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Research on Influencing Factors of Purchase Intention for Merchandise of the 15th National Games

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Abstract: Marking a milestone for China's large-scale sports undertakings, the 15th National Games will be co-organized across three Greater Bay Area jurisdictions under the framework of "One Country, Two Systems". Merchandising consumption for major sporting events can reflect both commercial returns and the effectiveness of cross-regional collaborative development. Centered on the coordinated development of the Greater Bay Area, this paper develops an analytical framework covering five dimensions: culture, social interaction, industrial chain, institutional setting, and athlete-related influences, so as to unpack drivers shaping consumer purchase intention for official 15th National Games licensed goods. Drawing on a literature review, comparative analysis, questionnaire survey, and statistical analysis, the study collected 338 valid responses from university students and tested the proposed relationships through multiple linear regression. The results show that the influence of athlete factors on purchase intention is the most significant (standardized $\beta = 0.850$, $p < 0.001$); the industrial chain factors have a significant positive impact ($\beta = 0.160$, $p < 0.05$); while the cultural factors present a significant net negative impact ($\beta = -0.150$, $p < 0.05$), indicating that Cantonese cultural symbols may have a bidirectional effect in cross-regional dissemination. The social communication factors and institutional factors did not reach statistical significance. This model can explain 72.4% of the variance in purchase intention (adjusted $R^2 = 0.719$). These five dimensions do not function equally but form a hierarchical structure centered on athletes and supported by the industrial chain, with the other factors serving as conditional guarantees. The research results show that priority should be given to expanding the coverage of the athlete's audience, enhancing the supply capacity of the industrial chain, and adopting universal design for regional symbols. The above conclusions are based on the sample of college students, so we should be cautious when promoting it. Due to the use of cross-sectional research design and the limitation of the sample size, this study does not test the intermediary or regulation mechanism, but only stays at the level of factor identification and structure description based on correlation.

Keywords: 15th National Games; Event Merchandise; Purchase Intention; Greater Bay Area; Regional Culture

1. Introduction

1.1 Research Background

In August 2021, the 15th National Games (the 15th Games) was approved to be jointly hosted by three regions of the Greater Bay Area (GBA). As the first large-scale comprehensive sports event co-hosted across regions under the "One Country, Two Systems" framework, the Games carry the mission of fostering GBA integration and serving national development, and serve as a major carrier for sports culture and industry.

After the opening on 9 November 2025, the mascots Xiyangyang and Rongrong-modeled on the Chinese white dolphin-became breakout symbols and merchandise sales rose rapidly. The "Three-Region Lion Dance" blind box and related items became social-media bestsellers among young consumers. This indicates that 15th Games merchandise forms a breakout sports-consumption case that merits research attention.

Yet sports event merchandise operation generally faces weak cultural integration, slow industrial-chain response, and cross-regional circulation difficulties. Under "One Country, Two Systems, Three Customs Territories," how such merchandise achieves consumption

conversion still requires analysis.

1.2 Research Objectives

First, drawing on economics and consumer-behavior theories, this study constructs an analytical framework for purchase intention across five dimensions-culture, social communication, industrial chain, institution and athletes-and provides a theoretical basis for analyzing consumption in cross-regional co-hosting contexts. Second, using questionnaire surveys and multiple linear regression, it quantifies the magnitude and direction of each dimension's influence, identifies the main drivers and supporting conditions, and thereby refines the framework. Third, it summarizes generalizable merchandising strategies for future cross-regional events.

1.3 Research Significance

Theoretically, this study provides new case support for sports economics in cross-border cooperation and reflects how merchandise consumption is generated under "One Country, Two Systems, Three Customs Territories." It recasts the five dimensions into a hierarchical relationship-athletes as main driver, industrial chain as support, others as conditional safeguards-and quantifies regional culture's dual attributes, revealing Cantonese symbols' net negative effect on non-GBA audiences.

Practically, it guides operators to prioritize athlete endorsements and industrial-chain coordination and handle regional symbols prudently; it summarizes the GBA industrial-chain experience for manufacturing transformation; and it offers athlete-influence and co-creation strategies for event promotion.

