearance of the player's character. Such in-game purchases are known as microtransactions, and this paper will focus on their impact on the development of computer game business models as well as the gaming industry as a whole. In developing the topic, the paper relies on existing literature sources as well as the author's personal experience in the gaming industry. Research activities were carried out through two surveys. A survey, focused on the domestic Croatian market, was completed by students from the Faculty of Organization and Informatics, their friends, and members of their families. The second survey, conducted in English, was aimed at the author's friends and acquaintances who were familiar with certain games through gameplay. The heterogeneity of the respondents contributes to a better understanding of their survey responses and consumer opinions in general. Given that players in more developed European countries generally have greater purchasing power than students and average players in Croatia, it is assumed that they likely have different perspectives on microtransactions.

LITERATURE OVERVIEW

In the past, buying a video game involved only a few steps. The buyer would go to a store, choose the game, and purchase it, gaining access to everything the game had to offer. With the advent of the Internet, the same buyer no longer had to go out and buy the game; instead, they could buy and "download" it through an online store. Alongside the obvious benefits of this method of purchasing games, it also marked the beginning of in-game purchases, or microtransactions. Microtransactions are items that consumers can buy within a game, such as cosmetics, entertainment, and premium items, as well as virtual currencies, using real money (Vann, 2019). Gabe Duverge from Touro University identifies four types of microtransactions (Duverge, 2016):

- Virtual currencies: As the name suggests, this is a currency that only holds value within the corresponding game and can be used to purchase various in-game items,
- Purchase of random chance: Now more commonly known as "loot box" microtransactions, this offers a "box" filled with items, each with its own chance of being won by the player. These items can contribute to the player's strength in the game or provide special cosmetic enhancements,
- Virtual items: Free games often offer players in-game items that can often be better than other freely attainable items, providing an unfair advantage to the player,
- Expiration: Many games include something that expires or is quickly depleted by the player, such as "lives" for gameplay. After the player uses them up, they may have to wait for a certain period of time or pay a small sum of money to immediately refresh their "lives" and continue playing.

Each type of microtransaction is designed to influence certain aspects of human psychology, which game developers extensively exploit (Duverge, 2016).

Skipping ahead from the distant history of video games, the "golden period" begins in 2001 when Microsoft, already a huge corporation, shook the industry by launching their new gaming console, Xbox. Just one year later, Microsoft introduced the Xbox Live service, which required a subscription and enabled online gaming. Although companies like Sony offered similar services without a subscription, Microsoft provided better servers and other capabilities.

In 2004, the already well-known company Blizzard, which had gained player loyalty with games like StarCraft, released a game that forever changed the entire industry. That game was World of Warcraft, which will be analyzed in this paper both due to the emergence of microtransactions and the decline in its quality. Most similar games at the time only required one transaction, which was the purchase of the game itself. After purchasing, players could play as much as they wanted and had access to everything that the version of the game offered. Some games also offered downloadable content (DLC) that could be purchased for a certain amount of money. Buying DLC is considered a microtransaction, but it often offers a large amount of new game content for a reasonable price, thus not negatively affecting the development of game business models. Besides operating on such a business model, games at the time progressed at an unprecedented pace (at least in terms of graphics and technological innovations), and developers were highly motivated to produce high-quality products in order to attract as many consumers as possible. This motivation was instrumental in the emergence of games like Halo 2, World of Warcraft, the Call of Duty series, and other megahits.

Microtransactions, in the full sense of the word, appeared as early as 2005 when Microsoft offered cosmetic items for the game Kameo: Elements of Power for $2.5 , new maps for Perfect Dark Zero, and new cars for Project Gotham Racing 3. None of these microtransactions were a big success, but other developers and publishers quickly found a way to monetize them (Williams, 2017). Bethesda, the creator of the extremely popular The Elder Scrolls series of video games, followed in Microsoft's footsteps and, in April 2006, added the Horse Armour Pack for $2-2.5, which changed the appearance of the player's horse in the game. The players were shocked by the price and were very vocal in their anger toward Bethesda. Despite that, Bethesda continued to offer these types of microtransactions and earned a significant amount of money (Williams, 2017). Interestingly, players were shocked by the price of two dollars at the time. Today's microtransactions often reach prices of hundreds or even several hundred euros, sometimes in games that consumers initially pay the full price of 60 euros (now that amount becomes 70 euros or more). Over time, the number of video games that incorporate microtransactions has increased rapidly. It is now very difficult to find a video game that does not include them, unless they are larger content expansions for the base game.

Microtransactions in mobile gaming

So far, the business model of games in the past and the emergence of microtransactions and their impact have been explained. However, the most significant reason for their spread throughout the industry was undoubtedly the widespread use of smartphones.

After the emergence and rapid development of the smartphone industry, it didn't take long for games to start appearing on them. Finally, almost anyone could produce

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video games without major costs. With the advent of smartphones, almost anyone could sell games on the App Store. Before that, video games were expensive, with most of them costing over $30. In contrast, mobile games offered a wide selection of games in three forms (Prateek, 2017):

- Completely free (including advertisements),
- Freemium (containing microtransactions),
- Premium (simply paying for the game).

Today, mobile games often encompass all three forms simultaneously: the game is installed for free and contains advertisements; it includes microtransactions (purchasing virtual currencies and similar items); if a certain amount is paid, advertisements are no longer displayed, but microtransactions, of course, remain an option. The rapid advancement of mobile devices has proven to be an excellent foundation for the success of the mobile gaming industry (Statista Research Department, 2022). The fact that anyone can now have dozens of games in their pocket and access them whenever they want has led to the inevitable development of the industry, which has grown at an incredible pace over the past decade. The following image shows the growth in revenue of the mobile gaming industry from 2012 to 2021. In 2012, revenue amounted to only $2.7 billion, and in 2021, it reached an amount exceeding $106.2 billion.

Figure 1. Development of the mobile video game industry (in billions of U.S. dollars)
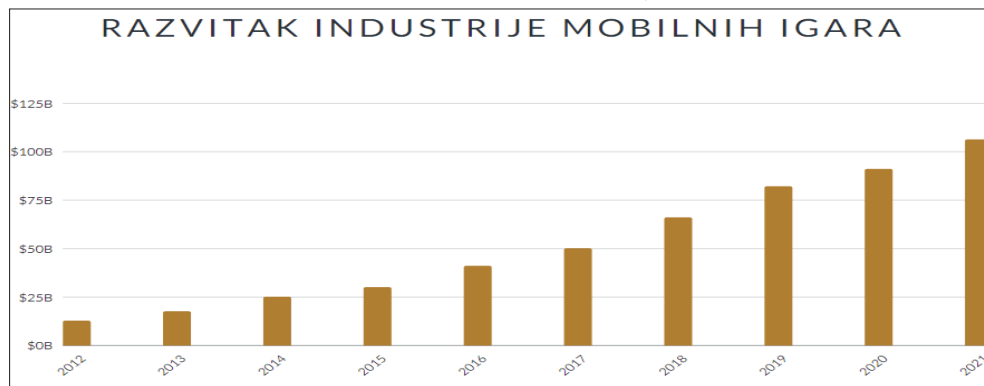
Source: (Statista Research Department, 2022)

Further technological advancements and increasing accessibility of mobile devices will undoubtedly contribute even more to the revenue of this industry. The mobile gaming industry accounted for more than half of the total gaming industry revenue in 2018 (Statista Research Department, 2022), so it is very clear that it will have a significant impact on computer and console games. Right from the beginning of the existence of mobile games, their developers realized how to exploit human psychology and generate substantial revenue through microtransactions. Consumers install a free game, thinking it will not cost them anything. The problem arises in the fact that, as mentioned earlier, games often include "expiration," a mechanism that limits how long a player can play in a day or how many actions they can take simultaneously. Then, when that time expires, the game offers the player the option to replenish their "lives" or expedite game progression by making a real-money purchase. This monetization

method is just one of many, and another involves inserting disruptive advertisements into the game. A player can play for a while and at certain intervals, a large screen appears advertising a product or another mobile game. The mobile game developer earns revenue simply through the display of advertisements, and players are motivated to pay for the "premium" version of the game to eliminate the display of ads that interrupt their gameplay. The most controversial form of microtransactions in mobile games is the offer of "loot boxes", virtual boxes that contain virtual items with random chances for the player to win them. This form of microtransaction is very similar to gambling, because the consumer pays for a chance to win something without knowing exactly what it will be. This form of microtransaction is controversial for several reasons. Firstly, a large number of mobile game players are minors for whom gambling is illegal. Furthermore, this form of gambling is completely unregulated by laws. The following sections will address the controversies surrounding microtransactions, especially this particular form, which is widely considered a form of gambling.

Negative consequences caused by microtransactions

This chapter will outline some of the numerous negative consequences caused by microtransactions, thus providing context for the negative impact of microtransactions on the development of the computer gaming business model. As already mentioned, consumers are generally dissatisfied with the direction in which game publishers choose to steer their business models. In addition, there is a form of microtransaction that borders on gambling, and there have even been lawsuits arising from video games that incorporate this form (Makuch, 2018b). In 2017, the publishing company Electronic Arts released the game Star Wars: Battlefront 2. Approximately a month before the game's official release, Electronic Arts revealed that the game would feature a system of purchasing "loot boxes." These virtual boxes were supposed to contain random items that would provide players with advantages, such as faster movement within the game. On the other hand, each box had the chance of granting the player a "useless" cosmetic item (Park, 2017). The fact that the game, upon release, cost between 60 and 80 euros and included a microtransaction system alone created numerous controversies. When players realised how the system was supposed to work, a significant revolt ensued. The way the system was intended to function meant that players who spent staggering amounts of money would have an unfair advantage over players who would have to play dozens or hundreds of hours to obtain the same or similar items. Furthermore, since the player could not know exactly what they were even spending money on, only that their chances of a favourable outcome increased the more they spent, weekly public protests against the video game emerged (Park, 2017). This event also prompted an investigation by Belgian authorities into whether the video game contained gambling or not. Kyle James (James, 2018), in an article for The Goldwater, states that the following year Belgium declared this form of microtransaction in video games as a form of gambling and that Koen Geens, the Belgian Minister of Justice, requested the removal of such microtransactions from games. Belgian gaming laws have also prompted other countries to consider gambling in video games, which are often targeted at children and minors (James, 2018). Another lawsuit against Electronic Arts was initiated in the state of California in the United States due to the misuse of dynamic difficulty adjustment technology to motivate players to spend money on microtransactions. Dynamic difficul-

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ty adjustment technology uses artificial intelligence to adapt to a player's abilities and make the game harder or easier. This technology has been around for a while, but Electronic Arts faced a lawsuit for using it in sports games such as Madden NFL, NHL, and FIFA in a way that made the game more challenging, thus motivating players to spend money on numerous microtransactions to strengthen their position within the game (Frish, 2020). Despite frequent lawsuits and controversies, Electronic Arts, as one of the largest video game publishing companies, continues to incorporate microtransactions into their games, setting an example for other publishers and negatively impacting the further development of the computer gaming business model.

The Contribution of Microtransactions to the revenue of individual video game developers

The previously mentioned game, World of Warcraft, began losing active players and subscription revenue as early as 2011. However, Activision-Blizzard reported increasing revenue from the game in the following years. The reason for this, of course, is microtransactions and additional monetization of the game. As mentioned before, World of Warcraft requires consumers to pay 40 euros or more upfront before they can even start playing the game. Additionally, each player pays a monthly subscription fee of around 13 euros (depending on the country, it can be higher or lower).

As stated by the Statista Research Department, in 2016, Activision Blizzard officially released the last subscriber count data in 2015 when the game had 5.5 million global subscribers. Since the game was released in 2004, having 1.5 million subscribers in 2005 was a significant success for the company. By the fourth quarter of 2006, that number reached nearly 6 million subscribers and just a year later, it reached 10 million subscribers. The peak of World of Warcraft's popularity was in the second half of 2010 when the game, according to estimates, had 12 million subscribers.

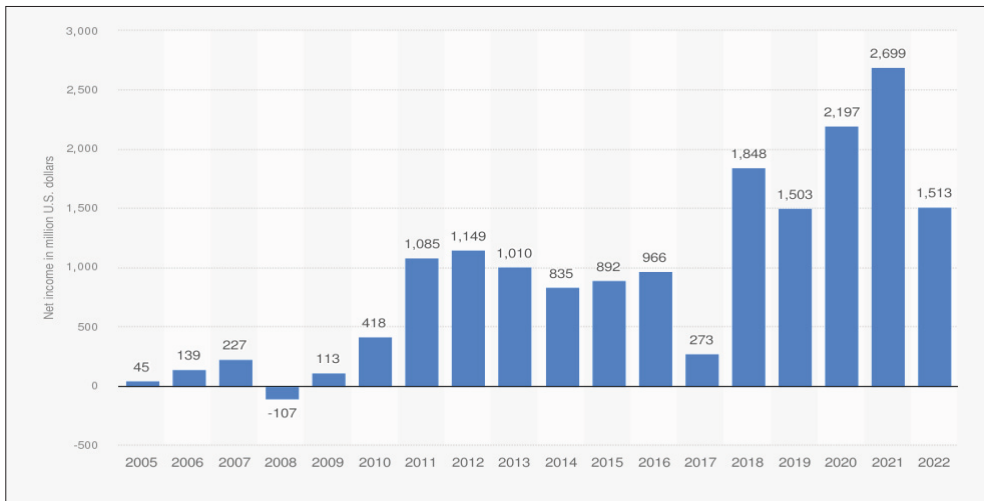**Figure 2.** World of Warcraft: Number of subscribers over the years (in milions)
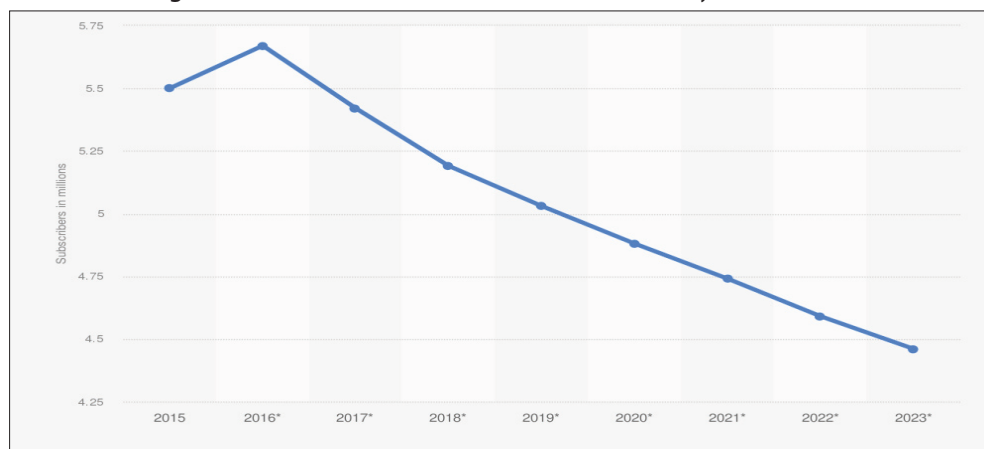
Source: (Statista Research Department, 2016)

After such success, the quality of the game started to decline, and industry trends shifted towards microtransactions, which led to an increased desire and intention by

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Activision Blizzard to capitalize on the new business model development. In 2011, the number of subscribers began to decline and in the first quarter of 2014 dropped to levels seen in 2006 (Statista Research Department, 2016). The following image illustrates the growth and decline of the subscriber count in millions over the years.

The exact number of subscribers is unknown, but it is generally believed that the current number is around 4 million, which is attributed to several factors. Firstly, players are shifting to new genres of video games, such as Battle Royale. Additionally, the quality has been continuously declining due to poor time and resource management, likely driven by the game's high revenue despite the decrease in subscriber count. The high revenue is undoubtedly a result of increasing levels of monetization and the number of microtransactions in the game, shifting the focus from producing a good product to encouraging players to play longer and spend more on microtransactions. Furthermore, several lawsuits arising from suspicions of subscriber count manipulation and cases of sexual harassment within the company have become the latest reasons for the exodus of World of Warcraft players. The following graph illustrates Activision Blizzard's revenue from 2005 to 2022 in millions of dollars.

Figure 3. Activision Blizzard annual net income (in milion U.S. dollars)

Considering the trend in subscriber count shown in Figure 2 and the revenue trend shown in Figure 3 should be surprising. While World of Warcraft was experiencing a decline in subscribers, Activision Blizzard was reporting its highest revenue to date. Although these figures include revenue generated from other games such as the Call of Duty franchise, Activision Blizzard always emphasizes that World of Warcraft is their most lucrative property. Therefore, it can be concluded that World of Warcraft is more profitable today, despite having a significantly smaller subscriber base in the past. Other games considered in this graph also feature microtransactions, and one of their biggest properties, Call of Duty: Warzone is entirely based on a microtransaction-based business model. Regardless of how we look at Activision Blizzard's operations, it is evident that microtransactions play a significant role in their financial

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success. This is supported by an official report from 2018, in which Activision Blizzard stated that microtransaction revenue in 2017 amounted to $4 billion, half of which came from mobile games (Makuch, 2018a).

METHODOLOGY

In this research paper, secondary sources were used, including articles, publications, journals, and internet sources. The leading research method used was a survey, employing questionnaires as the primary research instrument. The targeted group of respondents received survey questionnaires using Discord platform, Facebook and WhatsApp. The responses were collected, processed, and visualized using the Google Forms tool and Excel. Based on responses, data, attitudes, and opinions about the subject of the research were collected.

To obtain better survey results, the authors decided to create two separate questionnaires and thus increase the sample size of the respondents. One questionnaire was conducted in the Croatian language, while the other was in English. The Croatian-language survey was completed by students from the Faculty of Organization and Informatics at the University of Zagreb, as well as their friends and family members. The English survey was filled out by friends and acquaintances of the authors who were familiar with playing some of the games mentioned in this study, such as World of Warcraft. The survey was conducted during June 2021.

EMPIRICAL EVIDENCE

The English-language survey was distributed to video game players outside of Croatia through the Discord platform. Thirteen respondents completed the survey. The survey aimed at domestic respondents was distributed on Facebook and WhatsApp, and it was completed by 30 respondents. Since this survey was completed by individuals within a narrow age range and a monthly income bracket, it should be noted that it also had an impact on the results.
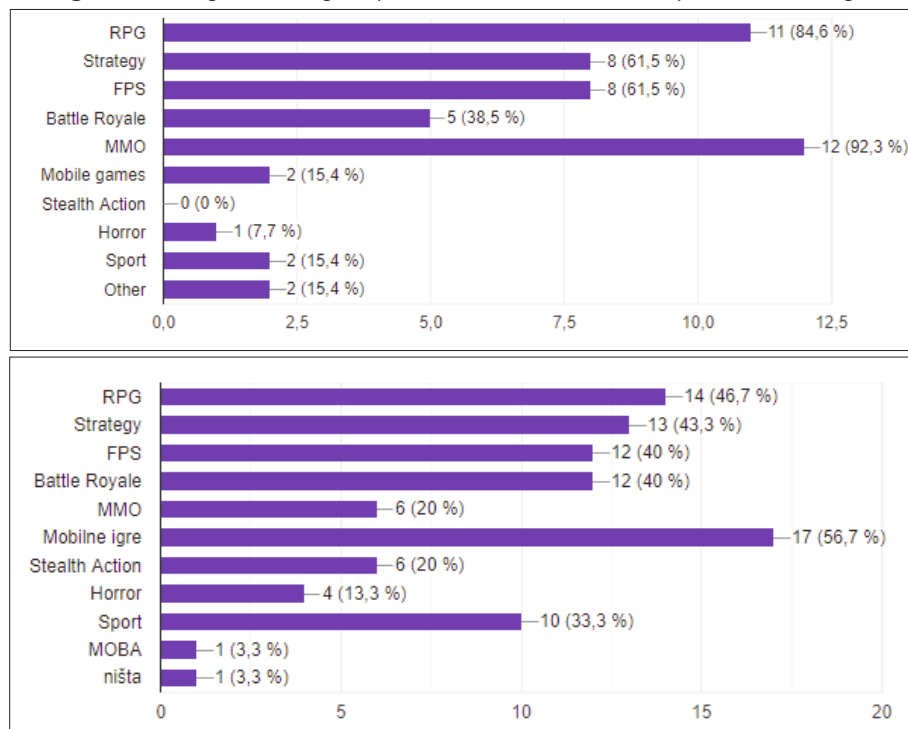
RESULTS AND DISCUSION

Among foreign respondents, 12 identified as male and 1 as female. This result is expected since the ratio of male to female players is significantly skewed towards males, although it is lower than 12:1 in reality. In contrast to foreign respondents, a higher percentage of female participants (33.3%) completed the survey in the Croatian language compared to male participants (66.7%).

Regarding the age question, among the foreign respondents, 1 participant indicated being a minor, 5 were between 18 and 25 years old, 6 were between 26 and 35, 1 was between 35 and 45 years old, and 1 was older than 45 years old. This is an expected result, as global research shows that most video game players fall within the age range of 18 to 35. Among domestic respondents, 90% of them were in the age group of 18 to 25, mainly representing the student population, while 10% were between 25 and 35 years old.

Figure 4. Age Structure of Respondents: Foreign respondents on the left, Croatian respondents on the right
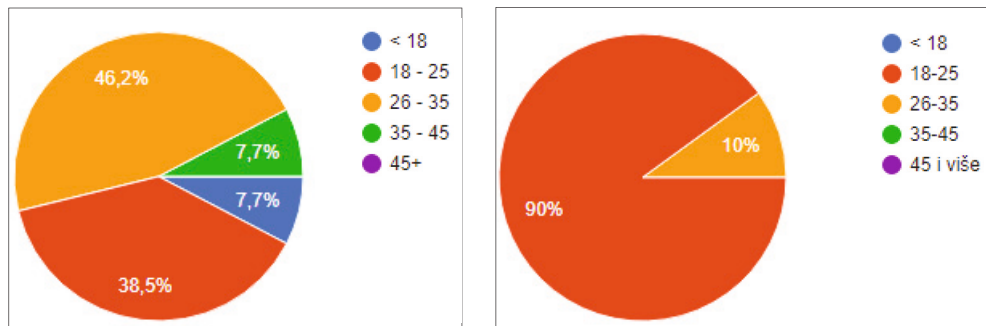
Source: Survey responses from Google Forms

In response to the question about game genres, the majority of foreign respondents answered that they play RPG (role-playing games), accounting for 84.6%. However, the majority of Croatian respondents stated that they play mobile games. The second most common response for both groups of respondents was playing the Strategy and FPS (First-person shooter) genres, and the third most common response was Battle Royale, which confirms that these genres are among the main contributors to the inclusion of microtransactions and undoubtedly belong to the most popular genres today.

Figure 5. Game genres: Foreign respondents on the left, Croatian respondents on the right

Source: Survey responses from Google Forms

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In response to the question about the respondents' familiarity with microtransactions, 12 foreign respondents answered that they know what microtransactions are, while only 1 respondent had a vague understanding. This result is expected, considering that these respondents frequently play video games and likely have encountered microtransactions frequently. On the contrary, a higher percentage of the average Croatian players in the survey showed a lack of knowledge or only a vague understanding of what microtransactions are actually, despite encountering them in various games.

Figure 6. Familiarity of players with microtransactions: Foreign respondents on the left, Croatian respondents on the right
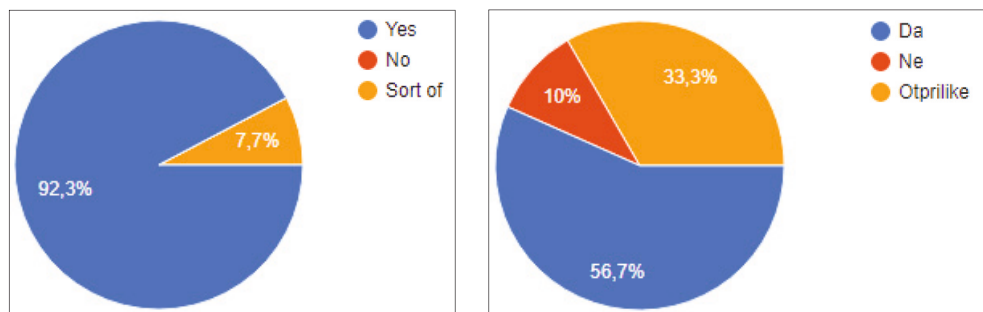
Source: Survey responses from Google Forms

When asked if microtransactions in free games bother them, the majority of foreign respondents responded that microtransactions in free games do not bother them at all, two respondents said that they bother them slightly, three respondents said that they bother them moderately, and one respondent said that they bother them a lot. As for Croatian respondents, almost 77% of them stated that microtransactions in free games do not bother them at all or bother them slightly or moderately, while only 23% of respondents answered that they bother them quite a bit or a lot. The result is not surprising, as optional microtransactions (as long as they do not provide unfair advantages) within free games are generally accepted because they allow players to play the game for free.

