

ANALYZING THE INFLUENCES ON E-SPORTS PARTICIPATION INTENTIONS AMONG INDIAN GAMERS

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ABSTRACT

Purpose – The purpose of this research paper is to examine the factors that influence the intention to play esports in India, including internet connectivity, gaming infrastructure, awareness and exposure, cultural and social norms, and the availability of professional opportunities. The study also explores the prevalence of physical health issues among esports players and identifies demographic factors associated with a higher likelihood of playing esports.

Design/methodology/approach – The design of this study is quantitative and cross-sectional, with data collected through a survey of 109 participants. The survey includes questions about demographics, gaming habits, physical health issues, and factors influencing the intention to play esports. The data is analysed using descriptive and inferential statistics, including chi-square tests and regression analysis, to identify relationships between variables and draw conclusions about the factors influencing esports participation in India.

Findings – The study found that internet connectivity, gaming infrastructure, awareness and exposure, cultural and social norms, and the availability of professional opportunities are significant factors influencing the intention to play esports in India. Physical health issues, such as eye strain and headaches, were also reported among esports players. The study identified demographic factors, including age, gender, education, income, and gaming infrastructure, associated with a higher likelihood of playing esports. The findings provide insights into the potential for growth and development of the esports industry in India.

Practical implications – The study highlights the need to address barriers to esports participation, including internet connectivity and gaming infrastructure, and raise awareness to promote esports as a legitimate form of entertainment. Addressing physical health issues may also improve player well-being and participation rates. Finally, the study identifies opportunities for investment and professional development in the growing esports industry in India.

Originality/value – The originality and value of this study lie in its identification of significant factors influencing the intention to play esports in India, including demographic factors and barriers to participation. The study also provides insights into the potential for growth and development of the esports industry in India and highlights the need to address physical health issues associated with esports. The findings may inform policies and strategies to promote the growth of the esports industry in India and contribute to the understanding of esports as a legitimate form of sport and entertainment.

INTRODUCTION

The digital revolution in India brought about a significant transformation, revolutionizing various aspects of society. As technological advancements surged, the younger generation took the lead in embracing these innovations and driving their adoption. Among the many trends that captured the imagination of young Indians, esports emerged as a formidable force, captivating enthusiasts with its competitive and immersive gaming experiences. Esports, short for electronic sports, became a phenomenon where gamers engaged in organized tournaments and leagues, showcasing their skills and vying for cash prizes. This rapidly growing industry soon gained immense popularity, particularly among the youth of India. Recognizing the tremendous potential of esports, the country of India officially recognised esports as a multi-sport event on 23rd December 2022. (Daniel,2023) This significant recognition marked a crucial milestone for the growth and development of the esports industry in the country. Furthermore, an esports federation was established to oversee and regulate esports activities, aiming to provide a structured and supportive environment for aspiring esports enthusiasts. This government support and institutional recognition served as a catalyst, bolstering the credibility and legitimacy of esports within India's sports ecosystem. However, the intention to participate in esports faced certain challenges that needed to be addressed. These challenges encompassed various factors, ranging from infrastructure limitations to cultural norms and societal perceptions. Understanding and mitigating these challenges were essential to unlock the full potential of esports in India and create a conducive environment for its growth. The rise of esports in India can be attributed to the broader context of the digital revolution that unfolded in the country. This wave of digitalization empowered individuals, particularly in tier 2 and tier 3 cities, with affordable access to the internet and computing devices, enabling widespread participation in online gaming. Games such as Dota 2, CS: GO, and PUBG Mobile quickly gained popularity, capturing the attention and enthusiasm of Indian gamers. This exponential rise in interest laid the foundation for the growth of esports in India, which soon became a vibrant and dynamic sector within the country's entertainment industry. According to the Statista market Insights, the expansion of esports was not just a cultural phenomenon but also a thriving economic

sector. By FY21, the revenue generated by esports in India had reached an impressive 2.5 billion INR, showcasing the market's potential and attractiveness to investors. Projections for the near future indicated a steady upward trajectory, with an estimated 1.5 million players expected to participate in esports by 2025. This growth potential caught the attention of both domestic and international investors, highlighting the economic viability and immense market opportunities that esports presented in India. However, alongside the rapid growth of esports, certain challenges emerged that needed to be addressed to ensure its sustained development. One significant hurdle was the issue of internet connectivity. Access to fast and reliable internet remained a challenge, particularly in rural areas where infrastructure was limited. This connectivity disparity hindered aspiring gamers in remote regions from fully engaging with esports and limited their ability to participate in competitive online gaming.