1.4 Research Methods

First, a literature review on the 15th Games, merchandise and purchase intention laid the framework foundation. Second, comparative analysis contrasted the 15th Games, previous National Games and the Beijing Winter Olympics across the five dimensions, using merchandise performance as evidence. Third, an online questionnaire of university students used Likert 5-point scales: 25 items covering five factors plus purchase intention, and 6 demographic items (31 total). Fourth, SPSSAU processed the data-Cronbach's α for reliability, EFA and KMO for validity, t-tests and correlations as preliminary checks, and multiple regression for hypothesis testing.

1.5 Innovations

First, the study quantifies the cultural factor's net negative effect via GBA/non-GBA comparison, revealing regional symbols' two-way character-local identity versus external alienation-a preliminary finding requiring larger-sample validation. Second, it recasts the five factors into a hierarchical structure (athlete-driven, industrial-chain-supported, others conditional) based on data, showing unequal contributions. Third, exploiting the "One Country, Two Systems, Three Customs Territories" context, it identifies athletes' cross-audience influence and the GBA manufacturing cluster's rapid burst-demand response, offering a reference case for future cross-regional events.

2. Literature Review and Theoretical Foundation

2.1 Key Concept Definitions

2.1.1 Event merchandise

"15th Games merchandise" in this study refers to various derivative products designed, developed, and sold under the authorization system of the 15th Games Organizing Committee-centered on authorized elements such as the emblem, the mascots Xiyangyang and Rongrong, slogans, and the visual identity system. Categories include mascot plush toys, blind-box series, badges and commemorative coins, apparel, stationery, and household goods. As a primary carrier of event commercialization, merchandise market performance measures event brand value and regional synergy outcomes.

2.1.2 Purchase intention

Purchase intention refers to consumers' subjective probability judgment and behavioral tendency to purchase a specific product or service. This study defines purchase intention as university students' measurable purchase intention, recommendation intention, repeat-purchase intention, and a limited willingness to pay a price premium for 15th Games merchandise; this variable is the main dependent variable. In the questionnaire, these four aspects were measured by five Likert 5-point items, whose total score forms a single purchase-intention score Y; the internal consistency of this composite score was $\alpha = 0.869$ (see Section 5.2), satisfying the compositing condition.

2.2 Research Status

Existing studies accept that resource sharing, institutional linkage, and industrial division form the core boundary of regional sports-industry integration [1,2]. On how the industry divides itself, the coordination literature is consistent: design, manufacturing and distribution settle in different cities, then link up through supply chains that reach across regions [3-5]. Empirical work shows that sports-industry clusters improve supply responsiveness [6], while institutional studies identify factor-flow barriers and policy-coordination gaps as the principal constraints [5]. On the demand side, Chen and Lin find that perceived psychic income of a mega-event predicts intention to purchase licensed merchandise [7]; Liang attributes a mega-event mascot's popularity to cuteness appeal and peer imitation [8]; Wu confirms that perceived merchandise value affects repurchase intention [2].

These studies illustrate the functional division and institutional barriers characterising regional sports-industry development, but mostly address single aspects or the macro industry, rarely integrating consumption-side elements-such as cultural-symbol dissemination, grassroots interaction and athletes' influence-with industrial chains and institutions. Moreover, purchase-intention research on event merchandise rarely examines how cultural symbols and supply conditions jointly shape consumption conversion under multi-jurisdictional co-hosting arrangements. This study proposes a five-dimension integrated framework-culture, social communication, industrial chain, institution, athletes-to fill these gaps.

2.3 Theoretical Foundation

2.3.1 Cross-Regional coordination theory

Cross-regional coordination theory emphasizes optimized resource allocation and efficiency multiplication through coordinated integration of culture, industry, and institution [9]. Its logic is in line with the GBA framework: cultural coordination extracts shared symbols; industrial coordination supports a division of labor model, that is, design, manufacturing and sales functions are concentrated in different metropolitan areas; institutional coordination solves the rule problem across jurisdictions. This study applies it to the three dimensions of culture, industrial chain and system.

2.3.2 Social identity theory

Social identity theory believes that group belonging will bring emotional value and drive consumption behavior [10]; Lee and Koo's research shows that the credibility of the spokesperson will interact with the product fit, which in turn affects the willingness to buy [11]. In sports events, the identification of hometown athletes and regional symbols will affect the willingness to use goods, which explains the culture-symbol transmission chain and the micropsychological barrier effect of culture in cross-regional transmission.

