Research on College Students' Satisfaction with Fitness-Based Somatosensory Games Based on Customer Perceived Value

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Abstract: As digital technology increasingly influences lifestyle and health, fitness-based games represent a unique blend of entertainment, exercise, and social interaction, particularly attractive to the college student demographic. This study assesses how these fitness-oriented physical gaming products fulfill various dimensions of perceived value—functional, brand, emotional, experiential, and customer loyalty—and their impact on student satisfaction. It highlights the potential of these products to serve as tools for ideological and educational enhancement within the college setting. Employing a quantitative methodology, the research involved surveying 206 college students and analyzing the data through exploratory factor analysis and reliability testing. The findings indicate that while the functional and brand values generally meet expectations, there are notable deficiencies in meeting experiential and emotional needs, pointing to opportunities for further development. The study underscores the strategic role educational institutions can play in leveraging these games not only to bolster physical fitness but also to enhance mental health and educational outcomes. By aligning game functionality with educational objectives, universities can enhance the efficacy of their health and wellness programs, thereby fostering comprehensive student development. This research contributes to the ongoing discourse on the integration of technology in educational settings, offering insights into how universities can harness digital innovations to boost student engagement and wellness.

Keywords: Customer Perceived Value, Fitness-Based Somatosensory Games, College Student Satisfaction

1. INTRODUCTION

In the rapidly evolving digital era, technology has profoundly transformed people's lifestyles and fostered innovative approaches to health and physical activity. This is especially true for college students—a demographic that is youthful, energetic, and eager to explore new things (Xie & Bing, 2023). The integration of technology with sports, exemplified by fitness-oriented somatosensory games, offers a fresh and appealing fitness approach. These games leverage cutting-edge interactive technology, allowing users to enjoy gaming fun while engaging in physical exercise, effectively igniting young people's enthusiasm for sports and becoming an essential companion amidst their hectic academic lives (Liu, Yang, & Cong, 2022). Despite the widespread popularity of fitness-based somatosensory games among college students, due to their unique entertainment value and convenience, there has been limited research on user satisfaction and perceived value. Investigating college students' satisfaction with these products from the perspective of customer perceived value not only uncovers their needs and preferences but also equips product developers with critical insights for enhancements (Cui & Meng, 2021). This leads to the creation of products that are more engaging and better meet user requirements. Moreover, understanding college students' satisfaction and perceived value toward these fitness games holds significant practical importance for promoting healthy lifestyles and sports participation in colleges and universities (Xu, Wareewanich, & Chankoson, 2024). It aids institutions in better addressing the physical and mental health needs of students, fostering campus sports culture, and improving overall student well-being. Therefore, this study aims to explore college students' perceived value of fitness-based somatosensory games and its influence on their satisfaction, intending to bridge the gaps in current research. By thoroughly examining how college students perceive the value of these games and the impact of this perception on their satisfaction, the study seeks to offer empirical evidence to aid product developers and college administrators in understanding the specific needs of this user group. The goal is to provide strategic insights for designing more appealing products and promoting the healthy evolution of campus sports activities. Consequently, this research not only contributes to the scholarly discourse on fitness-based somatosensory games but also offers theoretical and practical guidance, aspiring to advance the integration of technology and sports and support the spread and development of healthy lifestyles among college students.

