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APPLICATION OF STATISTICAL MODELS IN THE QUANTITATIVE ANALYSIS OF THE SPORTS MARKET

Nataša Milojević[1]
Faculty of Business Economis and Entrepreneurship (PEP), Belgrade , Serbia
Svetlana Tasić[2]
Academy of Applied Business and Art Studies, Belgrade, Serbia
Yana I. Ustinova[3]
Novosibirski državni Univerzitet za ekonomiju i menadžment, Rusija

ABSTRACT

Quantitative analysis of the sports market represents one of the most significant analytical approaches in contemporary economic research, as it enables an objective examination of market dynamics based on numerical data. This paper examines the application of statistical models in quantitative research on the sports market, with particular emphasis on regression methods. The aim of the study is to determine, through empirical research, the effects of price, quality, and promotional intensity on consumers' purchase intentions regarding sports products. The application of multiple linear regression confirmed a high level of statistical significance of the model. The findings indicate that product quality is the strongest predictor of purchase intention, while promotional intensity exerts a greater influence than price. These results provide important insights for the development of effective marketing strategies in the Serbian sports market, highlighting the primacy of product quality and promotional activities in consumer decision-making processes.

Keywords: statistical models, sports market analysis, regression analysis, consumer behavior.

[1] natasa.milojevic@alfa.edu.rs; ORCID 0009-0007-6186-5103
[2] cecatasic1@gmail.com; ORCID 0000-0003-3049-6396
[3] ORCID 0000-0002-1537-2195

PRIMENA STATISTIČKIH MODELA U KVANTITATIVNOJ ANALIZI SPORTSKOG TRŽIŠTA

APSTRAKT

Kvantitativna analiza sportskog tržišta predstavlja jedan od najznačajnijih analitičkih pristupa u savremenim ekonomskim istraživanjima, jer omogućava objektivno sagledavanje tržišnih zakonitosti na osnovu numeričkih podataka. Predmet ovog rada je analiza primene statističkih modela u kvantitativnom istraživanju sportskog tržišta, sa posebnim fokusom na regresione metode. Cilj rada je da se kroz empirijsko istraživanje utvrdi uticaj cene, kvaliteta i intenziteta promocije na nameru za kupovinu sportskih proizvoda. Primenom višestruke linearne regresije potvrđena je visoka statistička značajnost modela. Rezultati ukazuju na to da kvalitet proizvoda predstavlja najsnažniji prediktor kupovine, dok intenzitet promocije ima veći uticaj u odnosu na cenu. Dobijeni nalazi pružaju značajan uvid za kreiranje efikasnih marketinških strategija na sportskom tržištu Srbije, naglašavajući primat kvaliteta i promotivnih aktivnosti u procesu donošenja odluka potrošača.

Ključne reči: statistički modeli, analiza sportskog tržišta, regresiona analiza, potrošačko ponašanje.

Introduction

Sport, particularly in the contemporary era, constitutes a dynamic economic sector characterized by substantial financial activity and significant capital flows (Putić et al., 2025). Contemporary sports markets operate under conditions of intense competition, accelerated technological change, and increasing complexity of consumer behavior. Globalization, digital sales channels, and the widespread use of information systems have generated vast quantities of data concerning market actors, their preferences, and decision-making patterns. Within such an environment, the capacity of firms and researchers to efficiently collect, process, and interpret data has become a decisive factor of success in the sports market.

Traditional approaches to market analysis, largely grounded in qualitative methods and subjective assessments, can no longer independently meet the demands of the contemporary business environment. Although qualitative research continues to play an important role in understanding consumer motives and attitudes, its explanatory reach is limited in terms of generalizability and the quantification of findings. For this reason, increasing attention has been directed toward quantitative analysis of the sports market, which enables objective measurement of market phenomena and empirical testing of theoretical assumptions (Andy Field, 2018).

Quantitative analysis of the sports market is based on the application of statistical and mathematical methods that facilitate the identification of

regularities in the behavior of market participants. Statistical models represent a central analytical instrument within this approach, as they enable data systematization, measurement of the strength of relationships among variables, and estimation of the probability of specific market outcomes. Their application is particularly significant in studies of consumer behavior, demand analysis, market segmentation, and the evaluation of marketing strategies.