Figure 7. Resistance to microtransactions in free games: Foreign respondents on the left, Croatian respondents on the right
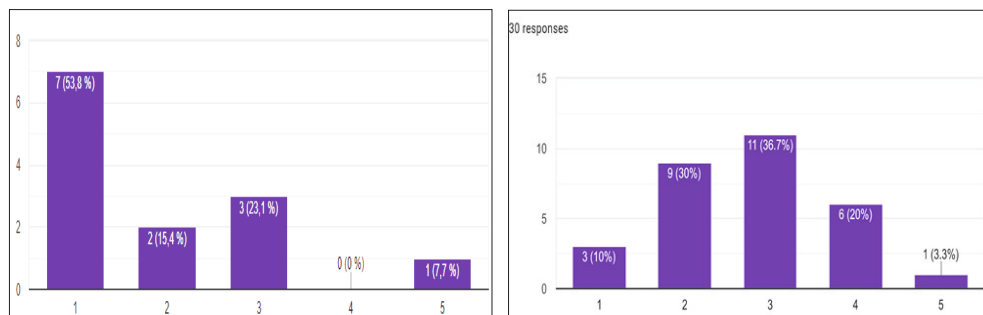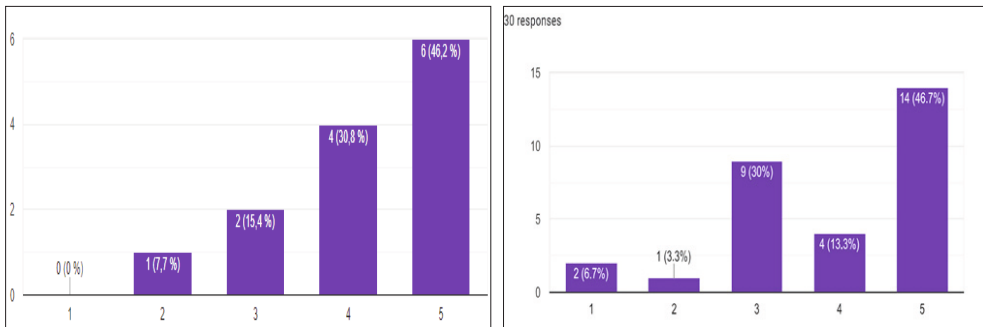

Source: Survey responses from Google Forms

However, in the next question regarding the resistance to microtransactions in games that are sold at full price (60 euros or more), among foreign respondents,

one person answered that microtransactions in full-priced video games bother them a little, two respondents said they bother them moderately, four respondents said they bother them a lot, and six respondents said they bother them extremely. The response structure is similar among the Croatian respondents. Only three of them answered that microtransactions do not bother them or bother them a little, while almost 90% of respondents stated that they bother them moderately, a lot, or very much. Once again, it can be observed that players are more bothered by microtransactions when the game has an initial purchase price.
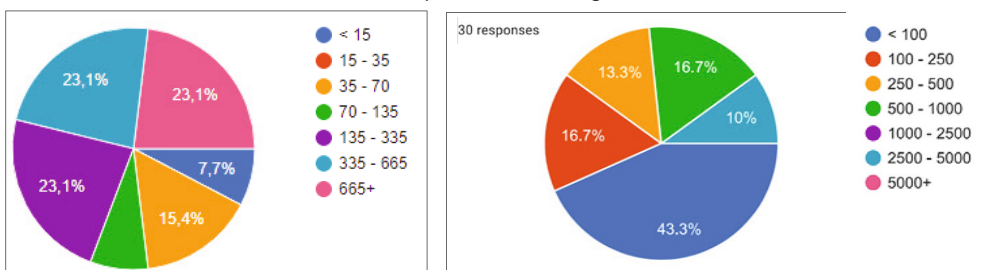
Figure 8. Resistance to microtransactions in full-priced games: foreign respondents on the left, Croatian respondents on the right

Source: Survey responses from Google Forms

As for the amount of money that respondents have spent on microtransactions so far, among foreign respondents, only one person answered that they have spent less than 15 euros, two respondents spent between 35 and 70 euros, one respondent spent between 70 and 135 euros, three respondents spent between 135 and 335 euros, three respondents spent between 335 and 665 euros, and three respondents spent over 665 euros. Almost 70 percent of respondents have spent at least 135 euros on microtransactions. This amount is greater than the full price of two games, which is evidence that microtransactions actually generate significant revenue for video game publishers. On the other hand, most Croatian respondents (73%) have spent less than 500 HRK (around 66 euros), while 16.7% of them have spent up to 1000 HRK (132 euros), and only 10% of them have spent up to 5000 HRK (665 euros).

Figure 9. Current spending during gameplay on microtransactions: foreign respondents on the left (EUR), Croatian respondents on the right (HRK)

Source: Survey responses from Google Forms

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In response to the question of whether microtransactions that provide an unfair advantage in video games can discourage players from playing, all foreign respondents answered affirmatively, while 90% of Croatian respondents also responded positively, with only 10% stating that it would not discourage them from playing. This response is somewhat expected, as mentioned earlier in the study, such practices have sparked public outcry and even player lawsuits motivated by the inclusion of these types of microtransactions in games.

Lastly, it is worth noting the question regarding the future trend of microtransactions in the gaming industry, whether they will increase, decrease, or remain at the same level. All foreign respondents agreed that they will increase, while among Croatian respondents, 80% believed that they would increase and 20% believed that they would remain at the same level. Such a response is somewhat expected, considering the significance of microtransactions for present-day publishing companies.

Regarding additional comments, one respondent expressed the hope that the increased revenue generated by microtransactions would contribute to better quality in future games. However, the author's opinion is that the opposite will happen, and some games mentioned in this study serve as evidence. Furthermore, respondents agree that microtransactions are acceptable as a business model as long as they are not the core of the video game and do not offer an unfair advantage to those who purchase them. As for additional comments regarding microtransactions, respondents seem to have no issue with the presence of skins and similar cosmetic microtransactions, but consider other forms of microtransactions as a disgrace to the industry. A respondent specifically called out Electronic Arts, stating that they have ruined their sports games with microtransactions.

CONCLUSION

The aim of this research was primarily to create an overview of the gaming industry in the past in order to provide a clear context in which the emergence of microtransactions began to have a significant impact on the development of the business models in computer games industry. Microtransactions have always been an inevitable part of the gaming industry and their occurrence has only depended on time. As the production costs of today's video games increase, publishers incorporate microtransactions to earn revenue from video games for months and even years, after their release. Regarding the future of the industry, it is expected that the number of microtransactions will continue to rise, and the number of video games based on the microtransaction business model will reach higher figures. However, research has also shown that there is resistance from players, as well as ways to at least fight against those microtransactions that are simply negative or even illegal. According to the research, it is evident that the respondents are mostly familiar with microtransactions and they are particularly bothered by their presence in games that are initially paid for, especially if they provide unfair advantages to players. Similarly to the respondents, the authors believe that the number of microtransactions will continue to increase or remain at the current level. However, in order to preserve the positive direction of the gaming industry and other related industries, it would be better if the implementation of such business models with microtransactions was reduced in the future if not maintained at the same level.

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PREGLEDNI NAUČNI RAD / OVERVIEW SCIENTIFIC PAPER

CORRUPTION IN LAW ENFORCEMENT AGENCIES IN BOSNIA AND HERZEGOVINA, THE CAUSES AND CONSEQUENCES

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Abstract: *Corruption is a devastating phenomenon that negatively affects the work of democratic institutions at all levels, questions the rule of law, jeopardizes economic growth and prosperity, and deepens inequality and poverty. Corruption is so wide-spread that even the sector that should be the bearer of activities in the fight against corruption - the police, have not remained immune, which is also the case in Bosnia and Herzegovina. Given the complexity of the corruption, the aims of the research are multifaceted: to determine the causes, consequences and the perception of active police officers employed in SIPA, Republika Srpska MoI, and the Sarajevo Canton MoI of corruption committed by fellow police officers, and what type of corruption is involved in most cases; to discover the factors that prevent BiH police officers from reporting acts of corruption to competent institutions and to determine the number of reported and prosecuted criminal acts of corruption committed by police officers in the mentioned law enforcement agencies in the last five years. The method used to achieve the stated goals is both qualitative and quantitative. Qualitative method includes desk, archival, and content analysis of relevant scholarly and expert sources as well as the analysis of the reports by the Prosecutor's Offices of Bosnia and Herzegovina, Republika Srpska and Sarajevo Canton with regards to the number of reported and prosecuted cases of corruption committed by police officers. Primary data was collected through semi-structured questionnaire, composed of relevant questions related to the presence of corruption in law enforcement agencies. The 300 respondents include police officers in all ranks employed in the mentioned law enforcement agencies. The conducted research has proven the presence of corruption, its poor reporting and prosecution, established its causes and consequences and proposed the methods of eradication.*

Keywords: *Bosnia and Herzegovina, corruption, law enforcement agencies, police officers, prosecution*

JET classification: *D73*

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INTRODUCTION

"Every Day in BiH Must Be Anti-Corruption Day"
Michael Murphy, US Ambassador in BiH
Sarajevo, 01 December 2022

Corruption is the cancer of every modern society, which is spreading unstoppably, destroying the healthy fabric of society and the state. It is a devastating phenomenon that negatively affects the work of democratic institutions at all levels, questioning the rule of law, but also the overall functioning of the state and its economic growth and prosperity, and deepens inequality and poverty. The word corruption comes from the Latin word "corruptus" which means bribed, spoiled, contaminated. Although corruption has received special attention in recent decades, the phenomenon of corruption is as old as human societies. The first cases of corruption in society, more specifically in the judiciary, were recorded in 3000 BC during the first Egyptian dynasty. Corruption also existed in ancient India, China, Greece, and the Roman Empire (Graycer and Prenzler, 2013).

Globalization processes, which gained a special momentum at the end of the last century, influenced the growth of economies, simultaneously increasing the potential for corruption. Although it is very difficult to accurately assess its scope, according to the World Bank data "international bribery exceeds US$1.5 trillion annually, or 2% of global GDP and ten times more than total global aid funds" (World Bank, 2020). 2022 Transparency International report states that "nearly one in four people paid a bribe when they accessed a public service". Based on the same report, 57% of people around the world believe that their government is not making enough efforts to fight corruption, and that the police and elected representatives are the most corrupt segments of society with 36% (TI Global Corruption Barometer, 2022).

In some countries, corruption is so prevalent that it has become a way of life. It is not surprising given the fact that strong and determined state institutions are needed to bring corruption under control, which many countries lack. Namely, according to the Freedom House data, 50 years ago only 43 countries were considered free democracies, 38 countries were considered partially free, while 69 countries could not be classified as free. Five years ago, that number increased to 87 free democracies, 59 partially free, while 49 countries entered the latter category. In terms of percentages, this would mean that 50 years ago 35% of the world's population lived in free democratic countries, while in 45 years this percentage has slightly increased to 39% (Kesselman et al., 2019).

Throughout history, many authors and scholars have studied the concept of corruption, its causes, forms and methods of eradication. What exactly is corruption? Corruption, in the broadest sense, means abuse of a trusted position for personal gain, as well as dishonourable and immoral behaviour. Elected government officials are most often involved in corrupt activities, however, the private sector is not immune to corruption either. Given the fact that corruption and human society have developed and evolved in parallel, today we have numerous forms of corruption: bribery, fraud, favouritism, embezzlement, extortion, manipulating elections, under-the-table transactions. Transparency International defines corruption as „the abuse of entrusted power for private gain" (Transparency International, 2023). Corruption refers to all types of

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abuse of official position carried out for self-interest. In the practical sense, corruption is most often identified with the acceptance of a bribe by an official, who demands or receives a gift or some other benefit or who accepts the promise of a gift or other benefit in order to perform or fail to perform an official act within the scope of his authority (Brooks et al., 2013). It can be political or economic in nature. In the political sphere, public office is used for the unjustified acquisition of political power, while in the economic sphere it is about the acquisition of material profit.

Corruption is so widespread that even the sector that should be the bearer of activities in the fight against corruption - the police, that is, law enforcement agencies (together with the judiciary), have not remained immune to corruption. This is especially the case in Bosnia and Herzegovina, both due to weak and poorly functioning government institutions, and the strong influence of politics on the work of law enforcement agencies. One of the definitions of police corruption states that "police corruption means acts involving the misuse of authority by a police officer in a manner designed to produce personal gain for himself or for others" (Goldsten, 1975, p. 43). Goldstein believes that any bribe taken by a police officer is corruption, but not all police corruption is a bribe. In essence, the criminal offense implies asking for, receiving, taking something that should not be taken, with the aim of influencing the official actions taken by the same. All definitions of corruption basically have something in common, and that is the acquisition of benefits achieved through various abuses prohibited. Police corruption does not only refer to taking bribes, it can also refer to "turning a blind eye" to criminal acts committed by management, colleagues and politicians, hoping to improve his position at work and bring him a promotion by doing so. Corruption is very often connected with other types of criminal offences, especially organized crime, which inevitably results in the absence of the rule of law in the country.

The degree of corruption in the BiH law enforcement agencies is increasing every day, and the reasons for this are numerous: low salaries, lack of integrity of police officers, dysfunctional institutions, corrupt management, influence of politics on their work, etc. The latest research conducted by the BiH Transparency International shows that corruption in Bosnian and Herzegovina is deeply incorporated in each segment of the society and that the citizens of Bosnia and Herzegovina are losing confidence in the state and its institutions. According to the Corruption Perception Index (CPI-Corruption Perception Index, 2022) for countries in Europe, BiH is in third place, with a score of 35, and ranks 110 out of 180 countries. In addition, Bosnia and Herzegovina has the worst rating compared to the countries in the region and has not made any progress in the fight against corruption, primarily due to the obstruction of necessary reforms (Transparency International , 2022).

Finally, it should be emphasized that based on data from Transparency International's Advocacy and Legal Advice Centres, it seems that police corruption reached its peak during the COVID-19 restrictive measures, including the lockdown. "In many countries, police officers and soldiers are demanding bribes from people who pass roadblocks, stay out past curfew, and want to leave quarantine centres. They are even demanding bribes from essential workers, like doctors and nurses, who are trying to get to or home from work" (Transparency International, 2022).

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METHODOLOGY AND HYPOTHESES

Corruption is a negative phenomenon that affects political and economic development of every country, leaving behind unfathomable consequences to safety, security, and the well-being of the entire population. Given that the number of criminal acts of corruption committed by police officers in all the BiH law enforcement agencies has recently increased, the aim of this research is to determine the perception of active police officers, employed in the State Investigation and Protection Agency, Ministry of the Interior of the Republic Srpska, and the Ministry of Interior of Sarajevo Canton in relation to this trend, i.e., in relation to corruption committed by fellow police officers, and what type of corruption is involved in most cases. Bearing in mind the fact that it is not only the police that is under the strong influence of politics in Bosnia and Herzegovina, but also the judiciary, which at the same time shows serious signs of biased and unprofessional behaviour, the research aims, in addition to the above, to determine how much members of these law enforcement agencies have confidence in BiH judiciary and whether they dare to report acts of corruption to competent judicial agencies. Consequently, the research endeavours to determine the number of reported and prosecuted criminal acts of corruption committed by police officers in the law enforcement agencies in Bosnia and Herzegovina in the last five years.

Finally, through this research, the goal is to determine the shortcomings of the political, judicial and police system, which influence the increase of corruption in BiH law enforcement agencies such as 1) small monthly income, 2) the absence of the principle of integrity and responsibility, 3) corrupt management, and 4) the lack of efficiency of institutions in processing corruption cases. On the other hand, the research aims at discovering the factors that prevent BiH police officers from reporting acts of corruption to competent institutions, such as: 1) retaliation by the employer in the form of professional degradation, disciplinary measures, mobbing, dismissal; 2) lack of protected reporting channels, 3) absence of whistleblowing protection, 4) lack of institutional framework, and 5) distrust in state institutions.

The method used to achieve the stated goals is both qualitative and quantitative. Qualitative method, by means of which the secondary data was collected, includes desk, archival, and content analysis of relevant scholarly and expert sources. In addition, data from the reports by the Prosecutor's Office of Bosnia and Herzegovina, the Special Prosecutor's Office of Republika Srpska and the Cantonal Prosecutor's Office of Canton Sarajevo have also been used as a secondary source of data concerning the number of reported and prosecuted cases of crimes of corruption committed by police officers in active duty in BiH law enforcement agencies. On the other hand, primary data was collected through semi-structured questionnaire, composed of relevant questions related to the presence of corruption in law enforcement agencies committed by police officers. The respondents include police officers in all ranks employed in the State Investigation and Protection Agency, Ministry of the Interior of the Republic Srpska, as well as Ministry of Interior of Sarajevo Canton. Finally, analysis of the collected data was performed, against the backdrop of the aim of the research and the hypothesis.

The following hypotheses will be tested within the framework of the research:

H1- Corruption as a negative phenomenon is also present in law enforcement agencies in Bosnia and Herzegovina.

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H2- Crimes of corruption committed by police officers are rarely or almost never reported to the competent authorities.

H3- Reported criminal acts of corruption committed by police officers are processed inefficiently and with unfavourable outcome.

H4- Corruption committed by police officers employed in law enforcement agencies negatively affects the safety of society as a whole and citizens' trust in these institutions.

LITERATURE REVIEW

The available scientific literature on the topic of corruption is numerous and extensive, while the topic of corruption in law enforcement agencies is present in a somewhat smaller volume. The data resulting from research into the presence of corruption in law enforcement agencies, especially in Bosnia and Herzegovina, are particularly scarce. The analysis of the existing academic sources combined with the analysis of primary data that is collected through the survey from the competent law enforcement agencies and prosecutor offices in Bosnia and Herzegovina, will provide useful quantitative as well as qualitative data. The literature review explores the concept of police corruption, its causes, consequences, and potential solutions, with special reference to the negative implications that corruption has for the whole society.

What is police corruption?

Police corruption has been a persistent issue in law enforcement agencies around the world. In other words, corruption in the police exists as long as the police itself. There are very few police agencies today that have remained completely immune to this extremely harmful social phenomenon. Although the concept of corruption itself is quite well known, the question arises as to what constitutes corruption in the police. There are numerous opinions and disagreements on this issue. In general, police corruption refers to any unethical or illegal behaviour by police officers or law enforcement officials that violates their sworn duty to serve and protect the community. In this context, Derenčinovic points out that the concept of corruption depends on the starting point of the person who tries to define it: "corruption is a process in which at least two people participate, through an illegal exchange in order to achieve their own income, and they act to the detriment of the public interest, violating moral and the legal norm, the foundations of democratic development, and the rule of law" (2001, p. 12).

Goldstein in his classical work "Police Corruption: A perspective on its nature and control" defines police corruption as the "abuse of authority by police officers in order to obtain personal benefits for themselves or others" (1975, p. 19). According to him, "corruption is endemic to policing" given the fact that "the very nature of the police work is bound to subject officers to tempting offers" (1975, p. 3). Roebuck and Barker define corruption as "deviant, dishonest, improper, unethical or criminal behaviour by a police officer" (1974, p. 5). Stoddard, further on, referred to the police corruption as 'blue coat crime' for it necessarily involves abuse of position: "what is corrupted is the 'special trust' invested in the occupation" (1968, p. 134). Against the background of this reflection, Punch and Kleining offer a more extended and comprehensive definition of the police corruption: "when an official receives or is promised significant advantage or reward (personal, group or organisational) for doing some-

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thing that he is under a duty to do anyway, that he is under a duty not to do, for exercising a legitimate discretion for improper reasons, and for employing illegal means to achieve approved goals" (1996, p. 166).

Sherman notes that "most police departments have members who commit corrupt acts from time to time. Only some police departments, however, become corrupt police departments" (1978, p. 32). In this regard, if it is not brought under control, corruption in the police threatens to take on a systemic character, spreading throughout the department, infecting every element of the organization. In this situation, corruption ultimately overshadows all other problems, exerting a very negative influence on the professional and efficient work of the police, which becomes exclusively occupied with persuading personal gain. In this context, Wilson in his book "The Police and their Problems - A Theory" emphasizes that the public perceives police officers as an organization and not a profession. Namely, the corrupt, unprofessional and unethical behaviour of a police officer can threaten the integrity of the entire police agency, unlike, for example, a doctor or a professor, where the corrupt behaviour of an individual rarely discredits the entire educational or health institution (1963). According to Lawrence Sherman, an additional problem is the development of a special dimension of dependence within which the police officer performs the so-called "psychological adjustment by which they rationalize their behaviour" (1974, p. 213).

Derenčinović divides corruption into individual, indirect, systematic and competitive. He also explains the concepts of active and passive briber, which he calls corruptor, as well as the causes of corruption, which differ in terms of intensity and consequences. He considers systemic corruption to be the most intriguing, which, based on the previous research conducted by Transparency International, is present in almost all administrative and state bodies, and which is deeply rooted in all pores of society. He believes that it represents a 'mirror' of a state's system that affects the economy of the country and favours the development of economic crime, but also has a negative impact on government administration. Derenčinović presents corruption with the following equation:

$$K=M+D-O$$
(Corruption = monopoly + discretion – responsibility)

Bošković in his book "Organized crime and corruption" went a step further and observed corruption in a wider context together with organized crime. Bošković is one of the authors who directly connects corruption, organized crime and politics, that is, the state. The mentioned author believes that the main goal of organized crime is acquiring illegal profit and property benefits, where the connection with the organized criminal groups, including the connection with politics and political parties, is especially important. Organized criminal groups in this way have a certain degree of protection from detection and criminal prosecution, which further facilitates their activities. Using corruption, they control state bodies or individual officials, including judges, prosecutors, and even police officers (2004).

In the opinion of numerous authors, these are some of the most common corrupt activities in which law enforcement agencies are involved in relation to citizens: bribery, police brutality and violence, opportunistic theft (steeling from crime victims, accident victims, arrestees), abuse of power, using excessive force, official miscon-

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duct, perjury, changing court testimony, extortion, protection of illegal activities and offenders, racism, favouritism, nepotism, neglect, fabrication, destruction, and planting of evidence, covering up criminal activities committed by fellow officers, undermining criminal investigations, unauthorized access to official documents and files or their unauthorized modification, and theft of valuable items gathered on an official duty (Barker and Roebuck, 1973). In addition to the above, Goldstein introduces the concept of internal corruption, which includes falsifying attendance records, giving passing (undeserved) grades in training, unauthorized influence on the promotion process, favouritism when choosing the dates of annual vacations and days off, or even bribing superiors for assigning special work tasks (1975).

Finally, Barker and Wells emphasize an interesting fact that numerous definitions of corruption do not include activities such as drug use, drinking, sleeping on duty, sex during working hours, speeding, disobeying traffic signs, feigning illness and other forms of present deviant police behaviour for the simple reason that this kind of behaviour does not result in the acquisition of material benefits. It is important to emphasize that police corruption is an ethical issue as well as an administrative and criminal one, and when defining corruption, it is necessary to consider the motive, the means and the goal. In this regard, police corruption must not be limited to material benefit, because profit can come in the form of various services that ultimately result in promotion and/or improvement of personal status, prestige, and influence (1981).

The causes of the police corruption

According to Dobovšek, one of the main causes of the spread of police corruption is the fact that corruption has long been a 'skeleton in the police closet', a taboo topic that was neither allowed nor wanted to be discussed at official meetings. On the other hand, its many forms are certainly a significant stumbling block in combating police corruption. As one of the main causes of corruption, Dobovšek states the interference of politics in the work of law enforcement agencies. In addition, police officers face the darkest side of people every day, they are continuously exposed to threats and death, and risk their lives in the service of the community, being often underpaid for the work (2009). The extent to which the underpayment of police officers is an important factor in the spread of police corruption is evidenced by Sir Paul Condon, the Commissioner of the Metropolitan Police (1193-2000): "If you're not paying your police officers a wage they can live on, you are almost inviting them to indulge in malpractice… it's getting tougher and tougher for young police officers to make ends meet. That doesn't mean they all go off and do bad things, but if you're serious about integrity you must make sure there is a reasonable level of pay and conditions that … doesn't tempt them into malpractice" (1998).

Furthermore, police officers have realized through their work that those who are called criminals do not have a 'monopoly' on criminal activities, nor can corruption be tied to a certain level or rank in police agencies. Another significant problem is the so-called police culture (high degree of solidarity among colleagues and secrecy). The police officer will often withhold his support to the internal control departments that investigate the misconduct of their colleagues. According to Sherman and Reiner, the unwritten rule of the 'blue curtain of secrecy' is rarely questioned among police officers, who thus knowingly or unknowingly enter the vicious circle of corruption,

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even though they themselves have not done anything unethical. Secrecy becomes 'a protective armour shielding the force as a whole from public knowledge of infractions' (Reiner, 1992, str. 93). The code of silence in police agencies is a very complex and multi-layered problem: first, it has a very negative effect on new recruits who, from the beginning of their careers, accept corruption as an integral part of their work; second, it represents a kind of discouragement to managerial structures that police corruption can be eradicated, and third, it represents a way of controlling and manipulating fellow police officers (Ivković, 2005).

Klockars et al. state lack of effective oversight and accountability mechanisms within law enforcement agencies, integrity of management (or absence thereof), complex bureaucracy, possibility of abuse of regulations, employment of officers with criminal connections, inadequate training and supervision, lack of professional standards, frequent temptations and contacts with members of the criminal milieu, and plethora of opportunities presented to police officers, almost on a daily basis, as important factors that cause the spread of corruption. The next factors that cause corruption are low managerial and public visibility of police actions, even managerial support for police misconduct. In other words, police officers spend most of their working time in the field without the direct supervision of a superior, which allows them to imperceptibly violate and circumvent the rules. In addition, they have significant access to 'private space', i.e., the places where a criminal offense was committed, which are off-limits to the public. Political environment and political culture are certainly important factors that influence the level of corruption in police agencies. Inefficient and corrupt judiciary, which is the case in Bosnia and Herzegovina, can also contribute to the feeling of an unjust society suitable for the development of the police corruption (Kania, 2004).

Consequences and the potential solutions to the police corruption

The consequences of police corruption can be far-reaching, including erosion of public trust in law enforcement agencies, reduced effectiveness in combating crime, miscarriages of justice, perpetuating systemic discrimination and inequality, and impaired democratic governance. According to Goldstein "The existence of corruption clearly impairs an agency's credibility in enforcing the law" (1975, str. 211). Corruption can also lead to the violation of human rights, particularly when officers engage in activities such as torture, extortion, and extrajudicial killings. Ultimately, entrenched police corruption can lead to a culture of impunity, with the police officers feeling they can engage in corrupt activities without fear of consequences. Jackson and Bradford (2010) elaborate on the concept of trust, and the factors that influence it, such as incompetence, inefficiency and unprofessionalism of individual police officers. There is a relationship between citizens and the police, and the citizens and the institution. Trust in the institution means that citizens believe that the police are professional, efficient, and honest, that they represent the interests of citizens and society as a whole and that they fight to protect their property and security. Trust can contribute to the improvement of police work and encourage them to be more responsible. On the other hand, trust can encourage citizens to participate in police work (Punch, 2009).