2. LITERATURE REVIEW

With the ongoing advancement of digital technology, fitness-oriented somatosensory products have emerged as key instruments for encouraging physical activity and boosting health consciousness among college students (Chen, Cheng, & Kim, 2020). These products deliver engaging and interactive fitness experiences, significantly sparking college students' interest in exercising and offering a medium for social interaction. For instance, somatosensory games enable users to engage in enjoyable fitness activities at home and interact with friends via online functionalities, thereby enhancing the enjoyment of exercise and social fulfillment (Liu et al., 2021). However, to adequately cater to college students' needs and elevate their satisfaction, developers must thoroughly understand the perceived value these fitness-oriented somatosensory products hold for them. Research indicates that college students' satisfaction is influenced not only by the product's functionality and practicality but also by its social and emotional benefits (Preparedness & Rescue, 2020). Thus, crafting high-quality fitness products that address the varied demands of college students is crucial for improving their levels of physical activity and health-related behaviors (Noone et al., 2009). Moreover, as centers of education, colleges and universities play a pivotal role in advancing students' physical and mental well-being by adopting and advocating for such products. They can also enrich campus sports culture and foster a stronger sense of community and belonging among students. Through organizing pertinent activities and competitions, educational institutions can further boost students' eagerness to participate and facilitate social interaction, thereby improving the health and satisfaction levels across the student population (City, 2021; Wahl-Jorgensen, 2020). In conclusion, fitness-oriented somatosensory products offer college students a novel approach to fitness that melds exercise, entertainment, and social interaction. Enhancing the perceived value of these products can significantly boost college students' satisfaction and participation, positively impacting their physical health, mental well-being, and social engagement. Future studies should delve into how product design innovations and campus initiatives can better fulfill the health and social expectations of college students (Almquist & Gustafsson, 2018).

3. RESEARCH METHODOLOGY

3.1 Research Objectives

This study aims to explore college students' satisfaction with fitness-

based physical games, with fitness-based physical games as the research object. The research sample was selected from college students with experience in using physical games to gain insight into the perceived value and satisfaction of fitness-based physical games.

3.2 Research Methods

The foundation of this research was established through an exhaustive review of both national and international literature, focusing on theories of customer perceived value and satisfaction among others. This comprehensive literature survey informed the construction of a theoretical framework and the subsequent design of a research questionnaire (Wanyang, 2023). The questionnaire, devised with inputs from domain experts, covers five critical dimensions: functional value, brand value, emotional value, experiential value, and customer loyalty (Tiep Le, Ngo, & Aureliano-Silva, 2023). Emphasis was placed on ensuring the scientific rigor and practical relevance of the questionnaire to facilitate the collection of valid and reliable data. Statistical analysis was done using statistical package SPSS 26. 0 Using a combination of the Descriptive statistics, reliability and validity analysis and exploratory factor analysis. These methods were chosen in order to ensure that the findings of the study are accurate evidenced based. After the quantitative data analysis, a qualitative analysis of the findings was also done in order to determine the factors affecting college students' satisfaction towards fitness based physical games. It was significant inferences towards conclusion from the study and theoretical foundation for coming up with recommendations that would improve the design and delivery of such games (Liu & Fu, 2020). The use of this methodological integrated approach presents a more interpretative perspective on this college students' body_SWAP physical games and their fitness in order to appreciate more on how the different physical games can be redesigned more nearer to the needs of this college students (Zhao et al., 2024). In addition to the development of this paper, it is the intent of this study to provide a theoretical advancement in the area of physical gaming and satisfaction as well as provide a practical guide for developers and educators on how to make fitness enjoyable for college students.

4. PREPARATION AND DISTRIBUTION OF THE QUESTIONNAIRE

4.1 Preparation of Preliminary Questionnaire

Combining theoretical research and expert opinions, the preliminary

questionnaire is compiled to cover five key dimensions: functional value, brand value, emotional value, experiential value and customer loyalty, totaling 25 items. The basic research framework of this study is the hypothesis verification logic program, which takes college students' satisfaction with fitness-based physical games based on customer perceived value as the research object. The study adopts the customer perceived value theory, customer satisfaction theory and other related theories as well as drawing on the same or similar dimensions of the questions in the mass fitness satisfaction scales available at home and abroad as the evaluation dimensions of this study to be analyzed and researched. In addition, this study sought the advice of a professor of sports humanities and sociology to take the factors influencing satisfaction based on customers' perceived value as an entry point, combing through 25 topics in five dimensions, namely, functional value, brand value, emotional value, experiential value, and customer loyalty (Table 1), and proposing hypotheses:

Hypothesis 1 (H1): Functional value has an impact on the satisfaction of fitness-based somatosensory games

Hypothesis 2 (H2): Brand value has an impact on fitness-based somatosensory games satisfaction.

Hypothesis 3 (H3): Emotional value has an impact onfitness-based somatosensory games satisfaction.

Hypothesis 4 (H4): Experiential value has an effect on fitness-based somatosensory games satisfaction.

Hypothesis 5 (H5): Customer loyalty has an effect onfitness-based somatosensory games satisfaction.