The importance of statistical models is further reflected in their capacity to connect theoretical concepts with empirical data. Economic and marketing theories often proceed from abstract assumptions concerning consumer rationality, demand elasticity, or the influence of price and quality on purchasing decisions (William H. Greene, 2018). Statistical models enable the operationalization of these concepts, translating them into measurable variables that can be subjected to empirical testing. In this way, quantitative market analysis functions as a bridge between theory and practice.

In contemporary research on sports markets, statistical models are employed not only to describe existing conditions but also to anticipate future market developments. Regression models, time-series models, and multivariate methods allow for the estimation of the effects of changes in particular factors, such as price, income, or promotion, on demand and purchasing decisions. This predictive dimension of statistical modeling is of particular relevance for strategic planning and business decision-making under conditions of uncertainty.

Despite their numerous advantages, the application of statistical models in sports market analysis requires a high degree of methodological precision. Inadequate model selection, violation of statistical assumptions, or misinterpretation of results may lead to erroneous conclusions and ineffective decision-making (Grubor & Đokić, 2018). For this reason, researchers must possess appropriate expertise in statistics, alongside a sound understanding of the economic and market context within which the analysis is conducted.

Proceeding from these considerations, the subject of this paper is the examination of the role and significance of statistical models in the quantitative analysis of sports markets, with particular emphasis on their application in the study of consumer behavior. The aim of the paper is, through theoretical analysis and empirical research, to demonstrate the methodological advantages of statistical models and their practical applicability in contemporary market research. In accordance with this objective, the paper is structured as follows: the introduction is followed by a theoretical discussion of quantitative sports market analysis, then a presentation of the research methodology and empirical findings, while the concluding section offers final considerations and recommendations for future research.

Methodological Framework of Quantitative Sports Market Analysis

Quantitative analysis of the sports market represents a systematic research approach grounded in the collection, processing, and interpretation of numerical data for the purpose of objectively examining market phenomena and relationships among economic variables. From a methodological perspective, this approach enables the measurement of the intensity, direction, and statistical significance of the effects exerted by different factors on consumer behavior, demand, and other key market outcomes.

Quantitative analysis of sports markets may be understood as a set of research procedures employing statistical and mathematical models for the empirical testing of theoretical assumptions regarding the functioning of sports markets, with results expressed in numerical form and subject to statistical verification of reliability and validity. Such an approach underscores its principal advantage over qualitative methods, namely, the possibility of generalizing findings to a broader population.

The foundation of the methodological framework of quantitative sports market analysis lies in a clearly defined research design, encompassing the precise formulation of research objectives, the development of hypotheses, the selection of an appropriate sample, and the choice of statistical models consistent with the nature of the data and the research questions. Methodological consistency throughout all phases of the research process is essential for ensuring the reliability of the findings.

The first step in quantitative analysis of sports markets involves the operationalization of theoretical concepts, that is, their translation into measurable variables. Abstract constructs such as consumer satisfaction, perceived quality, or brand loyalty must be expressed through numerical indicators suitable for statistical analysis. In practice, such operationalization is most commonly conducted through standardized questionnaires and measurement scales, such as the Likert scale, which allow the quantification of respondents' subjective attitudes.

A second important element of the methodological framework concerns data collection. Quantitative research on sports markets relies on both primary and secondary sources of data. Primary data are collected directly from respondents through surveys, experiments, or panel studies, while secondary data are drawn from official statistical databases, financial reports, or market studies. The selection of data sources depends on the objectives of the research, the availability of information, and the required level of precision.

Within quantitative market analysis, particular attention is devoted to sample selection. Sample representativeness constitutes a crucial precondition for the generalizability of results to the broader population. Sampling methods such as random, stratified, or quota sampling are selected in accordance with population structure and research objectives. An insufficiently representative

sample may seriously undermine the validity of conclusions, regardless of the statistical models employed.

