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Modern sport fans and their purchase intentions

Abstract

Digital transformation has had a profound impact on various industries, and the sports sector is no exception. Nowadays there is a new growing group of sports fans — modern ones — who have been functioning in the digital world since birth, and therefore have unique behavioral patterns, habits, and expectations. Consequently, an increasing number of sports clubs have recognized the unique needs of these modern fans, prompting them to offer digitized sports products as a means of keeping pace with evolving trends. This article aims to explore the factors that influence the purchase intentions of digitized sports products, such as match highlights or behind-the-scenes content, among sports fans. Utilizing the logit model, our analysis revealed that relatively older individuals and those who perceive their income situation favorably exhibit a significantly higher purchase intention. Interestingly, our study also discovered that gender did not emerge as a statistically significant factor. In the context of digital transformation, understanding the determinants of purchase intentions for digitized sports products holds considerable importance. Identifying

the factors that influence fans' decisions to invest in these offerings can enable sports clubs and organizations to tailor their digital strategies effectively, cater to the preferences of modern fans and, ultimately, enhance fan engagement and satisfaction.

1. Introduction

As a result of the changes taking place in the world, the economic model of sport is gradually transforming. Firstly, in recent years, a certain decrease in attendance at sports events has been observed (Deloitte, 2018), which was only exacerbated by COVID-19 (ESPN, 2020). Another challenge is that young people, the so-called Generation Z, have different preferences with regard to sports (Leszczyński et al., 2022; Leszczyński and Metelski, 2021). They declare that they are not so interested in watching matches live, and prefer to watch highlights than the whole game (Bridge, 2021). Therefore, within a few years, the average age in the stands at sports events may be higher, and there also will be fewer people willing to watch entire matches on TV. Sports clubs and organizations will have to look for new sources of income in order to keep their financial revenues at a similar level.

It is believed that sports bring together people from various socioeconomic backgrounds. Without fans, there would be no demand to show games on TV and to pay for the broadcasting rights (Coutinho da Silva and Luzzi Las Casas, 2017). It has to be stated that sports consumption involves much more than simple game attendance (Tohar et al., 2022). It is also about watching sports on TV, buying sports products, supporting sponsors of a given club, following clubs and players in social media, and many other types of activities. Fans are a specific group of consumers, characterized by involvement in the club's life, participation in events and interest in looking for information about the club. A strongly developing trend in this field is the demand of fans for products related to a given club. In the literature, these products are referred to the concepts of branded sports team merchandise (Vardhan et al., 2021) or team-licensed merchandise (Kwon and Kwak, 2014). Consumption of this type of product is a major source of revenue for sports clubs (Vardhan et al., 2021). The global market for this type of product was worth USD 33.5 billion in 2020 and is expected to reach USD 49.0 billion by 2030 (Grand View Research, 2023). Some authors predict that this market will be worth as much as USD 39.8 billion in 2027 (IMARC Group, 2022).

The study aims to investigate the phenomenon of a purchase intention regarding digitized sports products. This study represents a pioneering endeavor, as previous research has predominantly concentrated on examining the impact of sports celebrities on purchase behavior and exploring the associations between sports marketing and the propensity to purchase tangible sport products. However, it is noteworthy that only a limited number of researches have thus far been undertaken to comprehensively elucidate the fundamental characteristics and attitudes of sports fans that motivate their acquisition of digitized sports products.

The primary objective of this study, therefore, is to identify the key factors that influence the purchase intention of digitized sports products among sports fans. This research endeavor holds significant importance due to the evolving economic model of sport, wherein an increasing number of clubs and sports organizations are compelled to explore new avenues for generating income. Hence, this study not only contributes to the existing scientific knowledge but also offers valuable insights for sports management practitioners. Drawing upon an extensive literature review, we have developed a comprehensive list of factors that potentially influence the purchase intention. These factors will be presented in the subsequent section of this article.

