

A Study on Participants' Willingness to Use Motion-sensing Games Using the Hedonic-motivation System Adoption Model

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Objectives

A greater range of sports modes have become accessible to the general public in recent years as a result of technological improvements and rising public awareness of sports participation. This study focuses on motion-sensing games and uses the hedonic-motivation system adoption model as its theoretical framework. The goal is to investigate the motivations and willingness of general participants to engage in sports using motion-sensing games.

Theoretical background and Literature review

The Hedonic Motivation System (HMS) is a theoretical model that extends the explanation of technology acceptance behaviors, emphasizing the pleasure derived from using technology. This model states that a user's expectations and degree of involvement affect their experience of enjoyment; the greater the expectations and the more engaged a user is, the greater the user's sense of pleasure (Lallmahomed et al., 2013). The scale used in this research primarily integrates the hedonic motivation system acceptance model by Lowry et al. (2012) and the research by Kari and Kosa (2023), with revisions made according to the research topic. The model considers perceived ease of use as the independent variable, perceived usefulness, curiosity, joy, and control as mediating variables, and immersion and behavioral intention to use as dependent variables. According to the result of the Florensia and Suryadibrata (2023), the research investigates the level of immersion and behavioral intention by using the Hedonic-motivation system adoption model to create an interactive storytelling experience within a gaming framework. The research indicates that gender plays a crucial role in influencing the variables examined. The findings suggest that, compare to men, women exhibit a higher level of curiosity towards individuals. This differential curiosity has implications for understanding gender dynamics within social research contexts (Giambra et al., 1992).

Methodology

In this research, a questionnaire survey is used to gather data from Taiwanese individuals aged 18 and older who have experience with motion-sensing games. The study then employs regression analysis to validate research hypotheses by examining the relationship between participants' attitudes towards using motion-sensing game consoles and their performance in sports.

Findings and Discussion

This research confirms that motion-sensing games can be used as the foundational framework for studying the hedonic-motivation system adoption model. Perceived ease of use positively influences perceived usefulness, curiosity, enjoyment, and control. Immersion is strongly impacted by control, and usage intention is positively influenced by perceived usefulness,

curiosity, and enjoyment. When comparing different genders, females tend to show higher levels of curiosity, enjoyment, and immersion compared to males.

Conclusion

The research discovered that participants of motion-sensing games can have an exceptional gaming experience, stimulate their curiosity, and enjoy high levels of control and entertainment when they can easily learn different game skills. Women demonstrate greater levels of curiosity compared to men, continuously seeking fresh challenges and becoming deeply immersed in the game world, encouraging them to invest more time in exploring motion-sensing games. This indicates that game developers should consider female players when designing their products.

Keywords: Motion-sensing game, Curiosity, Sports performance

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