4.2 Pilot Survey and Reliability and Validity Analysis

A pretest of the initial questionnaire was carried out to gather feedback for refining the questionnaire. To ensure the questionnaire's reliability and validity, SPSS software was utilized for analysis. The target respondents for this study were college students who have used fitness-based somatosensory games satisfaction. The preliminary questionnaire utilized Likert's five-point scale, where scores ranged from 1 ("strongly disagree") to 5 ("strongly agree"). The survey was administered to 80 college students active on a physical fitness game forum, yielding 72 valid responses, which translates to a 90% response rate. Consequently, the data were subjected to statistical analysis using SPSS 26.0. An examination of each item's discriminative ability revealed that all question items met the significant standard and exhibited distinct differentiation from one another. Therefore, it was decided to retain all items, resulting in the preliminary

questionnaire titled "Survey of College Students' Satisfaction with the Perceived Value of Fitness-based Somatosensory Games Satisfaction." To assess the reliability and stability of the scale's data, the Cronbach Alpha coefficient was employed. This coefficient, also known as the internal consistency coefficient or reliability coefficient, suggests good reliability when values are between 0.7 and 0.8, and very good reliability when exceeding 0.8. The analysis of the scale data using SPSS showed that the overall alpha coefficient for the 25 items was 0.931, indicating excellent overall reliability of the scale. Further, the reliability analysis of the subscales revealed Alpha coefficients ranging from 0.740 to 0.888, signifying high internal consistency within the scale (Table 1 and Table 2).

Table 1: Overall Cronbach reliability analysis of the scale

Items	**N**	**Cronbach's Alpha Coefficient**
25	72	0.931

Table 2: Cronbach's reliability analysis for each subscale (N=72)

	Functional Value A1-A5	**Brand Value A6-A10**	**Emotional Value A11-15**	**Experiential Value A16-A20**	**Customer Loyalty A21-A25**
Alpha Coefficient	0.740	0.808	0.851	0.782	0.888

4.3 Distribution and Collection of the Official Questionnaire

The questionnaire was distributed via an online platform to ensure a wide and diverse sample. Upon collection of valid responses, data analysis was conducted to support the research findings. The official questionnaire was finalized after undergoing tests for validity and reliability. In this phase, a random survey targeted at college students who use fitness-based somatosensory games was executed, yielding 233 responses. After filtering out invalid and non-compliant responses, 206 valid questionnaires remained, marking an 88.4% rate of validity. The data were then imported into Excel for organization, and statistical analysis was performed using SPSS 26.0 to evaluate the findings systematically.

5. RESULTS AND FINDINGS

5.1 Factor Structure Analysis of College Students' Satisfaction with the Perceived Value of Fitness-Based Somatosensory Games

This study employed SPSS 26.0 to perform exploratory factor analysis on a dataset related to college students' satisfaction with the perceived value of fitness-based somatosensory games. Prior to executing the factor analysis, it was essential to conduct both the Kaiser-Meyer-Olkin (KMO)

measure and Bartlett's test of sphericity. The KMO measure, approaching closer to 1, indicates a stronger correlation among variables, thus deeming the dataset more suitable for factor analysis. Conversely, Bartlett's test assesses the interdependence of variables; a significant result implies that the variables are not independent, rendering the data appropriate for factor analysis. The survey incorporated 25 scaled items. Table 6 reveals that the KMO measure for the dataset stood at 0.919, surpassing the threshold of 0.8, with a degree of freedom (df) of 300 and a p-value below 0.01. This suggests a significant correlation among the variables, qualifying the data for factor analysis with a 1% level of significance (Table 3).

Table 3: KMO and Bartlett's test

KMO		**0.919**
Bartlett's Test of Sphericity	Chi-square	2488.117
	df	300
	p	0.000

Upon satisfying the criteria of the KMO and Bartlett's tests, principal component analysis facilitated the extraction of five common factors from the 25 survey items. As indicated in Table 5, these five factors, each with initial eigenvalues exceeding 1, collectively accounted for 61.145% of the variance, thereby offering a satisfactory explanation of the dataset. The eigenvalues and the respective variances explained by these five factors are as follows: the first factor had an eigenvalue of 9.627, explaining 38.507% of the variance; the second factor's eigenvalue was 1.996, with 7.985% of the variance; the third factor had an eigenvalue of 1.329, accounting for 5.316% of the variance; the fourth factor presented an eigenvalue of 1.227, covering 4.909% of the variance; and the fifth factor, with an eigenvalue of 1.107, explained 4.428% of the variance(Table 4).