Following data collection, the next phase involves statistical data processing. Within this segment of the methodological framework, descriptive statistical methods provide an initial insight into data structure, while inferential statistical models enable hypothesis testing and the derivation of conclusions about the population. Regression models, analysis of variance, and multivariate methods represent some of the most frequently applied tools in quantitative sports market analysis (Aaker, Kumar, & Day, 2016).

An important methodological aspect of quantitative sports market analysis concerns the verification of statistical assumptions underlying the models (Malhotra, 2019). Assumptions related to distributional normality, homogeneity of variance, and the absence of multicollinearity must be satisfied for analytical results to be valid. Neglecting these assumptions may lead to incorrect interpretations of statistical significance and model reliability.

Finally, the methodological framework of quantitative sports market analysis includes the interpretation of results, which must be grounded not only in statistical significance but also in the economic and market relevance of the findings (Philip Kotler & Kevin Lane Keller, 2016). Statistical models do not provide answers in themselves; rather, they constitute analytical instruments whose outputs must be critically interpreted by the researcher within the context of actual market conditions.

Empirical Research as a Central Component of Quantitative Sports Market Analysis

Empirical research enables the testing of theoretical assumptions on the basis of real-world data collected from the market. Research design determines how the research problem will be operationalized, which methods will be employed, and how the reliability and validity of the findings will be ensured. In this study, a quantitative descriptive-explanatory research design was adopted, enabling both the description of observed phenomena and the examination of causal relationships among variables.

The starting point of the research design is the clear definition of the research problem, which concerns the identification of the key factors influencing consumers' decisions to purchase products in the sports market (Churchill & Iacobucci, 2014). This problem arises from the need for sports-related organizations to understand the mechanisms underlying consumer decision-making in order to optimize their marketing strategies and improve market performance.

Research Questions and Hypotheses

Based on the theoretical framework and review of relevant literature, the following research questions were formulated:

- Which factors exert the greatest influence on consumers' decisions to purchase sports products?
- Do economic and marketing factors have a statistically significant effect on consumer behavior?
- To what extent can quantitative models explain the variability of consumer decisions?

In accordance with these research questions, testable hypotheses were formulated to enable empirical verification of the proposed assumptions. The hypotheses were operationalized through measurable variables, thereby ensuring their statistical testability.

Operationalization of Variables

The operationalization of variables represents a crucial phase in empirical research design, as it transforms abstract theoretical concepts into concrete, measurable indicators. In this study, the dependent variable is purchase intention, operationalized as the degree of consumers' willingness to purchase a sports product in the forthcoming period.
The independent variables include product price, perceived quality, and the intensity of promotional activities. Each of these variables was measured through multiple statements on a Likert scale, allowing for more reliable measurement of latent constructs and reducing the influence of individual measurement errors.

Data Collection Methods

Data were collected using a survey research method, one of the most commonly employed techniques in quantitative research on sports markets. The empirical study was conducted in 2025 on a sample of 150 respondents, which is considered adequate for the application of multiple regression analysis. Sample size was determined by considering the ratio between the number of independent variables and the number of respondents, in order to ensure sufficient statistical power and reduce the risk of incorrectly rejecting true hypotheses. Data were collected through an online questionnaire, enabling efficient data gathering and broader respondent coverage (Kovačević, 2012).
Prior to the main study, a pilot study was conducted on a smaller sample of respondents to assess question clarity and the internal consistency of the

measurement scales. Based on the feedback obtained, minor revisions were introduced into the questionnaire, thereby improving its reliability.

Sample and Sampling Strategy

The research sample consists of consumers participating in the sports market. A purposive sampling method was applied, with efforts made to ensure respondent diversity in terms of gender, age, and income level (Lovreta, Končar, & Petković, 2019). The sample structure was designed to enable analysis of consumer attitudes across different age groups and levels of physical activity, while maintaining balanced gender representation.

Consumer attitudes were measured using an instrument constructed in the form of a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). The questionnaire was designed to operationalize three key independent variables forming the analytical framework of the study:

- Price, examining consumer sensitivity to price changes and perceptions of value for money;
- Quality, assessing the importance of materials, durability, and functionality of sports equipment;
- Promotional Intensity, examining the influence of marketing campaigns, discounts, and digital advertising on product awareness.