Furthermore, the absence of adequate gaming infrastructure posed additional barriers to the widespread adoption of esports. A high-quality gaming setup, including powerful computers or gaming consoles, as well as specialized peripherals like gaming mice and keyboards, was necessary for an optimal gaming experience. However, the cost of acquiring such equipment proved prohibitive for many individuals, particularly those from less privileged backgrounds. Moreover, cultural and social norms played a role in shaping the growth of esports in India. Traditional societal expectations often emphasized academic pursuits over gaming, leading to skepticism regarding the viability of esports as a serious hobby or career choice. The cultural emphasis on academic excellence and career stability could deter young individuals from fully embracing esports, despite their passion and talent in gaming.

In order to foster the growth of esports, it was imperative to address these challenges systematically. Government initiatives, public-private collaborations, and grassroots efforts were instrumental in creating an ecosystem that could overcome infrastructure limitations, raise awareness, challenge societal norms, and provide professional opportunities for aspiring esports enthusiasts. Despite these challenges, the future of esports in India appeared promising. Passionate individuals with a strong desire to succeed in esports were determined to overcome these hurdles and make a mark in the industry. Initiatives, such as crowdfunding campaigns and community-led gaming centres, were initiated to address the infrastructure limitations. Awareness was being raised through events, media coverage, and social media platforms, drawing attention to the immense potential of esports. The active participation of government bodies and the establishment of professional avenues, such as tournaments, teams, and leagues, provided a glimpse of the growing professional opportunities in the Indian esports landscape. In light of India's rich cultural heritage, which celebrates sports and competition, esports was poised to become a significant player in the country's sporting landscape. With the right support, infrastructure, and opportunities, the esports industry had the potential to thrive, attracting investments, nurturing talent, and providing a platform for Indian gamers to showcase their skills on the global stage.

LITERATURE REVIEW

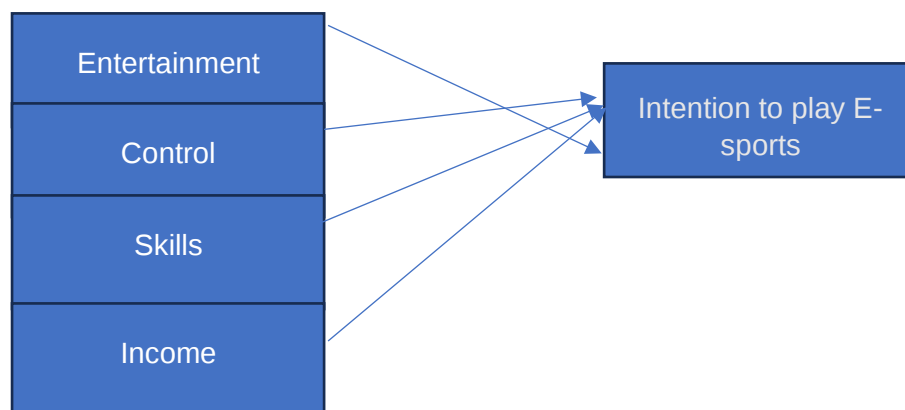
Electronic sports, or e-sports, were just a niche hobby enjoyed by a small group of enthusiasts. However, with the advent of faster internet speeds and more advanced technology, e-sports has exploded into a multi-billion-dollar industry, rivalling even the traditional sports world. As the popularity of e-sports continues to grow, researchers around the world are studying various aspects of this fascinating new world. Sahin and Karakaya (2022) analysed officially published reports to understand the popularity of e-sports. They found that e-sports had gained immense popularity since 1992 and that its growth was expected to continue at the same pace. Hagiwara et al (2022) wanted to understand the positive effects of e-sports on cognitive skills. They used primary data, surveyed the target population, and used the Stroop test and t-test. They found significant differences between congruent and incongruent tasks and that the reaction time was faster before and after the e-sports task. Hidayat et al (2022) were interested in understanding the psychological dynamics of e-sports athletes. They used primary data and surveyed the target population, using a chi-square test. They found that a stable mental state was crucial to an athlete's performance, and despite high working hours, consistent pressure, and exposure, individuals must take care of their health to perform optimally. Kumar et al (2022) studied e-sports consumption motives in India, using primary data and surveying the target population. They used a p-value test and found that there was a significant relationship between social interactions and viewing e-sports, leading to increased consumption in India. Szot et al (2022) did research on can nutrients and dietary supplements potentially improve cognitive performance also in esports by using secondary data and by using regression and correlation analysis and found that micronutrients are important to optimize cognitive performance and prevent brain disease. L-Theanine in combination with caffeine can positively impact features; the dietary intake of polyphenols can improve alertness, accuracy, speed of visual attention, working memory, and executive functions. Block and Haack (2021) used secondary data to analyze the global e-sports industry. They found that e-sports was the fastest-growing and biggest entertainment industry, with revenues of \$116 billion. They also noted that the pandemic had led to a CAGR of 23.82%. Lukas et al (2021) were interested in understanding why people continue to play e-sports. They used secondary data and applied a chi-square test, finding that competence, social value, and enjoyment were crucial factors in determining players' intentions to continue playing. Joshi and Bagchi (2021) conducted a primary study in India to understand e-sports as a career. They used a chi-square test and found that people were motivated to win tournaments and big prizes and were influenced by influencers. Joshi (2021) conducted research on how the advent of 5G would impact the e-sports industry in India. They used primary data and