Table 4(a): Interpretation of total variance of the scale

Element	**Initial Eigenvalue**			**Extract the Sum of the Squares of the Loads**			**Rotational Load Sum of Squares**		
	Sum	**Percentage of variance**	**Cumulative %**	**Sum**	**Percentage of variance**	**Cumulative %**	**Sum**	**Percentage of variance**	**Cumulative %**
1	9.627	38.507	38.507	9.627	38.507	38.507	3.369	13.477	13.477
2	1.996	7.985	46.492	1.996	7.985	46.492	3.192	12.769	26.247
3	1.329	5.316	51.808	1.329	5.316	51.808	3.003	12.013	38.260
4	1.227	4.909	56.717	1.227	4.909	56.717	2.906	11.623	49.882
5	1.107	4.428	61.145	1.107	4.428	61.145	2.816	11.262	61.145

Table 4(b): Interpretation of total variance of the scale

Element	Initial Eigenvalue			Extract the Sum of the Squares of the Loads			Rotational Load Sum of Squares		
	Sum	Percentage of variance	Cumulative %	Sum	Percentage of variance	Cumulative %	Sum	Percentage of variance	Cumulative %
6	0.933	3.731	64.876						
7	0.845	3.380	68.256						
8	0.775	3.101	71.358						
9	0.733	2.933	74.291						
10	0.641	2.563	76.854						
11	0.589	2.358	79.211						
12	0.555	2.219	81.431						
13	0.532	2.129	83.560						
14	0.505	2.019	85.579						
15	0.472	1.888	87.467						
16	0.440	1.759	89.227						
17	0.392	1.566	90.793						
18	0.360	1.439	92.232						
19	0.328	1.311	93.543						
20	0.317	1.270	94.813						
21	0.295	1.178	95.991						
22	0.289	1.156	97.148						
23	0.254	1.017	98.165						
24	0.234	0.937	99.102						
25	0.225	0.898	100						

After factor extraction, the maximum variance method was utilized to derive the rotated factor loading matrix. Subsequent analysis of the rotated five factors, based on the rotated component matrix, facilitated the allocation of each question item to a specific factor. As evidenced by Table 5, items A1-A5 are assigned to factor 1, items A6-A10 to factor 2, items A11-A15 to factor 3, items A16-A20 to factor 4, and items A21-A25 to factor 5.

The loading coefficients for all 25 items on their respective factors exceed 0.5, signifying a high degree of item convergence. In alignment with theoretical frameworks, the five factors have been designated as functional value, brand value, emotional value, experiential value, and customer loyalty, respectively.

Table 5: Rotated Component Matrix

Item	Factor Loading Coefficient				
	Factor 1	**Factor 2**	**Factor 3**	**Factor 4**	**Factor 5**
A1	0.571				
A2	0.796				
A3	0.540				
A4	0.601				
A5	0.704				
A6		0.671			
A7		0.606			
A8		0.633			
A9		0.595			
A10		0.547			
A11			0.623		
A12			0.516		
A13			0.552		
A14			0.756		
A15			0.735		
A16				0.736	
A17				0.757	
A18				0.730	
A19				0.705	
A20				0.516	
A21					0.704
A22					0.640
A23					0.745
A24					0.675
A25					0.631

5.2 Overall Analysis of College Students' Satisfaction with the Perceived Value of Fitness-Based Somatosensory Games

Various indicators of customer-perceived value effectively capture the authentic sentiments and needs of users, serving as a valuable reference for identifying the pain points of college students and enhancing the design of fitness-based somatosensory games. Statistical analysis (see Table 6) reveals that the overall satisfaction with perceived value among college students for fitness-based somatosensory games stands at 3.9445, positioning their satisfaction between "average" and "relatively satisfactory." Notably, satisfaction peaks within the functional value dimension, with a mean score of 3.97, while the lowest satisfaction occurs in the experiential value dimension, which has a mean score of 3.80. These findings suggest that there is room for improvement in how college students perceive the value of fitness-based somatosensory games.

