

Relationship Between Attention Behavior of Sports Short Videos of Youth Groups and Commodity Purchase Intention-based on TPB Theory

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Abstract. In the contemporary era characterized by the pervasive integration of digital media into young people's lives, sports short videos, leveraging their visual storytelling capabilities and inherent social attributes, have emerged as a critical touchpoint influencing youth consumption decisions. Grounded in the Theory of Planned Behavior (TPB), a theoretical model constructs in this research, encompassing "Attentional Engagement - Influencing Factors - Purchase Intention" to investigate the mechanism through which content interaction behaviors on sports short video platforms affect the consumption intentions of the youth demographic. Utilizing valid questionnaire responses as the sample dataset and employing analytical methods including descriptive statistics and correlation analysis, this study explores the relationship between young users' attentional engagement with sports short videos and their subsequent purchase intentions. The consequence demonstrates a statistically significant positive correlation between the frequency of viewing sports short videos, proactive search behavior, and account-following actions on the part of young consumers and their purchase intentions. Key influencing factors identified include content appeal, Key Opinion Leader (KOL) recommendations, and the accessibility of purchase channels. This research provides actionable insights for content creators and brand marketers operating within the sports short video ecosystem.

Keywords: sports shorts video, teenagers, engagement behavior

1. Introduction

In the era of the digital economy, short-video platforms have become a pivotal channel for younger demographics to access information, engage socially, and make consumption decisions. Sports-related short videos, as an emerging content format in the mobile internet age, have exhibited explosive growth in recent years. Statistics indicate that by the end of 2024, online customers reached 974 million people—all internet users, accounted for 87.9%. Within this group, individuals aged 18 to 35 constitute a disproportionately high segment, representing the core consumer base for the sports industry [1]. Concurrently, propelled by national policies, the sports industry has experienced robust development, stimulating demand for sports-related merchandise. Data from

platforms like Douyin and Kuai Shou reveal that daily views of sports short videos have maintained rapid growth for three consecutive years, while the number of sports-specific content accounts has surged exponentially. This trend underscores the format's high penetration and strong appeal among young users. Leveraging short videos for enhanced brand marketing efficacy has thus become a strategic imperative for businesses.

As digital natives and primary consumers of sports products, younger demographics are undergoing profound transformations in their consumption behaviors. Contemporary youth increasingly rely on social media and short-video platforms—rather than traditional advertising channels—for product information during decision-making processes [2]. TPB, a well-established outline for analyzing consumer behavior, has demonstrated consistent validity across diverse contexts [3-5]. Its core constructs—Attitude, Subjective Norm, and Perceived Behavioral Control (PBC)—remain robust predictors of consumer actions, including within the fast-moving consumer goods sector [6]. Market research indicates that over 60% of young consumers initiate purchases after viewing short videos, highlighting the centrality of content-driven consumption as a defining trait of youth purchasing behavior. By delivering sports events, fitness tutorials, athlete lifestyles, and related content, short videos create an engaging, information-rich communication model that blends entertainment with utility [7]. The contextualized and interactive nature of sports short videos enables precise targeting of youth interests, thereby shaping consumption perceptions and purchase intention [8]. For sports brands, particularly start-ups, understanding the nexus between short-video dissemination and consumer motivation is critical for developing effective marketing strategies.

Against this backdrop, investigating the relationship between engagement behaviour with sports short videos and youth purchasing behaviour holds significant practical relevance. First, as commercialisation accelerates within the sports short-video industry, brands (especially emerging sports enterprises) and content creators urgently require insights into the consumption logic underpinning user behaviour to optimise marketing pathways. Second, shifts in the consumption psychology and behavioural patterns of youth—as the dominant market demographic—directly influence the broader market ecosystem. Elucidating the mechanisms through which sports short videos shape youth consumption decisions will not only enrich theoretical research with new empirical evidence but also provide actionable, evidence-based strategic guidance for industry practitioners.

2. Research design

2.1. Variable interpretation

The Independent Variable adopted in this paper is sports short-video attention behavior, referring to users' active engagement in following and watching sports reviews, opinion leaders' recommendations, match highlights, training tutorials, and brand advertisements on short-video platforms such as Douyin. This includes behaviors like video browsing, interaction, and sustained attention. The Dependent Variable is the consumption intention of sports goods, defined as consumers' psychological tendency to plan purchasing sports-related products or services, including direct purchase intention and recommendation intention. The Mediator Variables are the Attitude, Subjective Norm, and PBC involved in the TPB theory.