2.3.3 Supply elasticity theory

The theory of supply elasticity focuses on the response speed of production capacity to changes in demand; industrial clusters improve elasticity by reducing transaction costs and knowledge spillover effects [12,13]. This theory explains how the GBA-Dongguan toy industry cluster achieves rapid replenishment, and lays the dimension of the industrial chain from an economic perspective.

2.3.4 Urban catalyst theory

Urban catalyst theory holds that large events activate regional resources and trigger chain reactions [14,15]; in merchandise sales, athlete interaction, volunteer improvisation, and UGC activate symbols, capacity, and demand, refining the athlete and social-communication dimensions. To overcome the five factors' "patchwork" construction, this study integrates them in an SOR framework: the five factors are external stimuli (S), emotional identification the organism (O), purchase and premium-payment the response (R)-entering one decision chain as stimuli of different natures. The EFA's two common factors-"coordination-safeguard" and "influence-driven consumption-conversion"-echo the proposed hierarchical framework in direction, but the measurement structure and the functional hierarchy are not automatically equivalent, so a modest distance is kept between measurement and theoretical revision.

3. Research Background and Case Selection

3.1 Characteristics and Differences of Three Types of Events

This study compares the 15th Games, the previous 14th National Games, and the Beijing Winter Olympics (Table 1). The five comparison dimensions-culture, social communication, industrial chain, institution, athletes-derive from Chapter 2's theories and the "One Country, Two

Systems, Three Customs Territories" context; merchandise performance evidences consumption conversion.

Case selection rests on three points. First, comparable basis: all three use an officially led franchising model with the same authorization-design-sales logic and breakout-and-conversion goals. Second, clear difference boundaries: the 15th Games is the first cross-institutional co-hosting under "One Country, Two Systems, Three Customs Territories"; previous National Games were single-region hosted; the Beijing Winter Olympics was a state-system international event. Third, reference value: The regional coordination and opening model adopted by the 15th Games provides the most reference example for future multi-project co-hosting activities.

Table 1. Comparison of Three Types of Competitions

Dimension	15th Games (cross-regional)	14th Games (single region)	Beijing Winter Olympics (top international)
Culture	Shared GBA symbols plus Cantonese elements, a unique balance.	Local symbols, one-way export, limited resonance.	Global symbols (panda, ice); less cultural depth.
Social communication	Grassroots co-creation, unscripted volunteer interaction, UGC; #2025NationalGames 3.47B views.	Static, one-way marketing; heat fades post-event.	Scripted interaction; limited grassroots participation.
Industrial chain	GZ-SZ design, Dongguan (4,000+ toy firms) manufacturing, external sales channels; 33 producers, 992 stores.	Host-region only; 3 local operators.	Nationwide centralized; 29 producers, 58 retailers.
Institution	"One Country, Two Systems, Three Customs Territories"; ATA Carnet, port channels, joint IP enforcement.	Single-region coordination; no cross-border need.	State-system guarantee; not cross-customs coordination.
Athletes	Athletes drive consumption via social accounts and on-site interaction.	Weak linkage; relies on on-site foot traffic.	Relies on super-symbol "Bing Dwen Dwen".
Merchandise	Athlete-driven; students main buyers; rapid post-opening sales growth.	50+ local agro products; no hit recorded.	Relied on a single super-symbol; low replicability.

3.2 Basis for Case Selection

In terms of culture, the previous National Games introduced local symbols, while the Winter Olympics adopted global elements; The 15th games took into account both shared elements and local elements, indicating that the influence of culture on intention is two-way. On social communication, the 15th Games formed a spontaneous volunteer-UGC loop absent in the other two, showing viral spread depends on grassroots co-creation space rather than official investment. On the industrial chain, the 15th Games exhibited the natural coordination of the GBA manufacturing cluster, improving supply responsiveness versus the others' closed or centralized models. On institution, only the 15th Games faces "One Country, Two Systems, Three Customs Territories" complexity, forming unique cross-border customs and IP conditions. On athletes, the 15th Games shows a third path-athletes' personal influence leverages cross-regional, cross-audience intention-beyond the other two's on-site foot traffic or super-symbol reliance.

These differences indicate that the key factors can be summarized into five dimensions-culture, social communication, industrial chain, institution, athletes-which likely differ in importance, providing a basis for Chapter 4.