2. Theoretical framework of the research

A sports product encompasses both goods and services within its scope. On the one hand, it includes sports events, access and broadcast rights to those events, as well as tickets to sports events and sports tourism. On the other hand, it also encompasses sports training, sports equipment, and sports apparel (Nessel, 2016). Digitalization of sports content delivery channels can be understood as the process of digitizing sports products. This process in the area of interaction with fans includes, among others: minimizing the boundaries between the event watched online and offline, increasing the digital presence of sport and developing opportunities for interaction with stakeholders through websites, mobile applications and social media (Xiao et al., 2018). Digitized sports products also provide greater freedom to view content such as non-live content, highlights/short-form, or team/athlete-generated content (Leszczyński, Metelski, Rabczun, 2022). Therefore, digitized sports products can be defined as any form of delivery of sports goods and services using digitized channels for delivering sports content, selling equipment, doing sports training, or attending sports events.

According to TRA (Theory of Reasoned Action), a person's intention is generally influenced by two types of factors, i.e., personal factor (positive or negative evaluation regarding a particular action) and subjective norm (social pressure exerted on an individual to take a particular action). This means that a positive intention towards a behavior occurs when there is a positive attitude towards a particular behavior and a positive perception of a particular behavior by its environment (Ajzen, 1985). The role of the environment in the area of subjective norms can be explained as the motivation to perform a particular behavior of a specific person by people or reference groups that are important to that person, such as friends (Peña-García et al., 2020). Perceived usefulness presented in the TAM (Technology Acceptance Model) theory (Davis, 1989) is also an important determinant of a purchase intention, it assumes that consumers will accept a solution if they believe it will improve their productivity or quality of life (Peña-García et al., 2020;

Sun and Zhang, 2021). Ajzen also points out that past behavior can influence our future behavior (Ajzen, 2002). Therefore, based on the mentioned theories, we decided to measure three key determinants of fans' purchase intentions towards digitized sports products, i.e., evaluation of the presented product, fans' involvement in the club, and fans' past behavior. Product evaluation refers to the perceived usefulness of the product, club involvement refers to the subjective norm, while past behaviors are related to involvement, i.e., attendance at sports events and frequency of searching for club information.

It should be noted that consumers' buying behavior, including their purchase intention, is determined by two categories of factors (related to the determinants of intention in general, described in the previous paragraph), i.e., individual/demographic factors and the psychological factors (Sun and Zhang, 2021). Wekeza and Sibanda (2019) based on the theory of consumer behavior divided the determinants of the propensity to purchase a product into demographic characteristics and beliefs. As the study focused on food products, the authors indicated as part of perceptions under beliefs such specific product attributes as quality, price perception, environmental friendliness or taste. In this article, this division is reflected by taking into account such demographic (gender, age) and socioeconomic factors of the respondents (income). On the beliefs side, on the other hand, we can distinguish elements such as evaluation of own involvement in the life of the club, frequency of seeking information about the club, frequency of attending matches, and evaluation of the presented product.

The literature has proven the existence of several relationships between the variables considered in the presented study. In particular, the gender of the consumer plays an important role, which is an important determinant of consumer intentions that translate into purchasing behavior and willingness to pay for digitized products. With respect to the sports product market, it is important to note that men are more likely than women to purchase sports products via the Internet and exhibit higher levels of subjective norm and frequency of past behavior with respect to online sports product purchases (Chiu et al., 2018). Sports marketing research also indicates that gender can influence product evaluation, which determines consumer purchase intentions. As a result of differences in how they process information about sports products, men are more likely to purchase sports products in the context of influencer marketing efforts (Düsenberg et al., 2016). Gender can also influence engagement in sports, research findings indicate that men are more likely to engage in sports and seek information about sports products (Chew and Leng, 2016). It is worth mentioning that participation in sport itself may be important for the perception of its attractiveness and also attractiveness of related products (Metelski, 2017). Bhat et al. (2021) in the context of online product purchases point out the importance of multifactorial demographic aspects that include the two variables we proposed, i.e., age and gender. In turn Özer and Argan (2006) indicate that men are characterized by a higher attachment to a sports club, while women derive higher enjoyment from shopping. According to previous re-

search, men equally to women consider themselves sport fans, however men spend more time discussing sport, watching it on TV, and usually have more knowledge about it (James and Ridinger, 2002). Different are also motives why females and males become sports fans, because for females most important are social reasons (enjoying watching sports with friends and family), while males usually used to play sport themselves or enjoyed sports in general.