The degree shows the attitude to which an individual has an evaluation of favorable/unfavorable behavior, reflecting their emotional inclination facing the behavior. Subjective Norm denotes the social pressure perceived by an individual, i.e., the expectations of significant others or groups regarding whether they should perform a certain behavior. PBC refers to an individual's perceived

ease or difficulty in performing a behavior, encompassing assessments of capabilities, resources, and external obstacles.

In terms of measurement, a scale measurement method is used, adapted from the scales appearing in the papers of Ajzen, Liang Jinhui, Zhou Hua, etc., and measured via a Likert five-point scale [9-11].

2.2. Research hypotheses

The TPB posits that Behavioral Intention serves as the direct antecedent variable of consumption behavior, influencing consumption intention through Attitude, Subjective Norm, and PBC. Groups that pay attention to sports short videos demonstrate a strong interest in sports content, and the TPB has been validated as the most effective theoretical model in multiple empirical tests [12]. According to TPB, for young audiences with high consumption enthusiasm, creating intuitive and interactive short videos can foster positive attitudes toward sports brands; introducing mechanisms like likes and comments can enhance group identity pressure, while leveraging opinion leaders to provide authoritative recommendations can guide consumption through subjective norms; simplifying participation thresholds and offering one-stop shopping designs can optimize consumers' perceived behavioral control. These strategies collectively promote the feasibility of consumers generating consumption intention through engaging with sports short videos. Drawing on this theory, the following hypotheses are suggested

H1: Sports short-video attention behavior is positively correlated with the attitude toward consumption intention.

H2: Sports short-video attention behavior is positively correlated with subjective norms.

H3: Sports short-video attention behavior is positively correlated with perceived behavioral control.

H4: Young people's positive attitude toward short videos is positively correlated with purchase intention.

H5: Support from family, friends, and opinion leaders for young people to understand and purchase products through short videos is positively correlated with purchase intention.

H6: Young people's perception of having sufficient resources and capabilities to purchase products is positively correlated with purchase intention.

2.3. Research methods

This study employs an empirical research method, using questionnaires as the core tool to explore the relationship between sports short-video attention behavior and youth consumption behavior. The questionnaire design includes six dimensions with 20 items: personal information (4 items such as gender and age) for sample background analysis; the attention behavior dimension captures interaction patterns through four items on usage frequency, active searching, account following, and daily viewing duration; psychological cognition dimensions (attitude, subjective norm, etc.) and consumption intention are quantified using a five-point Likert scale (1-5 points).

From May to June 2025, the sample was selected through online convenience sampling via Wenjuanxing (Questionnaire Star), social platforms, and campus forums, covering young people aged 18-28 while accounting for occupational and income differences. The survey received 456 responses, with 403 valid questionnaires retained after screening, resulting in an 88.37% validity rate.

In terms of analysis methods, descriptive statistics were first used to present sample characteristics and variable distributions; Cronbach’s α was employed to test reliability; Pearson correlation coefficients were then calculated to examine the correlation between attention behavior and consumption intention; finally, the study employed a regression model where consumption intention was treated as the dependent variable, attention behavior as the independent predictor, and attitude, subjective norms, and use behavioral control as intervening variables.to analyze the influence paths and explanatory power of each factor. The research methodology balances measurement scientific and sample representativeness, providing quantitative support for revealing the interaction mechanisms among variables.

3. Data analysis and results

3.1. Reliability analysis

The valid questionnaire data (N = 403) were analyzed using SPSS 26.0 through three analytical tiers elucidating relationship between youth engagement with sports short videos and consumption behaviors.

Table 1. Reliability analysis

Variable	Attention (AT)	Attitud e (ATT)	Subjective Norm (SN)	Perceived Behavioral Control (PBC)	Purchase Intention (PI)
Cronbach's α	0.967	0.901	0.900	0.870	0.847

As shown in Table 1, this study tests the reliability and validity of the questionnaire. Results showed that both reliability and validity met the standard requirements of social science research.

In the reliability test, the Cronbach's Alpha coefficients of the five major categories of measurement items exceeded the good reliability threshold of 0.8, indicating strong internal consistency among the items in the questionnaire. The measurement results showed high stability and reliability, effectively reflecting the true status of young people in dimensions such as sports short-video attention behavior and consumption intention.

The validity test was conducted through the Kaiser-Meyer-Olkin (KMO) measure. The results were 0.764, 0.735, and 0.721, respectively, all exceeding the conventional critical value of 0.7. This shows a significant partial correlation among variables, making factor analysis suitable. The results reach a high level of statistical significance ($p < 0.001$). This further proves the existence of common variance among variables, confirming good construct validity of the questionnaire.

These results show that the questionnaire design can accurately capture the conceptual dimensions required for the study. The item settings are highly consistent with the research objectives, making it suitable for subsequent quantitative analysis to explore the internal relationships among variables.