4. Theoretical Framework and Research Hypotheses

4.1 Cultural Factor

The 15th Games visual system extracts GBA-shared symbols-lion dance, kapok, bauhinia, lotus-integrating them into mascots, costumes, and licensed products to strengthen regional-coordination identity. The emblem fuses the three regions' flowers into "concentric fireworks"; the mascots, modeled on the jointly protected white dolphin, carry common national identity. The "Three-Region Lion Dance" blind box and "Three Flowers" badge evoke tri-region consumer identity. These shared symbols condense local identity and lower communication cost, but combined with strongly local Cantonese puns and slogans they create comprehension barriers for non-GBA audiences, reflecting a balance problem between local character and universal communication.

4.2 Social Communication Factor

Beyond official promotion, grassroots audiences drive spontaneous publicity. On-site mascot interaction provides re-creation material; the Shunde Vocational University volunteer team's improvisational videos reached 10 million Douyin views, and wushu-student unscripted dance-offs with mascots stimulated shooting and sharing. Douyin videos tagged #2025NationalGames reached 3.47 billion cumulative views, laying the audience-reach groundwork for conversion.

4.3 Industrial Chain Factor

In design, Guangzhou Academy of Fine Arts and Shenzhen toy firms developed three-dimensional derivatives such as the "Three-Region Lion Dance" blind box. Manufacturing drawings are directly delivered to Dongguan toy industry cluster - more than half of the award-winning toy licensees choose to carry out prototype development locally; As the first authorized toy dealer in the history of the National Games, Dongguan Wenbo has developed more than 60 products, one of which has sold more than 50000 pieces. The flexibility of industrial clusters enables enterprises to quickly respond to the surge in orders after opening. In terms of sales channels, more than 500 offline stores, more than 70 online stores and pilot stores in adjacent markets have adopted special channels to achieve replenishment within three days. By concentrating design, manufacturing and sales in different metropolitan areas respectively, functional zoning is formed to provide main guarantee for sustainable supply [13].

4.4 Institutional Factor

For tariff and logistics, the three regions used the ATA Carnet for efficient cross-border circulation; since May 2025, customs facilitated clearance across the three territories without separate documents, exempting temporary-import tariffs. A dedicated port channel and a clearing mechanism for sports equipment have been set up. In July 2025, five Guangdong authorities issued a joint notice on special intellectual-property protection for the Games, mandating protection of the name, emblem, mascots, and slogans.

4.5 Athlete Factor

Athlete factor refers to athletes using public influence, regional representation and positive image to transfer personal audience influence to the event, so as to improve the willingness to buy goods. The plush toys endorsed by the champion were sold out within two hours on the opening day; the champion Tang Qianting's on-site blind box lottery and the Cantonese consonant interaction of the Yang sisters triggered the second social communication. Such activities promote goods to emotional carriers; buying the same blind box becomes a ceremony to connect with the champion, so that the resonance of the event goes beyond GBA and extends nationwide.

4.6 Research Hypotheses

Based on the above theoretical analysis, this study puts forward five research hypotheses:

H1: cultural factors affect commodity purchase intention. Shared symbols (lion dance, kapok, Bauhinia Flower, lotus flower) build group identity and positive will through social identity theory, but strong localized Cantonese elements will lead to difficulties in non GBA understanding; The net effect is not clear and needs further verification.

H2: social communication factors significantly affect purchase intention. Volunteer ad hoc interaction and UGC viral communication (Urban catalyst theory) may be closer to the official promotion at the psychological level, which can be translated into purchase intention

.H3: Industry chain factors have a significant impact on purchase intention Sufficient supply, convenient channels, stable quality, and barrier-free purchase-anchored in supply elasticity theory-indirectly promote intention via the GBA division's supply guarantee.

H4: The institutional factor influences purchase intention. CEPA linkage, simplified customs, and joint IP (macro) plus consumption safety and genuine-product trust (micro) reduce transaction costs and uncertainty, providing conversion guarantees (cross-regional coordination theory).

H5: The athlete factor significantly affects purchase intention. Athletes transfer their personal audience reach to merchandise; audiences' identity and trust in hometown athletes make credibility-based recommendations more persuasive than official promotion (social identity theory).