Research indicates that income is positively correlated with consumer spending on sports and sports products (Candemir and Zalluhoglu, 2012). It is also important to note that income can affect consumer decision-making styles (Suvadarshini and Mishra, 2021). The amount of income can also affect willingness to pay for products (Zhao et al., 2018). On the other hand, it should be noted that the sports product presented is online content, studies in this area that have looked at the willingness to consume online news indicate that an increase in income negatively affects the willingness to consume online news (Chyi and Yang, 2009). As noted by Chyi and Lee, among the main factors that directly affect paying intention for online content i.e., age, gender, news interest, format preference and online news usage, age is the strongest predictor in this area (2012). It was also found that men shop less frequently than women. Women are more likely to pay for products purchased online, but it is men who are more willing to pay for online news (Punj, 2015). A study of the German market by Buschow and Wellbrock (2019) indicates that younger users are characterized by higher paying intention to access online content (2019). Similar conclusions were reached by Goyanes (2015), Fletcher and Nielsen (2017), and Punj, who indicates that age affects the paying intent (2015).

Involvement in the club is one of the key factors in the purchase intention of club-related products. Chiu and Won showed that a brand involvement has a positive impact on consumers' purchase of its products (2016). Similar conclusions are reached by Vardhan et al. who indicate that engagement has a positive effect on TLM purchase (2021). Ko et al., in the context of purchasing products offered by sponsors, indicate that engagement increases the consumer purchase intentions (2008). Generally, fans who engage with a team, show their support by purchasing related products (Pransopon and Hoonsopon, 2019). According to the Sports Involvement Scale (SIS) by Shank and Beasley (1998) sport involvement can be expressed through watching sport, reading about sport, attending sporting events, and playing sport. Due to the multidimensional view of engagement, in our article we consider fan engagement in several areas, i.e., identification with the team, understood as the degree to which the fan evaluates the psychological bond with the team (Theodorakis et al., 2012) and the fan's past behaviors related to seeking information about the team and attending games. It should be noted that fans characterized by higher involvement are more likely to attend sport events (Fernandes et al., 2013) and spend more time acquiring content about sports, i.e., watching sports programs and reading about sports (Düsenberg et al., 2016). Lee indicates that identification with a club positively influences purchase intention (2021). Fans characterized by a high degree of identification and loyalty to the club perceive

spending on team-related products as supporting the team and tend to purchase more products (Coutinho da Silva and Luzzi Las Casas, 2017).

3. Research methodology

The study was based on primary microdata obtained within an online survey that was conducted by the authors of this paper in 2021 among Polish volleyball fans. It is worth underlining that volleyball is one of the most popular sports in Poland, and the national team is one of the best in the world (World of Volley, 2020). 581 people participated in the study. Among the respondents, 61.1% were women, 38.2% were men; the others (seven people) did not want to specify their gender. The average age of the respondents is 32.2 years. This pattern roughly resembles the population of volleyball fans, but it cannot be said that it was a representative sample — the study should be then considered a pilot study. The respondents were randomly divided into three groups, the first of which watched a 2-minute film from the backstage of the match, the second — a 2-minute film concerning the after-match life, and the third group read a short text describing films about the backstage and after-match life. All research participants were then asked if they would like to watch a longer paid material. As each of the surveyed individuals answered the same questions, we were able to verify if the opinions regarding materials and purchase intention differ across the type of the latter. As stated in the Introduction, the purpose of this study was to identify the factors that influence purchase intention of digitized sports products among sports fans.

We recoded data from the survey in order to obtain dependent and independent variables (Table 1). As of the latter, socio-demographic background as well as engagement in the team's life, willingness to seek information, the number of watched matches, the type of watched marketing material, assessment of material attractiveness, willingness to watch the paid part of the material as well as the general preference to a certain type of watched material were taken into account. The choice of the explanatory variables is justified by the indications from the literature cited in the previous part of the paper. In the case of the categorical variables, dummies were created, which are more convenient for interpretation in the case of the logit model applied in the analysis. Due to missing data, some observations were excluded from the analysis. Finally, empirical models were estimated for at least 464 observations. Inference about the effect of particular factors on purchase intention was based on the ordered logit model. It is worth noting, that methods based on regression analysis were applied in similar contexts by many researchers, to name some of them: Sun and Zhang (2021), Peña-García et al. (2020), Chiu, Kim and Won (2018), Düsenberg et al. (2016), Chiu and Won (2016), and Hong and Rhee (2016). The decision about this type of specification follows from the character of the dependent variable (ordinal variable). Moreover, logit is appropri-