There is a widespread notion that the problem of corruption is practically unsolvable, not in any society, not in any state, having in mind the complexity and multi-layered nature of this social phenomenon and the fact that it relates to an even

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more complex manifestation of human nature, human behaviour, and social and political norms. However, law enforcement agencies cannot afford such fatalistic thinking about corruption, no matter how demanding and challenging it may be to keep it under control. Although widespread, it must not be forgotten that many police agencies manage with great success to maintain a high level of integrity, professional and ethical behaviour of their officers (Gilman, 1995). Control, reduction and ultimately the complete eradication of corruption from the police ranks must be a constant commitment of police leadership, no matter how colossal and frustrating the task may be. This goal can only be achieved through the strong commitment of all members of law enforcement agencies and continuous raising awareness about the perniciousness of the corruption on the work and functioning of police agencies, but also on the society. Additionally, special attention should be paid to the exchange of knowledge, experience, and best practices not only between domestic agencies for law enforcement, but also foreign partner institutions, in order to find the best and most effective tactics and techniques to fight corruption (Bošković, 2000).

To address police corruption, several measures can be taken. According to Graycar and Prenzler, these include improving oversight and accountability mechanisms within law enforcement agencies, increasing transparency in police operations, strengthening ethical standards, and enhancing the training and education of police officers. Additionally, establishing independent oversight bodies can help to monitor and investigate police misconduct. Efforts to combat police corruption also involve implementing and enforcing strict ethical standards and codes of conduct for police officers, increasing transparency and accountability in police operations, and promoting community engagement and oversight of law enforcement agencies. Additionally, effective training programs and ongoing support for officers can help prevent corruption and improve professionalism and ethical behaviour in the police force (2013).

Heineman and Heimann propose the introduction of high standards in the recruitment, screening and training of police officers, with a special emphasis on integrity, ethical and moral behaviour. They also accentuate stricter compliance with rules and regulations, especially the code of ethics, stricter internal control and supervision, raising public awareness of the importance of reporting corrupt acts committed by police officers, adoption and consistent implementation of anti-corruption strategies, as well as measures in the prevention and fight against corruption (2006). According to Dobovšek, police corruption can be suppressed if an adequate legislative and institutional framework for combating corruption is established, the public is educated and awareness is raised about the pernicious practice of bribing police officers not only for the work and efficient functioning of law enforcement agencies, but also for the state security. A strategic approach is needed in the systematic fight against corruption and a greater emphasis on ethical policing, although it is unlikely that it will be possible to completely eradicate corruption in the police (2009).

ANALYSIS OF CORRUPTION IN LAW ENFORCEMENT AGENCIES IN BOSNIA AND HERZEGOVINA

The security system in Bosnia and Herzegovina is decentralized and operates at four levels. The first is the national one, headed by the BiH Presidency, which is responsible for enacting the security policy of Bosnia and Herzegovina. When it comes

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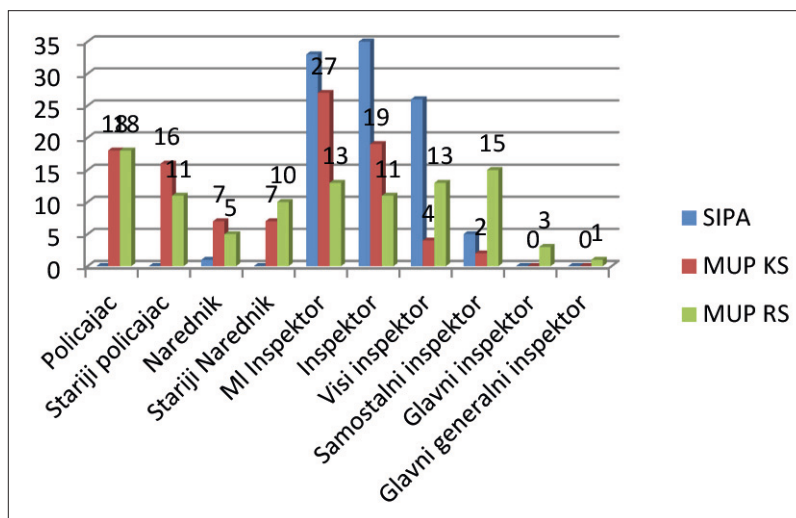CORRUPTION IN LAW ENFORCEMENT AGENCIES IN BOSNIA AND HERZEGOVINA, THE CAUSES AND CONSEQUENCES

to public security at the state level, there are four law enforcement agencies that operate within the Ministry of Security of Bosnia and Herzegovina: Border Police, the State Agency for Investigation and Protection, the Directorate for the Coordination of Police Bodies and the Civil Protection. Lower, entity levels include the Ministries of Internal Affairs and Civil Protection of the Republika Srpska and the Federation of Bosnia and Herzegovina. In addition, there are ten Cantonal Ministries of the Interior in the territory of the Federation of Bosnia and Herzegovina (as the third level), operationally and administratively independent from the Federal Ministry of the Interior. The Federal Ministry of Internal Affairs and the cantonal Ministries of Internal Affairs have connected information systems and common databases based on electronic data processing. According to the territorial principle, the Ministry of Internal Affairs of the Republic of Srpska has five Public Security Centres (CJB), directly subordinated to the Police Directorate and the Ministry of Internal Affairs of the Republic of Srpska. The structure of the Ministry of Internal Affairs of the Republika Srpska is centralized with clear coordination and subordination. Local police administrations are the lower level of the security system in Bosnia and Herzegovina (Vijeće Evrope, 2022).

A major problem in the functioning of the mentioned law enforcement agencies is the overlapping jurisdictions and the impossibility of defining their boundaries. The police system of Bosnia and Herzegovina is based on the principle of coordination as a concept of hierarchical relationship in management, which implies an organizational pyramid, feedback links and horizontal linkages, with the side connections with other services and organizational units. This means that the Ministry of Security of Bosnia and Herzegovina and agencies at the state level do not have a commanding function over entity ministries of the interior and agencies, and the Federal Ministry of the Interior does not have the same function over the cantonal ministries of the interior, which reflects the decentralization of the police system in Bosnia and Herzegovina. Due to this, there is an overlap of responsibilities, which results in agencies working under the jurisdiction of another agency, this being especially noticeable at the state level (Greco, n.d.).

While conducting research into the presence of corruption in law enforcement agencies in Bosnia and Herzegovina, a questionnaire was created, which consisted of 12 closed-ended questions with multiple answers. The research was conducted in the period from December 2022 to February 2023 and included 300 respondents, active police officers within the State Investigation and Protection Agency, Ministry of Interior of Republika Srpska and the Ministry of Interior of Sarajevo Canton, holding various ranks. Of the total number of respondents, 76 were women (35 from SIPA, 13 from Sarajevo Canton MoI and 28 from Republika Srpska MoI), while 224 were men (65 from SIPA, 87 from Sarajevo Canton MoI and 72 from Republika Srpska MoI). Table 1 shows the ranks of respondents by police agency.

Regardless of the reform processes that are being attempted in the police structures, they still present an obstacle for BiH on the way to Euro-Atlantic integration. Lately, it has been noticeable that the media report almost daily on police operations, stating that there is an increased number of arrested police officers who are linked to the commission of various criminal acts, primarily corruption (Lalić and Đurić, 2017). However, the research conducted in SIPA, RS MoI and SC MoI, which included 300 respondents, showed that only 14% of the total number of respondents, i.e., 41 of them,

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Figure 1: Ranks of respondents by police agency

Source: Authors

stated that they found themselves in the situation being offered to participate in any type of corruption. In relation to the mentioned question, a difference was observed in the answers between the police agencies, where only 4% of respondents in SIPA answered affirmatively to the mentioned question, while the percentage in the SC MoI was 24%, and in the RS MoI 13%.

In response to the next question, which referred to the type of corrupt act that was offered to them, the respondents answered that it was about receiving/giving bribes (46%), abuse of official position (17%), negligence (17%), fraud (12%) and disclosure of official restricted documents (8%). Table 1 shows the type and number of corrupt acts by agency:

Table 1: If someone offered you to participate in a corrupt act, can you indicate which act it was:

	SIPA	SC MoI	RS MoI
Receiving or giving bribes	3	16	8
Abuse of official position	1	5	4
Negligence	1	4	5
Embezzlement	0	0	0
Fraud	0	0	0
Disclosure of restricted documents	1	5	1

Source: Authors

Police officers were mostly unaware of the presence of corruption committed by police officers in other police agencies, which is corroborated by the fact that 70% of the total number of 211 respondents (SIPA 85, SC MoI 64, RS MoI 62) replied that they were not familiar with that. In other words, 36 respondents from the SC MoI, 38 from the RS MoI and 15 from SIPA answered affirmatively to the question: "During your service, have you been aware that any of your colleagues from your or another police agency, in any way, were involved in corruption? When asked to specify the

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type of corrupt acts, 58 respondents answered that it was about receiving or giving bribes, 37 indicated abuse of official position, 24 negligence, 4 embezzlement, 2 fraud, 13 disclosure of restricted documents, and 5 other corrupt activities.

The dark number of crimes, especially corruption, present in the law enforcement agencies or committed by the members thereof is particularly large. This is evidenced by the fact that only 53% of respondents stated that they reported corruption committed by their fellow officers, while 47% of respondents stated that they failed to do so. The police officers who declared that they did not report the above-mentioned criminal acts, mostly cited the lack of protected reporting channels, lack of institutional framework, retaliation of the employer in the form of professional degradation, disciplinary measures, and dismissal, as well as the mistrust in state institutions as the reason for not reporting. Most of the reported criminal acts committed by police officers were prosecuted, with a large number of those reported being declared guilty, and only a small number were acquitted. The majority of the respondents were not familiar with the sentence imposed, while 21% of the respondents stated that the perpetrators were sentenced to 1-3 years in prison, 10% stated that they knew that the perpetrators were sentenced conditionally, while only 3 % of respondents knew that the perpetrators were sentenced to more than 3 years prison time.

Prosecution of the criminal acts of corruption committed by police officers in BiH

One of the main priorities in the fight against corruption, the institutions in BiH should focus on, is the establishment of the rule of law that is derived from efficient laws, the functioning of institutions, and the restoration of their credibility, especially judiciary (Deljkić and Lučić-Ćatić, 2011). Corruption existing in the law enforcement agencies undermines their credibility and represents fertile ground for establishing a symbiosis between corruption and organized crime. Activities carried out in the last five years by the Prosecutor's Office of Bosnia and Herzegovina, the Cantonal Prosecutor's Office of the Canton of Sarajevo and the Public Prosecutor's Office of the Republic of Srpska in the prosecution of perpetrators of corruption will be presented in this part.

Table 2: Number of indictments filed by the Prosecutor's Office of Bosnia and Herzegovina in the last five years with the number of the accused for the corruption:

	2020		2019[1]		2018		2017[2]	
	Indict*	Offend°	Indict	Offend	Indict	Offend	Indict	Offend
Receiving bribes	4	7					2	2
Giving bribes	1	1					1	1
Receiving a reward or other form of benefit for influence peddling	1	1						
Abuse of position or authority	4	7			2	7	1	3

[1] In 2019, in organized crime cases, 19 indictments were filed against 66 persons, of which 2 indictments have elements of corrupt actions, while in corruption cases 5 indictments were filed against 11 persons.

[2] The report of the BiH Prosecutor's Office for 2017, states that the largest number of reports received during that year relates to economic crime and corruption, and that during the reporting period, 135 reports were received for criminal acts of corruption against 306 persons.

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Negligence					2	2		
TOTAL	10	16	7	11	4	9	4	6

Source: Authors' calculations based on the data of the Prosecutor's Office of Bosnia and Herzegovina

* Number of indictments filed
° Number of the accused in these indictments

The website of the Prosecutor's Office of Bosnia and Herzegovina, contains reports that have been found to be non-standardized and to differ greatly from year to year, and the last report that was published was for 2020. The reports were not classified by the perpetrators of the crimes, so it was not possible to determine what was related to the police officers. In addition, the BiH Prosecutor's Office did not respond positively to the request for information related to the criminal acts of corruption committed by the police officers employed in the BiH police agencies in the last five years. The data contained in the reports that could be found on the website are presented in the following tables.

Table 3: Number of indictments filed by the Cantonal Prosecutor's Office of Sarajevo Canton in the last five years with the number of the accused for the corruption:

	2021³		2020		2019		2018	
	Indict*	Offend°	Indict	Offend	Indict	Offend	Indict	Offend
Receiving bribes	22				3			
Giving bribes	49		7					
Receiving a reward or other form of benefit for influence peddling								
Abuse of position or authority	1		9		21	7		
Negligence	24		1		4	2		
TOTAL	134	190	17		28		33	53

Source: Authors' calculations based on the data of the Cantonal Prosecutor's Office of Sarajevo Canton

* Number of indictments filed
° Number of the accused in these indictments

In response to the request for information related to criminal acts of corruption committed by police officers employed in any police agency in BiH in the last five years, the Public Prosecutor's Office of Republika Srpska submitted information that in the requested period, 40 reports were received against police officers for criminal acts of corruption. 35 cases were closed, of which 14 were closed with an order not to conduct an investigation, 11 reports were closed with an order to suspend the investigation, five reports were investigated with an indictment filed, five cases were closed in another way, i.e. by merging with another case, while five reports remained unresolved. Charges were brought against eight police officers. Two police officers were convicted, one of which was suspended, and was sentenced to a minor fine of 1,500 KM, while the other police

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3   The report of the Cantonal Prosecutor's Office of the Sarajevo Canton for 2021, states that they achieved the best results in the Federation of Bosnia and Herzegovina related to corruption: "significant indictments for corruption related to the prosecution of a large number of police officers from the Traffic Unit of the Sarajevo Canton MoI who were accused of receiving and giving a bribe and illegal issuing/obtaining driver's licenses without passing a driving test."

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officer was sentenced to one year prison time. The court did not issue verdicts against four persons, while the indictment was rejected against two persons.

Finally, it would be worth mentioning several cases of arrests of members of the law enforcement agencies in Bosnia and Herzegovina, which were well covered by the media. The first case is from August 2020, when 18 police officers working in the Traffic Unit of the Sarajevo Canton MoI Police Administration were arrested within the operation code named "Gift 1". They were suspected of having committed more than a hundred criminal offenses under Article 380 of the FBiH Criminal Code over several years (Receiving bribes and other forms of benefits) and Article 383 of the FBiH Criminal Code (Abuse of position or authority) (Dnevni Avaz, 2020). The next operation from January 2023 is the one code named "Sparta", in which three members of the SC MoI were arrested for corruption. They were "suspected of stopping vehicles with foreign license plates, while performing official duty, and taking money from the drivers in the name of payment of the fine without paying the money into the Sarajevo Canton's budget" (Faktor, 2023). In addition, in March 2023, 6 people were arrested in the Banja Luka area, including the former and the active police officers of the Ministry of Internal Affairs of the Republika Srpska and the of the then Advisor to the Minister of Security in Bosnia and Herzegovina. They were arrested on charges of the following crimes: collaboration with a criminal group, unauthorized traffic in narcotic drugs, abuse of official position or authority, obstruction of the process of finding and presenting evidence (Faktor , 2023).

CONCLUSION

According to the BiH Transparency International's latest research, BiH has fallen again in the Corruption Perception Index, and now definitely occupies the lowest place in the region in terms of corruption, while in Europe only Russia and Ukraine are in a worse position. The impossibility of an effective fight against organized crime, as well as the deterioration of the rule of law and the efficiency of the judiciary, are cited as the main reason for the decline of Bosnia and Herzegovina and other countries of the Western Balkans. It was emphasized that there are plethora of corruption scandals in Bosnia and Herzegovina involving high officials, so that the public has lost confidence in democratic institutions that are supposed to combat all forms of organized crime, including corruption (Transparency International, 2022).

Numerous studies indicate that corruption is deeply rooted in every segment of Bosnian society and the state. There are myriad problems that contribute to the development of corruption in Bosnia and Herzegovina since the end of the war and despite numerous legal solutions and institutions in charge of fighting corruption, the situation is getting worse every day (Lindov et al., 2014). In recent years, there has been a connection developed between organized crime and corruption, in which members of various police agencies are often involved, both at the state, entity and cantonal levels. However, considering the nature of the work and the position of police officers in society, these acts often remain a "dark figure of crime". It is evident that the number of reported criminal acts of corruption committed by police officers is extremely small, and even in the cases in which they are reported, either the crimes are not prosecuted, or the sentences are minimal. At the round table held in March 2023 on the topic of the effective fight against systemic corruption, organized by Transparency International

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BiH, the Embassy of Sweden in BiH, and the EU Office in BiH, the head of the EU delegation and the EU's special representative in BiH, Ambassador Johann Sattler stated, among other things that corruption is a pressing problem in the country, hinders future generations and economic and social progress.

The consequences of corruption can be classified into two categories: socio-economic and socio-political. Socio-economic consequences are manifested by jeopardizing the market economy, reducing the social product, decreasing investments, increasing the indebtedness of the country and the poverty of people. The socio-political consequences are reflected in the endangerment of democratic institutions and the increase in the costs of the functioning of the social community, the emergence of citizens' distrust in state institutions, the increase in the rate of organized crime, the destruction of the moral values of society, and the emergence of a sense of apathy among citizens.

Since law enforcement agencies are one of the most important components in charge of public security, it is necessary to implement appropriate reforms aimed at training such personnel who will be able to respond to all modern security challenges such as terrorism, organized crime, corruption and other criminal acts. As one of the most worrying factors linked to corruption in law enforcement agencies is the selection of police officers for employment. Recently, the influence of corruption on the mentioned process has also been observed with money being often requested for employment. Institutions in Bosnia and Herzegovina have so far failed to show determination in the fight against systemic corruption, as evidenced by numerous lengthy court processes related to high corruption, which is present in the legislative, executive and judicial authorities, and which is reported daily by various media portals.

In order to rectify this situation, a systematic and thorough implementation of reforms is necessary, including amendments to the Law on the High Judicial and Prosecutorial Council, the Law on Prevention of Conflicts of Interest, the Law on Courts, as well as strengthening the protection of corruption whistleblowers, depoliticization of public enterprises and thorough reform of judiciary. It is also necessary to achieve visible results in terms of investigations, criminal prosecutions and final judgments in cases of organized crime and corruption" (Transparency International BiH, 2023).

"Not only is there no strategy, policy or activity of state institutions to prevent corruption, but state institutions, completely captured by political control, focus their activities almost entirely on dealing with corruption. Unfortunately, corruption has become the primary reason for the existence of institutions. A special danger for the state is the complete symbiosis of organized crime and state institutions, which will lead to further destabilization of the country and the collapse of its security."

Srđan Blagovčanin, Chairman of the BiH
Transparency International Steering Committee

Based on the above, the conclusion arises that the initial hypotheses have been fully proven.

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PREGLEDNI NAUČNI RAD / OVERVIEW SCIENTIFIC PAPER

PROMOTIVNA KOMUNIKACIJA I HUMOR – PERSPEKTIVA POTENCIJALNIH KONZUMENATA

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Sažetak: *Polazeći od temeljne definicije kako je humor oblik komunikacije kojoj je cilj nasmijati i razveseliti sugovornike, ovome radu cilj je bio istražiti mišljenje javnosti o humorističnim, vizualnim, oglašivačkim rješenjima jumbo plakata te analizirati utječe li uporaba humora kao alata u oglašavanju putem jumbo plakata na namjeru kupnje oglašenog proizvoda/usluge te na podizanje svjesnosti o organizaciji i oglašenom proizvodu. Odabrana metoda istraživanja je anketa, a provela se online anketnim upitnikom koji je omogućio brzo i jednostavno prikupljanje relevantnog broja ispitanika potrebnog za provedbu istraživačkog procesa. Širok i heterogen uzorak omogućuje uvid u mišljenja različitih pripadnika populacije s obzirom da su svi izloženi oglašivačkom (humorističnom) apelu koje tematizira ovo istraživanje. Dobiveni rezultati ukazuju na pozitivan učinak korištenja humora u oglašavanju putem jumbo plakata, točnije na podizanje vidljivosti brenda, odnosno pamćenja oglašenog proizvoda, kao i na generalno pozitivno mišljenje o korištenju humora u oglašavanju. Ovaj rad nastao je kao dio istraživanja za diplomski rad na sveučilišnom diplomskom studiju Komunikologije, studentice Ivone Marenić na Hrvatskom katoličkom sveučilištu, 2023.*

Ključne riječi: *humor u oglašavanju, jumbo plakati, reklame, marketinška komunikacija*

JEL klasifikacija*: M3; M31; M37*

UVOD

Dosadašnja istraživanja pokazala su da humor može potaknuti na kritičko razmišljanje i razumijevanje društvenih fenomena (A brief history of marketing: Bournemouth Univeristy, 2023), privući pažnju, ali i podići svijest o društvenim problemima (Morreall, 2012). Humor je jedan od najpopularnijih i najučinkovitijih alata za povećanje broja pozitivnih reakcija potrošača na oglašavanje (Eisend, 2017) te poboljšava učinkovitost oglašavanja, međutim potrebno je uzeti u obzir kulturološke razlike u smislu onoga što ljudi smatraju duhovitim (The Psychology of Humor and Its Influen-

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ce on Advertising and Consumer Behavior. Popneuro, 2020). Zajednički parametar odabranim primjerima u anketnom istraživanju je što su sva vizualna rješenja osmišljena od strane kreativne marketinške agencije Spellcaster koja je s radom započela 2020. godine, a njihova misija i vizija su ˝staviti u središte ljude i tako pomoći organizacijama oblikovati svoju svrhu, osmisliti nove proizvode te razvijati kampanje koje zahtijevaju pozornost jer zabavljaju umove i potiču akciju˝ (About: Spellcaster, 2022). Suradnje istaknute na internetskoj stranici i društvenim mrežama agencije vezane su uz organizacije poput Badela, Forea, Atlantic Grupe, Reduita, Leda, Gideona, Prijatelja Životinja, Husquarne, Američkog Instituta, Adoria, Hortus Vrtova i Pontis Tehnologije. Upravo neki od njih bili su odabrani primjeri kreativnih humorističnih vizualnih rješenja za analizu percepcije humora ciljanih javnosti u ovome radu.

OGLAŠAVANJE I TRENDOVI U OGLAŠAVANJU

Prema Merriam Webster rječniku (Advertising: Merriam Webster, 2023)imenicu oglašavanje može se definirati kao radnju privlačenja pažnje javnosti plaćenim priopćenjima što je vrlo gruba definicija slojevite aktivnosti koja čak niti ne mora uključivati financijsku transakciju pri privlačenju pažnje javnosti. Nešto šira definicija može se pronaći na marketinškom portalu koji navodi oglašavanje kao model komunikacije u marketingu koji postoji s razlogom informiranja, obavještavanja kroz pobuđivanje emocija kod potencijalnih kupaca o proizvodima ili uslugama iz ponude oglašivača – tvrtke koja je naručila oglas tj. reklamu (Oglašavanje: Marketing odjel., 2023). Iz te definicije lakše je stvoriti predodžbu o samoj aktivnosti oglašavanja, a najvažnije je oglašavanje definirati kao potpojam marketinga. Osim potpojmom marketinga, oglašavanje možemo definirati i kao potpojmom aktivnosti promocije koja uključuje više elemenata, a neki od njih su unaprjeđenje prodaje, odnosi s javnošću i dr. Marketing kao takav u službi je prodaje, a promotivne aktivnosti poput oglašavanja učestalo su usmjerena na dva pravca (Nakić, 2014):

- formiranje pozitivnih stavova kod potrošača,
- promjena intenziteta pozitivnih ili negativnih stavova te preusmjeravanje negativnih stavova u pozitivne stavove kod potrošača.