5. Research Design

5.1 Sample and Data Description

Using independent sample t-test and linear regression, the data comes from 338 valid college student feedback on an online platform, covering multiple GBA and non-GBA provinces. The independent variable of each factor is the sum of its four Lickett projects, which is standardized before regression (z fraction); the dependent variable Y is the sum of five items (unstandardized). Section 6.1 reports the non-standardized B (standardized predictor variable, original Y) and standardized Beta, and the calibration results are consistent. Region (GBA = 1) was used as a control variable; gender and grade were tested as additional control variables, but showed no significant effect, and the coefficients of the five factors did not change. The preliminary t-test showed that there was no significant mean difference between GBA and non-GBA samples in any variable, indicating that the two were comparable; the regional control variables were not significant ($p = 0.402$), which may be due to the high proportion of GBA (58.3%) and insufficient inter-group variation. All five factors and the Pearson correlation coefficient of purchase intention are significantly positive ($r = 0.30$-0.78), which supports the regression analysis.

5.2 Reliability Analysis

Reliability was tested with Cronbach's α. All dimensions and the total scale exceed 0.8, indicating good internal consistency for subsequent analysis (Table 2).

Table 2. Questionnaire Reliability Analysis Results

Dimension	Items	Cronbach's α	Reliability rating
Cultural factor	4	0.892	Excellent
Social communication factor	4	0.857	Excellent
Industrial chain factor	4	0.913	Excellent
Institutional factor	4	0.876	Excellent
Athlete factor	4	0.881	Excellent
Purchase intention	5	0.869	Excellent
Total scale	25	0.935	Excellent

5.3 Validity Analysis

To ensure data validity, this study used EFA to test the scale's structural validity. This analysis is a second-order factor analysis based on the six dimensions' composite scores (rather than a first-order analysis of 25 items), examining the aggregation structure of the five factors and purchase intention. The KMO and Bartlett's sphericity tests were conducted first: KMO = 0.772 (> 0.7); Bartlett's test of sphericity was significant, chi-square (15) = 1915.418, $p < 0.001$, rejecting the null hypothesis of variable independence and indicating strong correlations suitable for factor analysis. Principal component analysis was used to extract factors with eigenvalues greater than 1, yielding two factors. The rotated total variance explained is shown in Table 3.

Table 3. Total Variance Explained

Factor	Eigenvalue	Variance explained (%)	Cumulative (%)
Factor 1	3.568	59.474	59.474
Factor 2	1.796	29.932	89.406

As Table 3 shows, rotated Factor 1 has an eigenvalue of 3.568, explaining 59.474% of total variance; Factor 2 has an eigenvalue of 1.796, explaining 29.932%; the cumulative explained variance reaches 89.406%, far exceeding the 60% minimum acceptance standard, indicating the two extracted factors well summarize the original variables. Varimax rotation yielded the rotated factor loading matrix (Table 4).

In Table 4, X5 (athlete factor) and Y (purchase intention) load highly on Factor 2, named the influence-driven consumption-conversion factor. It should be pointed out that factor 2 loads both the athlete factor (0.961) and the dependent variable y (0.915); If the dependent variable and independent variable are included in the same factor extraction process, it will cause the cyclic risk that the dependent variable and independent variable are extracted together; The high correlation between the two will naturally lead to their common load on the same factor. Therefore, Factor 2's "athlete-purchase-intention common factor" structure partly restates the premise that "the two are highly correlated" and should not be taken as robust evidence independent of the regression results; this study interprets Factor 2 with caution.

Table 4. Rotated Component Matrix

Construct	Factor 1	Factor 2	Communality
Cultural factor	0.941	0.053	0.888
Social communication factor	0.916	0.085	0.845
Industrial chain factor	0.951	0.064	0.908
Institutional factor	0.919	0.141	0.865
Athlete factor	-0.094	0.961	0.933
Purchase intention	0.295	0.915	0.925

In summary, KMO = 0.772, a significant Bartlett's test ($p < 0.001$), cumulative variance of 89.406%, all loadings and communalities above 0.8 indicate good structural validity.

6. Empirical Results

6.1 Full-Variable Regression Results

To further verify the robustness of the hypothesis, all X1-X5 were included in the analysis; The results are shown in Table 5.