The dependent variable in the model is purchase intention regarding sports products. Prior to conducting the regression analysis, the reliability of the measurement instrument was tested using Cronbach's alpha. The obtained coefficient for the entire questionnaire was $\alpha = 0.82$, while values for individual dimensions (price, quality, promotion) ranged from 0.76 to 0.85, indicating a high level of internal consistency.

Statistical Data Analysis Plan

The empirical research design also included a predefined statistical data analysis plan. The first phase of analysis involved the application of descriptive statistics to examine the basic characteristics of the sample and variables. In the second phase, inferential statistical methods were applied, primarily multiple linear regression, to test the proposed hypotheses and estimate the strength of the effects of the independent variables (Tabachnick & Fidell, 2019).

Particular attention was devoted to testing the assumptions underlying the regression model, including normality of residual distribution, linearity of relationships, and absence of multicollinearity. This approach ensured methodological rigor and enhanced the reliability of the research findings.

Ethical Considerations

The study was conducted in accordance with the fundamental ethical principles of scientific research. Participation was voluntary, while the anonymity of respondents and the confidentiality of collected data were fully ensured (Jeffrey Wooldridge, 2016). Participants were informed about the purpose of the study and the use of collected data exclusively for scientific research purposes (Stanković, Pavlović, & Stanković, 2024). During both the implementation of the research and the data analysis process, the authors adhered strictly to ethical standards and the moral responsibilities of researchers, thereby ensuring the objectivity and validity of the obtained findings (Stanković et al., 2024).

Statistical Model and Mathematical Formulation

For data analysis, a multiple linear regression model was applied (Babić, 2013), which can be formally expressed as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

where:

- Y denotes purchase decision,
- X_1 denotes product price,
- X_2 denotes perceived quality,
- X_3 denotes promotional intensity,
- β_0 denotes the intercept term,
- $\beta_1, \beta_2, \beta_3$ denote regression coefficients,
- ε denotes the random error term.

This model was employed to estimate the effects of the selected independent variables on consumer purchase decisions and to assess the relative contribution of each predictor within the analytical framework of the study.

Empirical Research Results

Descriptive Statistics

The structure of the sample indicates a relatively balanced gender distribution, with 72 male respondents (48.0%) and 78 female respondents (52.0%), suggesting adequate gender representation for the purposes of analysis.

With regard to age structure, the largest proportion of respondents belonged to the 26–45 age group (45.3%), followed by respondents aged 18–25 (30.0%), while participants older than 45 accounted for 24.7% of the sample. This distribution provides a heterogeneous age profile, enabling the examination of consumer attitudes across different stages of the life cycle.

In terms of monthly income, the majority of respondents (59.3%) reported earnings between 100,000 and 200,000 RSD, while 26.0% belonged to the

higher-income category (above 200,000 RSD), and 14.7% reported income below 100,000 RSD. Such a structure suggests that the sample is predominantly composed of middle-income consumers, a segment highly relevant for analyzing purchasing behavior in the sports market.
Regarding purchase frequency, nearly half of respondents (49.3%) reported purchasing sports products once every six months, while 38.7% indicated monthly purchases, and 12.0% reported purchasing once annually. These findings suggest moderate but regular engagement of respondents in the sports products market.

Table 1. Socio-demographic Structure of the Sample

Variable	**Category**	**Frequency (f)**	**Percentage (%)**
Gender	Male	72	48.0%
	Female	78	52.0%
Age	18–25 years	45	30.0%
	26–45 years	68	45.3%
	Over 45 years	37	24.7%
Monthly Income	Up to 100,000 RSD	22	14.7%
	100,000–200,000 RSD	89	59.3%
	Over 200,000 RSD	39	26.0%
Purchase Frequency	Once a month	58	38.7%
	Once every 6 months	74	49.3%
	Once every 12 months	18	12%

Descriptive Indicators of Study Variables

Table 2 presents the basic descriptive statistics for the variables included in the regression model. The results indicate that respondents assigned the highest evaluations to product quality (M = 4.02; SD = 0.67), suggesting that quality is perceived as a particularly important determinant in purchasing decisions related to sports products. Promotional intensity also received relatively favorable evaluations (M = 3.45; SD = 0.74), while price showed a lower mean score (M = 3.12; SD = 0.81), indicating comparatively lower sensitivity or perceived importance. Purchase intention, as the dependent variable, recorded a mean value of 3.68 (SD = 0.79), suggesting a moderately strong tendency toward purchasing sports products among respondents.