Upravljanje stavovima nije moguće bez zadovoljavanja osnovnih uvjeta koji nalažu da potrošač mora stupiti u kontakt s oglasnim medijem, izložiti se djelovanju poruke, percipirati poruku, zapamtiti sadržaj te sadržaj uskladiti sa svojim stavovima (Nakić, 2014). Zadovoljavanje svih preduvjeta upravljanja stavovima potrošača zahtjeva kreativnost, a prema teoriji oglašivačke kreativnosti, kreativnost je ključna pri kreiranju oglasa i privlačenju pažnje. Hoće li stav potrošača nakon izloženosti oglašivačkom materijalu otići u pozitivnom ili negativnim smjeru uvelike ovisi o emocijama koje su kod primatelja poruke probuđene. Pozitivne emocije koje se kod potrošača mogu probuditi (ponos, prestiž, ljubav, radost, nada, vjera, hrabrost i povjerenje) mogu ojačati intenzitet pozitivnog stava i interes prema proizvodu, unaprijed određeni negativni stavovi mogu oslabiti, a potrošači bez formiranog stava mogu kreirati pozitivno iskustvo s proizvodom (Mikulaš & Dobrinić, 2023). U ovome radu kreće se s pretpostavkom da humor i smijeh izazivaju pozitivnu emociju radosti te doprinose interesu i intenzitetu pozitivnog stava o proizvodima, usluga i organizacijama koje koriste humor u vizualnoj komunikaciji. To potvrđuju i drugi autori koji pojašnjavaju kako su dosadašnja istraživanja na području brendiranja dokazala kako vizualni elementi

brenda nisu najpresudniji kod stvaranja snažne impresije, ali se više pamte i ostavljaju veći dojam kada je apel za osjetilo vida u kombinaciji s drugim osjetilima, poput mirisa ili zvuka (Pleša & Dabo, 2021)

Marketing i oglašavanje, na svoj način, stari su koliko i civilizacija. U antičkoj Grčkoj persuazivni govori imali su svoju svrhu promjene ili jačanja stava primatelja što je uloga marketinške komunikacije i danas (A brief history of marketing: Bournemouth Univeristy, 2023). U drevnom Egiptu koristio se papirus u svrhu širenja poslovnih odluka i informacija što je kasnije dovelo do izrade papira i kreiranja oglasa (Rehman, i dr., 2019). Industrijska revolucija promijenila je tok marketinške komunikacije i usmjerila je prema onome što najviše trenutno povezujemo s oglašavanjem. U početku industrijske revolucije uloga oglašavanja je bila informirati potrošače da proizvod postoji jer su proizvođači mogli prodati sve što proizvedu dokle god su potrošači to mogu priuštiti. Početkom 20. stoljeća pa sve do 2. svjetskog rata, dolazi do prezasićenja tržišta, a marketinška komunikacija se okreće u svrhu prodaje te kao primarni cilj ima uvjeravanje da je jedan proizvođač bolji od drugoga. Trenutna era marketinga je orijentirana prema marketingu radi marketinga te iako se naslanja na temelje prodaje, postaje grana za sebe koja osim prijašnjih zadataka, počinje biti područje koje istražuje potrošače i kreira slojevitu organizaciju plasmana na tržište te održavanja pozitivnog stava o brendu i proizvodu (A brief history of marketing: Bournemouth Univeristy, 2023). U doba prije interneta oglasi su se prvenstveno prikazivali putem jumbo plakata, u obliku radijskih jinglova i televizijskih spotova. Kada govorimo o eri oglašavanja prije interneta, govorimo o zlatnom dobu oglašavanja. Prvi televizijski oglas prikazao se 1941. u Americi za utakmice između Broklyn Dodgersa i Piladelphia Pilliesa te je oglašavao Bulova satove, tvrtku koja je aktivna i danas. Oglasi u zlatno doba oglašavanja bili su u svrhu brendiranja i dodjeljivanja karaktera proizvodu. Proizvodima su se dodjeljivala tzv. zaštitna lica kojima je izgrađen prepoznatljivi karakter koji je pobuđivao povezanost s proizvodom kod kupaca (primjerice Marlboro Man kampanja koja je udaljila percepciju pušenja cigareta kao ženstvene radnje) i uloga dodijeljenim karakterima koji se povezuju s brendom bila je prodaja. Današnje oglašavanje se razlikuje po pitanju namjere šture prodaje i fokusirano je na podizanje svijesti o brendu i gradnje zajednice (Gallegos, 2016). Takav primjer možemo uočiti kod Applea koji uporabom jednostavnog rječnika i minimalističkog pristupa gradi zajednicu u kojoj je svatko korisnik nekog od njihovih proizvoda. Marketinške kampanje fokusirane su im na izgradnju zajednice i povezivanje potrošača, a marketinški materijali su jednostavni, nenametljivi i lako razumljivi (Rahmania, Rahayu, & Dewi, 2022). U današnjoj marketinškoj komunikaciji proizvod prestaje biti u centru prodaje već ga se prezentira kao rješenje problema koji potrošač ima (Gallegos, 2016). Posljednjih nekoliko godina često se argumentira dolazak nove ere marketinga uzrokovanog digitalnom revolucijom koji zamjenjuje tradicionalne oblike oglašavanja novim oblicima putem društvenih mreža. Argument koji se često iznosi u korist oglašavanja putem društvenih mreža je pratljivost dometa komunikacijske poruke. Tradicionalan oblik oglašavanja poput jumbo plakata točan ili okvirno točan domet ne može ponuditi. Promjena marketinškog pristupa uočljiva je na marketinškim materijalima kroz godine pa su se tako marketinški materijali do 1920-ih godina prvenstveno nalazili u novinama i časopisima, početkom 20-ih godina i na radiju, a apelirali su na 'svakodnevnog čovjeka' (Terry, 2023). Trend slogana koji se održao do danas pojavio se 1950-ih godina dok

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je u šezdesetima nastao trend emocionalnog faktora u oglašivačkom materijalu kao i čest prikaz stereotipiziranog društva (What Marketing Looked Like in the 50s & 60s: Colorfire, 2019). U sedamdesetim godinama prošlog stoljeća prosječan potrošač bio je izložen čak 1600 reklama dnevno, a pogodnom terenu za oglašavanje uvelike je pridonijela tranzicija iz crno-bijelih na televizore u boji (History of Advertising: 1970s: Mascola, 2023).

HUMOR U OGLAŠAVANJU

Riječ humor s današnjom konotacijom nije se koristila sve do 18. stoljeća iako su brojni filozofi poput Platona, Hobbesa i Kanta napisali nekoliko paragrafa o humoru u sklopu drugih tema, najčešće raspravljajući o komediji kao dramskome žanru. Čak do 20. stoljeća većina spomena smijeha i humora u filozofskim tekstovima bila je u kontekstu ismijavanja, a smijeh se tumačio kao manjak samokontrole (Morreall, 2012). Loša reputacija humora bila je prisutna i kršćanskim samostanima gdje se još od najranijih monaških redova – Pachom iz Egipta oštro osuđivao smijeh. Pravila svetog Benedikta, najutjecajnijeg monaškog zakona savjetuje redovnicima da ne govore glupavo brbljanje, fokusiraju se na umjerenost u govoru i ne govore ono što izaziva smijeh. U Benediktovnim ljestvama poniznosti deseti korak je suzdržavanje od smijeha, a jedanaesti korak je upozorenje protiv šale. Nepovoljan pogled na humor nastavio se i kroz srednji vijek, a najstroža osuda dolazila je Puritanaca koji su pisali zapisnike protiv komedije i smijeha kao takvog. Jedan od poznatijih napisao je William Prynne 1633. godine i bio je dug čak 1100 stranica te je komedije nazvao grešnim, poganskim, razvratnim, bezbožnim predstavama i najopasnijom pokvarenosti; osuđujuće u svim dobima, nepodnošljive zloće za crkvu, za republikance, za manire, umove i duše ljudi. Puritanci su kršćane poticali na ozbiljnost, a na humor su gledali kao taštinu. Kada su sredinom 17. stoljeća zavladali Engleskom čak su i zabranili žanr komedija. Nastavno na kritiku komedija, već spomenuti Hobbs koji je ljude smatrao po prirodi kompetitivnima, u svome djelu Levijatan, osvrće se na komediju u kontekstu osuđivanja ljudske potrebe ismijavanju tuđih mana nazivajući smijanje na tuđe defekte malodušnim. Slično Hobbesovome razmišljanju zapisuje i Reene Decartes u djelu Strasti Duše (Passions of the Soul) gdje osuđuje smijeh jer ga sagledava kao oblik podrugivanja (Morreall, 2012). Ipak, osude ismijavanja nisu isto kao i osuda humora kao takvog, a ta granica je ono što ovaj rad i ispituje – čitanje i interpretacija onog što se predstavlja kao humoristično. S tim u vezi dolazi se i do mogućnosti verbalnog nasilja koje može biti povezano s humorom, a koje u širem smislu obuhvaća i upotrebu sredstava psihičke prisile radi nanošenja štete, povrjeđivanja ili zastrašivanja osobe (Nasilje: Enciklopedija, 2023). Primjer je ismijavanje Melanie Trump te smatraju li ispitanici takav apel humorističnim ili povlače granicu kod politički osjetljivog nasilnog, ismijavajućeg sadržaja. Što i koliko je nešto smješno, osim individue, uvjetuju i društvo i kultura pa tako smo kao društvo od stroge osude komedija i svih oblika humora napredovali do aktivnog istraživanja posljedica humor na psihu i razvoj osobe. U svom radu Richard Restak analizira istraživanja koja su proučavala neurološku pozadinu smijeha i humora (Restak, 2013). Istraživanja su pokazala da smijeh budi razne centre u mozgu ovisno o vrsti humora kome je osoba izložena pa tako humor koji se temelji na rješavanju problema aktivira područje povezano s nagrađivanjem dok humor zasnovan na suprotnostima pobuđuje centar u mozgu povezan s interpretacijom jezika. Važno je

navesti da humor može imati različite učinke na pojedince ovisno o njihovoj osobnosti i proživljenim iskustvima. Istraživanja su pokazala da ljudi s pozitivnom osobnošću imaju tendenciju više se smijati, dok osobe s depresivnim poremećajem raspoloženja su manje skloni uživanju u humoru i smijanju. Smatra se kako je humor važan za ljudsku psihu i ima pozitivan učinak na mentalno i fizičko zdravlje te pomaže u smanjenju stresa i anksioznosti. Uzme li se u obzir da humor može biti vrlo osobna stvar, neki oblici humora mogu biti interpretirani kao uvrjedljivi ili neprimjereni za određene osobe ili skupine (Restak, 2013). Nastavno na djelovanje na ljudsku psihu, prijašnja istraživanja pokazala su da humor pozitivno utječe na angažman potrošača, percepciju o brendu jer povećava pažnju efektom distrakcije od namjere prodaje (Eisend, 2017). Iako je uloga marketinške kampanje prikazati proizvod ili uslugu u što pozitivnijem svijetlu, formiranje pozitivnih stavova kod potrošača kao i preusmjeravanje negativnog stava na pozitivan stav može se postići tzv. dvostranim porukama u kojima se proizvod predstavi i negativnim i pozitivnim aspektom pritom stavljajući važnost na pozitivan aspekt. Poznati takav primjer je kampanja proizvođača Buckley i njihovog sirupa za kašalj koji je bio oglašen uz rečenicu 'Užasnog je okusa. I funkcionira' (eng. *'It tastes awful. And it works.'*). Ipak, važno je naglasiti da je istraživanje provedeno nad 198 ispitanika pokazalo da dvostrane poruke prvenstveno djeluju na potrošače visokog angažmana koji imaju tendenciju raščlanjivati dijelove marketinške poruke, ali pozitivan aspekt korištenja dvostranih poruka kao alata u oglašavanju očituje se tek onda kada humoristična poruka izrazito paše oglašenom proizvodu dok u suprotnom može doći do fokusiranja na negativan aspekt oglašenog proizvoda (Eisend, 2017).

Neki autori su humor raspodijelili u dvije osnovne kategorije; adaptivni (pozitivni) humor koji se dijeli na afilijativni i samopomažući humor te maladaptivni (negativni) humor koji se dijeli na agresivni i samoporažavajući tip humora. Afilijativni tip humora kao primarni cilj ima poboljšanje odnosa s drugima te smanjivanje stresa i međusobne tenzije dok je za samopomažući tip humora karakteristično da podrazumijeva vedrinu i suočavanje sa životnim okolnostima uz pomoć humora. Agresivni tip humora za razliku od adaptivnih nemaju za cilj osnaživanje međuljudskih odnosa već se oslanjanja na sarkazam, cinizam i/ili šalu na tuđi račun u negativnom smislu. Samoporažavajući humor za ulogu ima zabavljanje drugih zbijanjem šala na vlastiti račun te se primjerice koristi za dobivanje odobrenja i/ili obrana od negativnih emocija. Istraživanje iz 2019. godine koje je obuhvatilo 254 ispitanika pokazuju da su ispitanici muškog spola skloniji agresivnom stilu humora, a da s ispitanici mlađe dobi više koriste negativnim stilovima humora. Agresivnom i samoporažavajućem humoru bili su skloniji ispitanici mlađe dobi. Iako istraživanje nije pokazalo povezanost između stupnja obrazovanja i sklonosti afilijativnom tipu humora, rezultati su pokazali da što su potrošači inovativniji, to su više skloni agresivnom tipu humora. Prijašnja istraživanja su pokazala oprečne rezultate stoga autorice rada svoje rezultate objašnjavaju kroz perspektivu sagledavanja inovativnosti kao sklonosti prema brzom usvajanju ideja ili proizvoda te objašnjavaju da se agresivni stil humora može sagledati kao novost potrošačima. U tom kontekstu autorice navode da su samopomažući i agresivni humor značajno povezani s namjerom kupnje, što potvrđuju i prijašnja istraživanja iz 2014. godine prema kojima humor ima važnu ulogu u namjeri kupnje jer ostavlja pozitivan dojam o oglašenom proizvodu (Kursan & Milavić, 2021). Drugo istraživanje objavljeno 2021. provedeno na 452 ispitanika pokazuje da su politički lijevo orijentirani is-

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pitanici skloni i afilijativnom i agresivnom humoru (Kfrerer, Bell, & Schermer, 2021).

KONCEPTUALIZACIJA ISTRAŽIVANJA

Ovaj rad nastao je u svrhu jasnijeg razumijevanja uloge humora u plakatnom oglašavanju, kao i doprinos humora u dopadljivosti oglašavanja ciljanim javnostima. Problem rada proizlazi iz potrebe za jasniju artikulaciju učinkovitosti humora kao apela u marketinškoj komunikaciji. S tim u vezi, proizlazi i osnovni cilj rada usmjeren prema determiniranju stavova i mišljenja ispitanika vezanih iz humoristična grafička rješenja jumbo plakata. Točnije, cilj je utvrditi hoće li se zbog humora u oglašavanju ispitanici odlučiti za kupnju promoviranog proizvoda ili usluge te smatraju li humor učinkovitom komunikacijskom metodom u oglašavanju putem jumbo plakata. Anketa je izabrana kao instrument prikupljanja primarnih podataka bio je diseminiran metodom snježne grude putem društvenih mreža Facebook, LinkedIn, Instagram, WhatsApp te putem e-maila, a izabran je kao istraživačka metoda radi olakšanog prikupljanja što većeg broja ispitanika i jednostavnosti ispunjavanja iz udobnosti vlastitoga doma. Raznolikost u dobnim skupinama, ali i ostalim demografskim karakteristikama ispitanika upućuje na širok i nenamjeran uzorak jer je cilj bio obuhvatiti heterogenu skupinu ljudi kako bi se dobio uvid u mišljenje različitih pripadnika populacije s obzirom da su svi oni izloženi oglasima i oglašivačkom (humorističnom) apelu kojeg tematizira ovo istraživanje. S tim u vezi, namjera je bila pokušati doći do što većeg uzorka, kako bi uvid u stavove i mišljenja ispitanika bio što sveobuhvatniji i jasniji. Anketni upitnik je bio sastavljen od ukupno 52 pitanja, od kojih se sedam pitanja odnosilo na demografske karakteristike, od toga šest obaveznog odgovora te jedno pitanje neobaveznog odgovora otvorenog tipa, sedam na kojima su prikazani odabrani primjeri uz prateću Likertovu skalu, a koje prate četiri iste tvrdnje u obliku Likertove skale. Svaki odjel primjera nakon ukupno pet označavanja tvrdnji Likertovom skalom prati isto pitanje otvorenog tipa na koje nije bilo obavezno odgovoriti. Anketni upitnik završava s tri pitanja koje se odnose na stavove određene konceptualnim okvirom istraživanja i unaprijed postavljenim pomoćnim hipotezama.

Cilj ovog istraživanja bio je determinirati na koji način ispitanici čitaju humoristična vizualna rješenja jumbo plakata. Svrha takvog istraživanja je provjeriti ulogu humora na jumbo plakatima u doprinosu vidljivosti i namjeri kupnje oglašenog proizvoda/usluge te detaljnije istražiti i dobiti uvid u stavove ispitanika o učinkovitosti humora kao komunikacijske metode. Nastavno na postavljen cilj istraživanja, formulirana su istraživačka pitanja u nastavku:

IP1: Kako ispitanici doživljavaju humoristična grafička rješenja na jumbo plakatima?

IP2: Bi li se zbog humora u oglašavanju putem jumbo plakata ispitanici odlučili za kupnju promoviranog proizvoda ili usluge?

IP3: Smatraju li ispitanici humor učinkovitom komunikacijskom metodom u oglašavanju putem jumbo plakata sa svrhom plasmana i predstavljanja proizvoda?

Glavne postavljene hipoteze su:

H1: Ispitanici ocjenjuju jumbo plakate s humorističnim sadržajem kao izrazito dopadljive.

H2: Humoristična plakatna rješenja izrazito doprinose vidljivosti i/ili prodaji proizvoda ili usluge.

H3: Ispitanici smatraju humoristična plakatna rješenje učinkovitom komunikacijskom metodom u predstavljanju proizvoda ili usluga.

Pomoćne definirane hipoteze su sljedeće:

H1: Humoristična plakatna rješenja ispitanici drukčije ocjenjuju ovisno o vrsti humora.

H2: Ispitanici smatraju da je humor u oglašavanju izrazito dobar komunikacijski pristup.

H3: Ispitanici smatraju da je humor nedovoljno prisutan na plakatnim rješenjima na tržištu.
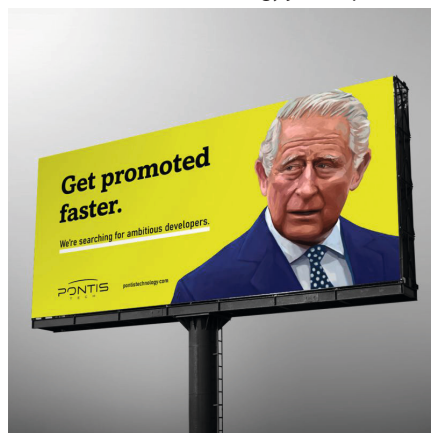
PRIKAZ REZULTATA ISTRAŽIVANJA

Istraživanjem provedenim u svrhu izrade ovoga rada, obuhvaćeno je ukupno 250 ispitanika od čega je 249 ispitanika u potpunosti odgovorilo na sva pitanja u anketnom upitniku, a jedan ispitanik je greškom previdio jedno pitanje. Prema demografskim karakteristikama ispitanika u 72 % bile su pripadnice ženskog spola, 27,2 % pripadnici muškog spola, a preostalih 0,8 % nije se htjelo izjasniti. Najviše ispitanika (55,6 %) u starosti su između 18 i 25 godina, a najmanje ispitanika koji ima više od 71 godinu (0,4 %). Ispitanici su uglavnom bile zaposlene osobe (48 %) te studenti (47,2 %). Najviše ispitanika ima visoku stručnu spremu (42 %). Velika većina ispitanika, čak njih 70 % dolazi iz mjesta s više od 100 000 stanovnika. Od toga je 50 % ispitanika označilo da dolaze iz mjesta s više od 800 000 tisuća stanovnika, a 20 % ispitanika je izabralo ponuđenu opciju od 100 000 do 800 000 stanovnika. Iako grad Zagreb ima nešto manje od 800 000 stanovnika, na neobaveznom pitanju o mjestu stanovanja, najčešći odgovor bio je grad Zagreb koji je navelo 9 ispitanika stoga postoji mogućnost da su stanovnici grada Zagreba označili za mjesto stanovanja po broju stanovnika opciju s više od 800 000 stanovnika. Najviše ispitanika se izjasnilo da su im ukupni mjesečni prihodi u kućanstvu između od 1.500 i 3.000 eura (49,2 %).

Analiza anketnih rezultata o odabranim primjerima jumbo plakata

U svrhu izrade anketnog upitnika odabrano je četiri primjera jumbo plakata, a sve primjere kreirala je marketinška agencija Spellcaster. Osim zajedničkog parametra da su svi odabrani primjeri kreirani od strane iste agencije, također su objavljeni od 2020. godine do danas što ih čini nedavnim primjerima kako vremenski kontekst ne bi bio presudan za ocjenjivanje humora. Anketni upitnik bio je formuliran na način da je ispod svakog vizualnog prikaza jumbo plakata ponuđena Likterova skala (Izrazito mi se ne sviđa – Ne sviđa mi se – Niti mi se sviđa niti mi se ne sviđa – Sviđa mi se – Izrazito mi se sviđa) u kojoj su ispitanici ocijenili dopadnost jumbo plakata. Slijede četiri iste tvrdnje ispod svakoga primjera s ponuđenom Likterovom skalom (U potpunosti se ne slažem – Ne slažem se – Niti se slažem niti se ne slažem – Slažem se – U potpunosti se slažem) te svaki odjel pitanja završava s pitanjem otvorenog tipa na koji odgovor nije bio obavezan.
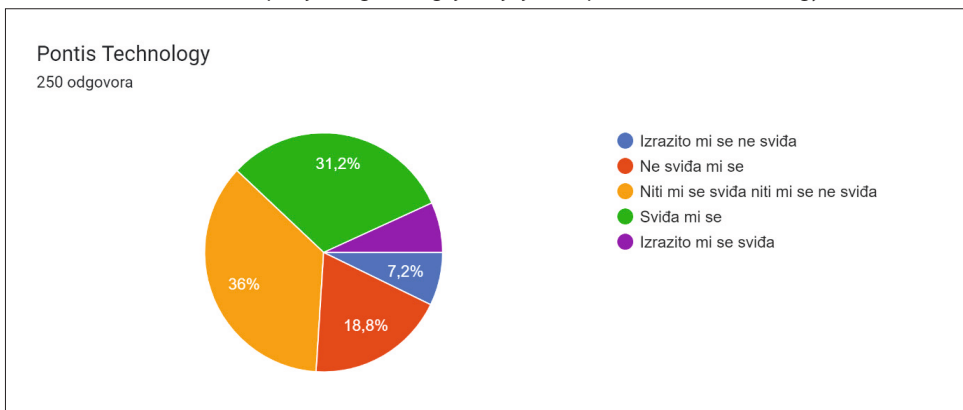
Pontis Technology hrvatska je tvrtka koja se bavi razvojem i poboljšanjem softverskih rješenja te izradom digitalnih proizvoda za tvrtke i javne ustanove (Who we are: Pontis Tech, 2023).

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Slika 1. Pontis Technology jumbo plakat

Izvor: LinkedIN.com, 2023.

Graf 1. : Dopadljivost grafičkog rješenja jumbo plakata Pontis Technology

Pontis Technology
250 odgovora

- Izrazito mi se ne sviđa
- Ne sviđa mi se
- Niti mi se sviđa niti mi se ne sviđa
- Sviđa mi se
- Izrazito mi se sviđa

31,2%
7,2%
18,8%
36%

Izvor: rad autora

Graf 2. Prepoznavanje humora na jumbo plakatu Pontis Technology

Ovakvo vizualno rješenje jumbo plakata smatram humorističnim.
250 odgovora

- U potpunosti se ne slažem
- Ne slažem se
- Niti se slažem niti se ne slažem
- Slažem se
- U potpunosti se slažem

32,8%
11,6%
8%
25,2%
22,4%
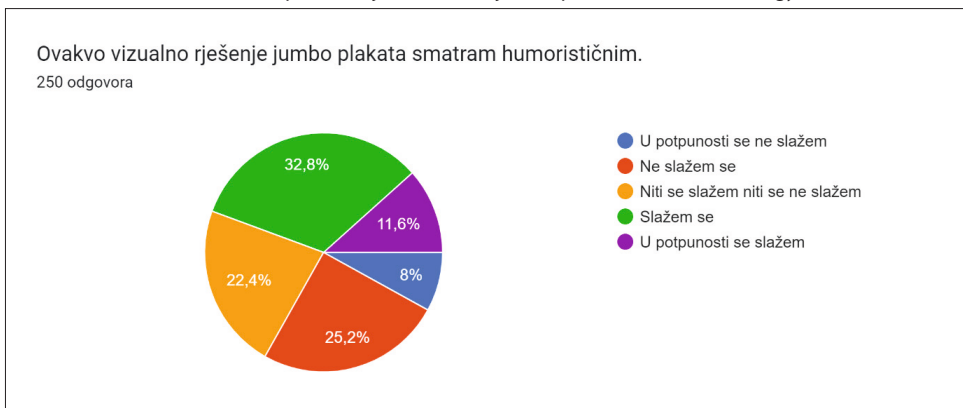
Izvor: rad autora

Graf 3. Privlačenje pozornosti na jumbo plakatu Pontis Technology

Ovakvo vizualno rješenje jumbo plakata privlači moju pozornost.
250 odgovora

- U potpunosti se ne slažem
- Ne slažem se
- Niti se slažem niti se ne slažem
- Slažem se
- U potpunosti se slažem

48,8% 10,8% 17,6% 18,8%
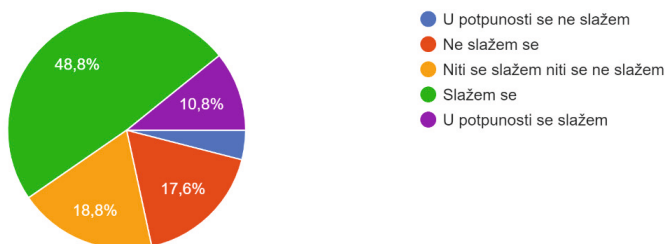
Izvor: rad autora

Graf 4. Pamtljivost jumbo plakata Pontis Technology

Ovakvo vizualno rješenje plakata smatram da ću zapamtiti.
250 odgovora

- U potpunosti se ne slažem
- Ne slažem se
- Niti se slažem niti se ne slažem
- Slažem se
- U potpunosti se slažem

35,6% 10,4% 7,2% 27,6% 19,2%
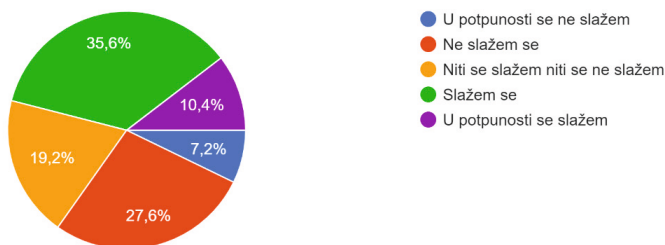
Izvor: rad autora

Graf 5. Namjera kupnje oglašene usluge Pontis Technology

Ovakvo vizualno rješenje jumbo plakata motivira me na kupnju oglašenog proizvoda/usluge.
250 odgovora

- U potpunosti se ne slažem
- Ne slažem se
- Niti se slažem niti se ne slažem
- Slažem se
- U potpunosti se slažem

26,4% 9,2% 44% 19,2%

Izvor: rad autora

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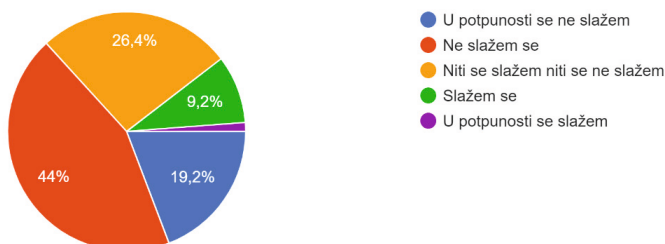
Iz priloženih grafova vidljivo je da 38 % ispitanika pozitivno ocjenjuje grafičko rješenje jumbo plakata nešto manji broj ispitanika, njih ukupno 26 % izražava ne sviđanje prema grafičkome rješenju. Veći broj ispitanika, njih 44,4 % također se izjašnjuje da vizualno rješenje jumbo plakata smatraju humorističnim, a u još većem postotku, čak 59,6 % ispitanika izjašnjava se da jumbo plakat privlači njihovu pozornost. Čak 46 % ispitanika izjašnjava se da će ovakvo vizualno rješenje jumbo plakata zapamtiti, ali kod motivacije na kupnju veći broj ispitanika, njih 63,2 % izjašnjava se da ih ovakvo vizualno rješenje jumbo plakata ne motivira na kupnju, dok je 26,4 % ispitanika ostalo neutralno izabirući odgovor *Niti se slažem, niti se ne slažem*.