ate in the situations when the majority of variables is not of continuous but rather of nominal including binary nature. The specification ensures both estimation accuracy and interpretation conveniency (Maddala, 2008; Gruszczyński, 2012).

Table 1. Variables derivation

Category	Variable name	Question in the survey	Recoding details		Output variable
Dependent variable					
—	Purchase intention	23. Assess to what extent you would be likely to buy this type of extended material	No recoding necessary		Ordinal variable, scale 1–9 (the higher the number, the stronger the purchase intention)
Independent variables					
Socio-demographic variables	Gender	1. Gender	Men	0	Binary variable
			Women	1	
			No answer	N/A (negligible count)	
	Age	2. State how old you are	No recoding necessary		Integer variable
	Income assessment	3. Assess your financial situation	Very good	7	Ordinal variable, scale 1–7 (the higher the number, the better assessment of income situation)
			Good	6	
			Rather good	5	
			Average	4	
			Rather bad	3	
			Bad	2	
			Very bad	1	
	Income	4. Specify your monthly income (net)	Below 1,500 PLN	750	Integer variable
			1,501 PLN – 2,500 PLN	2,000	
			2,501 PLN – 3,500 PLN	3,000	
			3,501 PLN – 4,500 PLN	4,000	
			4,501 PLN – 5,500 PLN	5,000	
			5,501 PLN – 6,500 PLN	6,000	
			Higher than 6,500 PLN	7,000	
			I am at such an age that I do not earn yet	0	
			I prefer not to give	N/A (negligible count)	

Category	Variable name	Question in the survey	Recoding details		Output variable
Engagement	Engage-ment	6. Rate on a scale from 1 to 9 your level of engage-ment in the club's life	No recoding necessary		Ordinal variable, scale 1–9 (the higher the number, the higher the engagement)
	Informa-tion	7. How often do you look for information about Trefl Gdańsk?	Not at all	1	Ordinal variable, scale 1–7 (the higher the number, the higher the frequency of information seeking)
			Less than once a month	2	
			Once a month	3	
			Several times a month	4	
			Several times a week	5	
			Every day	6	
			Several times a day	7	
	Match	13. In the 2019/2020 sea-son, 12 matches were played in the ERGO ARENA with the participation of the public. Including away games, please state how many times you watched Trefl Gdańsk games live in the arena in season 2019/2020 (give approximate number of games)	No recoding necessary		Count variable (max. = 12)

Category	Variable name	Question in the survey	Recoding details		Output variable
Marketing material and its attractiveness	Watched marketing material (2 binary variables; reference category: text)	Film 1	Film 1 watched	1	Binary variable
			Film 1 not watched	0	
		Film 2	Film 2 watched	1	Binary variable
			Film 2 not watched	0	
	Attractiveness	20. Assess the attractiveness of the video presented earlier	No recoding necessary		Ordinal variable, scale 1–9 (the higher the number, the higher attractiveness assessment)
	Watch_will	21. Rate how much you would like to watch the entire material of 20 minutes	No recoding necessary		Ordinal variable, scale 1–9 (the higher the number, the higher watching likelihood)
Watching preferences	Preferred material (2 binary variables; reference category: match summary)	29. What do you find most attractive (what are you most likely to watch)?			
		Full match broadcasts	Watched	1	Binary variable
			Not watched	0	
		Backstage events	Watched	1	Binary variable
			Not watched	0	

Source: own elaboration.