Table 2. Basic Descriptive Indicators

Variable	Mean	Standard Deviation
Price (X_1)	3.12	0.81
Quality (X_2)	4.02	0.67
Promotion (X_3)	3.45	0.74
Purchase Intention (Y)	3.68	0.79

The descriptive findings suggest that product quality is the most highly valued attribute among respondents, whereas price receives comparatively lower evaluations, providing an initial indication of the relative importance of predictors subsequently examined through regression analysis.

Results of Regression Analysis

The results of the analysis of variance (ANOVA) confirm the high statistical significance of the applied regression model, $F(3,146) = 21.45$, $p < .001$. The obtained F-statistic, substantially exceeding the critical threshold, indicates that the combination of independent variables, such as price, quality, and promotional intensity – significantly contributes to explaining the variance in purchase intention regarding sports products.

Table 3. ANOVA Results

Model	Sum of Squares (SS)	df	Mean Square (MS)	F-value	Significance (p)
Regression	42.65	3	14.217	21.45	< .001
Residual	96.82	146	0.663		
Total	139.47	149			

The explanatory power of the model is reflected in the coefficient of determination, $R^2 = 0.62$, indicating that the model accounts for 62% of the variance in the dependent variable. This represents a substantial proportion of explained variance and suggests strong predictive relevance in the context of consumer behavior research.

Results of the multiple regression analysis indicate that product quality exerts the strongest individual effect on purchase intention ($\beta = 0.46$), followed by promotional intensity ($\beta = 0.31$). Price shows the weakest, yet statistically significant, effect and displays a negative relationship with purchase intention ($\beta = -0.28$), suggesting that increases in perceived price may reduce the likelihood of purchase.

Table 4. Multiple Regression Results

Variable	β Coefficient	t-value	p-value
Price (X_1)	-0.28	-3.41	.001
Quality (X_2)	0.46	5.87	.000
Promotion (X_3)	0.31	4.12	.000

The findings confirm that perceived product quality represents the most influential predictor of consumer purchase intentions, while promotional activities also have a substantial positive effect. By contrast, price demonstrates a weaker and inverse effect, though it remains statistically significant. These results support the proposition that consumer decisions in the sports market are shaped more strongly by perceived value and marketing communication than by price considerations alone.

Discussion

The results of the multiple linear regression analysis make it possible to identify the factors exerting the greatest influence on purchase decisions, as well as to assess both the intensity and direction of their effects (Creswell, 2014).

The empirical findings confirm that all analyzed factors have a statistically significant effect on the dependent variable, indicating both the adequacy of the proposed theoretical framework and the appropriateness of the selected statistical model. The coefficient of determination ($R^2 = 0.62$) suggests that the applied regression model explains a substantial proportion of the variability in purchase decisions, which is consistent with similar studies in quantitative sports market analysis. This finding indicates that quantitative statistical models can provide a reliable basis for understanding complex market processes, although part of the variability remains attributable to factors not included in the model.

The negative and statistically significant regression coefficient associated with price confirms economic demand theory, according to which rising prices reduce consumers' willingness to purchase. This result points to a pronounced sensitivity of consumers to price changes, a pattern of particular relevance in the sports market. From a practical standpoint, the finding suggests that market actors in sport must carefully balance pricing policy with perceived product value in order to maintain competitiveness (Hair, Black, Babin, & Anderson, 2019).