3.2. Descriptive statistics

In terms of personal information, the mean value of the gender variable was 1.26 (with 1 representing male and 2 representing female), indicating a slight majority of males in the sample. The mean age of 2.63 corresponded to the 23-28 age range. A mean occupational value of 1.74

suggested a large proportion of students, while the mean monthly disposable income of 2.33 reflected that most incomes fell within the 2001-5000 RMB range.

Sports short-video attention behavior showed characteristics of high frequency and long duration. The item "often pays attention to sports short videos" had a mean score of 4.2, falling within the "agree" interval of the 5-point scale. The frequency distribution showed that 56.3% of respondents chose "agree," 32.5% chose "strongly agree," and only 1.4% indicated "disagree" or "strongly disagree," suggesting that attention to sports short videos has become a common habit among young people. In terms of viewing duration, the mean value of 2.64 fell between "15-30 minutes" and "31-60 minutes." The frequency distribution showed that 42.4% watched for 31-60 minutes daily, 32.5% for 15-30 minutes, totaling over 70%, indicating that most young people spend a moderate amount of time watching sports short videos each day. Additionally, 15.4% watched for more than 1 hour, reflecting deep engagement among some groups.

3.3. Correlation and regression analysis

Table 2. Correlation analysis table of each dimension

		AT	ATT	SN	PCB	PI
AT	Pearson's r	1	0.545**	0.418**	0.399**	0.449**
	Sig. (two-sided test)		<0.001	<0.001	<0.001	<0.001
ATT	Pearson's r	0.545**	1	0.409**	0.375**	0.488**
	Sig. (two-sided test)	<0.001		<0.001	<0.001	<0.001
SN	Pearson's r	0.418**	0.409**	1	0.536**	0.717**
	Sig. (two-sided test)	<0.001	<0.001		<0.001	<0.001
PCB	Pearson's r	0.399**	0.375**	0.536**	1	0.540**
	Sig. (two-sided test)	<0.001	<0.001	<0.001		<0.001
PI	Pearson's r	0.449**	0.488**	0.717**	0.540**	1
	Sig. (two-sided test)	<0.001	<0.001	<0.001	<0.001	

**A statistically significant correlation was observed at $p < 0.01$ (two-sided test).

As shown in Table 2, all four items (AT vs. ATT, SN, PBC, PI) exhibited statistical significance, and their correlation coefficients were all greater than 0, indicating a positive correlation between AT and the other four items. This suggests that young people's attention to sports short videos is positively correlated with their subsequent attitudes, the subjective norms formed by their social environment, and their perceived behavioral control over consumption. Additionally, these indicators are positively correlated with consumption intention. Hypotheses H1, H2, H3, H4, H5, and H6 are all supported.

According to the linear regression analysis of the relationship between the parameters. Taking attention behavior as the independent variable and consumption intention as the dependent variable, the linear regression test was carried out.

As presented in Table 2, engagement behavior demonstrated statistically significant positive correlations ($p < .001$) with all four constructs: These results confirm that teenagers' participation in sports short videos is positively related to good consumption attitude, which can strengthen the social pressure on purchase, improve the self-efficacy of consumption control and

directly amplify the purchase intention. Therefore, H1-H6 has been fully supported by empirical research. Consequently, H1–H6 received full empirical support.

This empirically establishes a robust causal relationship wherein heightened engagement with sports short videos directly amplifies consumption motivation among youth demographics.

4. Discussion

This study reveals the intrinsic relationship between young people's attention to sports short videos and their consumption intention. Data analysis shows that short videos have a high penetration rate among young groups, and consumption habits have changed accordingly. The content of short videos, communication methods, opinions of opinion leaders, and the perceived control over consumption behaviors conveyed by short videos directly influence young consumers' attitudes and consumption intentions.

The attitude dimension significantly impacts consumption intention, indicating that young people's recognition of sports short-video content is the core driving force for stimulating purchasing behavior. Specifically, the brand's design style, the pleasure of use, and the matching degree between brand culture and consumers' personalities make young users more likely to generate emotional resonance, which in turn translates into consumption intention. This also validates the applicability of the TPB model in the sports vertical field—guiding positive attitudes increases purchase intention, which is further channeled into the purchase process.

Recommendations from family and friends, influences of opinion leaders, and comments on social media in the subjective norm all significantly affect consumption intention, further revealing the social characteristics of sports short-video consumption. The reason why recommendations from sports influencers or athletes can effectively stimulate purchasing intentions stems from young people's sense of identity and trust in professional identities, which is particularly prominent in the sports vertical field. Optimizing social media evaluations by influencing the opinions of those around them can affect consumers' consumption intentions.