A model was estimated for the whole set and each group of explanatory variables separately — five models in total — which allowed us to check results robustness. Robust standard errors were used to reduce the negative effects of heteroskedasticity. As a part of the verification of the logit model: (1) Brant's test of the assumption of proportional odds was carried out (joint one and for each explanatory variable separately); (2) a joint significance test of the model with c^2 distribution was applied; (3) an assessment of the amount of information that independent

variables contribute to the model was made (based on comparison of AIC, BIC and log-pseudolikelihood for estimated models). Conclusions regarding the impact of the independent variables on the dependent variable were drawn on the basis of the test significance for individual explanatory variables. For the ones involving the dummies (*type of marketing material*, *preferred material*), an additional Wald test of joint significance was conducted.

4. Results

Based on rho-Spearman[1] analysis and an adequate significance test, we find that the independent variables are mostly statistically significantly related to the purchase intention (measured on a scale 1 to 9, as per Table 1), which tentatively justifies the proposed model specification (Table 2). The exceptions are variables related to age, income, type of material viewed and preferred material. However, the indicated explanatory variables are not, for the most part, significantly correlated with the other independent variables, so they should not cause collinearity problems. The strength of the relationship between the explained variable and the independent variables remains at an average level.

Despite neither income (level) nor income assessment occurred to be correlated significantly with purchase intention, both of them were included in the model in order to verify which of them has higher influence on the purchase intention. Including them in the model which considers also all the other variables, can change the results of reasoning on significance of their relation to purchase intention. Moreover, these two variables not always reflect the same pattern within the Polish society — high income does not need to be strictly related to a fair assessment of income situation.

In the estimated logit model (Table 3), the proportional odds assumption was met. For each of the specifications (except model (5)), there are no grounds to reject the null hypothesis, both in the joint test and in the tests for each explanatory variable separately. According to the results of the joint c^2 test, each of the estimated models (except model (5)) is significant at the level of 0.01. Models with independent variables are always characterized by a higher value of log-pseudolikelihood than the corresponding models with a constant only, which justifies the inclusion of these variables in the specification. Given the above observations, model (5)

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[1] The rho-Sperman coefficient is applicable to the variables considered in this study. As all of them are of non-continuous nature and most are categorical, we cannot use Pearson coefficient of correlation.

was excluded from further analysis. Among the analyzed specifications (1)–(4), the highest quality is noted for the one that includes all considered explanatory variables as compared to specifications that take into account only particular groups of independent variables — model (1) reaches the highest value of log-pseudo-likelihood and the lowest value of information criteria AIC and BIC. The inclusion of all proposed groups of explanatory variables in the model is then justified. Given the above observations, the further considerations are based on the model (1). However, it is worth mentioning that among the models for particular groups (2)–(4) the lowest values of AIC and BIC were achieved for socio-demographic variables, which indicates that this group of independent variables contributes the most information to the model.

Based on the results presented in Table 3 (model (1)), it can be concluded that the purchase intention is significantly higher for relatively older and for those who assess their income situation higher. It is worth stressing that the assessment of income situation rather than the absolute income level affects proneness to buy extended paid version of the material. On the one hand, the above results are in line with previous studies on the consumption of sports and sports products (Candemir and Zalluhoglu, 2012; Suvadarshini and Mishra, 2021; Zhao et al., 2018), on the other hand, they are not consistent with studies on news consumption (Buschow and Wellbrock, 2019; Chyi, 2005; Chyi and Yang, 2009). This may confirm that sports fans are a specific consumer group, and their purchase intention towards digitized sports products should not be considered in the same categories as general online content. However, it should be also noted that research on online content has largely referred to willingness to pay, which differs from purchase intention; while purchase intention provides an indication of whether you are willing to purchase a product (Mirabi et al., 2015), willingness to pay refers to the maximum amount a consumer is able to pay for a product (Lu and Hsee, 2019).

No significant influence on variable of interest was observed for gender. This result is particularly interesting because it is inconsistent with findings of other researchers that indicated the significance of this variable for the analyzed category (Chiu et al., 2018; Düsenberg et al., 2016). However, it should be considered that many studies focus on differences in the motivations that determine purchase intention (Ozturk, 2016; Seong, 2021), rather than the occurrence of the purchase intention and its strength. It should be also stated that in the case of volleyball, the gender distribution of fans does not reflect the gender distribution within the Polish society. The prevalence of women is noticeable here, which may also affect our results.