Husqvarna Group je Švedska korporacija koja se bavi proizvodnjom vanjskih alata poput robotskih kosilica, motornih pila i sl. Radom je započela 1689. godine originalno proizvodnjom oružja, a danas je jedna od vodećih i najstarijih tvrtki u svijetu. U svrhu izrade anketnog upitnika izabrana su dva različita jumbo plakata koji promoviraju proizvode motorne pile brenda Husqvarna.

Slika 2. Husqvarna – niste zapamtili ime, ali jeste snagu

Izvor: LinkedIN.com, 2023.

Graf 6. Dopadljivost grafičkog rješenja jumbo plakata Husqvarna - niste zapamtili ime, ali jeste snagu
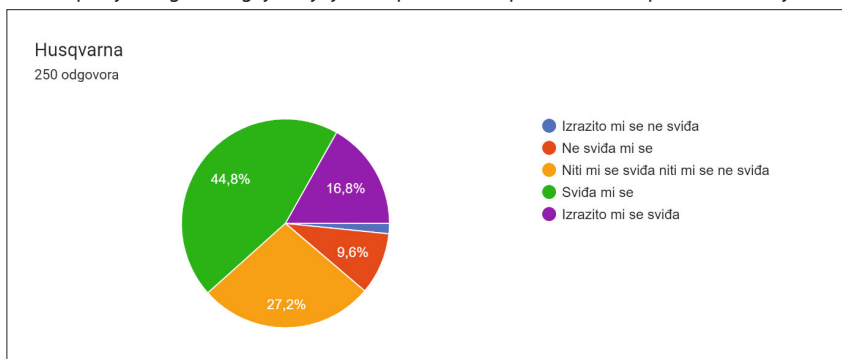
Izvor: rad autora

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Graf 7. Prepoznavanje humora na jumbo plakatu Husqvarna - niste zapamtili ime, ali jeste snagu

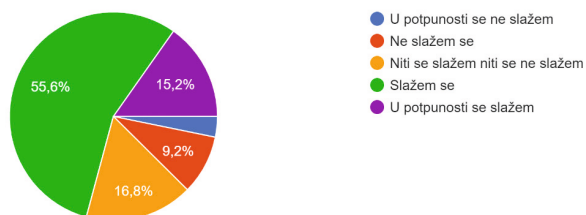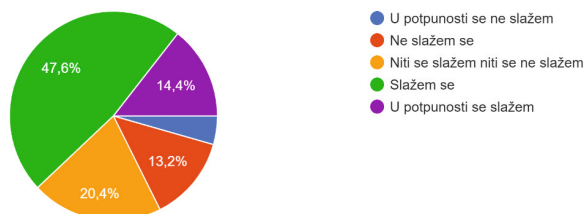Ovakvo vizualno rješenje jumbo plakata smatram humorističnim.
250 odgovora

- U potpunosti se ne slažem
- Ne slažem se
- Niti se slažem niti se ne slažem
- Slažem se
- U potpunosti se slažem
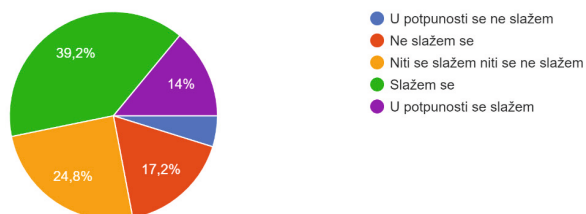
Izvor: rad autora

Graf 8: Privlačenje pozornosti na jumbo plakatu Husqvarna - niste zapamtili ime, ali jeste snagu

Ovakvo vizualno rješenje jumbo plakata privlači moju pozornost.
250 odgovora

- U potpunosti se ne slažem
- Ne slažem se
- Niti se slažem niti se ne slažem
- Slažem se
- U potpunosti se slažem

Izvor: rad autora

Graf 9. Pamtljivost jumbo plakata Husqvarna šaljiv - niste zapamtili ime, ali jeste snagu

Ovakvo vizualno rješenje plakata smatram da ću zapamtiti.
250 odgovora

- U potpunosti se ne slažem
- Ne slažem se
- Niti se slažem niti se ne slažem
- Slažem se
- U potpunosti se slažem

Izvor: rad autora

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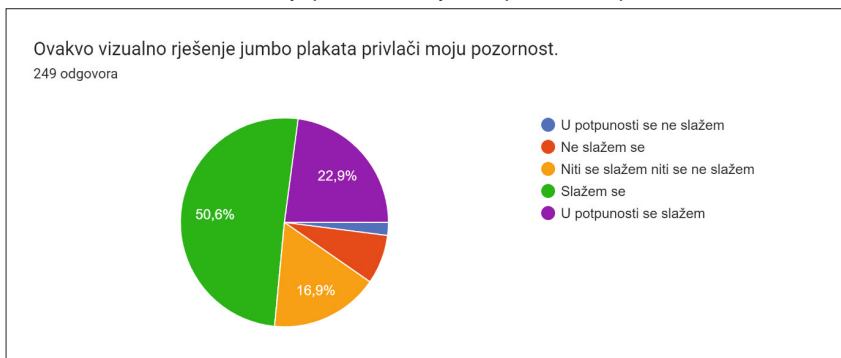**Graf 10.** Namjera kupnje oglašenog proizvoda Husqvarna - niste zapamtili ime, ali jeste snagu
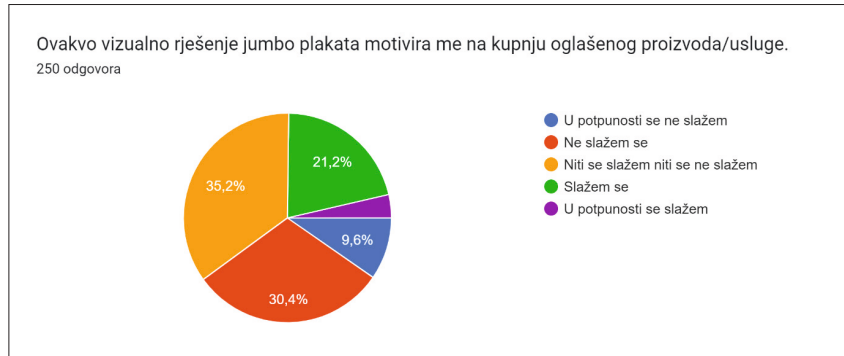
Ovakvo vizualno rješenje jumbo plakata motivira me na kupnju oglašenog proizvoda/usluge.
250 odgovora

- U potpunosti se ne slažem
- Ne slažem se
- Niti se slažem niti se ne slažem
- Slažem se
- U potpunosti se slažem

21,2%
9,6%
35,2%
30,4%

Izvor: rad autora

Iz priloženih grafova vidljivo je da većina ispitanika pozitivno ocjenjuje grafičko rješenje jumbo plakata, njih ukupno 61,6 %, a tek nešto manji broj ispitanika, njih ukupno 11,2 % izražava ne sviđanje prema grafičkome rješenju. Većina ispitanika, njih 53,2 % također se izjašnjuje da vizualno rješenje jumbo plakata smatraju humorističnim, a u još većem postotku, čak 70,8 % ispitanika izjašnjava se da jumbo plakat privlači njihovu pozornost. Većina ispitanika, njih 62 % izjašnjava se da će ovakvo vizualno rješenje jumbo plakata zapamtiti, ali kod motivacije na kupnju veći broj ispitanika, njih 40 % izjašnjava se da ih ovakvo vizualno rješenje jumbo plakata ne motivira na kupnju, dok je 35,2 % ispitanika ostalo neutralno izabirući odgovor *Niti se slažem, niti se ne slažem.*
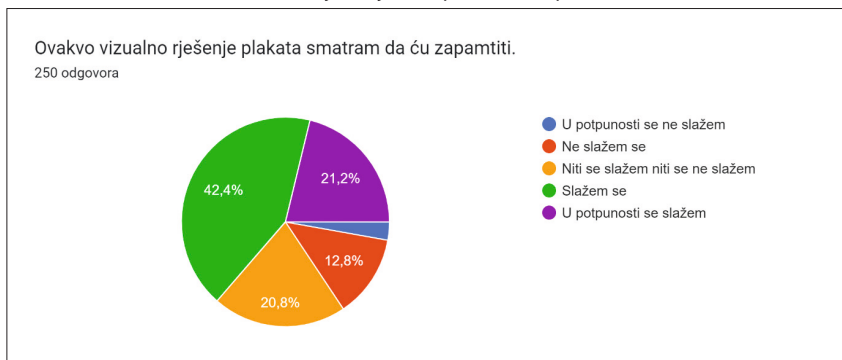
Slika 3. Husqvarna - BMW

"HEJ TATA,
JA BI AUTO. BEMVEA!"
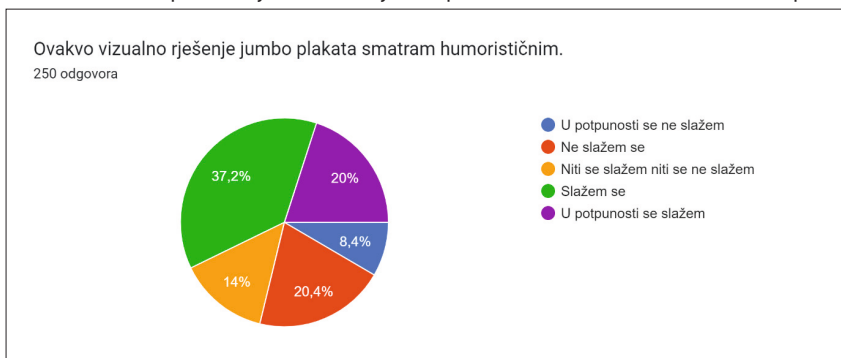~tatin sin

TREBA ZNATI PREREZATI.
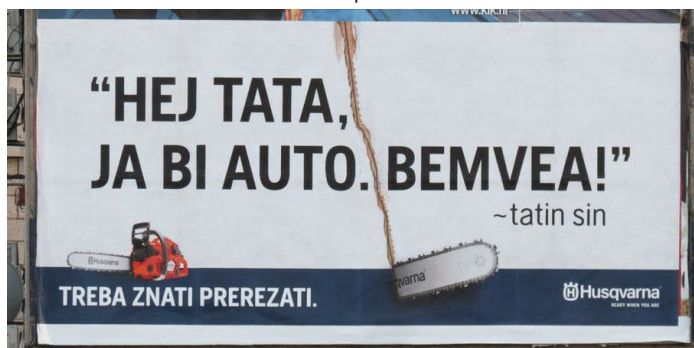
ⓗ Husqvarna

Izvor: Dnevnik.hr, 2023.

Graf 11. Dopadljivost grafičkog rješenja jumbo plakata Husqvarna - BMW

Husqvarna
250 odgovora

43,2%
24,4%
10,8%
18,4%

● Izrazito mi se ne sviđa
● Ne sviđa mi se
● Niti mi se sviđa niti mi se ne sviđa
● Sviđa mi se
● Izrazito mi se sviđa
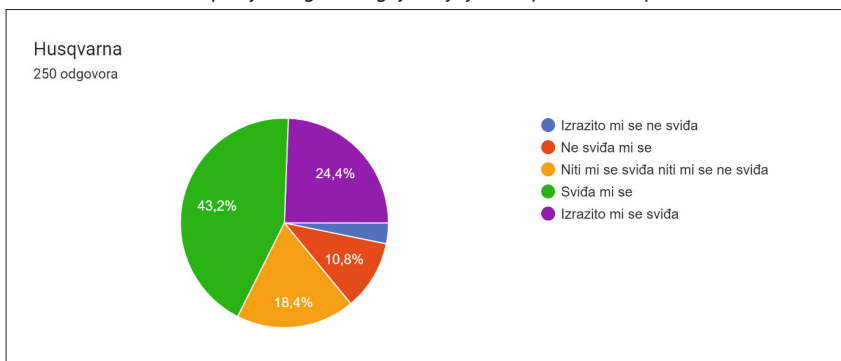
Izvor: rad autora

Graf 12. Prepoznavanje humora na jumbo plakatu Husqvarna - BMW

Ovakvo vizualno rješenje jumbo plakata smatram humorističnim.
250 odgovora

41,2%
23,2%
13,6%
18,4%

● U potpunosti se ne slažem
● Ne slažem se
● Niti se slažem niti se ne slažem
● Slažem se
● U potpunosti se slažem
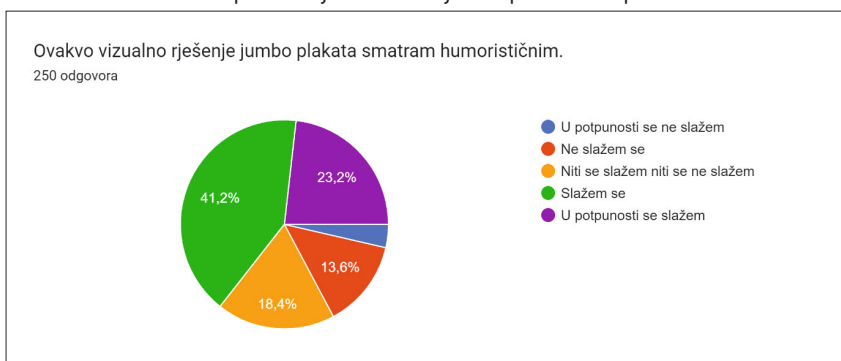
Izvor: rad autora

Graf 13. Privlačenje pozornosti na jumbo plakatu Husqvarna - BMW

Ovakvo vizualno rješenje jumbo plakata privlači moju pozornost.
249 odgovora

50,6%
22,9%
16,9%

● U potpunosti se ne slažem
● Ne slažem se
● Niti se slažem niti se ne slažem
● Slažem se
● U potpunosti se slažem

Izvor: rad autora

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Graf 14. Pamtljivost jumbo plakata Husqvarna - BMW

Izvor: rad autora

Graf 15. Namjera kupnje Husqvarna - BMW
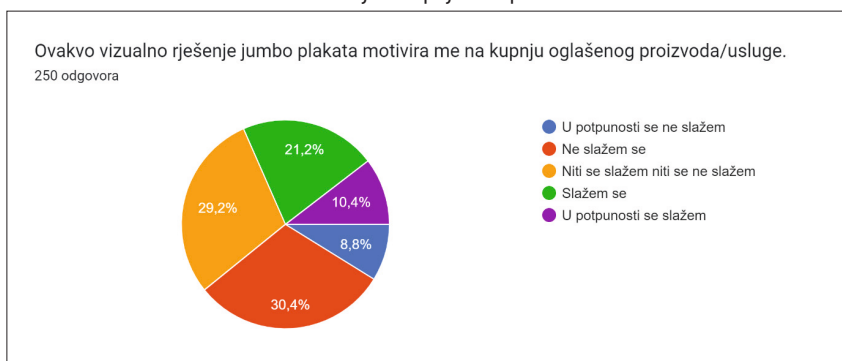
Izvor: rad autora

Iz priloženih grafova vidljivo je da većina ispitanika pozitivno ocjenjuje grafičko rješenje jumbo plakata, njih ukupno 67,6 %, a tek nešto manji broj ispitanika, njih ukupno 14 % izražava ne sviđanje prema grafičkome rješenju. Većina ispitanika, njih 64,4 % također se izjašnjuje da vizualno rješenje jumbo plakata smatraju humorističnim, a u još većem postotku, čak 73,5 % ispitanika izjašnjava se da jumbo plakat privlači njihovu pozornost. Većina ispitanika, njih 63,6 % izjašnjava se da će ovakvo vizualno rješenje jumbo plakata zapamtiti, ali kod motivacije na kupnju veći broj ispitanika, njih 39,2 % izjašnjava se da ih ovakvo vizualno rješenje jumbo plakata ne motivira na kupnju, dok je 29,2 % ispitanika ostalo neutralno izabirući odgovor *Niti se slažem, niti se ne slažem*.

Američki institut je hrvatska škola govora, pisanja i gramatike engleskoga jezika koja nudi tečajeve od početne razine A1 sve do napredne razine C2 (Naša škola: Američki institut, 2023).

Slika 4. Američki institut - Melania Trump jumbo plakat

Izvor: (Otkrivamo tko je autorica plakata o kojem priča cijela Hrvatska: Večernji list, 2017)

Graf 16. Dopadljivost grafičkog rješenja jumbo plakata Američki institut Melania Trump
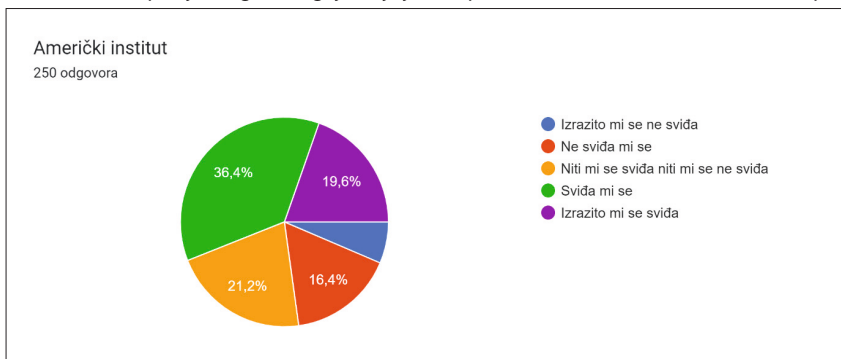
Izvor: rad autora

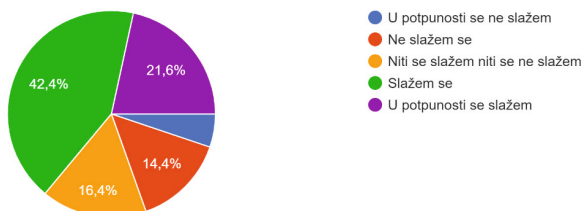**Graf 17.** Prepoznavanje humora na jumbo plakatu Američki institut Melania Trump

Izvor: rad autora

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Graf 18. Privlačenje pozornosti na jumbo plakatu Američki institut Melania Trump

Izvor: rad autora

Graf 19. Pamtljivost jumbo plakata Američki institut Melania Trump
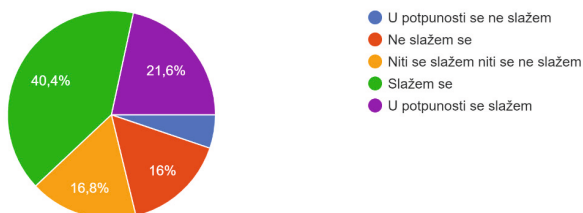
Izvor: rad autora

Graf 20. Namjera kupnje Američki institut Melania Trump
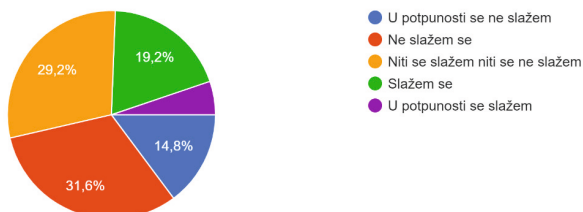
Izvor: rad autora

Iz priloženih grafova vidljivo je da većina ispitanika pozitivno ocjenjuje grafičko rješenje jumbo plakata, njih ukupno 56 %, a tek nešto manji broj ispitanika, njih ukupno 22,8 % izražava ne sviđanje prema grafičkome rješenju. Većina ispitanika, njih 57,2 % također se izjašnjuje da vizualno rješenje jumbo plakata smatraju humoristič-

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nim, a u još većem postotku, čak 64 % ispitanika izjašnjava se da jumbo plakat privlači njihovu pozornost. Većina ispitanika, njih 62 % izjašnjava se da će ovakvo vizualno rješenje jumbo plakata zapamtiti, ali kod motivacije na kupnju veći broj ispitanika, njih 46,4 % izjašnjava se da ih ovakvo vizualno rješenje jumbo plakata ne motivira na kupnju, dok je 29,2 % ispitanika ostalo neutralno izabirući odgovor *Niti se slažem, niti se ne slažem*.

ZAKLJUČAK

Cilj istraživanja bio je istražiti kako javnosti interpretiraju humoristična vizualna rješenja na jumbo plakatima na predloženim primjerima te stupanj doprinosa vidljivosti i namjere kupnje oglašenog proizvoda ili usluge. U posljednjem setu pitanja, istraživanje je pokazalo da bi velika većina ispitanika, njih čak 87,6 % voljelo vidjeti više humorističnih plakatnih rješenja. Time se potvrdila H1: Ispitanici ocjenjuju jumbo plakate s humorističnim sadržajem kao izrazito dopadljive. Pri ocjenjivanju dopadljivosti grafičkih rješenja sva četiri primjera ocijenjeno je uglavnom pozitivno od čega je najbolje ocijenjen jumbo plakat Husqvarne koji se referira kupovinu BMW automobila pri kojemu je 67,6 % ispitanika označilo ponuđene opcije *Sviđa mi se/Izrazito mi se sviđa*. Vezano uz pomoćnu hipotezu H1: Humoristična plakatna rješenja ispitanici ocjenjuju ovisno o vrsti humora povezana je s grafičkim rješenjem jumbo plakata za Američki Institut koji opovrgava tu tvrdnju postižući rezultate od 56% u korist pozitivnih reakcija na grafičko rješenje koje prikazuje Melaniju Trump. Time je pomoćna H1 opovrgnuta i nije postignuta korelacija između agresivnog tipa humora i negativnog ocjenjivanja grafičkog rješenja jumbo plakata. Na postavljena anketna pitanja koja se odnose na vidljivost, kod većine primjera, veći broj ispitanika se pozitivno izjasnilo, međutim kod ispitivanja namjere kupnje na svim prikazanim primjerima ispitanici su uglavnom označili odgovor *Ne slažem se/U potpunosti se ne slažem*. Takvi rezultati potvrđuju teorijski koncept da se marketinški materijali u suvremeno doba prvenstveno kreiraju u svrhu podizanja svjesnosti o brendu, a ne direktne prodaje. Ipak, kod svakog prikazanog primjera dio ispitanika označio je opciju *Slažem se/U potpunosti se slažem* na tvrdnju da ih vizualno rješenje motivira na kupnju što ukazuje na poticaj na prodaju oglašenih materijala. Takvim rezultatima istraživanje je pokazalo da je glavna H2: Humoristična plakatna rješenja izrazito doprinose vidljivosti i/ili prodaji proizvoda ili usluge samo djelomično potvrđena. Posljednji set pitanja koji se odnosio na generalne stavove ispitanika glede humora u oglašavanju pokazao je da većina ispitanika, njih 88% smatra humor učinkovitim komunikacijskim sredstvom u oglašavanju putem jumbo plakata i time se potvrdila glavna H3: Ispitanici smatraju humoristična plakatna rješenje učinkovitom komunikacijskom metodom u predstavljanju proizvoda ili usluga. Pomoćna H2: Ispitanici smatraju da je humor u oglašavanju izrazito dobar komunikacijski pristup nije direktno ispitivana anketnim upitnikom, ali rezultati koji se odnose na generalni stav o korištenju humora na plakatnim rješenjima upućuje na mogućnost potvrđivanja hipoteze i ostavlja prostora za daljnja ispitivanja korištenja humora u marketinškim materijalima. Posljednje pitanje anketnog upitnika odnosilo se na generalni stav ispitanika glede učestalosti humora na plakatnim rješenjima pri kojemu se 76 % ispitanika izjasnilo da se slažu s tvrdnjom da je humor općenito nedovoljno prisutan na plakatnim rješenjima te je time potvrđena pomoćna H3: Ispitanici smatraju da je humor nedovoljno prisutan na plakatnim rješenjima na tržištu. Ograni-

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čenja provedenog istraživanja su neproporcionalni demografski podaci, prvenstveno spola jer je upitnik ispunilo 72 % žena te 27,2 % muškaraca stoga bi u nekome od budućih istraživanja bilo dobro obuhvatiti uravnoteženiji broj ispitanika.

Sve navedeno svakako ukazuje na učinkovitost i korisnost duhovitosti kao apela u marketinškoj komunikaciji. S obzirom na iznimnu izloženost različitim porukama u suvremenom, digitalnom okruženju, razvidno je kako je diferencijacija nužnost u planiranju oglašavanja. Usprkos mnogobrojnim strateškim metodama i pristupima u upravljanju marketinškim kampanja, humor se pokazuje kao jedan od korisnih alata u pronalasku puta do različitih ciljanih javnosti. Temeljem rezultata ovog rada, jasno je kako humor izaziva pozitivne reakcije publike, a ujedno otvara se prostor za nastavak i širenje empirijskih istraživanja na tu temu.