Table 6: College students' satisfaction with perceived value of fitness-based somatosensory games

Factor	N	Mean/Ranking	Standard Deviation
Functional Value	206	3.97/1	0.628
Brand Value	206	3.96/2	0.649
Emotional Value	206	3.85/4	0.701
Experiential Value	206	3.80/5	0.684
Customer Loyalty	206	3.96/3	0.746
Total	206	3.94	0.541

5.3 Factor Analysis of College Students' Satisfaction with Perceived Value of Fitness-Based Somatosensory Games

5.3.1Functional Value Satisfaction Analysis

Functional value pertains to product attributes that fulfill the user's functional needs, constituting a significant source of perceived value for the customer. The primary function of fitness-based somatosensory games is to facilitate exercise and fitness. Analysis of the functional value dimension indicates (see Table 7) that users express higher satisfaction with the teaching guidelines, exercise modes, fitness movements, and exercise incentives provided by the physical fitness game, with the mean values for these four items reaching the "more satisfied" level. However, Table 10 also reveals that the exercise record function receives the lowest evaluation, with a mean value of 3.92, which falls between "generally satisfied" and "relatively satisfied." This suggests deficiencies in the game's exercise record function, a critical metric for users assessing the efficiency of their fitness regimen. Addressing how to provide accurate exercise records for effective fitness planning remains a significant challenge in somatosensory fitness games.

Table 7: Satisfaction Levels of College Student Users with the Functional Value of fitness-based somatosensory games

	Item	N	Mean	Standard Deviation
Functional Value	A1	206	4.20	0.729
	A2	206	4.06	0.800
	A3	206	4.01	0.850
	A4	206	4.00	0.841
	A5	206	3.92	0.871

5.3.2 Brand Value Satisfaction Analysis

Brand value refers to the overall perception and positioning of a brand by consumers, reflecting the value created by the brand from their perspective. The analysis of brand value dimensions (Table 8) reveals that college students have a relatively clear understanding of the brand

positioning of fitness-based somatosensory games, with a mean value of 4.03, falling within the "relatively satisfied" range. However, in terms of brand awareness, corporate service culture, brand comprehension, and brand service commitment, fitness-based somatosensory games have not achieved the "relatively satisfactory" level, with mean values ranging from 3.92 to 3.99. This suggests a need for these games to enhance brand publicity and the public's understanding of their distribution platforms. Moreover, there is a crucial need to improve the service quality of physical fitness game products to bolster brand credibility.

Table 8: Satisfaction Levels of College Student Users with the Brand Value of fitness-based somatosensory games

	Item	N	Mean	Standard Deviation
Brand Value	A6	206	4.03	0.929
	A7	206	3.99	0.929
	A8	206	3.92	0.849
	A9	206	3.98	0.864
	A10	206	3.96	0.767

5.3.3 Emotional Value Satisfaction Analysis

Emotional value refers to the emotional impact—both positive and negative—that the purchase and use of products or services have on consumers. The analysis of the emotional value dimension (see Table 9) reveals that fitness-based somatosensory games effectively meet users' emotional needs and align well with their fitness motivations. The mean values for question items A12 and A13 are 4.04 and 4.0, respectively, which fall within the "more satisfied" range. This indicates that the use of fitness-based somatosensory games aligns closely with users' fitness motivations and contributes positively to their emotional well-being. However, the games have not yet achieved a "more satisfied" level in terms of aesthetic appeal, security, and the sense of belonging to a group. This suggests that there is a need to enhance the aesthetic aspects of these games to better align with public preferences. Additionally, there is a need to improve the safety reviews of fitness movements to ensure user security and to continue focusing on brand development to increase brand recognition and satisfy the user group's need for a sense of belonging.