Table 5. Full-Variable Linear Regression Results

Variable	B	SE	Beta	t	p	VIF
Constant	4.339	0.823	-	5.271	0.000	-
Region (GBA=1)	-0.255	0.304	-0.024	-0.838	0.402	1.013
Athlete factor	3.836	0.131	0.850	29.269	0.000	1.011
Institutional factor	-0.047	0.142	-0.020	-0.329	0.742	4.243
Industrial chain factor	0.273	0.123	0.160	2.215	0.027	6.262
Social communication factor	0.061	0.143	0.025	0.426	0.671	3.896*
Cultural factor	-0.251	0.113	-0.150	-2.221	0.027	5.462

Note: $R^2 = 0.724$; adjusted $R^2 = 0.719$; $F = 144.520$ ($p < 0.001$); Durbin-Watson = 2.035.

In Table 5, the industrial chain factor VIF = 6.262, and the cultural factor VIF = 5.462, the value is relatively high (close to the warning threshold); multiple collinearity may partially explain the cultural factor symbol reversal and the reason for the instability, so the relevant conclusions should be interpreted carefully. Although VIF < 10 is acceptable, excessive extraposion is not recommended.

6.2 Regression Results and Causal Analysis

First, the athlete factor occupies a dominant position. Non GBA audiences lack of identity with GBA local symbols, while home athletes can establish emotional ties; Their high reliability makes the recommendation more convincing. After Kong Yiyi, a Guangdong athlete, released the unpacking video, the search volume increased rapidly, which confirmed the relationship between source credibility and intention. Official promotion and cultural symbols are weak in credibility and motivation, so the athlete factor is the strongest correlation factor in statistics.

Second, the industrial chain effect is significant but the intensity is limited. Adequate supply and convenient channels are taken for granted, so the marginal correlation is limited; However, the shortage of supply will have a significant negative impact. The GBA cluster ensures continuous supply and prevents the decline of purchase intention, but it hardly directly triggers purchase desire.

Third, the cultural factor shows a net negative effect. Shared symbols promote the GBA group but lack emotional basis for non-GBA groups; Cantonese puns create comprehension barriers whose negative effect exceeds the positive. Notably, the univariate Pearson correlation was significantly positive, but the full-model partial coefficient turned negative ($\beta = -0.150$, $p < 0.05$). Opposite zero-order and partial directions suggest a possible suppression (masking) effect-the positive component masked by athletes, leaving a negative net. This is only a preliminary evidence chain requiring stepwise-regression or condition-index testing; limited by cross-sectional data, we offer an exploratory hint. With cultural VIF = 5.462 (high), the sign flip may partly reflect multicollinearity, so the net-negative conclusion is cautious, and interaction/moderation effects are left for future research.

Fourth, social communication was not significant in the direct model (H2 unsupported). After athletes enter the stadium, their independent influence will no longer exist, so it is not the main predictor here; Whether it enlarges the influence of athletes through indirect effects belongs to the mediating/regulating effect hypothesis that needs to be discussed in the future, rather than the explanation of the zero hypothesis. From the perspective of phenomenology, UGC focuses on mascots and athletes (Shunde volunteers' videos have been played tens of millions of times), which shows that the influence of communication depends on the influence of the source.

Fifth, institutional factors are not significant (H4 is not supported). This can be attributed to three speculative reasons: limited statistical efficacy ($n = 338$, including five predictive variables); there may be insufficient measurement validity of scale entries; and potential indirect/modulatory effects (for example, institutions support the chain effect by reducing transaction costs). These "recessive and indirect" mechanisms can be used as testable assumptions in the future, rather than explanations of the zero hypothesis. The rigorous conclusion is that under the direct effect framework, H2 and H4 are not supported; their indirect mechanisms still need to be

verified through the intermediary/modulation effect test.

6.3 Hypothesis Testing Summary

Among the five assumptions, H1, H3 and H5 are supported, while H2 and H4 are not. The formation of purchase intention is not parallel in the five dimensions, but presents a hierarchical structure: the athlete factor is the main correlation layer (the strongest influence), and the industrial chain is the basic support layer. Under the framework of direct effect, social communication, culture and system did not show significant impact (H2 and H4 failed to pass; The influence of culture is significantly negative; Their auxiliary role can be used as a hypothesis for the test of mediating/moderating effects in the future. This study places them in a conditional-adaptation layer only as a descriptive framework, not a statistically verified conclusion.