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PROMOTIONAL COMMUNICATION AND HUMOR - PERSPECTIVE OF POTENTIAL CONSUMERS

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Summary: In today's age, the average consumer is too exposed to marketing materials to pay attention to each one, and billboards can be an expensive investment for companies and can easily go unnoticed. The average consumer uses tools that would reduce his exposure to advertising materials, but the results of this research indicate that even though consumers are overexposed to advertisements, they still believe that humor on billboards is not present enough and that they would like to see it more precisely for the reason that research has shown that the use of humor is rated as likable by consumers. Starting from the basic definition that humor is a form of communication whose goal is to make the interlocutors laugh and cheer up, the aim of this paper was to investigate the opinion of different publics about humorous billboard advertising solutions and to determine the connection between the use of humor as a tool in billboard advertising, the intention to purchase the advertised product /services and raising awareness about the organization and the advertised product/service. The chosen research method is a survey, and it was conducted with an online survey questionnaire, which enabled the

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quick and easy collection of a larger number of respondents needed for the implementation of the research task. A wide and heterogeneous sample enabled an insight into the opinions of different members of the population, given that they are all exposed to the advertising (humorous) appeal that is the subject of this research. The obtained results indicated a positive effect of using humor in advertising through billboards, more precisely in increasing the visibility of the brand, i.e. the memory of the advertised product, as well as a generally positive opinion about the use of humor in advertising. Most of the respondents confirmed that humor is a good method of attracting their attention and that they like the humorous approach to advertising through billboards. What are the humor preferences of different groups of people, what is the correlation between humorous advertising and brand building, what type of humor attracts the most attention for a certain brand or economic niche, are just some of the possible research topics and directions. Considering the few and scarce literature in this area, the results of this and similar research can bring useful and practical guidelines to professionals in practice for more precise and effective management of advertising campaigns in the future, and to the scientific community a better understanding of the phenomenon of consumer thinking, i.e. a clearer insight into the connection messages and consumer behaviors of the product or service. This work was created as part of the research for the diploma thesis at the university graduate study of Communication Studies, student Ivona Marenić at the Catholic University of Croatia, 2023.

Keywords*: humor in advertising, billboards, commercials, marketing communication.*

JEL classification*: M3; M31; M37.*

STRUČNI RAD / PROFESSIONAL PAPER

GOSPODARSKI KRIMINALITET: PRIJETNJA DRUŠTVU, PODUZEĆIMA I MENADŽMENTU

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Sažetak: *Uz brojne internacionalne konvencije, uredbe, direktive, nacionalne zakonske i podzakonske akte, te planove i smjernice za prevenciju, i strogo zapriječene sankcije, a unatoč jasno definiranim normama poslovanja, gospodarstvo kao aktivnost kojom se pribavljaju i stječu te raspolaže brojnim dobrima, uključujući i materijalna, i to poradi zadovoljenja potreba ljudske zajednice, nažalost nije izuzeto događaja koji imaju obilježja kaznenih djela ili prekršaja i kojima pojedinci ili organizirane skupine, najčešće svjesno izigravajući propise nastoje steći nepripadnu korist. Ta kaznena djela u pravilu svrstavamo u grupu gospodarskih (privrednih) kaznenih djela, a štete od ovih kaznenih djela nastaju u privatnim tvrtkama, ali i javnim poduzećima te državnoj i lokalnoj upravi, a počinitelji mogu dolaziti iz reda zaposlenika (menadžment i uposlenici) ili izvan subjekata poslovanja, a poseban problem čini internacionalizacija i globalizacija, koja problematiku ovih kaznenih djela čini još složenijom. Uz mjerljivu štetu u iznosima, ova kaznena djela opasnost su i za sustave i zajednicu, posebno ako ih čine umrežene i organizirane skupine. Stoga je primjerice i zbog velikih iznosa šteta po proračun Europske unije, ista ustrojila zasebno tužiteljstvo – EPPO. Rad definira osnovne pojmove vezane uz gospodarski kriminalitet, navodi i prikazuje podjelu kaznenih djela gospodarskog kriminaliteta, utvrđuje najbrojnije, predlaže mjere prevencije čime nastoji podići razinu svijesti kod menadžmenta i šire javnosti o opasnostima i nužnosti borbe protiv istih.*

Ključne riječi: *kazneno djelo, gospodarstvo, kriminal, menadžment, prevencija*

JEL klasifikacija: G32

UVOD

Rezultat sveopće globalizacije i liberalizacije tržišta, nedvojbeno je i porast gospodarskog kriminaliteta, koji je stalan rizik, problem i izazov sigurnosti i opstojnosti.

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Gospodarstvo i kriminalitet su relevantne društvene činjenice čija sinteza čini novi pojam – *gospodarski kriminalitet.* (Orlović, 2009). Unatoč opisanom riziku još uvijek nema pravno propisane i definirane definicije gospodarskog kriminaliteta, što otežava i aktivnosti prevencije na planu istoga. Glavna su obilježja gospodarskog kriminaliteta: slaba uočljivost, kompleksnost, difuznost odgovornosti, difuznost viktimizacije, poteškoće detekcije, poteškoće procesuiranja, blage kazne, zakonske nejasnosti i nejasnosti delinkventnog statusa (Kovčo, 2007). Problem koji kumulira gospodarski kriminalitet, uz destabilizaciju zajednice, sustava i poduzeća, je šteta koja se pojavljuje na financijskom i socijalnom planu, a velik broj autora ističe čestu povezanost gospodarskog s organiziranim kriminalitetom, čime ionako složen problem i rizik dobiva još složeniju dimenziju.

Motivi činjenja ovih kaznenih djela blisko su povezani sa stjecanjem ne pripadajuće i nezakonite dobiti, bilo kroz uzimanje prihoda, ili ne plaćanje propisanih obveza, a često je stanje ovog i organiziranog kriminaliteta rezultat refleksije političkog, ekonomskog i društvenog razvoja neke zemlje. Na pojavu gospodarskog kriminaliteta različite zemlje različito reagiraju donoseći pravne akte za suzbijanje istog i preventivne strategije. Prije više od 20 godina, Vijeće Europe u Izvješće o stanju u području organiziranog i gospodarskog kriminaliteta u jugoistočnoj Europi za 2006., navodi opasnosti od organiziranog i gospodarskog kriminaliteta, a Odbor ministara Vijeća Europe prije više od 30 godina, donio je preporuku o ekonomskom kriminalitetu, kojim upućuje na pridavanje potrebne pažnje za prepoznavanje, vrednovanje i borbu protiv gospodarskog kriminaliteta (Kovčo, 2007). Unatoč tim preporukama i smjernicama, problem ove vrste kriminaliteta rastao je kroz godine, o čemu svjedoči potreba da se na području Europske unije osnuje Ured Europskog javnog tužitelja. Ured Europskog javnog tužitelja (EPPO) neovisan je ured javnog tužitelja Europske unije (u daljnjem tekstu EU). Odgovoran je za istragu, kazneni progon i podizanje optužnice za kaznena djela protiv financijskih interesa EU-a. To uključuje nekoliko vrsta prijevara, prijevare povezane s PDV-om sa štetom većom od 10 milijuna EUR, pranje novca, korupciju itd. Godišnje izvješće o aktivnostima EPPO u 2022., pokazuje jasan fokus na prijevare u EU-u koje utječu na javne prihode, posebno na prekogranične prijevare u vezi s PDV-om. Do kraja 2022., EPPO je imao 1117 aktivnih istraga s ukupnom procijenjenom štetom od 14,1 milijarde eura, od čega je gotovo polovica (47%) rezultat prijevare u vezi s PDV-om. U 2022., EPPO je primio i obradio 3318 kaznenih prijava i otvorio 865 istraga. A suci su odobrili zamrzavanje 359,1 milijuna eura u istragama EPPO-a (u usporedbi sa 147,3 milijuna eura 2021.), što predstavlja više od sedam puta više od proračuna organizacije za 2022. Prema podacima EU u 2019., prihodi od kriminala na glavnim tržištima kriminala iznosili su 1 % BDP-a EU-a, tj. 139 milijardi eura. (Office, 2023)

METODOLOGIJA ISTRAŽIVANJA

Predmet istraživanja ovog rada bio je istražiti pravni okvir vezan za gospodarski kriminalitet, njegove pojmove i utjecaj na zajednicu. Cilj rada je ispitati stanje sigurnosti u Republici Hrvatskoj (u daljnjem tekstu RH) kroz analizu pokazatelja o kretanju broja kaznenih djela, utvrditi najbrojnija kaznena djela, moguće oblike prevencije, te menadžerima, stručnoj i ostaloj javnosti ukazati na posljedice činjenja ovih kaznenih djela po pojedince, tvrtke i zajednicu. Naime, većina kaznenih djela gospodarskog kriminaliteta čini se s namjerom menadžera ili osoba zaposlenih u tvrtkama, (olako držeći

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da se nikada neće otkriti) pa je očito (a na što ukazuju i ranija istraživanja) da je nužan znanstveno stručni rad na planu utvrđivanja stanja ove vrste kriminaliteta, uzroka i povoda, te posljedica i o njima informiranja stručne i šire javnosti. U radu je korištena je opća metoda i to metoda studije slučaja, a kao pomoćna metoda analize sadržaja, kojom je analizirano nekolikog grupa pokazatelja iz kojih se moglo kvalitetno izvesti zaključak istraživanja.

Pojmovna određenja

U uvodu je već navedeno da nema jednoznačne pravne/zakonske definicije gospodarskog kriminaliteta.

U Kaznenom zakonu RH-e (u daljnjem tekstu KZ, RH-e), nekoliko kaznenih djela uobičajeno se smatra kaznenim djelima gospodarskog kriminaliteta, a nalaze se prije svega u Glavi XII – Kaznena djela protiv radnih odnosa i socijalnog osiguranja, Glavi XXIV – Kaznena djela protiv gospodarstva i Glavi XXIII - Kaznena djela protiv imovine. (Kazneni zakon Republike Hrvatske NN 125/11 (NN 114/23, 2011)

Za potrebe ovog rada, kaznena djela gospodarskog kriminaliteta definiraju se i analiziraju prema KZ RH-e, a za izvore o njegovom kretanju koriste se statistički pokazatelji Ministarstva unutarnjih poslova (u daljnjem tekstu MUP-a) RH-e. Navedeni statistički pokazatelji u kaznena djela gospodarskog kriminaliteta svrstavaju ukupno 36 kaznenih djela. (Ministarstvo unutarnjih poslova Republike Hrvatske, 2023)

Terminološka baza hrvatskoga strukovnog nazivlja Struna (Struna, 2020) gospodarski kriminalitet definira kao: kaznena djela počinjena u sklopu upravljačkih, izvršiteljskih i nadzornih funkcija u gospodarskim subjektima pri obavljanju gospodarskih djelatnosti i razmjeni dobara na tržištu te kaznena djela počinjena u izvan gospodarskim subjektima koja su u vezi s upravljanjem i korištenjem imovinom.

Novoselec (Novoselec, 2001) definira gospodarska kaznena djela kao kaznena djela kojima se povređuje gospodarstvo kao nad individualno pravno dobro, tj. kojima se otežava normalno funkcioniranje gospodarstva u cijelosti ili njegovih grana, no ističe kako su to i neka druga kaznena djela ako su počinjena u gospodarskom poslovanju.

Od inozemnih izvora može se izdvojiti za potrebe ovog rada jedna od definicija iz Njemačke, koja gospodarski kriminalitet opisuje kao: gospodarski kriminalitet po mnogim je svojim obilježjima specifična vrsta kriminaliteta. Zbog niza razloga, a osobito visine imovinske koristi koju počinitelji sebi pribavljaju počinjenjem takvih kaznenih djela, gospodarski kriminalitet ima iznimno poguban učinak na cjelokupni društveni sustav, osobito ako je riječ o organiziranom gospodarskom kriminalitetu. Organizirani gospodarski kriminalitet odlikuje se vrhunskom stručnošću i profesionalizmom počinitelja, povezivanjem raznih struktura te iskorištavanjem svih pravnih (nacionalnih i međunarodnih) mogućnosti. Legalni poduzetničko-gospodarski oblici koriste se kao paravan za kriminalno djelovanje.

Sve je prisutnija pojava uske suradnje različitih kriminalnih skupina, koje se inače bave različitim kriminalnim djelatnostima, a koje izvrsno surađuju kad je to potrebno radi lakšeg ostvarenja određenih zajedničkih interesa. (Dnincher & Wagner, 2002)

Gospodarski kriminalitet često nazivamo i kriminal bijelog ovratnika, jer ga u pravilu čine skupine građani istaknutiji na društvenoj ljestvici, te koji uživaju veći ugled i položaj u društvu od klasične radničke klase koja se bavi uglavnom fizičkim rad.

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Okviri za borbu protiv gospodarskog kriminaliteta u EU i RH

Kriminalitet općenito, pa tako i gospodarski, velika su prijetnja svim zajednicama, tako i EU. Stoga je prateći stanje i kretanje EU kroz svoju dugu povijest donijela brojne strategije, preporuke i smjernice za borbu protiv istih.

Internacionalni pravni izvor vezan uz ovo područje, je prva globalna konvencija koja je usvojena s ciljem suzbijanja transnacionalnog organiziranog kriminaliteta – Konvencija Ujedinjenih naroda protiv transnacionalnog organiziranog kriminala, koja je otvorena za potpisivanje u Palermu u prosincu 2000. Tom se konvencijom države obvezuju u svojim nacionalnim kaznenim zakonodavstvima kriminalizirati stvaranje i/ili udruživanje u "organiziranu zločinačku grupu", te odrednice za suzbijanje ove vrste kriminaliteta.

Za potrebe ovog rada uzimajući zadane okvire u pogledu dužine istih, valja istaći da je u EU trenutno na snazi politika nazvana: Ciklus politike EU-EMPACT, što je skraćenica za Europsku multidisciplinarnu platformu protiv kriminalnih prijetnji. Ova politika uvodi integrirani pristup unutarnjoj sigurnosti EU-a, uključujući mjere koje sežu od kontrola vanjskih granica, policijske, carinske i pravosudne suradnje do upravljanja informacijama, inovacija, obuke, prevencije i vanjske dimenzije unutarnje sigurnosti, kao i javno-privatna partnerstva gdje prikladno. Aktivnosti sežu od 2012., a EU je u svibnju 2021., utvrdila prioritete u borbi protiv teškog i organiziranog kriminala za sljedeće četiri godine. Na tim će se prioritetima raditi od 2022. do 2025. Od deset utvrđenih prioriteta sedmi se odnosi na gospodarski kriminalitet i glasi: Prijevare, gospodarski i financijski kriminal, Borba protiv kriminalaca koji organiziraju prijevare, gospodarski i financijski kriminal, uključujući sustave internetskih prijevara, prijevare u vezi s trošarinom, prijevare unutar Zajednice s nepostojećim trgovcem, kaznena djela u području intelektualnog vlasništva, krivotvorenje robe i valuta, financijski kriminal i pranje novca. U okviru EMPACT-a države članice EU-a, agencije EU-a i drugi dionici dužni su blisko surađivati na suzbijanju tih kaznenih prijetnji, koristeći se alatima kao što su osposobljavanje u području izvršavanja zakonodavstva i zajednička operativna djelovanja za razbijanje kriminalnih mreža, njihovih struktura i poslovnih modela. (EUROPOL, 2023)

Što se tiče RH-e, nisu nađeni izvori koji upućuju na postojanje strategija ili planova za borbu protiv gospodarskog kriminaliteta, ili oni nisu dostupni u otvorenim izvorima. Stoga je za istaći da se alati borbe protiv gospodarskog kriminaliteta nalaze u općoj prevenciji prije događanja kaznenih djela, te onoj koja je rezultat primjene Kaznenog zakona (u daljnjem tekstu KZ-a), nakon počinjenja kaznenih djela. Ovdje treba naglasiti da je KZ RH-e, usuglašen s pravnom stečevinom EU. U opću prevenciju možemo svrstati brojne radnje, aktivnosti i kampanje, koje posebice država i njene institucije provode kako bi utjecali na svijest građana o opasnostima od gospodarskog kriminaliteta (poput kampanje „Bez računa se ne računa" itd).
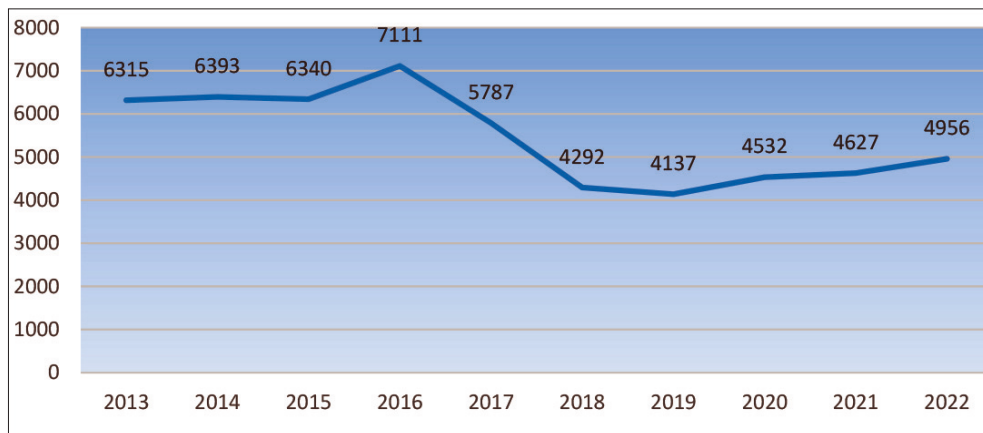
KAZNENA DJELA GOSPODARSKOG KRIMINALITETA

MUP-a, RH-e, na svojim Internet stranicama dostupnim građanima, (https://mup.gov.hr/statistika-228/228), objavljuje statističke pokazatelje o kretanju stanja sigurnosti i u pregledima sigurnosti definira kaznena djela gospodarskog kriminaliteta navedena u tablici 1. Nazivi kaznenih djela su iz KZ-a, koji u samom nazivu djela u terminološkom smislu izriče bit radnje koja je kažnjiva.

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Tablica 1. Kaznena djela gospodarskog kriminaliteta u RH i njihov broj u 2022.

Neisplata plaće (154)	Zlostavljanje na radu (4)	Povreda prava iz socijalnog osiguranja (28)	Protupravna eksploatacija rudnog blaga (1)
Protupravna gradnja (27)	Pronevjera (245)	Prijevara (ratno profiterstvo) (2)	Zlouporaba osiguranja (0)
Zlouporaba povjerenja (18)	Povreda tuđih prava (25)	Zlouporaba povjerenja u gospodarskom poslovanju (709)	Prijevara u gospodarskom poslovanju (230)
Povreda obveze vođenja trgovačkih i poslovnih knjiga (117)	Prouzročenje stečaja (25)	Pogodovanje vjerovnika (10)	Primanje mita u gospodarskom poslovanju (0)
Davanje mita u gospodarskom poslovanju (0)	Zavaravajuće oglašivanje (0)	Utaja poreza ili carine (309)	Izbjegavanje carinskog nadzora (8)
Subvencijska prijevara (30)	Neovlaštena uporaba tuđe tvrtke (1)	Nedozvoljena trgovina (15)	Pranje novca (79)
Krivotvorenje znakova za obilježavanje robe, mjera i utega (2)	Krivotvorenje službene ili poslovne isprave (1483)	Zlouporaba osobne isprave (110)	Izdavanje i uporaba neistinite liječničke ili veterinarske svjedodžbe (91)
Zlouporaba položaja i ovlasti (813)	Nezakonito pogodovanje (22)	Primanje mita (50)	Davanje mita (292)
Trgovanje utjecajem (9)	Davanje mita za trgovanje utjecajem (1)	Odavanje službene tajne (1)	Kaznena djela iz ostalih zakona (44)

Izrada: autori, prema MUP-a, RH-e

MUP-a, RH-e, redovito objavljuje pokazatelje uz ostale i o kaznenim djelima gospodarskog kriminaliteta. Iz istih pokazatelja, temeljem kojih je sačinjen grafikon 1., razvidno je da je u razdoblju od 2013., do 2022., najveći broj kaznenih djela gospodarskog kriminaliteta evidentiran 2016., i to 7111, a najmanji 2019., i to 4137, dok su pokazatelji za ostale godine i o kretanju broja kroz godine prikazani u grafikonu. Važ-

Grafikon 1. Kretanje broja kaznenih djela gospodarskog kriminaliteta u RH 2013-2022

Izrada: autori, prema podacima MUP-a RH-e

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nost praćenja kretanja stanja sigurnosti, odnosno broja kaznenih djela, njihovih vrsta, načina počinjenja, počinitelja, vremena i mjesta događanja od izuzetne je važnosti, jer se nakon obrade podataka i analitičkim izučavanjem dolazi do pokazatelja putem kojih je moguće djelovati operativno i preventivno da se kaznena djela suzbiju u budućnosti.

Za istaći je da se dio znanstvenih i stručnih radova o kaznenim djelima i njihovim počiniteljima bazira na podatcima bazira Državnog zavoda za statistiku, odnosno da uz MUP-a, RH-e, određene statističke pokazatelje objavljuje i navedeni zavod (Državni zavod za statistiku Republike Hrvatske, 2023).

U 2013., na području RH-e, prema podacima MUP-a, evidentirano je ukupno 104 793 kaznenih djela (koja se progone po privatnoj tužbi, prijedlogu i službenoj dužnosti), 2014 njih 97 242, 2015: 95 037, 2016: 85 260, 2017: 83 047, 2018: 78 922, 2019: 83765, 2020: 75790, 2021: 77 739 i 2022: 79 197. Tako je udjel kaznenih djela kibernetičkog kriminaliteta po metodologiji praćenja MUP-a, u ukupnom udjelu kaznenih djela 2013., iznosio: 6,02%, 2014: 6,57%, 2015: 6,67%, 2016: 8,34%, 2017: 6,96%, 2018: 5,43%, 2019: 4,93%, 2020: 5,98%, 2021: 5,95% i 2022: 6,25%.

Broj pojedinačnih kaznenih djela gospodarskog kriminaliteta navedenih u tablici 1., nije podjednak, te se kreće od nekoliko na godišnjoj razini (zavarujuće oglašavanje, neovlaštena uporaba tuđe tvrtke, krivotvorenje znakova za obilježavanje robe, mjera, vaga, odavanje službene tajne itd.), do onih brojnijih, kojih se bilježi više stotina (pronevjera, neisplata plaća, zlouporaba povjerenja u gospodarskom poslovanju, povreda obveze vođenja trgovačkih i poslovnih knjiga, utaja poreza i carina) te onih čiji broj na godišnjoj razini na području RH-e prelazi tisuću (krivotvorenje službene ili poslovne isprave). Pokazatelji o najbrojnijim kaznenim djelima gospodarskog kriminaliteta prikazani su u tablici 2.

Unatoč mjerilu po brojnosti, ne treba zanemariti niti kriterij nastale štete, što otvara prostor budućim istraživanjima, jer primjerice kaznena djela Subvencijske prijevare, kojih je u 2022., evidentirano svega 30, po nastalim štetama u istima, kako novčanim, tako i po ugled RH-e (posebice kada se radi o prijevarama s novcem iz fondova EU) nadilazi brojnija kaznena djela. Tako je prema podacima Ureda Europskog tužitelja (EPPO) za 2022., u Republici Hrvatskoj, navedeni ured otvorio 23 istrage, u kojima se pričinjena šteta kriminalnim aktivnostima cijeni na 313,6 milijuna eura (Ured Europskog tužitelja, 2023).

Tablica 2. Najbrojnija kaznena djela gospodarskog kriminaliteta u razdoblju 2018-2022.

Godina/Kazneno djelo	2022	2021	2020	2019	2018
Krivotvorenje službene ili poslovne isprave	1483	1385	1362	1149	1564
Zlouporaba položaja i ovlasti	813	719	395	478	470
Zlouporaba povjerenja u gospodarskom poslovanju	709	923	650	401	480
Utaja poreza i carine	309	241	604	531	292
Prijevara u gospodarskom poslovanju	230	216	243	276	263
Neisplata plaće	154	105	255	132	109
Pronevjera	245	280	387	478	444
Povreda obveze vođenja trgovačkih i poslovnih knjiga	117	194	129	97	107
Pranje novca	79	52	21	41	53

Izrada: autori, prema MUP-a, RH-e

Promatrano prema policijskim upravama, (tablica 3) na čijem se području bilježi događanje kaznenih djela gospodarskog kriminaliteta uočava se da se najveći broj evidentira u policijskim upravama Zagrebačkoj, Osječko-baranjskoj, Splitsko-dalmatinskoj, Istarskoj, Zadarskoj itd. Dok se najmanji broj bilježi na području PU Požeško-slavonske. No, odmah treba uzeti u obzir da su razlike između pojedinih policijskih uprava prema broju stanovnika i problematici kriminaliteta značajne, odnosno neke policijske uprave kao Požeško-slavonska i Ličko-senjska imaju oko 60 tisuća stanovnika, a primjerice Zagrebačka županija o kojoj skrbi PU Zagrebačka nešto više od 300 000 stanovnika.

Tablica 3. Kretanje broja kaznenih djela gospodarskog kriminaliteta po PU 2017-2020

Policijska uprava/godina	2022	2021	2020	2019	2018	2017
Zagrebačka	741	600	601	783	876	1400
Splitsko-dalmatinska	726	611	480	681	331	1062
Primorsko-goranska	194	149	282	343	175	757
Osječko-baranjska	792	750	377	153	651	1334
Istarska	328	340	323	280	165	268
Dubrovačko-neretvanska	258	154	142	232	202	229
Karlovačka	221	133	170	296	423	343
Sisačko-moslavačka	171	186	131	141	180	46
Šibensko-kninska	153	137	135	128	113	184
Vukovarsko-srijemska	299	502	514	139	184	222
Zadarska	380	336	400	324	402	214
Bjelovarsko-bilogorska	91	105	105	148	88	190
Brodsko-posavska	53	41	105	51	34	113
Koprivničko-križevačka	80	108	43	56	81	157
Krapinsko-zagorska	94	28	33	24	18	51
Ličko-senjska	18	23	26	28	26	28
Međimurska	106	69	187	76	62	145
Požeško-slavonska	27	20	25	32	12	18
Varaždinska	92	185	214	91	118	174
Virovitičko-podravska	132	150	239	131	151	122

Izrada: autori, prema MUP-a, RH-e

Iako nema jednoznačnog određenja o tome koja sve kaznena djela možemo nazivati koruptivnima, dio kaznenih djela gospodarskog kriminaliteta navedenih u prethodnom dijelu rada, naziva se i koruptivnim.

