The Interplay Between Esports Demand and College Courses: Integrating Societal Culture Management in Esports Education to Improve Education Quality

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Abstract

This research investigates the academic education landscape of Esports courses, aiming to substantiate the rationale and necessity for their inclusion in college curricula. To achieve this goal, it is imperative to comprehensively examine the influential factors impacting the development of Esports courses. Unlike the prevailing focus on Esports from a business perspective, this study addresses the underexplored realm of academic education in Esports. This quantitative research employs a descriptive approach and gathers data through questionnaires distributed to both Esports companies and colleges. The research findings underscore the profound influence of market demand and industry demand on the establishment of Esports and management courses in colleges. Additionally, the study emphasizes the pivotal role of societal culture in shaping the contours of Esports and management courses. In conclusion, this research sheds light on the determinants affecting the creation and education quality of Esports courses and offers valuable insights for colleges contemplating the implementation of such programs.

Keywords: *Demand, Esports and Management Course, China, Societal Culture, Academic Education, Education Quality*

Introduction

Esports is one of the fastest growing ornamental sports in the world (Salinas, 2013). It is estimated that by 2024, the global Esports industry revenue will exceed USD 1.6 billion. Esports is likely to become one of the most profitable industries if the current growth momentum of electronic revenue continues (Tidrow, 2020). Esports has developed very rapidly in China in recent years, with a substantial increase in market sales revenue and user scale, bringing considerable economic benefits. In 2017, the actual sales revenue of China's Esports market was 35.99 billion yuan, a year-on-year increase of 43.2% (Dong, 2020). The Chinese government has also noticed the development of Esports industry, spending more than 700 million dollars to support Esports venues and professional players (Ho, 2021). In the contemporary era, the Esports industry is experiencing continuous growth in economic scale. This expansion encompasses various domains, including competitive gaming, video game development, and live broadcasting, thereby establishing the fundamental framework for the Esports industry ecosystem. The most lacking element in the Esports sector, which is growing, is neither the Esports competitors, nor the players and viewers who participate in Esports (Bi, Guo, and Lin, 2020). Instead, it is the connected practitioners of Esports and management. Solving the talent gap is important in the current Esports industry. Therefore, Esports, as a sport, was added as the course of "Esports and management" in 2016 and was allowed to be set in colleges (Wang, Xia and Zhao, 2018).

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Based on China's requirements for college vocational education, the establishment and development of Esports and management courses in colleges have become a challenge, particularly in accelerating the integration of interactive technology to empower innovative and high-quality educational development in the esports industry in accordance with SDG 4's objective to "ensure inclusive and equitable development for all" (United Nations [UN], 2015, Target 4.1).

At present, the majority of domestic academic study on esports is on its qualitative aspects, difficulties, and solutions (Wu, 2019; Hong, 2018; Peng and Guo, 2018). Yan (2015). It believes that the rapid development of Esports in China makes it necessary to incorporate it into the school education system. These studies have not fundamentally solved the problem of whether and how to offer this course. Therefore, it is the only way to research the factors that affect the setting up of Esports and management course (Domingues, R. et al 2019).

The main purpose of this research is to understand the relationship between market demand, industry demand, personal needs and Esports and management course setting.

This research innovatively integrates social culture into it. Societal culture is an important environmental factor to be considered in the process of school operation (Bush, 1986;2015). Therefore, this research has the following four research objectives:

RO1: *To discover the market demand effect on setting up Esports and management course in colleges.*

RO2: *To discover the industry demand effect on setting up Esports and management course in colleges.*

RO3: *To discover the personal needs effect on setting up Esports and management course in colleges.*

RO4: *To discover the importance of societal culture in Esports and management course setting in colleges.*

Literature review

Esports is essentially different from playing games. Esports and management course do not train professional players, but aim to train skilled talents in Esports management, game planning and execution, and media (Zheng, Xiao and Yu, 2021). In "E-sports talent cultivation research by incorporating E-sports into college physical education system".

Sheng and Chang (2015) incorporated the tight ties between Esports and social industry and economic development in their study of the viability of integrating Esports into college physical education from two perspectives: college physical education discipline construction and curriculum system (Li, R., & Gao, Y 2022).

In fact, the name of Esports and management course clearly divides talents into sports and management (Guo, 2021). According to Lu and Zhou's (2021) analysis, the Esports market will eventually exhibit a tendency of specialization and marketization and will progressively resemble traditional sports.