Table 2. The rho-Spearman correlation matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) Purchase intention	1.00													
(2) Gender	0.11**	1.00												
(3) Age	0.01	−0.13***	1.00											
(4) Income assessment	0.04	-0.05	0.03	1.00										
(5) Income	−0.06	−0.25***	0.65***	0.36***	1.00									
(6) Engagement	0.21***	0.14***	0.04	0.03	0.01	1.00								
(7) Information	0.27***	0.09**	0.06	−0.01	−0.06	0.55***	1.00							
(8) Match	0.10**	0.07	0.27***	0.05	0.22***	0.41***	0.32***	1.00						
(9) Watched marketing material: Film1	−0.00	0.12***	0.15***	0.05	0.05	0.04	−0.00	0.04	1.00					
(10) Watched marketing material: Film2	0.01	0.03	−0.02	−0.03	0.02	0.08*	0.06	0.06	−0.61***	1.00				
(11) Attractiveness	0.40***	0.16***	−0.10**	0.01	−0.16***	0.21***	0.25***	−0.02	−0.01	−0.07	1.00			
(12) Watch_will	0.47***	0.23***	−0.07	0.01	−0.14***	0.21***	0.32***	0.02	−0.09*	0.01	0.65***	1.00		
(13) Full match broadcasts	−0.05	−0.09*	0.07	−0.05	0.07	−0.05	−0.07	−0.02	−0.00	−0.10**	−0.06	−0.08*	1.00	
(14) Backstage events	0.06	0.16***	−0.05	0.05	−0.07	0.08*	0.12**	0.04	−0.02	0.10**	0.09*	0.15***	−0.86***	1.00

$* p < 0.1, ** p < 0.05, *** p < 0.01$

Source: own elaboration.

Table 3. Estimation results — odds ratio and model statistics

Dependent variable	Purchase intention				
Independent variables	(1)	(2)	(3)	(4)	(5)
Gender	0.93707	1.54763**			
	(0.190)	(0.278)			
Age	1.02184***	1.02091**			
	(0.008)	(0.009)			
Income assessment	1.23024**	1.21495**			
	(0.111)	(0.101)			
Income	0.99993	0.99988**			
	(0.000)	(0.000)			
Engagement	1.04451		1.09908*		
	(0.055)		(0.056)		
Information	1.26612***		1.56378***		
	(0.112)		(0.128)		
Match	1.00877		1.01294		
	(0.024)		(0.020)		
Watched marketing material (ref. cat.: text)					
Film1	1.21901			1.66413**	
	(0.307)			(0.356)	
Film2	1.14951			1.51146**	
	(0.269)			(0.306)	
Attractiveness	1.22818***			1.27335***	
	(0.085)			(0.076)	
Watch_will	1.46487***			1.51581***	
	(0.087)			(0.076)	
Preferred material (ref. cat.: match summary)					
Full match broadcasts	0.61749				1.13409
	(0.255)				(0.438)
Backstage events	0.50900				1.63394
	(0.249)				(0.717)
Brant p-value	1.00	0.01	0.17	0.27	0.00
Model c^2	151.50***	18.37***	68.44***	187.63***	2.56
Type of mark. material — joint Wald test — p (c^2 test)	0.73			0.05	

Preferred material — joint Wald test — p (c^2 test)	0.38				0.28
Log pseudolikelihood	−874.84	−961.86	−1154.40	−1089.70	−1182.38
Log pseudolikelihood — model with const only	−960.08	−970.66	−1191.96	−1196.10	−1183.66
AIC	1791.68	1947.72	2330.80	2203.40	2384.76
BIC	1878.62	1997.52	2378.77	2255.78	2428.30
N	464	469	579	581	575

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$, robust standard errors
Note: tables with the original model coefficients are available on request.

Source: own elaboration.

The purchase intention is significantly more intense for people that more often look for information on a club's life. This is consistent with the results of previously presented studies (Düsenberg et al., 2016). What's not surprising, the increased assessment of attractiveness and stronger willingness to watch the full version of material were found among the decisive factors affecting chances of higher purchase intention. Importantly, we observe no statistically significant relationship between dependent variable and preference for watched material. The same was found for type of marketing material (film 1/film 2/text).