Table 9(a): Satisfaction Levels of College Student Users with the Emotional Value of fitness-based somatosensory games

	Item	N	Mean	Standard Deviation
Emotional Value	A11	206	3.92	0.860
	A12	206	4.04	0.860
	A13	206	4.00	0.905

Table 9(b): Satisfaction Levels of College Student Users with the Emotional Value of fitness-based somatosensory games

Item	N	Mean	Standard Deviation
A14	206	3.80	0.939
A15	206	3.59	0.952

5.3.4 Experiential Value Satisfaction Analysis

Experiential value pertains to the fulfillment of consumers' needs following the purchase and use of product services. Analysis of the experiential value dimensions (see Table 10) reveals that college users positively rate the uniqueness of services offered by fitness-based somatosensory games, with average values reaching a "relatively satisfactory" level. However, there remains considerable scope for improvement in addressing fitness pain points, enhancing fitness efficiency, and accommodating the needs of different genders. Notably, the evaluation of fitness pain points received the lowest score, with an average value of 3.67. This suggests that fitness-based somatosensory games should prioritize researching user needs, particularly by understanding the consumption preferences of college students across different genders. It is crucial to identify and address the key challenges encountered by users during gameplay in a targeted manner, thereby enhancing fitness efficiency and catering to the diverse needs of various user groups.

Table 10: Satisfaction Levels of College Student Users with the Experiential Value of fitness-based somatosensory games

	Item	N	Mean	Standard Deviation
Experiential Value	A16	206	3.71	0.809
	A17	206	3.67	0.937
	A18	206	3.89	0.941
	A19	206	3.85	0.873
	A20	206	4.01	0.924

5.3.5 Customer Loyalty Satisfaction Analysis

Customer loyalty significantly influences consumer behavior, encapsulating the dependence or goodwill that consumers hold towards a product or service. The analysis of customer loyalty dimensions (referenced in Table 11) indicates that the average values for repurchase rate, user promotion rate, and frequency of use of body fitness games all exceed 4, reflecting a robust level of customer loyalty. However, the average values for items A24 and A25 do not meet the "Comparatively Agree" level, suggesting that while customer loyalty for body fitness games is generally strong, users' decisions to continue using branded products still heavily rely

on the quality and cost-effectiveness of these products. All in all, the consumption habits of college students in contemporary society have evolved to be more rational. While there is still a tendency to pay for brand influence, students are not willing to compromise on product quality standards. This indicates a discerning consumer base that values both brand and product efficacy.

Table 11: Satisfaction Levels of College Student Users with the Experiential Value of fitness-based somatosensory games

	Item	N	Mean	Standard Deviation
Customer Loyalty	A21	206	4.07	0.872
	A22	206	4.14	0.889
	A23	206	4.07	0.924
	A24	206	3.89	0.962
	A25	206	3.90	0.889

6. DISCUSSIONS

1. This study indicates that the perceived value dimensions of fitness-based physical games among college students encompass functional value, brand value, emotional value, experiential value, and customer loyalty. Collectively, these dimensions significantly influence the satisfaction and loyalty of college students (Li & Chen, 2024). Functional value is especially prized due to its direct link to the effectiveness of fitness outcomes and the game's practicality. However, the lower scores for experiential value highlight shortcomings in the game's interactive features and personalized settings.

2. Functional value exerts a substantial positive impact on the satisfaction of college students, underscoring their priority on whether the game meets their essential fitness needs. College students appreciate diverse exercise modes, scientifically-designed fitness movements, effective teaching guidance, and motivational incentives. Nonetheless, the study also highlights that the exercise record function scores low, suggesting that fitness-based somatosensory games still have room to improve in providing accurate exercise feedback and personalized fitness recommendations.

3. Brand value is crucial in influencing college students' selection of fitness-based somatosensory games. A well-defined brand positioning and a positive brand image enhance students' trust in these games, subsequently boosting their satisfaction (Peruchi et al., 2022). However, the results show that while brand positioning is clearly understood and highly rated, the

transmission of the company's service culture is less satisfactory, indicating a need for these companies to further develop and communicate their brand culture effectively (Qiu, Sun, & Wu, 2021; Xinyu, 2018).

4. Emotional value is vital in analyzing the satisfaction derived from fitness-based somatosensory games. College students seek not only physical fitness outcomes but also emotional gratification during gameplay (Wang et al., 2022). Social interaction, emotional resonance, and enjoyable experiences are central to their perceived emotional value. Nevertheless, current somatosensory games could be improved to better facilitate social interaction and enhance emotional engagement.