Perceived product quality emerged as the factor with the strongest positive influence on purchase decisions, corroborating contemporary theories of consumer value in sports markets. The magnitude of the regression coefficient indicates that consumers base their decisions to a considerable extent on subjective evaluations of quality, even under conditions of price sensitivity (Stanković, 2014). This finding has important implications for product

differentiation strategies, suggesting that investments in quality enhancement and the development of positive brand perceptions may generate stronger long-term effects than short-term pricing interventions. The dominance of quality as the primary predictor of purchase further indicates that consumers of sports equipment tend to make highly rational decisions, seeking value for money primarily through durability and performance. For brands aiming at long-term market presence, this implies that competitive advantage cannot rely solely on lower prices but must be grounded in product superiority that justifies the purchasing decision.

The analysis also confirms a statistically significant effect of promotional activities on purchase decisions, although this influence is weaker than that of perceived quality. This finding suggests that promotion functions as a stimulating factor capable of reinforcing or accelerating purchase decisions, yet it cannot fully compensate for deficiencies in quality or an unfavorable pricing position. From the perspective of marketing practice, this points to the need for an integrated approach in which promotional activities are grounded in the actual value of the product (Madžar, 2021). The fact that promotional intensity exerts a significant positive effect on purchase intention further supports the proposition that digital communication channels and more assertive marketing approaches directly shape the preferences of contemporary consumers. In the sports equipment segment, where visual identity often plays a crucial role, promotion functions as a key bridge between the technical quality of a product and the consumer's ultimate perception of value.

Beyond the interpretation of individual regression coefficients, it is important to emphasize the methodological significance of the findings. The statistical significance of all independent variables confirms the adequacy of the operationalization of theoretical constructs and the reliability of the measurement instruments. This further underscores the importance of rigorous empirical research design and careful selection of statistical models in quantitative sports market analysis (Dugalić, 2012). The characteristics of the sample, in which the majority of respondents purchase equipment once every six months, may help explain the strong statistical significance of the model. Regular consumers tend to possess established evaluation criteria, resulting in relatively stable and predictable relationships between the analyzed factors—price, quality, and promotion—and their actual purchase intentions.

Despite these positive findings, certain limitations should be acknowledged. The relatively limited sample scope and focus on a restricted number of variables may affect the generalizability of the results. In addition, the use of respondents' subjective evaluations introduces a potential risk of response bias (Gujarati & Porter, 2009). These limitations, however, do not diminish the significance of the findings; rather, they point toward directions for future research, which may incorporate larger samples, additional variables, and the application of more advanced statistical models.

Taken as a whole, the discussion of results confirms that statistical models constitute an effective instrument in the quantitative analysis of sports markets and enable empirical verification of theoretical assumptions concerning consumer behavior. The findings contribute to a more nuanced understanding of the mechanisms underlying purchase decisions and provide a foundation for improving strategic decision-making in contemporary market environments. The results are not only statistically valid but have also been interpreted with full awareness of the ethical challenges associated with contemporary market research. As emphasized by Stanković et al. (2024), the moral responsibility of researchers in the transparent presentation of data is essential for the objective understanding of economic phenomena; in this study, this principle has been upheld through rigorous statistical control and careful interpretation.

Conclusion

The results of the theoretical and empirical analyses conducted in this study confirm that statistical models constitute an indispensable methodological framework for the quantitative analysis of sports markets under contemporary economic conditions. The increasing availability of market data, together with the growing complexity of consumer behavior, requires analytical methods capable of enabling objective measurement and reliable interpretation of market phenomena. In this context, statistical models facilitate the linkage between theoretical assumptions and empirical evidence, thereby contributing to the development of both scientific and practical knowledge concerning market functioning.

The theoretical section of the study emphasized the significance of quantitative sports market analysis as a research approach grounded in the systematic processing of numerical data and the application of statistical methods. Particular attention was devoted to methodological consistency in research design, the operationalization of theoretical concepts, and the selection of appropriate statistical models. These elements constitute the foundation of valid and reliable empirical analysis, without which robust conclusions regarding market processes cannot be drawn.

The empirical investigation conducted within this study demonstrated that regression models can effectively identify the key factors influencing consumer purchase decisions in sports markets. The findings indicate that price, perceived quality, and promotional activities exert statistically significant effects on consumer behavior, with perceived quality emerging as the dominant factor. These results confirm the relevance of contemporary theories of consumer value and point to the necessity of an integrated approach to managing market strategies.