Channel convenience, information on preferential promotions, and favorable prices in perceived behavioral control constitute consumers' cognition of the degree of self-perceived behavioral control. The perception of channel convenience reflects young people's reliance on digital experiences in consumption behaviors. When users find that accessing product information and purchasing paths are smooth, their consumption intention significantly increases. This result extends the applicability of the Theory of Planned Behavior to short-video contexts, highlighting that, in addition to personal attitudes, social influence and perceived behavioral control play significant roles in consumer decision-making.

It is noteworthy that active searching and account following in attention behavior have different impacts on consumption intention: active searching behavior shows a significant positive predictive effect, while simple viewing frequency has limited influence. This phenomenon suggests that young people are not passive information receivers in sports short-video consumption but deepen their engagement with content through active exploration, and such deep interactive behavior is more likely to transform into consumption motivation. This also explains why User-Generated Content (UGC) models such as fitness check-ins and sports tutorials often higher conversion rates have—when users actively search for content on specific topics, they have formed clear demand orientation, and recommending related products at this time is more likely to trigger purchase decisions.

5. Conclusion

This study, grounded in the Theory of Planned Behavior, confirms a significant and positive relationship between the attentional behaviors of youth toward sports short videos and their intention to purchase related products. The empirical analysis verifies that attention behaviors—especially proactive engagement such as active searching and following content creators—substantially influence the key TPB components: attitude, subjective norms, and perceived behavioral control. These components, in turn, significantly predict purchase intention.

The results underscore the importance of content appeal, peer and opinion leader influence, and ease of purchase as critical mediating factors that convert digital engagement into consumption behavior. Notably, deep interaction behaviors—rather than passive viewing—are more likely to generate consumption motivation, highlighting the active agency of youth in content-driven purchase decisions.

From a theoretical perspective, this research extends the applicability of TPB into the digital marketing context of sports short videos, offering a validated structural framework for future studies in similar domains. Practically, it provides actionable insights for marketers and content creators: designing engaging, socially validated, and easily actionable video content can effectively drive youth consumption in the sports product sector.

As digital content ecosystems continue to evolve, understanding the behavioral mechanisms underlying youth media consumption and purchase decisions will remain critical. Future research could further explore longitudinal effects, differences across content genres, or platform-specific behaviors to enrich and deepen the TPB application in digital consumer studies

Authors contributions

All the authors contributed equally and their names were listed in alphabetical order.

References

- [1] Anonymous (2025) The 55th Statistical Report on Internet Development in China was released. Media Forum, 8, 121.2
- [2] Wojdyla, W. and Chi, T. (2024) Decoding the Fashion Quotient: An Empirical Study of Key Factors Influencing U.S. Generation Z's Purchase Intention toward Fast Fashion. Sustainability, 16, 1–16
- [3] Ajzen, I. and Fishbein, M. (1975) Belief, attitude, intention, and behavior: An introduction to theory and research. Addison-Wesley
- [4] Ajzen, I. (2006) Constructing a theory of planned behavior questionnaire. Retrieved from http://www.people.umass.edu/ajzen/pdf/TPB_measurement.pdf
- [5] He, C. (2023) A Study on the Influence of Short Videos on Healthy Eating in Tik Tok. Master's Dissertation, Hunan Institute of Science and Technology
- [6] Middleham, R. and Fysh, S. (2024) The Met Office: Taking TikTok by storm. Journal of Digital & Social Media Marketing, 11, 339
- [7] Li, D. (2025) How short video platforms influence the purchasing habits of young consumers: mechanisms, challenges, and emerging trends. Advances in Economics Management and Political Sciences, 164, 86–95
- [8] Wang, T. (2024) Research on the influencing factors of TikTok users' purchase intention under the background of E-Commerce live broadcast. In Advances in Economics Business and Management Research, 264–271
- [9] Zhu, L., Yang, J., Zhou, B. and Han, B. (2022) A study on consumers' willingness to buy sporting goods online: an empirical test based on four competition models. Journal of Hebei Institute of Physical Education, 36, 59-69
- [10] Ajzen, I. (2020) The theory of planned behavior: Frequently asked questions. Human Behavior and Emerging Technologies, 2, 314–324
- [11] Liang, J. (2022) Study on the Driving Factors of Teenagers' Participation in Ice and Snow Sports in Beijing 2022 Winter Olympics — Based on the TPB Framework. China Sports Science and Technology, 58, 10-16

- [12] Zhou, H. (2019) Study on Consumers' Purchase Intention and Behavior of Organic Vegetables. Doctoral Dissertation, Northeast Agricultural University.