Promoting the development of surrounding areas, increasing the scope of industrial development, and placing importance on the research and development of product types through developed industrial areas will all contribute positively to the development of the electronic industry from the perspective of upgrading the structure of the Esports industry (Xu and Wang, 2022).

The esports business should increase its expertise while achieving commercialization and marketization (Lu and Zhou, 2021). To ensure that the public has a good understanding of the

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Esports sector and to advance people's right cognition of it, the Esports market calls for Esports education (Jiang, Sun, and Xiong, 2022). The Esports industry's quick development encourages the industry's demand to keep growing (Thompson, E.et al 2015).

According to unreliable data, China now lacks up to 500,000 Esports talent (Lu and Zhou, 2021). Yu et. al. (2020) noted in the research that most American universities encourage students to participate in Esports activities and set up scholarships by setting up Esports competitions, and some universities even set up special Esports halls in their schools.

This is because of the demand for this industry. In the institutions that have already started offering this course, the professional content is closely tied to the industry's demand direction, with Esports management, Esports event operation, Esports brokers, and club management as the main directions (Zheng et al., 2021).

The development of Esports industry is inseparable from the love and support of the people. The League of Legends 2016 Finals data was made public, and the highest number of concurrent online viewers for the ultimate match between SKT T1 (a South Korean Esports club sponsored by SK Telecom) and SSG (which stands for Samsung Galaxy) exceeded 14.7 million (Zheng et al., 2021).

The good employment prospects of Esports industry attract students, so some schools set up vocational curriculum in their course settings. Students know about career opportunities in Esports, they look for available careers, and learn their preferred skills in practice (Kangas, 2021).

Hofstede (1984) revealed that societal culture reflects what a society thinks is reasonable, thus affecting the behavior of participants and the results of this behavior. Therefore, societal culture is an important factor to be considered in the process of school operation (Bush, 1986; 2015). Societal culture creates a positive social atmosphere for the whole society (Semrau, Ambos and Kraus, 2016).

This provides a theoretical basis for the setting and development of Esports and management course in colleges in China as the government, society and the public have confidence on the positive role Esports plays in social development and technological change (Perec, A.2022).

Methodology

The analysis units of this research are students coursing in Esports and management in China and practitioners in Esports industry. A questionnaire was designed for this purpose. The data collected by the questionnaire was imported into SPSS 24.0 for analysis. Descriptive analysis was used to analyze The reliability and validity of the data were analyzed. Correlation analysis was done to test whether there was correlation between variables. Multiple regression analysis was used to analyze the data and explore the influence of independent variables on dependent variables.

Results

In this research, a total of 250 questionnaires were distributed to the target population through internet links. 210 questionnaires were collected, of which 210 were valid. The response rate was 84%. Factor analysis was performed by KMO and Bartlett tests. The KMO value of 0.857, which is higher than the recommended threshold of 0.7, suggests that the data is suitable for factor analysis. A significant result (p-value < 0.05) in the Bartlett test indicates that there are correlations among the variables, which is a prerequisite for factor analysis. Through coefficient analysis, the relationship between market demand, industry demand, personal needs, societal culture and the setting of Esports and management course was investigated.

Table 1: Regression Coefficient

Model	Unstandardized Coefficients		Standardized_Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.705	0.350		2.017	0.045
Market demand	0.215	0.090	0.171	2.386	0.018
1 Industry demand	0.332	0.083	0.284	4.021	0.000
Personal Needs	0.027	0.070	0.026	0.394	0.694
Societal Culture	0.184	0.079	0.174	2.320	0.021

a. Dependent Variable: Esports and Management Settings

In the investigation, we assumed that there are three factors that will affect the setting of college Esports and management course, and another factor is important to the setting of this course. However, through data collection and analysis, there are two significant related factors, namely, market demand factor and industry demand factor. Societal culture factor is of great significance to the setting of Esports and management course. However, personal needs have no effect on the setting of Esports and management course in colleges.

RO1: *To discover whether the market demand effect on setting up Esports and management course in colleges.*

Through the data analysis, it is found that market demand significantly affects the setting of Esports and management course in colleges. Market demand consists of four items, namely, the willingness to pay, the salary, the degree of liking for events and the expanding market size, and their correlations are 0.717, 0.740, 0.595 and 0.667 respectively. The correlation coefficient between e-sports and management setting and market demand is 0.390, and $p<0.05$, indicating a significant correlation between the two. In Regression Coefficient analysis, $\beta = 0.171$, $p<0.05$. Therefore, H1 is supported by data.