surveyed the target population, finding that 5G would boost e-sports in India, benefit cloud-based gaming, and smart phone companies that launched 5G phones. Albornoz-gill and rivilla (2021) focused on the role of experience, perceived match importance, and anxiety on cortisol response in an official e-sports competition. They used primary data, surveyed the target population, and used the Shapiro-Wilk test. They found that expert e-sports players had higher cortisol concentrations, cognitive anxiety, and PMI before the competition than non-expert participants.

Lee and Schoenstedt, (2020) wanted to understand why people are drawn to e-sports. They conducted a study using primary data and found that competition and skill were significant factors in determining how much time people spent playing e-sports games. Peer pressure, on the other hand, had a more marginal effect. Xiao (2020) conducted research on the factors influencing e-sports viewership, using primary data and surveying the target population. They used a chi-square test and found a positive correlation between drama, escapism, aesthetics, and attitude towards watching e-sports. They also noted a positive correlation between normative beliefs and subjective norms. After a comprehensive review of the literature on esports,

The literature review provides valuable insights into various aspects of esports, including its popularity, cognitive effects, consumption motivations, industry analysis, and viewer factors. However, a noticeable gap exists in terms of research on the factors influencing the intention to play esports. None of the reviewed studies specifically addressed this aspect. As a result, there is a need for further investigation to understand the factors that contribute to individuals' intention to engage in esports. To bridge this gap, this research aims to explore the factors influencing the intention to play esports. We propose to examine four potential factors: entertainment, control, skill, and income. These factors were identified based on their relevance to the esports context and their potential impact on individuals' decision to participate in esports activities. By investigating these factors, we aim to enhance our understanding of the underlying motivations and considerations that drive individuals to engage in esports. By addressing this research gap, our study will contribute to the existing literature on esports and provide valuable insights for various stakeholders, including esports organizations, policymakers, and marketers. The findings will inform the development of strategies to attract and retain participants in the esports ecosystem. Additionally, understanding the factors that influence the intention to play esports will contribute to the overall growth and sustainability of the esports industry.

CONCEPTUAL FRAMEWORK



RESEARCH HYPOTHESIS

- H1: - There is significant relationship between entertainment and intention to play E-sports in India.
- H2: - There is significant relationship between control and intention to play E-sports in India.
- H3: - There is significant relationship between skills and f intention to play E-sports in India.
- H4: - There is significant relationship between income and intention to play E-sports in India.

RESEARCH METHODOLOGY

This research was conducted on the factors affecting intentions to play E-sports, based on primary data. A questionnaire was prepared on Google Forms and sent to nearly 150 people to collect primary data in which 109 is fully cleaned questionnaire used for analysis. The data obtained from the questionnaire was then analysed using multiple regression to check the relationship between the dependent and independent variables, to determine whether the hypothesis was significant or not, and ANOVA test to measure the variance between the means of two or more independent groups. SPSS software was utilized to analyse the data. The study will employ a non-probability sampling technique, specifically a convenience sampling method. This method will be used to collect data from the people who play E-sports. The study will target the people in India, as the E-sports is growing rapidly. The survey will be administered using an online platform

RESEARCH ANALYSIS

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	75	68.8	68.8	68.8
	female	34	31.2	31.2	100.0
	Total	109	100.0	100.0	

The data suggests that among the sample of 109 individuals, 68.8% are male and 31.2% are female. This implies that there is a gender imbalance in the sample, with a larger proportion of males than females. It is important to note that this sample may not be representative of the larger population, and therefore, these findings may not be generalizable to other contexts or populations. Overall, these findings provide a basic understanding of the gender distribution in the sample, but further analysis is needed to draw more robust conclusions about the relationship between gender and other variables of interest.

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	below 20	10	9.2	9.2	9.2
	21-30	78	71.6	71.6	80.7
	31-40	17	15.6	15.6	96.3
	above 40	4	3.7	3.7	100.0
	Total	109	100.0	100.0	

According to the data, there are 109 individuals in the sample. Among them, 10 or 9.2% are below 20 years old, 78 or 71.6% are between 21 and 30 years old, 17 or 15.6% are between 31 and 40 years old, and 4 or 3.7% are above 40 years old. The cumulative percentage indicates that 9.2% of the sample is below 20 years old, 80.7% are 30 years old or younger, and all respondents are accounted for in the data.