5. Experiential value is another crucial dimension affecting college students' satisfaction. Although the uniqueness of the service receives high marks, the overall rating for experiential value is low when it comes to meeting the personalized needs of students across different genders and fitness levels. This indicates a deficiency in the games' ability to offer tailored fitness solutions and an optimized user interface experience.

6. The findings from the study on customer loyalty reveal that while most college students are likely to recommend fitness-based somatosensory games to others, they are sensitive to price and demand high cost-effectiveness in products. To enhance customer loyalty, companies in the physical games sector need to balance reasonable pricing with high-quality game offerings.

7. IMPLICATIONS

1. With reference to the above areas of education, colleges and universities have the role of shaping students to lead healthy lives. To this end, the said institutions can help promote the fitness culture tied to somatic fitness games. They can also use the different platforms both in and out of the compound; social media, students' organization, and broadcasts to market the health aspect and entertainment in these games. Moreover, colleges should make use of their sports facilities, they should set up fitness games areas possibly within the gyms or the Student Activity Center where students are encouraged to actively participate in and enhancing through regular competition and challenges on the fitness craze among college student also to foster a stronger campus community bond.

2. It is equally accurate that higher education institutions equally need to pay attention towards the enhancement of fitness education content novelty. This can involve carrying out activities such as providing health

related seminars and aerobic exercise sessions, invited sporting personalities, game designers to discuss on issues related to sporting activities and on how they can use the games in enhancing health. Such approaches can not only enhance the students' fitness knowledge but also help them develop the principles of scientific approach to exercise. Moreover, all these concepts can be collaborated with product developers to develop fitness guidance programs for college students or courses for them based on somatic games, which give the college students comprehensive, scientific, and highly individualized fitness and health recommendations.

3. For software developers, it is suggested that UX optimization should be regarded as the most important research focus. The customization of the site's graphical interface, as well as of the processes inherent in its functioning, should be constantly updated with information received from college students. Interactivity and entertainment are to be increased and more attention should be paid to the individual needs. Also, strengthening the product's social aspects, for instance, enhancing the social platforms of the product and integrating multiple interaction modes, can substantially enhance the users' engagement and product attachment. Furthermore, the issue of diversity and professionality of the content should be addressed; the fitness developers should create the diverse fitness schedules and modes appropriate for college students and develop a need-oriented content to meet the demands of the scientific approach.

4. Lastly, considering the price sensitivity of college students, game developers should implement sensible pricing strategies. Options could include offering a free trial period, establishing subscription discounts, and providing exclusive student promotions to entice more students to try the games. Additionally, enhancing marketing efforts through collaborations with colleges to establish on-campus demo points, and utilizing the digital-savvy nature of the student demographic for viral marketing can effectively increase brand visibility and trust.

8. LIMITATIONS

There are also several concerns that can be highlighted as the limitations of the current study and as the directions for the future research. First, it is essential to note that the response rate to the survey was large, yet the study participants may not represent all the college students in their variation, and thus the general population may exhibit some degree of variability not

depicted in the current study. Despite the fact that this study mainly employed quantitative research design, it might have failed to provide adequate insights into students' experiences and perceptions on the AS fitness-based somatic games. On the other hand, had other more directional method have been employed such as the interview or focus group, more detailed data could have been obtained. Moreover, using fixed set of variables for perceived value, might have reduced the study's capability to identify other important factors that influence students' satisfaction.

9. FUTURE RESEARCH

Future research could extend the sample in terms of the more representative cross section. It may also have been useful to conduct longitudinal research as it would have helped in monitoring the changes in students' perception and satisfaction regarding the games as they continued using the products. Interviews or focus group discussion as a qualitative data collection technique could also be incorporated alongside the quantitative measures in order to provide a richer understanding of the processes that underpinned student satisfaction and their perceived value. In addition, possibly research of other dimensions of perceived value such as personalization, easy access, and technology incorporation might provide better insight into what contributes to college student satisfaction. Finally, comparing the effects of these games in the real scholastic context and evaluating their effectiveness and functioning, commonly could contribute to the identification of the progress that is required.

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