RO2: *To discover whether the industry demand effect on setting up Esports and management course in colleges.*

Industry demand also consists of four items, which are job vacancy, industry integration and development, job requirements and industry development direction, and their correlations are 0.725, 0.806, 0.646 and 0.776 respectively. The correlation coefficient of Esports and Management Settings with Industry demand is 0.448 and is significant ($p<0.05$), indicating a significant correlation between the two. In Regression Coefficient analysis, $\beta = 0.248$, $p<0.05$. Therefore, H2 is supported by data. Therefore, the industry demand will significantly affect the setting of Esports and management course in colleges.

RO3: *To discover whether the personal needs effect on setting up Esports and management course in colleges.*

The data gives an obvious result. The personal needs will significantly affect the setting of Esports and management course in colleges. Personal needs include Esports liking, engaging desire, knowledge mastery and enthusiasm for watching games, and the correlation is 0.679, 0.690, 0.738 and 0.804 respectively. All items in this group are significantly related. Furthermore, the correlation coefficient of Esports and Management Settings with Personal needs is 0.205 and is significant ($p<0.05$). But the relationship between personal needs and Esports and management course: $\beta = 0.026$, $p>0.05$. This shows that personal needs are not an important factor affecting the course of Esports and management in colleges. Therefore, H3 is rejected by the data.

RO4: *To discover the importance of societal culture in Esports and management course setting in colleges.*

Through data analysis, it is found that societal culture is of great significance to the setting of Esports and management course in colleges. Societal culture consists of three items, namely, school-enterprise

cooperation mode, professional sports learning and vocational and technical education. The correlation is 0.814, 0.735 and 0.725, respectively. Obviously, the correlation is significant. On the other hand, the correlation coefficient of Esports and Management Settings with Societal culture is 0.399 and is significant (p<0.05). In Regression Coefficient analysis, β =0.174, p<0.05. Therefore, H4 is supported by data.

Research Hypotheses	Results of Hypothesis Testing
H1: Market demand has an effect on the setting of Esports and management course in colleges.	This research evaluated the correlation between market demand and the setting of Esports and management course in colleges. The results show that the market demand has a statistically significant impact on the setting of Esports and management course in colleges. (β =0.171, p<0.05) **Therefore, H1 is accepted**
H2: Industry demand has an effect on the setting of Esports and management course in colleges.	This research evaluated the correlation between industry demand and the setting of Esports and management course in colleges. The results show that the industry demand has a statistically significant impact on the setting of Esports and management course in colleges. (β =0.284, p<0.05) **Therefore, H2 is accepted**
H3: Personal needs has an effect on the setting of Esports and management course in colleges.	This research evaluated the correlation between personal needs and the setting of Esports and management course in colleges. The results show that there is no statistical significance in the influence of personal needs on the setting of Esports and management course in colleges. (β =0.026, p>0.05) **Therefore, H3 is rejected**
H4: Societal culture has an important to the setting of Esports and management course in colleges.	This research evaluated the correlation between societal culture and the setting of Esports and management course in colleges. The results show that societal culture is of great significance to the setting of college Esports and management course. (β =0.174, P < 0.05) **Therefore, H4 is accepted**

Discussion

From the research results, the market demand has a significant impact on setting up Esports and management courses in colleges. Consumption has always been the focus of market demand, paying attention to consumption and market demand, which is applicable to higher education institutions and the general society, and then will gradually affect the future workforce (Longoria et. al., 2021). Under the societal cultural background of China, the essence of education in colleges is employment education.

Under ideal circumstances, the industries and trades corresponding to colleges are a sufficient and effective market, which can provide sufficient external guarantee for the setting and construction of course (Xie, 2012). The results of this research not only show the influence of market demand on the setting and construction of course in colleges, but also prove the significant influence of market demand on the setting of Esports and management course in colleges and provide a favorable support for the setting of this course in colleges.

According to this investigation, the industry demand has a significant impact on the setting up of Esports and management course in colleges. Pan (2017) mentioned in his research that the reform of tertiary education trained qualified talents to meet the needs of social enterprises according to the needs of students, parents, enterprises and society. The development of the industry depends on talents and education, which fully demonstrates the importance of education to the industry (Xin, Meng and Gao, 2021). Therefore, the starting point and destination of professional education should focus on the needs of the industry. The results of this research prove that the influence of industry demand is equally significant in setting up Esports and management course in colleges. Under the influence of the demand

of Esports industry and the societal culture of sports vocational education, colleges choose whether to offer Esports and management course. In addition, based on the purpose of training talents for the industry, we should combine the needs of the industry with those of the industry enterprises to train Esports management talents with excellent quality (Ren and Yan, 2021).