A particular contribution of this study lies in demonstrating the practical application of statistical models in quantitative sports market analysis. The methodological approach employed illustrates how abstract theoretical

concepts can be translated into measurable variables and subjected to empirical testing. In this way, the study contributes to a more comprehensive understanding of the role of statistical methods in contemporary market research and confirms their applicability in data-driven business decision-making.

Although the findings possess substantial analytical value, certain limitations of the study should be acknowledged. The limited sample size and focus on a relatively small number of variables may affect the extent to which the findings can be fully generalized. In addition, reliance on respondents' subjective evaluations may introduce certain measurement deviations. These limitations, however, do not diminish the scientific value of the study; rather, they point to the need for further research involving broader sets of factors, larger samples, and the application of more advanced statistical techniques.

It may therefore be concluded that statistical models represent a powerful analytical instrument for achieving a deeper understanding of market processes and consumer behavior. Their appropriate application contributes not only to the advancement of theoretical knowledge but also to the development of more effective market strategies in practice. Future research in the field of quantitative sports market analysis should be directed toward integrating classical statistical methods with contemporary analytical approaches, such as big data analytics, thereby further enhancing the precision and relevance of market analysis.

References

1. Aaker, D. A., Kumar, V., & Day, G. S. (2016). Marketing Research. Hoboken: Wiley.
2. Babić, V. (2013). Ekonometrika. Beograd: Ekonomski fakultet Univerziteta u Beogradu.
3. Churchill, G. A., & Iacobucci, D. (2014). Marketing Research: Methodological Foundations. Mason: South-Western Cengage Learning.
4. Creswell, J. W. (2014). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Thousand Oaks: Sage Publications.
5. Dugalić, S. (2012). Istraživanje tržišta i potrošača u funkciji sportskog marketinga, SPORT - Nauka i Praksa, Vol. 2, No5, 2012, str. 49-58
6. Field, A. (2018). Discovering Statistics Using IBM SPSS Statistics. London: Sage Publications.
7. Greene, W. H. (2018). Econometric Analysis. Boston: Pearson Education.
9. Grubor, A., & Đokić, I. (2018). Analiza potrošačkog ponašanja. Novi Sad: Ekonomski fakultet.
10. Gujarati, D. N., & Porter, D. C. (2009). Basic Econometrics. New York: McGraw-Hill Education.
11. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). Multivariate Data Analysis. Andover: Cengage Learning.

12. Kotler, P., & Keller, K. L. (2016). Marketing Management. Harlow: Pearson Education.
13. Kovačević, R. (2012). Statistika u ekonomiji i menadžmentu. Beograd: Ekonomski fakultet Univerziteta u Beogradu.
14. Lovreta, S., Končar, J., & Petković, G. (2019). Trgovinski marketing. Beograd: CID Ekonomski fakultet.
15. Malhotra, N. K. (2019). Marketing Research: An Applied Orientation. Harlow: Pearson Education.
16. Madžar, L. (2021). The Concept, Principles and Innovations in Circular Economy. Glasnik za društvene nauke, Vol. XIII, No. 13, pp. 120-133.
17. Putić, I., Balaban, S., & Simić, M. (2025). Comparative analysis of the risk of the sports index applying the Sharpe, Sortino and Treynor ratios. *Management in Sport*, *16*(2), 44–83. https://doi.org/10.46793/ManagSport16-2.044P
18. Stanković, Lj. (2014). Ponašanje potrošača. Niš: Ekonomski fakultet Univerziteta u Nišu.
19. Stanković, B., Pavlović, Lj., & Stanković, M. (2024). Education for research and the moral responsibility of researchers. Srpska Akademska Misao, 9(1), 19-33. https://www.sam.edu.rs/index.php/sam/article/view/64
20. Tabachnick, B. G., & Fidell, L. S. (2019). Using Multivariate Statistics. Boston: Pearson.
21. Wooldridge, J. M. (2016). Introductory Econometrics: A Modern Approach. Boston: Cengage Learning.

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