Korupcija, (lat. corruptio – pokvarenost, podmitljivost, potkupljivost, podmićivanje) jedna je od najštetnijih i najneaktivnijih pojava koja ovisno od uvjeta u pojedinoj zemlji može teško narušiti temeljene društvene i moralne vrijednosti i dovesti do složenih društveno-političkih posljedica. Najlakše ju je definirati kao kršenje moralnih vrednota. Koruptivno ponašanje je svaki oblik zlouporabe ovlasti radi osobne ili koristi skupine. Kako gotovo svakodnevno svjedočimo, sve prisutna je i u siromašnim ali i

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bogatim zemljama s dugom tradicijom demokracije (primjeri korupcije u EU), te u brojnim zanimanjima i poslovima.

MUP-a, u djelu statističkih pokazatelja vezanih za gospodarski kriminalitet daje i pregled kretanja koruptivnih kaznenih djela, što je prikazano u sljedećoj tablici.

Tablica 4. Korupcijska kaznena djela u RH 2017-2022.

Korupcijska kaznena djela/godina	2022	2021	2020	2019	2018	2017
Primanje mita u gospodarskom poslovanju		15		131		11
Davanje mita u gospodarskom poslovanju		14		131		
Zlouporaba položaja i ovlasti - počinila službena osoba	813	719	395	478	470	552
Nezakonito pogodovanje	22	17	3	1		
Primanje mita	50	49	30	14	19	95
Davanje mita	292	54	31	25	26	98
Trgovanje utjecajem	9	32	58	5		3
Davanje mita za trgovanje utjecajem	1	8	21			1

Izrada: autori, prema MUP-a, RH-e

Kako je ranije navedeno, otkrivanje kaznenih djela i njihovih počinitelja jedan je od bitnih čimbenika prevencije, pa je stoga nužno pratiti i pokazatelje o ukupnoj razriješenosti kaznenih djela općenito i kaznenih djela gospodarskog kriminaliteta. Prema pokazateljima MUP-a, RH-e, kod gospodarskih kaznenih djela bilježi se visok postotak razriješenosti koji se od 2017., do 2020., kreće od 99-100%. Istovremeno, primjerice ukupna razriješenost svih kaznenih djela u RH u 2018., bila je 53%.

U nastavku je dan opis, zaprijećene sankcije i pojedine specifičnosti za najbrojnija kaznena djela gospodarskog kriminaliteta.

Krivotvorenje službene ili poslovne isprave, Zlouporaba položaja i ovlasti i Zlouporaba povjerenja u gospodarskom poslovanju

Od ukupnog broja evidentiranih kaznenih djela gospodarskog kriminaliteta u 2022., u RH-oj, (4139), ova kaznena djela su najbrojnija i čine čak 72,65% svih. Mogu ih počiniti samo službene i odgovorne osobe u okviru svog djelokruga rada, odnosno gospodarske aktivnosti.

Krivotvorenje službene ili poslovne isprave čini službena ili odgovorna osoba (pojmovi propisani KZ-om), a propisano je člankom 279. KZ-a, RH-e i to na način ako: službenu ili poslovnu ispravu, knjigu ili spis unese neistinite podatke, ili ne unese kakav važan podatak, ili svojim potpisom, odnosno službenim pečatom ovjeri takvu ispravu, knjigu ili spis s neistinitim sadržajem ili koja svojim potpisom, odnosno službenim pečatom omogući izradbu isprave, knjige ili spisa s neistinitim sadržajem. Ili ako neistinitu službenu ili poslovnu ispravu, knjigu ili spis uporabi u službi ili poslovanju kao da su istiniti. Propisana kazna za počinitelja je kazna zatvora od šest mjeseci do pet godina. (Kazneni zakon Republike Hrvatske NN 125/11 (NN 114/23, 2011)

Iz opisa kaznenog djela vidljivo je da se istim štiti istinitost isprava, a objekt počinjenja može biti službeni ili poslovni dokument, poslovne knjige itd.

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Nina Uremović, et al.
GOSPODARSKI KRIMINALITET: PRIJETNJA DRUŠTVU, PODUZEĆIMA I MENADŽMENTU

Najčešći načini počinjenja su unos neistinitih i netočnih podataka, ne unošenje važnog i točnog podatka, ovjeravanje službenih dokumenata i spisa u kojima je naveden neistinit i netočan sadržaj, omogućavanje izrade dokumenta, isprave ili sadržaja knjige neistinitog sadržaja.

Kod ovog kaznenog djela kažnjiv je i pokušaj činjenja istog, a svi predmeti uporabljeni za kazneno djelo bit će privremeno oduzeti.

Zlouporaba položaja i ovlasti je kazneno djelo iz članka 291. KZ-a, RH-e, a čini ga službena ili odgovorna osoba koja iskoristi svoj položaj ili ovlast, prekorači granice svoje ovlasti ili ne obavi dužnost pa time sebi ili drugoj osobi pribavi korist ili drugome prouzroči štetu.

Propisana kazna za počinitelje je kazna zatvora od šest mjeseci do pet godina, a ako je kaznenim djelom pribavljena znatna imovinska korist ili je prouzročena znatna šteta, počinitelj će se kazniti kaznom zatvora od jedne do deset godina. (Kazneni zakon Republike Hrvatske NN 125/11 (NN 114/23, 2011)

Pojam službene osobe obuhvaća državne dužnosnike ili službenike, te dužnosnike ili službenike u jedinicama lokalne i područne samouprave, kao i nositelje pravosudnih dužnosti u Hrvatskoj ili međunarodnoj organizaciji koje je RH član. Odgovorna osoba je fizička osoba koja vodi poslove u pravnoj osobi što podrazumijeva trgovačka društva, ali poslove u državni tijelima i tijelima jedinice lokalne i područne samouprave.

Stoga ovo kazneno djelo može počiniti samo službena ili odgovorna osoba na određenoj dužnosti (poziciji) na kojoj ima određene ovlasti koje zloporabljuje odnosno protuzakonito primjenjuje da bi sebi ili drugome pribavila ne pripadajuću korist ili nekom drugome kakvu štetu.

Kako smo vidjeli MUP-a, a i relevantni stručnjaci ovo kazneno djelo svrstavaju u grupu koruptivnih kaznenih dijela i kao takvo je najzastupljenije (813-2022) jer se zapravo često radi o sprezi između službene ili odgovorne osobe i osoba koje trebaju ostvariti neko svoje pravo, prilikom čega dolazi do koruptivnog odnosa. Često se zlouporabljuje položaj odgovorne osobe u trgovačkom poslovanju u odnosu na drugu odgovornu osobu u drugoj pravnoj osobi ili u odnosu na odgovornost u pravnoj osobi u kojoj posluje ili u odnosu na službenu osobu u državnoj, odnosno lokalnoj upravi.

Zlouporaba povjerenja u gospodarskom poslovanju kazneno je djelo opisano u članku 246 - KZ-a, RH-e, a čini ga onaj tko u gospodarskom poslovanju povrijedi dužnost zaštite tuđih imovinskih interesa koja se temelji na zakonu, odluci upravne ili sudbene vlasti, pravnom poslu ili odnosu povjerenja i na taj način pribavi sebi ili drugoj osobi protupravnu imovinsku korist te time ili na drugi način onome o čijim se imovinskim interesima dužan brinuti prouzroči štetu.

Propisana kazna za počinitelje je kazna zatvora od šest mjeseci do pet godina, a ako je kaznenim djelom pribavljena znatna imovinska korist ili prouzročena znatna šteta, počinitelj će se kazniti kaznom zatvora od jedne do deset godina. (Kazneni zakon Republike Hrvatske NN 125/11 (NN 114/23, 2011)

Ovo kazneno djelo ključno je gospodarsko kazneno djelo koje inkriminira kriminalitet upravljačkih struktura – menadžmenta u trgovačkim društvima zbog prouzročenja štete na imovini koja im je povjerena i koju su dužni štititi. Kazneno djelo zlouporabe povjerenja u gospodarskom poslovanju jest dakle *delictum proprium*, odnosno mogu ga počiniti samo u gospodarskom poslovanju odgovorne osobe, dakle one osobe koje imaju dužnost zaštite tuđih imovinskih interesa koja se temelji na zakonu,

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odluci upravne ili sudbene vlasti, pravnom poslu ili odnosu povjerenja. Mogućim poči-niteljima ovog kaznenog djela zaštita tuđih interesa mora biti povjerena kao primarna dužnost. (Roksandić & Bilić, 2017)

Utaja poreza i carine, Prijevara u gospodarskom poslovanju i Pronevjera

Ova skupina kaznenih djela druga je po brojnosti (774) kada su u pitanju ka-znena djela gospodarskog kriminaliteta te čine 18,7% svih evidentiranih. Za razliku od prethodnih počinitelji ovih kaznenih djela mogu biti i osobe koje nisu u okviru gospodarskih subjekata, ali sudjeluju u kaznenim djelima s gospodarstvom povezani (posebice kada je u pitanju šteta koja nastaje).

Utaja poreza i carine je kazneno djelo propisano člankom 256. KZ-a, RH-e, a čini ga onaj tko s ciljem da on ili druga osoba potpuno ili djelomično izbjegne plaćanje poreza ili carine daje netočne ili nepotpune podatke o dohocima, predmetima ili dru-gim činjenicama koje su od utjecaja na utvrđivanje iznosa porezne ili carinske obveze ili; tko s istim ciljem u slučaju obvezne prijave ne prijavi prihod, predmet ili druge činjenice koje su od utjecaja na utvrđivanje porezne ili carinske obveze, pa zbog toga dođe do smanjenja ili neutvrđenja porezne ili carinske obveze u iznosu koji prelazi dvadeset tisuća kuna. Propisana kazna za počinitelje je kazna zatvora od šest mjeseci do deset godina. (Kazneni zakon Republike Hrvatske NN 125/11 (NN 114/23, 2011)

Uvjeti za postojanje kaznenog djela utaje poreza ili carina su:
- da je porezni obveznik zakonito obavljao djelatnost, odnosno da se neprijav-ljivanje prihoda i drugih činjenica odnosi na zakonito stečen prihod;
- da li je nastupila šteta za državni proračun jer ako nema štete po državni proračun onda nema niti mogućnosti podnošenja prijave za utaju poreza ili carine.

Prvi oblik kaznenog djela utaje poreza ili carina moguće je dakle ostvariti samo činjenjem, odnosno davanjem netočnih podataka, dok je za drugi oblik potrebno ostva-riti radnju nečinjenjem, odnosno nepodnošenjem porezne prijave.

Počinitelj predmetnog kaznenog djela može biti sam porezni dužnik kao fizička osoba, a kada je dužnik pravna osoba, tada je počinitelj osoba koja u ime prave osobe dužna staviti na raspolaganje podatke o poslovanju. (Vaić & Dvorničić, 2022)

Kazneno djelo *Prijevara* u gospodarskom poslovanju, je kazneno djelo iz član-ka 247 KZ-a, a čini ga onaj tko u gospodarskom poslovanju s ciljem da pravnoj osobi koju zastupa ili drugoj pravnoj osobi pribavi protupravnu imovinsku korist dovede nekoga lažnim prikazivanjem ili prikrivanjem činjenica u zabludu ili ga održava u zabludi i time ga navede da na štetu svoje ili tuđe imovine nešto učini ili ne učini. Pro-pisana kazna za počinitelja je kazna zatvora od šeste mjeseci do 10 godina. (Kazneni zakon Republike Hrvatske NN 125/11 (NN 114/23, 2011)

U KZ-u, postoji i kazneno djelo tzv. obične prevare, tako da bi postojalo ovo kazneno djelo, prevara mora biti počinjenja u okviru gospodarske djelatnosti. To znači da „ovo kazneno djelo može počiniti samo odgovorna osoba u pravnoj osobi (trgovač-kom društvu) i to u sklopu nekog poslovnog odnosa. Česti su primjeri da se na temelju lažnih (krivotvorenih) dokumenata podiže roba, prikazuje krivi bonitet tvrtke i tako se odgovorne osobe u drugoj pravnoj osobi drže u zabludi o sigurnoj isplati, „privoli" da učine izdavanje robe zapravo na štetu tvrtke koju zastupaju. (Cvrtila, 2007)

O jednom od češćih pojavnih oblika ovih prijevara javnost je izvijestila i PU Međimurska 17.12.2020.: „*Dovršenim kriminalističkim istraživanjem temeljem zahtjeva nadležnog državnog odvjetništva osnovano se sumnja kako je 44-godišnjak u svojstvu direktora trgovačkog društva sa sjedištem na širem području grada Čakovca (osnivač trgovačkog društva i osoba ovlaštena za zastupanje), počinio kazneno djelo prijevare u gospodarskom poslovanju te kazneno djelo povrede obveze vođenja trgovačkih i poslovnih knjiga. Naime, sumnja se da je osumnjičeni sredinom srpnja prošle godine, znajući da je spomenuto trgovačko društvo u neprekidnoj blokadi zbog nemogućnosti izvršenja financijskih obveza, sklopio ugovor o izvođenju građevinskih radova sa 42-godišnjakinjom. Temeljem sklopljenog ugovora primio je predujam od više desetaka tisuća kuna, a potom nije izvršio sve ugovorene radove. Ujedno, osumnjičeni je 42-godišnjakinju uvjeravao kako će ugovorene radove dovršiti, dok se naposljetku prestao javljati na pozive i time postao nedostupan. Ujedno, istraživanjem je utvrđeno kako osumnjičeni tijekom poslovanja u svojstvu odgovorne osobe spomenutog trgovačkog društva nije vodio poslovne knjige, a koje je prema pozitivnim zakonskim propisima bio dužan voditi te je time nadležnim službama otežao kontrolu podataka o poslovanju trgovačkog društva.*" (Ministarstvo unutarnjih poslova Republike Hrvatske, 2023)

Pronevjera je kazneno djelo opisano u članku 233. KZ-a, RH-e, i čini ga onaj tko protupravno prisvoji tuđu pokretnu stvar ili imovinsko pravo koji su mu povjereni na radu. Propisana kazna za počinitelje je od šest mjeseci do osam godina za najteže oblike i posljedice koje nastupe.

Razlika između kaznenog djela Utaje i Pronevjere je to što kod utaje se protupravno krade stvar ili imovinsko pravo od strane osobe kojoj je isto povjereno, a kod pronevjere od strane osobe koje je isto povjereno u radu. Utaju može učiniti bilo koja osoba, a pronevjeru samo ona koja prisvoji stvari s kojima radi.

Poslovođi, prodavaču, dostavljaču, zaštitaru povjerene su određene stvari (prodajni artikli) na prodaju, skladištenje, nabavu ili čuvanje i ukoliko ih netko od njih prisvoji čini kazneno djelo Pronevjere. Dakle kod ovog kaznenog djela se zapravo radi također o krađi samo ne od strane osobe koja je došla „iz vana", nego od osobe „iz nutra", odnosno osobe koja ima te stvari u svojoj vlasti jer su joj povjerene. (Cvrtila, 2007)

PREVENCIJA

Temeljeni pravni akt za prevenciju kriminaliteta općenito, pa tako i kaznenih djela gospodarskog kriminaliteta u EU je Ugovor iz Amsterdama. On je važeći od 1999., i njime su uspostavljeni pravni i drugi temelji za prevenciju kriminaliteta na području EU.

U članku 29., ugovora se navodi: *"Unija ima za cilj građanima osigurati visoku razinu zaštite na području slobode, sigurnosti i pravde.*" U njemu se spominje prevencija kriminaliteta, "organiziranog ili inog", kao jedno od sredstava za ostvarenje toga cilja. (Europski parlament, 1997)

Europska Komisija sugerira korištenje definicije prevencije kriminaliteta sadržane u Odluci Vijeća od svibnja 2001. godine o uspostavi Europske mreže za prevenciju kriminaliteta (EUCPN). Prema toj definiciji, *"...prevencija kriminaliteta obuhvaća sve mjere kojima se smanjuje ili na drugi način pridonosi kvantitativnom i kvalitativnom smanjenju kriminaliteta i osjećaja nesigurnosti kod građana, bilo kroz izravno odvraćanje od kriminalnih aktivnosti ili kroz politiku i intervencije osmišljene u cilju*

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smanjenja potencijala za kriminal i uzroke kriminaliteta. To uključuje rad Vlade, nadležnih vlasti, agencija za kazneno pravo, lokalnih vlasti, udruga stručnjaka, privatnoga, dragovoljačkog i civilnog sektora, znanstvenika i javnosti, potpomognutih medijima". (Ministarstvo unutarnjih poslova Republike Hrvatske, 2004)

Sprječavanje kaznenih djela, odnosno prevencija u Hrvatskoj ulazi u izvorne zadaće policije (Zakon o policijskim poslovima i ovlastima (NN 76/09 (70/19), 2009). Zbog dnevnih kontakata s kriminalitetom i ugrozama, policija treba djelovati kao senzor za pravovremeno uočavanje devijantnih ponašanja i raspolagati sa saznanjima o uzrocima, žrtvama, počiniteljima, mjestima ugroze itd., na temelje čega se mogu i trebaju planiraju preventivne aktivnosti koje se mogu provoditi samostalno ili u partnerstvu s ostalim subjektima i građanima.

Policija u RH-oj, u svom ustrojstvu u Ravnateljstvu policije i policijskim upravama ima ustrojene odjele, službe, odsjeke ili pod odsjeke u službi kriminalističke policije za gospodarski kriminalitet i Uredima načelnika, službenike za prevenciju.

Problem gospodarskog kriminaliteta je uz ostalo i taj što je višeslojan, te traži interdisciplinaran pristup, kako u njegovom istraživanju i otkrivanju, tako i u prevenciji. Stoga je nužna suradnja u prevencije ove vrste kriminaliteta raznih stručnjaka od kriminalista, pravnika, ekonomista te u konačnici informatičara.

Posebnu važnost sve više u prevenciji, ali i otkrivanju kaznenih djela općenito, tako i gospodarskih u Hrvatskoj sve više dobivaju mediji. Naime, tijela koja se bore protiv kriminaliteta njihov rad mogu iskoristiti za slanje preventivnih preporuka o tome kako se zaštiti, ali i ne činiti kaznena djela gospodarskog kriminaliteta, ali istovremeno, sve je veći broj istraživačkih novinara koji svojim radom ukazuju i na najteža kaznena djela i daju signal nadležnim institucija, koji nakon njih postupaju.

Prevencija kriminaliteta unatoč tome što je izvorna zadaća policije, nije isključiva zadaća policije, niti treba smatrati policiju odgovornom za sve najblaže rečeno negativne pojavnosti u društvu povezane s korupcijom i gospodarskim kriminalitetom. To potvrđuje i Ministarstvo pravosuđa i uprave RH-e, koje ističe da se borba protiv korupcije vodi na dva načina:

- suzbijanjem kaznenih djela korupcije odnosno represivnim djelovanjem;
- borba protiv korupcije mora sadržavati i preventivni dio – sprječavanje korupcije.

Iako je vrlo važno represivno suzbijanje koje ima naravno i svoju preventivnu ulogu, represivni pristup predstavlja uglavnom kažnjavanje posljedica tendencija je danas sve više ojačati sustavnu prevenciju kako bi se u začetku spriječili njezini uzroci.

Suvremeni trendovi suzbijanja korupcije sve se više okreću prevenciji tako da se prepoznaju rizici nastanka korupcije, te izgradnjom institucija, usvajanjem zakona i osvješćivanjem građana i medija nastoji spriječiti korupciju prije nego do nje dođe. Na čemu se zapravo temelji prevencija korupcije. Radi se naravno o djelovanju na uzroke korupcije odnosno upravljanje korupcijskim rizicima. Takvom djelovanju mora prethoditi detekcija područja rizika koji otvaraju prostor korupciji (organizacijskih nedostataka, nepostojanje mehanizama nadzora, manjkavosti zakonodavnog okvira itd). Cilj je formiranje sustava koji će biti što otporniji na korupciju. Dobro organiziran i upravljan sustav je, ukratko, najefikasnija prevencija korupcije (dobro upravljan sustav podrazumijeva odgovornost, efikasnost, transparentnost, osjetljivost i pravičnost njegovih institucija).

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Nina Uremović, et al.
GOSPODARSKI KRIMINALITET: PRIJETNJA DRUŠTVU, PODUZEĆIMA I MENADŽMENTU

Stupovi prevencije su:

- jačanje transparentnosti otvorenosti, participativnosti u radu tijela javne vlasti (proaktivna objava podataka, dostava traženih informacija, javnost rada tijela javne vlasti i mogućnost sudjelovanja svih aktera u formiranju javnih politika);
- jačanje i formiranje sustava integriteta institucija i odgovornosti dužnosnika i službenika (interni etički akti, formiranje kodeksa ponašanja, jačanje etičkih kompetencija, upravljanje sukobom interesa, regulacija zagovaranja interesa);
- podizanje svijesti o nužnosti sprječavanja i suzbijanja korupcije kroz edukacije, obrazovanje i kampanje;
- poticanje mehanizama prijavljivanja korupcije – formiranje učinkovitih kanala za prijavljivanje i adekvatne zaštite prijavitelja.

Tijela koja djeluju u posebnim područjima prevencije korupcije kako ih definira navedeno Ministarstvo su: povjerenik za informiranje, povjerenstvo za odlučivanje o sukobu interesa, pučki pravobranitelj, državni ured za reviziju, državna komisija za kontrolu postupaka javne nabave i državno izborno povjerenstvo.

Poduzimanjem sustavnih napora u području prevencije korupcije, preventivna tijela djeluju na jačanju integriteta, transparentnosti, učinkovitosti i odgovornosti u radu državnih tijela i institucija te osoba na javnim funkcijama, nastojeći tako korupciju učiniti najrizičnijim izborom (Ministarstvo pravosuđa i uprave Repblike Hrvatske, 2023).

Prema Gaćeši (Gaćeša, 2011) moguće aktivnosti policije na planu prevencije kaznenih djela gospodarskog kriminaliteta su:

- prikupljanje obavijesti od građana koja ukazuju na postojanje gospodarskog kriminaliteta;
- ostvarivanje nadzora nad operativno interesantnim osobama i recidivistima;
- nadzor prijevoza roba i uvida u dokumentaciju i uspoređivanje iste sa robom koja se prevozi;
- suradnja policije sa Sigurnosno obavještajnom agencijom u pogledu prikupljanja i razmjeni informacija koje mogu doprinijeti otkrivanju i sprječavanju ovih kaznenih djela;
- suradnja sa Ministarstvom financija i njegovim službama (Porezna i Carinska i dr.) na planu otkrivanja kaznenih djela,
- preventivne kampanje na planu suzbijanja ovih kaznenih djela, s ciljem upoznavanja građana o pojavnim oblicima ovih kaznenih djela i mogućnostima prijave saznanja;
- informiranje građana o pogubnosti po zajednicu i počinitelja ovih kaznenih djela, i dr.

Gospodarski kriminalitet ili kriminalitet „bijelog ovratnika" kako se još naziva u stručnim krugovima, isprepleten brojnim interesima na raznima na kojima se odvija i utjecajima da ga se prikrije, često je vrlo teško (većinu kaznenih djela) prepoznati i doći do saznanja za isti, a kasnije i dokazivati. Stoga je u borbi protiv istog nužno stalno i ustrajno raditi i djelovati na edukaciji građana o oblicima ovih kaznenih djela i njihovoj pogubnosti i štetama koje pričinjava, kao i ukazivati na modalitete i načine prepoznavanja te prijavljivanja istih. Uz to, važnu ulogu imaju kako je već navedeno mediji te organizacije civilnog društva.

Uključivanje prethodno opisanih u ovu problematiku kao pogled sa strane, pomoći će transparentnijem radu, ali i otkrivanju te procesuiranju ovih kaznenih djela.

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Isto tako, važna je zaštita prijavljivača nepravilnosti „zviždača" bez čije odluke da prijave kaznena djela i o njima svjedoče u pojedinim slučajevima za kaznena djela nikad se ne bi niti doznalo.

ODUZIMANJE IMOVINSKE KORISTI

Kod koruptivnih, gospodarskih i kaznenih djela organiziranog kriminaliteta, imovinska korist osnovni je motiv velikog broja kaznenih djela.

Kazneni zakon RH-e, i to članak 87., stavak 2., koji bi u svakom slučaju trebali poznavati odgovorni u tvrtkama i menadžeri svih razina (kao preventivnu mjeru) propisuje da se imovinskom korišću od kaznenog djela smatra neposredna imovinska korist od kaznenog djela koja se sastoji od svakog uvećanja ili sprečavanja umanjenja imovine do kojeg je došlo počinjenjem kaznenog djela, imovina u koju je promijenjena ili pretvorena neposredna imovinska korist od kaznenog djela kao i svaka druga korist koja je dobivena od neposredne imovinske koristi od kaznenog djela ili imovine u koju je promijenjena ili pretvorena neposredna imovinska korist od kaznenog djela bez obzira nalazi li se na području Republike Hrvatske ili izvan njega. (Kazneni zakon Republike Hrvatske NN 125/11 (NN 114/23, 2011)

Samom represijom i primjenom KZ-a, odnosno samo izricanjem propisanih kazni za ova djela, čime se nastoji i preventivno djelovati, ne može se učinkovito preventivno djelovati. Stoga se kroz povijest, kako u svijetu tako i kod nas u zakonskim rješenjima uveo institut da se od počinitelja oduzme imovinska korist stečena kaznenim djelom. Naime, nije rijetka uzrečica i na našim prostorima „*2 godine za par milijuna nije strašno*". I u RH-oj, propisano je kao i u većini zemalja razvijenog svijeta da nitko ne može zadržati imovinsku korist pribavljenu kaznenim djelom.