The present research reveals that personal needs have no significant impact on the setting of Esports and management course in colleges. This is different from some previous research results. Zhang (2010) stated that the fundamental driving forces for the development and reform of higher education are high-quality education that satisfies individual requirements, suits individual characteristics, can support individual development, and ardent pursuit of self-improvement. Tan et al. (2022) explored the impact of learner quality, learning environment quality, and content quality on student employability, concluding that prioritizing superior learning environments and materials can boost student engagement and employability.

However, the results of this research support Zhang's (2015) research on vocational education in China. This research points out that the shrinking influence of personal needs on vocational education is the inevitable result of historical development. This result is more obvious in the course of Esports and management. Although Esports entered the professional directory of colleges in 2016, the relationship between Esports and video games is inseparable (Guo, 2021). From the perspective of personal needs, the demand for Esports is more focused on spiritual entertainment.

Through the analysis and collation of the data, it can be seen that societal culture is of great significance to the setting of Esports and management course. Qin, He and Ouyang etc. (2019) mentioned in the research that individuals' purposeful and thoughtful behavior will be influenced by the subtle influence of societal culture. At present, in China, college education is established in the direction of vocational education. This kind of vocational education culture influences the setting of Esports and management course, and guides that Esports and management course should be a vocational education to cultivate Esports management talents. In addition, the infiltration of professional sports teaching culture in China has also been reflected in Esports and management course.

Some parents support their children to learn Esports and find suitable positions for themselves in Esports industry with professional knowledge. Therefore, societal culture is of great significance to the setting of Esports and management course, and colleges need to pay attention to the importance of societal culture. Combined with literature and the data analysis results of this research, market demand and industry demand have a significant impact on the setting of Esports and management course in colleges. Societal culture is of great significance to the setting of Esports and management in colleges. However, personal needs have little influence on the setting of this course.

In China, the government's policy support for setting up the course of Esports and management in colleges, as well as the societal cultural background of sports professionalization, have provided good conditions for the school to set up this course (Semrau, Ambos and Kraus, 2016).

Kowang et al. (2020) identified a need for enhanced Industry 4.0 competencies among higher education lecturers, spanning Organizational Learning, Continuous Improvement, ICT, Environment, and Innovative Management. Therefore, colleges should always pay attention to the demand of Esports market and industry and understand the development of Esports in combination with societal culture.

Conclusions and Recommendations

This research focuses on students, graduates and practitioners of Esports and management course, and explores the factors that influence the setting of Esports and management course in colleges. In this

research, four hypothetical factors are set, including market demand, industry demand, personal needs and societal culture. Through the research, the results are as follows: market demand and industry demand have a significant impact on the setting of Esports and management course in colleges, and societal culture is of great significance to the setting of Esports and management course. But personal needs have no impact on the setting of this course in colleges. This provides a certain direction for colleges in China to choose whether to offer this course or not. In the research, we can see that the market of Esports industry is in a state of continuous expansion, which brings about an increase in jobs and a great demand for talents. Based on this research result, three suggestions are given in the report to help colleges solve the problem of whether to offer Esports and management course.

Firstly, colleges should always pay attention to the market changes of Esports in their location and the whole country as the constant change of the market is a good guide for the setting of course. Secondly, colleges should actively accept the vocational education culture of school-enterprise cooperation mode, and learn the actual needs of Esports industry through enterprises. And thirdly, colleges still need to pay attention to the influence of personal needs on Esports market. The influence of the personal needs of Esports users on the market cannot be ignored as it provides a good direction for the Esports market and setting up Esports and management course scientifically.

As per Rasli et al., (2022), universities must address global economic, social, and environmental challenges, emphasizing the need for sustainable practices and leadership to effect positive change. This entails embedding sustainability in their operations, fostering innovation, and nurturing relevant skills.

Limitations of Research

The research was conducted in in China and did not involve foreign students and practitioners of Esports related course, which is a limitation. In addition, the research only studies the effect on market research, industry demand and personal needs on the setting of Esports and management course in colleges and the importance of societal culture in the setting of this course. Future search can look at variables such as diversity of respondents, the strength of colleges, the construction of teachers' team and policy dividends.

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