5. Discussion

Fans are a specific group of consumers, characterized by involvement in the club's life. Nowadays there is also growing a new group of sports fans — the modern ones — who have been functioning in the digital world since they were born, and therefore have unique behavioral patterns, habits, and expectations. It has to be stated that technological advances enable the development of new forms of interaction with fans through websites, apps, and social media that allow the delivery of personalized content. There is also a noticeable increase in consumer interest in non-live content, highlights/short-form content, and team/athlete-generated content. In this study, an attempt was made to answer the question what factors influence purchase intentions of digitized sports products among sport fans. It has to be stated that the purchase intention increases with age and is higher among those who assess their income situation better. Therefore, it can be assumed that relatively older people who have already achieved some level of earnings are more likely to pay for additional content related to their favorite club.

As anticipated, the study confirmed that a higher assessment of attractiveness and a stronger willingness to watch the full version of the material are decisive factors influencing the increased purchase intentions. This validates the intuitive

assumption that finding something appealing increases the willingness to pay for it. Similarly, individuals who express interest in a short fragment of a film and desire to see the entire content also exhibit a higher likelihood of having greater purchase intentions. Regarding the club involvement, which literature identifies as a key determinant of purchase intentions for club-related products, our study revealed that it is significantly more intense among individuals who actively seek information about the club's activities.

The study also reported some other interesting results. Namely, according to the literature on the subject, the gender of the consumer is an important determinant of consumer intentions that translate into purchasing behavior and willingness to pay for digitized products. However, in our study gender did not turn out to be a statistically significant factor. Perhaps this is because volleyball is quite a specific sport due to the fact that a large part of the fans are women. In other sports, such as football, the vast majority of fans are men. What is also interesting and might be surprising, is that we observed no statistically significant relationship between the dependent variable and the preference for watched material. The same was found for all the types of marketing material (film 1/film 2/text). It can therefore be concluded that it is rather a person-related factor (e.g. income rating, desire to learn more about the club, perception of attractiveness of marketing materials) as opposed to external stimuli (such as type of marketing material) that determine purchase intention.

Considering the above results in terms of TRA and TAM (Ajzen, 1985; Davis, 1989), it can be seen that perceived product usefulness, as measured by ratings of product attractiveness and willingness to watch the full material, has a positive effect on the purchase intention. In the case of subjective norms, as measured by the stated involvement in a club's life, this relationship has not been proven. On the other hand, past behavior, which in our model was expressed by looking for information about the club and attending matches, indicates the presence of a relationship only in the case of looking for information.

On this basis, it can be stated that significant relationships are present for variables associated with digital products, i.e., online content (frequency of information search) and digital product attractiveness (product evaluation and willingness to watch the full material). Therefore, it can be concluded that the determinants of the purchase intention towards digitized sports products are the fan's past information-seeking behavior in the digitized area and the evaluation of the digitized product. Factors that are associated with direct experience with the club, such as attending live matches, are less important. This means that we may be dealing with a new specific type of sports product consumer, who functioning in a virtual world, evaluates the attractiveness of a digitized product by their general attitude towards digitized products, regardless of his previous participation in matches and his evaluation of his involvement with the club.

6. Conclusion

In conclusion, this study investigated the factors influencing the purchase intentions of digitized sports products among sports fans. The findings revealed that relatively older individuals who asses their income higher showed significantly higher purchase intentions, indicating their likelihood to pay for additional content related to their favorite club. The attractiveness of the content and the desire to watch the full version were identified as decisive factors impacting purchase intentions. A club involvement was found to be more intense among individuals who frequently sought information about the club's activities. Gender did not emerge as a statistically significant factor, possibly due to the specific nature of volleyball where a significant proportion of fans are women. Overall, this research contributes to the understanding of the factors influencing the purchase intentions of digitized sports products, providing insights for sports organizations and marketers to effectively engage and cater to the evolving needs and preferences of sports fans in the digital era. However, it should be added that the presented results are characterized by some limitations. First of all, it is not known if the same dependencies also occur among fans of other sports, i.e., other than volleyball. The analysis also did not show whether such tendencies occur according to other types of digitized content, because each material may have its own characteristics.

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