Correlation

		Intentions	Entertainment	Control	Skill	Income
Intentions	Pearson Correlation	1	.695**	.692**	.711**	.474**
	Sig. (2-tailed)		.000	.000	.000	.000
Entertainment	Pearson Correlation	.695**	1	.805**	.813**	.634**
	Sig. (2-tailed)	.000		.000	.000	.000
Control	Pearson Correlation	.692**	.805**	1	.800**	.687**
	Sig. (2-tailed)	.000	.000		.000	.000
Skill	Pearson Correlation	.711**	.813**	.800**	1	.763**
	Sig. (2-tailed)	.000	.000	.000		.000
Income	Pearson Correlation	.474**	.634**	.687**	.763**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

** . Correlation is significant at the 0.01 level (2-tailed).

b. Listwise N=109

The correlation matrix displays the Pearson correlation coefficients between Intentions, Entertainment, Control, Skill, and Income. The values indicate the strength and direction of the relationship between each pair of variables, ranging from -1 to 1. The correlation coefficients show that all variables are significantly correlated with each other at the 0.01 level (2-tailed). Intentions are strongly positively correlated with Entertainment ($r = .695$), Control ($r = .692$), Skill ($r = .711$), and moderately positively correlated with Income ($r = .474$). Entertainment is strongly positively correlated with Control ($r = .805$) and Skill ($r = .813$), and moderately positively correlated with Income ($r = .634$). Control is strongly positively correlated with Skill ($r = .800$) and moderately positively correlated with Income ($r = .687$). Skill is strongly

positively correlated with Income ($r = .763$). Overall, the correlation matrix suggests that there are strong positive relationships between the variables of interest, and these relationships are statistically significant. The sample size for this analysis is 109, and list wise deletion was used for missing data.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.763 ^a	.583	.567	.926

a. Predictors: (Constant), Income, Entertainment, Control, Skill

The Model Summary table provides information on the fit of the regression model. In this case, the model includes four independent variables (Income, Entertainment, Control, and Skill) and one dependent variable (Intentions). The adjusted R square value is .567 shows that the predictor explained 56.7% of the variance in the dependent variable. Overall, the Model Summary suggests that the regression model has moderate predictive power for Intentions, with the four independent variables explaining a significant amount of the variance in the dependent variable

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	124.489	4	31.122	36.331	.000 ^b
	Residual	89.089	104	.857		
	Total	213.578	108			

a. Dependent Variable: Intentions

b. Predictors: (Constant), Income, Entertainment, Control, Skill

The ANOVA table provides information on the overall significance of the regression model. The table shows that the regression model is significant, with an F-statistic of 36.331 and a p-value of .000, indicating that the independent variables (Income, Entertainment, Control, and Skill) significantly predict the dependent variable (Intentions). The table also provides information on the amount of variance in the dependent variable explained by the model. The "Sum of Squares" column shows that the regression model accounts for 124.489 units of the total 213.578 units of variance in Intentions, while the remaining 89.089 units of variance are accounted for by unexplained factors (the "Residual" column). Overall, the ANOVA table confirms that the regression model is a good fit for the data and provides evidence for the predictive power of the independent variables in explaining the variation in Intentions.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.715	.248		2.884	.005
	Entertainment	.215	.120	.218	1.793	.076
	Control	.307	.125	.295	2.455	.016
	Skill	.516	.149	.469	3.464	.001
	Income	-.228	.102	-.225	-2.242	.027

a. Dependent Variable: Intentions

The coefficient > 0.05 depicts the relative significance of the various independent variable used in the model. Here, control, skill and income found to be significant variable having their impact on dependent variable. However, entertainment was not found to be significant in predictive dependent variable in this study.

Conclusion

The overall results of analysis show that there is a personal and social element to game playing and that the specific features of a game positively influence an individual's interest in eSports game playing. More specifically, three motives (i.e., income, control, and skill building for actual playing of sport) had a statistically significant impact on the amount of time spent on eSports game playing. Consistent with Lee and Schoenstatt' 2020 study our finding indicates that skill is one of the three impact factors for eSports game playing and indicates that it is important for eSports gamers to be better

than others, to win over others, and to be faster and more skilled in their game experience. With Parshakov and Lavrentieva' 2015 study, our finding indicates that income has significant impact factors for eSports game playing and indicates that it is important for eSports gamers. With Furley and Wood' 2016 study our findings indicates that the control has significant impact in eSports and it is important for eSports players. With Rogers' 2018 study, our findings indicate that the entertainment has insignificant impact in eSport and Rogers's study shows that the entertainment has significant impact in eSport.

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