Uz to što oduzimanje koristi pogađa pojedinca i odvraća ga od budućih kaznenih djela, vrlo je važno zbog organiziranih skupina, jer oduzimanjem sredstava grupe gube izvore financiranja i smisao postojanja, odnosno otežano je regrutiranje članova jer izostaje „nagrada".

Upravo je ovo jedan od izvrsnih preventivnih alata i svi menadžeri uvijek trebaju imati na umu da će činjenjem kaznenih djela gospodarskog kriminaliteta i primjerice nezakonitim izvlačenjem novca iz tvrtke, uz to što će dovesti tvrtku u zonu nezakonitog poslovanja i opasnost od ugroze poslovanja, olako držeći da će sebi steći dobit ostati i oni i tvrtka bez sredstava, a uz to biti kazneno gonjeni i osuđeni na moguće kazne zatvora.

Oduzimanje imovinske koristi stečene kaznenim djelima u RH-oj, uređeno je kao posebna kaznenopravna mjera, a njome se ostvaruje načelo da nitko ne može zadržati imovinsku korist ostvarenu protupravnom radnjom i to člancima 5. i 82. KZ-a. Dok je sam postupak oduzimanje imovinske koristi ostvarene kaznenim djelom i primjena privremenih mjera osiguranja takva oduzimanja regulirana postupovnim odredbama Zakona o kaznenom postupku, odnosno normirana. (Zakon o kaznenom postupku Republike Hrvatske NN 152/08 (NN 80/22), 2008)

Vrlo je važno istaći da se s postupkom utvrđivanja nezakonito stečene koristi i stvaranjem uvjeta za njeno oduzimanje, može prema Hrvatskom zakonodavstvu započeti već u fazi izvida, odnosno saznanja da je počinjeno kazneno djelo koje se progoni po službenoj dužnosti. Tako tvrtke mogu doći u situaciju da im dio ili cjelokupna sredstva s kojim raspolažu budu ograničena. A kod specijalne mjere proširenog oduzimanja imovinske koristi imovina čije zakonito podrijetlo okrivljenik ne može dokazati može biti predmet

proširenog oduzimanja, bila ona pribavljena kaznenim djelom koje je predmet kaznenog postupka čijom je osudom oduzimanje određeno ili ne, čak i ako je stečena pretpostavljenim počinjenjem „običnih" kaznenih djela. (Marušić, Vučko, & Kuštan, 2020)

Prema pokazateljima Državnog odvjetništva RH-e:

- u 2018. godini evidentirana su 892 slučaja oduzimanja, pri čemu je oduzeta imovina u vrijednosti 178 254 924,53 kuna, te određena privremena mjera osiguranja oduzimanja nezakonito stečene imovinske koristi u 31 slučaju i to imovine ukupne vrijednosti 39 323 324,01 kuna.
- u 2019. godini evidentirana su 829 oduzimanja i ukupna vrijednost od 123 531 087,27 kuna, te određena privremena mjera osiguranja oduzimanja nezakonito stečene imovinske koristi u 69 privremenih mjera u visini od 134 467 277,92 kune,

Najviše oduzimanja u navedenim godinama bilo je povezano s kaznenim djelima utaje poreza ili carine, zlouporabe povjerenja u gospodarskom poslovanju neovlaštene proizvodnje droge, izbjegavanja carinskog nadzora i kaznenim djelima počinjenim u sastavu zločinačkog udruženja. (Marušić, Vučko, & Kuštan, 2020)

Važnost instituta oduzimanja nezakonito stečene imovine izuzetno je važna u internacionalnom i europskom okviru i naglašena u brojnim konvencijama, preporukama i uredbama te razine. Članice EU su prema procjenama za 2018. godinu, izgubile 140 milijardi eura prihoda od poreza na dodanu vrijednost zbog transnacionalnih prijevara, dok je prema izvješćima država članica u 2015. godini, nepravilno iskorišteno oko 638 milijuna eura iz strukturnih fondova EU. (Uremović, Matijević, & Jovanović, 2022).

Ured europskog tužitelja, od 1. lipnja do 31. prosinca 2021. godine, u 576 otvorenih istraga u kojima je procijenjena ukupna šteta od 5,4 milijuna eura, zaplijenio (pojam koji navodi EPPO) 147,3 milijuna eura, od čega u osam istraga u RH-oj 270 000 eura. Prema nalogu EPPO-a, tijekom 2022. blokirana je imovina u vrijednosti od oko 400 tisuća eura.

ZAKLJUČAK

Gospodarski, privredni ili ekonomski kriminalitet je višeslojna, složena, sveprisutna, internacionalna negativna pojavnost koja nije dovoljno istražena i definirana. U slučaju organiziranog i korupcijskog kriminaliteta ima izrazito negativne učinke, koji ne utječu negativno samo na ekonomiju ili stanje kriminaliteta, već i na druge sfere društvenog života, dovodi do pravne i opće nesigurnosti, nezdrave ekonomije, izbjegavanja ulaganja u područja zahvaćena ovim kriminalitetom itd. Teško je reći gledajući ranija istraživanja i posebice priopćenja policije, tužilaštva, sudova, tko se danas u svijetu uspješno nosi s ovim problemom, kada vijesti o njemu dolaze iz sjedišta značajnih europskih i svjetskih institucija i s najviših državnih razina i iz zemalja za koje se smatralo da su perjanice pravne i opće sigurnosti. Gospodarski ili ekonomski kriminalitet, proizlazi iz ekonomije i za nju je u bitnome vezan, te se proučavanjem gospodarskog kriminaliteta s gledišta ekonomije u bitnome proširuje spoznaje i šire mogući načini prevencije ove vrste kriminaliteta. Stoga je jasno da je osim što je sigurnosni problem, to nedvojbeno i velik gospodarski i društveni problem koji sve više poprima dimenzije internacionalnosti. Izuzetno je važno da ekonomija ovaj problem „ne gura pod tepih" jer on može, a očito već sada ima dalekosežne štetne posljedice. Ustrojavanje Ureda europskog tužitelja, koji je u samo godinu i pol postojanja postigao značajne rezultate na ovom planu to potvrđuje. Uhićenja i optužnice protiv čelnih ljudi u ministarstvi-

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ma, fondovima i drugim državnim i javnim tijelima i to za pronevjere i zlouporabe europskog novca ne daju više puno vremena za improvizacije, a postavljaju stvarno pitanje znaju li uopće ove razine menadžmenta da su činile kaznena djela. Vjerujemo da će pitanje: tko je sljedeći? neke već sada odagnati od kaznenih djela gospodarskog kriminaliteta, no pitanje je i: nije li nam kasno? No, pozitivistički i znanstveno gledano nikad nije kasno za rješavati neki problem tako i problem gospodarskog kriminaliteta, naime, pravni okviri na međunarodnoj razini i razini EU, te RH-e, su utemeljeni i postavljeni, uspostavljena suradnja, te je na nacionalnim tijelima, znanstvenoj i široj zajednici te pojedincima da dostupne zakonodavne alate koriste u borbi protiv ove vrste kriminaliteta, što je jedan od osnovnih stupova prevencije, novim spoznajama kroz znanstveno istraživački rad trasiraju pravce prevencije kaznenih djela gospodarskog i organiziranog kriminaliteta. Značaj oduzimanja imovinske koristi stečene kaznenim djelima, te dosljedna kaznena politika, uz medijsku promociju nedvojbeno su alati koji će dovesti do smanjenja broja kaznenih djela gospodarskog kriminaliteta. Kao i kod drugih područja prevencije kriminaliteta, s prevencijom je najbolje početi od najranijih dana, odnosno od dječjeg odgoja, te im kroz odgoj i obrazovanje ukazivati da su odgovornost i ponašanje u skladu s društvenim i pravnim normama odlike koje trebaju steći i koje će dugoročno koristiti njima i zajednici. Nadalje, nužno je prevenciju proširiti na područje koje se s njom vjerojatno nije bilo obuhvaćeno, a to su razine srednjeg i višeg obrazovanja iz područja ekonomije, gdje bi se budućim ekonomistima ukazalo na najčešća kaznena djela gospodarskog i korupcijskog kriminaliteta, njihovu tipologiju, što bi zasigurno dovelo do prevencije istih. Suradnju državnih institucija zaduženih za borbu protiv korupcije s tijelima javne i lokalne uprave i tvrtkama u pogledu prevencije ovih vrsta kriminaliteta treba podići na višu razinu, provoditi kampanje i edukacije, te uspostaviti suradnju na obostranu korist. Menadžerima, rukovoditeljima i svima onima koji se susreću u svom radu s imovinom i mogu doći u zonu kažnjivih radnji, preporuča se imovinom upravljati učinkovito i razumno, pažnjom dobrog gospodara, sukladno pravnim načelima, načelima možebitne odgovornosti, javnosti i transparentnosti, ekonomičnosti i predvidljivosti. Dosljednom primjenom ovih načela i kontrolom kroz postupke koje provode jesu li isti poštivani, nikada se pojedinac ili tvrtka neće dovesti u situaciju prekršajne ili kaznene odgovornosti.

Potrebno je na kraju istaći, menadžer koji čini kaznena djela gospodarskog ili organiziranog kriminaliteta unatoč brojnim mogućnostima prikrivanja istih, s druge strane velikog broja dokaza koji nastaju (poslovne dokumentacije) kad-tad dovodi se u opasnost da sebe i tvrtku čiji je ugled gradio godinama dovede na rub propasti, gubitak stečenog novca i ugleda. Otkrivačka djelatnost je 99%, velik broj svjedoka, zviždači sve zaštićeniji, mediji sve slobodniji! https://www.zakon.hr/z/174/Zakon-o-kaznenom-postupku.

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ECONOMIC CRIME: A THREAT TO SOCIETY, COMPANIES AND MANAGEMENT

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Abstract: *In addition to numerous international and national criminal and preventive acts and regulations, strict prohibited sanctions, despite the defined business norms, the economy as an activity by which they are acquired and acquired, and disposes of numerous assets, including material ones, is unfortunately not exempt from criminal offenses in which individuals or groups, they want to gain an extraneous benefit. We classify these crimes in the group of economic crimes, and damages from them are caused in private companies, public companies and state and local administration, and the perpetrators can come from among employees or from outside business entities, and a special problem is internationalization and globalization, which this criminal makes the works even more complex. In addition to measurable damage in amounts, these criminal acts are also a danger to the community because they disrupt the system and values. Due to the large amounts of damage to the budget of the European Union, it established a separate prosecutor's office – EPPO. In the introduction, the paper defines what criminal acts of economic crime are, their problems, and briefly their causes and consequences at the EU level. The search methodology for sources uses the legal acquis of the EU and the legislation of the Republic of Croatia, which define the legal framework for the fight against economic crime. Then, based on the indicators of the Ministry of the Interior, an analysis of the trend of economic crime for the level of the Republic of Croatia is made. In the period from 2013 to 2022, the largest number of these criminal offenses was recorded in 2016, (7111), and observed in the period from 2019 to 2022, there is an increase in the number of these criminal offenses (2019-4137, 2022 -4956), while the most common criminal offenses are Forgery of official or business documents, Abuse of position and authority, etc. In addition to individual criminal offenses, organized groups, internationalization, and the level of perpetrators and their social position are a big problem. The establishment of the European Prosecutor's Office therefore proved to be justified both in other countries and for the territory of the Republic of Croatia. Namely, numerous damages were prevented by the action of this institution. Based on the research and the author's personal experiences, recommendations are given for the prevention and suppression of these crimes, which should have a broad social framework. Even with just one criminal act, it is possible to threaten the survival of the company and numerous employees, which managers must keep in mind. In addition to the scope for other research, this points to the consideration of the necessary education and training of management and economics students on the prevention of these criminal acts, as a common good.*
Keywords: *economy, criminality, criminal acts, management, risk.*

JEL: *G32.*

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Braun, G. O., Scott, J. W. (2013). Smart Growth: sustainability innovations. In: Institutional and Social Innovation for Sustainable Urban Development, Mieg, H. A., Töpfer, K. (ur.). Oxon i New York: Routledge: 44-57.

Peter, C. (2013). Privatization, urban fragmentation, and sustainable development. In: Institutional and Social Innovation for Sustainable Urban Development, Mieg, H. A., Töpfer, K. (ur.). Oxon i New York: Routledge: 130-146.

Doctoral dissertations: last name, initials of the author. (year) Title of work, type of work and the institution where the dissertation was defended.

Hall, R. P. (2006). Understanding and Applying the Concept of Sustainable Development to Transportation Planning and Decisi- on-Making in the U.S., doktorska disertacija Massachusetts Institute of Technology,

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Giddings, B., Hopwood, B., O'Brien, G. (2002). Environment, economy and society: fitting them together into sustainable develop- ment. Sustainable Development, 10(4): 187-196.

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McMaster, I., Bachtler, J. (2005). Implementing Structural Funds in the New Member States: Ten Policy Challenges. European Policies Research Centre. Dostupno na: http://www.eprc.strath.ac.uk/eprc/Documents/pdf_files/12A07_McMaster-Bachtler_paper. pdf [24.11.2014.].

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III. kratko prethodno saopštenje originalnog naučnog rada koje sadržava nove rezultate naučnih istraživanja, a koje je korisno brzo objaviti; i

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Nakon odluke o objavi rada, te lekture i korekture, rad će biti dostavljen autorima na uvid i pregled prije objave. Autoru se, na zahtjev, može izdati i odgovarajuća potvrda o statusu njegovog rada. U tabeli *Struktura i oblikovanje rada* navedena su konkretna uputstva autorima u vezi s tehničkim izgledom rada i preporučena struktura rada.

STRUKTURA I OBLIKOVANJE RADA

NASLOVNICA
Obvezno je navesti naslov rada, ime autora, akademsku titulu, naziv ustanove i adresu u kojoj je autor zaposlen, radno mjesto, te kontakt na jezicima naroda u BiH i engleskome jeziku (ako je rad pisan na jezicima naroda u BiH).

PRVA STRANICA RADA
Obvezno je navesti naslov rada, sažetak, ključne riječi i JEL klasifikaciju.

Sažetak
a. Ako je rad pisan na jezicima naroda u BiH sažetak sadrži od 150 do 300 riječi. Na kraju rada, iza popisa literature, piše se sažetak u proširenom obliku na engleskom jeziku (summary), čija dužina treba da bude od 400-500 riječi. Sažetak se piše u trećem licu, u jednom odlomku i obvezno sadržava:(1)cilj istraživanja,(2)metode istraživanja,(3)osnovni rezultat istraživanja,te(4)zaključak istraživanja.
b. Ako je rad pisan na engleskom jeziku nije potrebno pisati summary na kraju rada, dok su ostala pravila za pisanje sažetka identična kao pod a).

Ključne riječi
Ključne riječi pišu se na na jezicima naroda u BiH i engleskome jeziku (ako je rad pisan na jezicima naroda u BiH), te moraju sadržavati suštinu rada. Navodi se do pet ključnih riječi.

JEL klasifikacija
JEL klasifikacija navodi se ispod ključnih riječi i na jezicima naroda u BiH i na engleskome jeziku (ako je rad pisan na jezicima naroda u BiH) u skladu s klasifikacijom Journal of Economic Literature
(dostupna na **https://www.aeaweb.org/econlit/jelCodes.php?view=jel).**

PREPORUČENA STRUKTURA RADA[1]

1. Uvod
Sadržava definisanje problema, predmeta i ciljeva istraživanja, te motiv za provođenje istraživanja. U uvodu se navodi i hipoteza rada, ili više njih, o kojima se autor očituje u zadnjem poglavlju rada – zaključku. Uvod završava opisom strukture rada.

2. Pregled literature
Pregled literature sadržava pregled relevantne literature iz područja rada s ključnim dosadašnjim spoznajama, odnosno relevantnim rezultatima provedenih istraživanja. Izuzetno, autor može pregled literature uključiti u uvod.

3. Metodologija
Metodologiju je važno prikazati jasno i precizno, utvrditi metodološki doprinos autora ako je prisutan, te njenim prikazom omogućiti testiranje i drugim autorima.

4. Empirijski podaci
Empirijski podaci predstavljaju dokumentacionu podlogu provođenja istraživanja u radu.

5. Rezultati i rasprava
Rezultati i rasprava dio su rada u kojem se objašnjavaju rezultati provedenog istraživanja, uspoređuju sa sličnim istraživanjima, analiziraju ograničenja navedenih rezultata u njihovu tumačenju, značenje rezultata i njihove implikacije.

6. Zaključak
Zaključak je posljednje poglavlje rada. On se ne smije poistovjetiti sa sažetkom rada. Potrebno je da sadrži očitovanje o polaznoj hipotezi, ocjenu rezultata istraživanja, doprinosa provedenog istraživanja, osvrt na ograničenja i probleme u provođenju istraživanja, smjernice za buduća istraživanja, preporuke proizišle iz rezultata

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[1] U zavisnosti od specifičnosti teme, a u dogovoru s Uredničkim odborom, rad se može i drugačije koncipirati.

istraživanja i drugo. Kao i sažetak, zaključak se piše u jednom odlomku.

LITERATURA

Popis literature treba biti na kraju rada, a može obuhvatiti samo djela na koja se autor poziva u tekstu. Slaže se po abecednom redu prezimena autora navedenih djela bez razvrstavanja po vrstama, a podaci o djelu moraju biti potpuni, u skladu s bibliografskim standardima. Ako je više radova istog autora objavljeno iste godine, uz godinu se koriste oznake „a,b,c".

Korištena literatura treba da ima najmanje 15 izvora za pregledne naučne radove, dok za sve ostale radove treba da ima najmanje 10 izvora . Bibliografija treba biti novijeg datuma.

Preporučuje se da se autori pozivaju na izvore radova koji su u prethodnom periodu bili objavljeni u časopisu „EMC Review" (http://www.emc-review.com), kao i onim koji su refereisani od Institute of Science Informationa.

Pri pisanju rada za oblikovanje referenci u tekstu i u popisu literature koristiti **APA** stil (http://www.apastyle.org).

Primjeri citiranja:

Knjige: prezime, inicijali imena. (godina) Naslov. Mjesto izdavanja: ime izdavača. (Ako su dva ili tri autora, redom navesti njihova prezimena i inicijale odvojene zarezom.)

Christensen, C. M. (2012). The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail. Boston, M. A.: Harvard Business School Press.

Mieg, H. A., Töpfer, K. (ur.) (2013). Institutional and Social Innovation for Sustainable Urban Development. Oxon i New York: Routledge.

Poglavlja u knjigama/radovi u zbornicima radova: prezime, inicijali imena. (godina) Naslov poglavlja/odjeljka. U: Naslov knjige, prezime, inicijali imena autora/urednika. Mjesto izdavanja: izdavač: stranice. (Ako su dva ili tri autora, redom navesti njihova prezimena i inicijale odvojene zarezom.)

Braun, G. O., Scott, J. W. (2013). Smart Growth: sustainability innovations. In: Institutional and Social Innovation for Sustainable Urban Development, Mieg, H. A., Töpfer, K. (ur.). Oxon i New York: Routledge: 44-57.

Peter, C. (2013). Privatization, urban fragmentation, and sustainable development. In: Institutional and Social Innovation for Sustainable Urban Development, Mieg, H. A., Töpfer, K. (ur.). Oxon i New York: Routledge: 130-146.

Doktorske disertacije: navodi se prezime, inicijali autora. (godina) Naslov rada, vrsta rada te institucija gdje je rad obranjen.

Hall, R. P. (2006). Understanding and Applying the Concept of Sustainable Development to Transportation Planning and Decisi- on-Making in the U.S., doktorska disertacija Massachusetts Institute of Technology,

Članci u časopisima: prezime, inicijali. (godina) Naslov članka. Naziv časopisa, volumen (broj): stranice. (Ako su dva ili tri autora, redom navesti njihova prezimena i inicijale odvojene zarezom.)

Giddings, B., Hopwood, B., O'Brien, G. (2002). Environment, economy and society: fitting them together into sustainable develop- ment. Sustainable Development, 10(4): 187-196.

Granger, C. W. J. (1969). Investigating Causal Relations by Econometric Models and Cross-spectral Methods. Econometrica, 37(3): 424-438.

Serije članaka/službene publikacije:

Heal, G. (2011). Sustainability and its measurement. NBER Working Paper 17008, National Bureau of Economic Research, Cambridge, MA. Dostupno na: http://www.nber.org/papers/w17008.pdf.

Radovi prezentovani na konferencijama:

Moylan, K. (2009). The Future of EU Cohesion Policy and its implications for Irish Regional Policy. Rad prezentovan na Regional Science Association International Conference, Irska, 3.9.2009. Dostupno na: http://cua.ie/gorm/publications/The_Future_of_EU_ Cohesion_Policy_and_its_Implications_for_Irish_Regional_Policy_Sept%202009.pdf [13.1.2015.].

Internetski izvori: prezime, inicijali autora/urednika. (godina) Naslov. Institucija/izdavač/časopis/… Internet adresa, datum pristupa- nja u uglatoj zagradi. (Ako su dva ili tri autora, redom navesti njihova prezimena i inicijale odvojene zarezom.)

McMaster, I., Bachtler, J. (2005). Implementing Structural Funds in the New Member States: Ten Policy Challenges. European Policies Research Centre. Dostupno na: http://www.eprc.strath.ac.uk/eprc/Documents/pdf_files/12A07_McMaster-Bachtler_paper. pdf [24.11.2014.].

TEHNIČKA UPUTSTVA

Rad treba biti napisan u Microsoft Office Word programu (MS Office Word 95 i više).

– Format stranice je A4 s jednostrukim proredom (1), uključujući fusnote i reference. Margine su 2,5 cm.

– Treba koristiti tip slova (font) Times New Roman i veličinu slova (fonta) 12.

– Tekst treba biti obostrano poravnan, a paragrafi se odvajaju s jednim redom razmaka.

– Obim rada može imati najviše do 30.000 znakova (karaktera) ili 16 stranica. U dogovoru s Uredničkim odborom, obim rada rada meže biti i veći do 50.000 znakova (karaktera).

– Rad mora biti pisan standardnim jezikom i bez pravopisnih i gramatičkih pogrešaka.

– Naslov rada piše se velikim podebljanim slovima, veličine fonta 16.

– Imena autora pišu se podebljanim slovima, veličine fonta 14.

– Naslovi poglavlja, od uvoda do zaključka, trebaju biti podebljani. Naslovi i podnaslovi ne trebaju se numerisati.

– Podnaslovi mogu ići do trećeg nivoa.

– Slike, tabele, formule i grafikoni koji su sastavni dio rada moraju biti jasno urađeni, te imati naslov, izvor i broj. Numerišu se u kontinuitetu arapskim brojevima. Naslovi se pišu iznad slike, tabele, formule ili grafikona veličinom slova 11, podebljani. Izvori se pišu ispod slike, tabele ili grafikona veličinom slova 10.

– Fusnote se koriste samo za objašnjavanje osnovnog teksta, a ne navođenje izvora literature.

– U skladu s APA standardom, na korištenu literaturu kroz tekst referiše se stavljanjem u zagrade, a piše se prezime autora i godina izdanja, naprimjer: (Rodrik, 2008.), a u slučaju citata navodi se još i broj stranice (Rodrik, 2008:78). Svaka bilješka navodi se kao i prvi put. Ako je riječ o dvoje autora, oba prezimena navode se u zagradama, a ako ih je više, navodi se samo prvi autor: (Rodrik i saradnici, 2008.). Svaka referenca mora se navesti u popisu literature.

– Za citiranje, reference i popis literature obavezno korištenje MS Office Word alata u opcijama izbornika „References" – Style: izabrati izbornik „APA". Rukopisi koji ne budu imali aktiviranu ovu opciju prilikom označavanja citata, referenci i literature biće vraćeni autorima na korekciju.

– Ne označavati posebno neke riječi u radu, dijelove rada i slično podebljanjem, kosim slovima ili nekim drugim oblikovanjem.

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Časopis za ekonomiju i tržišne komunikacije

Economy and Market Communication Review

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*** paper which contains the new results of a scientific research useful to be published promptly;

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Sve radove koje Urednički odbor proslijedi u postupak recenzije recenziraju najmanje dva nezavisna recenzenta specijalizovana u području rada za koje Urednički odbor procijeni da ulaze u djelokrug časopisa i udovoljavaju Uputstvima za autore.

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Svaki zaprimljeni rad na recenziju potrebno je tretirati kao povjerljivi dokument.

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Časopis za ekonomiju i tržišne komunikacije

Economy and Market Communication Review

OBRAZAC O POGODNOSTI RADA ZA OBJAVU

- obrazac recenzije -

I. NASLOV RADA: ....

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Naslov rada odražava sadržaj rada		
Tema rada se uklapa u djelokrug časopisa		
Tema rada je aktuelna i relevantna		
Rad sadržava sve dijelove u skladu s Uputstvom za autore		
Sažetak je koncipiran u skladu s Uputstvom za autore		
Prošireni rezime na engleskom jeziku (summary) je koncipiran u skladu s Uputstvom za autore (za radove na jezicima naroda u BiH)		
Ključne riječi odražavaju sadržaj rada		
Uvod je koncipiran u skladu s Uputstvom za autore		

Autor se oslanja na relevantna dosadašnja opšta istraživanja iz područja rada		
Primijenjena je odgovarajuća metodologija		
Metodologija je precizno definisana		
Autor upoređuje relevantna dosadašnja istraživanja iz odabranog područja s vlastitim istraživanjem		
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**** rad koji sadržava izvorni, sažet i kritički prikaz jednog područja, te daje svoj doprinos s obzirom na već objavljene radove;

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VI. PODACI O RECENZENTU:

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