7. Conclusions and Implications

7.1 Research Conclusions

Taking the 15th National Games as a case, this study formed and verified five influencing factors of merchandise purchase intention. In cross-regional co-hosting, the factors do not act uniformly but form a hierarchical pattern centered on the athlete factor as main driver with conditional support. Athletes' influence most strongly breaks regional consumption-circle barriers; tri-region industrial-chain coordination provides supply-side guarantees. Cultural integration, interactive communication, and institutional guarantee have limited direct-effect roles (culture significantly negative; social communication and institution not significant), whose auxiliary roles require future testing rather than confirmed hidden-support mechanisms. Under "One Country, Two Systems, Three Customs Territories," event commercialization mainly requires identifying the main associated factors that cross institutional and cultural boundaries to evoke resonance, and consolidating industrial coordination. A distinction must be drawn: Chapter 3's business models and phenomena are factual background inductions, weaker in claim strength than Chapter 6's statistical conclusions; the hierarchical structure is statistically supported, while the cultural two-way effect is an exploratory speculation. Within the scope of cross-sectional research for college students, these conclusions provide a reference framework for future cross-regional activities; their promotion to ordinary consumers needs to be further verified.

7.2 Managerial Implications

Product side: In view of the most critical athlete factor, launch exclusive limited products for athletes that integrate personal influence elements; the champion blind box series further strengthens the connection between athletes and products. Treat local symbols cautiously: for the non-GBA market, offer a nationwide series removing Cantonese elements and highlighting athletes or guochao (China-chic) style, and add Mandarin explanations to Cantonese-feature products.

Marketing side: athletes are encouraged to share games and commodity videos in Douyin and xiaohongshu; Hold campus marketing and design competition; Improve UGC incentive mechanism through bonuses or certificates, and form official guided grass-roots communication.

Industrial-chain side: integrate design demand, manufacturing capacity, and sales data across the GBA for forecasting, allocation, and tracking; cultivate a regional merchandise alliance with capacity-sharing and benefit rules, and build a cross-regional data-sharing platform for stable supply.

7.3 Policy Recommendations

Layered schemes follow. First, for multi-jurisdictional co-hosted events (e.g., future GBA single-sport events), apply the hierarchical structure with institutional-coordination guarantees and industrial-chain factors, plus tri-region liaison and unified franchising standards. Second, for single-institution cross-provincial events (Yangtze River Delta, Jing-Jin-Ji), mainly use the athlete and social-communication approaches-strengthening athlete-matrix operation and UGC ecosystems and linking regional clusters for cross-provincial supply platforms-without copying the complex "One Country, Two Systems" design. Third, for single-province events, enrich athlete and grassroots co-creation strategies to compensate for traditional models' weak interactivity and enhance national influence.

8. Limitations and Future Research

8.1 Research Limitations

The sample is unrepresentative: mainly university students, excluding working youth and older groups, and with 58.3% GBA share making non-GBA subdivision difficult; conclusions need cautious application. The cross-sectional design captures only during-event intention, unable to track pre/post dynamics or full-lifecycle behavior. The confounding control variables are limited: price sensitivity, promotion, channel preference and regional culture are excluded, and the lack of income/past consumption data limits the heterogeneity analysis. Most importantly, the causal mechanism has not been tested: only the direct effect is examined, and the mediating/moderating variables are not considered. Specifically, the questionnaire lacks independent mediators (for example, "emotional identity"), so it is impossible to directly test the mediating role of emotional identity between athletes' factors and purchase intention; Data limitations make it impossible to include the interaction/moderation items of cultural inhibition effect; Scattered non GBA samples hinder the regression of subgroup or GBA exclusion sensitivity, making the robustness of cultural two-way effect need to be verified by larger samples. No sensitivity second-order EFA excluding Y was feasible; future work can redo the X1-X5 EFA to verify the two-layer clustering. These limits leave conclusions at the correlational level, with causal explanation for future longitudinal or experimental research.

8.2 Future Research Directions

First, expand subjects to working youth and older consumers for a more diverse age/occupation/income sample; include supply-side interviewees (retailers, operators) for demand-supply cross-validation. Second, conduct pre-, during-, and post-event surveys to depict awareness and intention trajectories and the event-heat-decay effect, building the full consumption lifecycle for long-term-operation evidence. Third, add price sensitivity, promotion perception, channel preference, and income into the framework to explain intention formation.

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