AI Business Review

Journal homepage: https://theaibr.com/index.php/aibr

Volume 1| No. 1 |Spring 2025

Reframing Technology Acceptance in Hedonic Systems: Integrating Motivation, Usability, and Sociotechnical Contexts in Smart Systems

Hesham Mohamed Allam *

[1] Center of Information and Communication Science (CICS), College of Communication, Information & Media, Ball State University, Muncie, IN, 47304; hesham.allam@bsu.

* Correspondence: hesham.allam@bsu.edu

Abstract: This work examines the factors influencing the adoption and acceptance of hedonic technologies, technologies specifically designed for entertainment, social interaction, and personal gratification. Standard models, such as TAM and UTAUT, have provided useful lenses for understanding technology adoption. However, they are mainly centered on pragmatic factors: perceived usefulness and ease of use. These models present a limited perspective, overlooking the deeper emotional and social motivations that fundamentally drive engagement with hedonic technologies. Building on theories of motivation and empirical evidence from research on social tagging, applications with game elements, and social media, we present a more nuanced framework for acceptance. It highlights the importance of intrinsic factors, such as perceived enjoyment and curiosity, as well as social status, cultural legitimacy, and user participation. By highlighting the need for a balanced mix between functional and emotional aspects, and acknowledging the significance of organizational and cultural factors, this work offers a more comprehensive perspective on the factors shaping user engagement with digital leisure and social platforms.

Keywords: Hedonic Systems, Technology Acceptance, Motivation, TAM, UTAUT2, Social Tagging, Intrinsic Motivation

Academic Editor(s): Zahoor Khan
Received: 5 March 2025
Revised: 15 April 2025
Accepted: 1 May 2025
Published: date 25 May, 2025
Citation: Allam (2025). Reframing Technology Acceptance in Hedonic Systems: Integrating Motivation, Usability, and Sociotechnical Contexts in Smart Sysgems.
AI Business Review, 1(1), x.
https://doi.org/10.64044/9sf5zg73

1 Introduction

The increased prevalence of hedonic technologies – such as social media platforms, gaming environments, and entertainment mobile applications – has challenged existing conceptions of technology acceptance. Although predominant models such as the TAM and the UTAUT have provided valuable insights into user acceptance, they were essentially developed for utilitarian systems that are centered on productivity,

efficiency, and task completion (Balasubramanyam, 2022; Kakar & Kakar, 2016). Practical and social drivers central to users' engagement in hedonic contexts are very frequently under-explored in such frameworks.

Limitations of Traditional Models

TAM and UTAUT focus on utilitarian effects, specifically perceived usefulness and perceived ease of use. Though it is applied to workplace and task behavior-related technology, such concepts fail to explain behaviors motivated by emotional gratification, inquisitiveness, and socialization (Kakar & Kakar, 2016). These models could only explain 30% to 40% of the variance in hedonic system adoption in empirical tests, indicating that more comprehensive theories are required (Balasubramanyam, 2022).

Importance of Hedonic and Social Factors

In contrast to utilitarian instruments, hedonic devices are frequently used for their own sake, for pleasure, or to foster social relationships. Affective involvement influences users' intent as entertainment, enjoyment, and pleasure (Rosen & Sherman, 2005). Furthermore, systems featuring social interactions, such as peer feedback, sharing facilities, and community involvement, contribute the most to user retention and satisfaction (Al-Kfairy,2024). These dynamics are typically not considered in traditional acceptance models, resulting in a significant theoretical blind spot regarding the drivers of affective and social engagement.

Toward a Refined Framework

It has recently become a consensus in the field to extend existing models to encompass motivational and value-based constructions, thereby overcoming these limitations. Factors such as perceived enjoyment, social influence, and perceived usefulness are often underestimated in traditional models despite showing strong predictive validity in hedonic contexts. (Balasubramanyam, 2022; Al-Kfairy, 2024). The study adapted several dimensions in the UTAUT model to develop a revised acceptance model, which may offer a more complete understanding of user acceptance.

Nevertheless, hedonic and utilitarian motivations should not be seen as antithetical. When considering systems, such as consumer behavior, people appear to be particularly prone to adopting a dual-value evaluation system, in which functional utility is combined with emotional and/or social rewards. Accordingly, any model examining hedonic technology adoption should be flexible enough to reflect these shades of users' reasons for adoption.

Objectives of the Study

The objectives of this study are threefold:

1. To evaluate the limitations of traditional technology acceptance models in explaining user behavior in hedonic systems, particularly the underrepresentation of intrinsic motivators such as enjoyment and curiosity.

2. We suggest an integrated acceptance model to enhance intrinsic motivation, social recognition, cultural respect, and a participatory approach for the adoption of hedonic systems.

3. To emphasize the need to account for both hedonic and utilitarian dimensions of engagement in future models, which provide a more comprehensive and nuanced view of user engagement in various technological settings.

2 Literature Review

The Technology Acceptance Model (TAM) (Davis, 1989), as well as more recent developments, such as UTAUT (Venkatesh et al., 2003) and UTAUT2 (Venkatesh et al., 2012), have significantly contributed to our understanding of why users accept new technologies. Two core beliefs underlie these models: perceived usefulness and ease of use determine the extent to which an individual is willing to adopt a system. While these models provide robust explanations of adoption in work or utility contexts, they neglect to consider the richer motivations for using hedonic technologies—software applications that users interact with for entertainment, recreation, or socialization.

Key Constructs in Technology Acceptance Research

TAM, developed by Davis (1989), suggests that users are more likely to accept technology if they perceive it as both helpful and easy to use (Silva, 2014). UTAUT further built on this base and included contextual factors such as social influence and facilitating conditions to acknowledge that adoption is not an individualized and isolated event and can be influenced by surrounding circumstances (Taherdoost et al., 2023). UTAUT2 further developed the model, specifically recognizing the importance of hedonic motivation - a critical addendum if we are to understand why people use platforms such as social media, gaming, or entertainment apps, for example (Alshammari & Rosli, 2020).

Hedonic Motivation in Technology Adoption

Following up on this move toward intrinsic motivation, Allam et al. (2019) created a three-dimensional hedonic Model, which revealed that perceived enjoyment and social recognition have a significant impact on users' acceptance of academic and collaborative systems (Altemeyer, 2013).

Similarly, Deterding et al. (2011) user engagement can be significantly enhanced by using gamification, which involves rewards, points, and feedback loops, to trigger users' inherent enjoyment, motivation, and achievement in user tasks (Akça \& Özer, 2011). Although TAM and its adaptations have made some contributions to understanding how users adopt technology, they have fallen short in unraveling the complex and experiential motives for adopting hedonic systems.

Empirical Findings in Hedonic Contexts

The influence of cultural and organizational factors on the use of social tags in hedonic systems is highly reinforced when cultural legitimacy and organizational support are

embedded throughout the system development and deployment. Studies in the Middle East and Canada also show that users' engagement increases when applied technologies not only fulfill a need but also represent a user's own culture, as well as offer a clear, environmentally friendly, and transparent experience (Allam et al., 2019a, b). These works highlight the importance of perceiving transparency and user experience in contexts where enjoyment is the primary driving factor.

Cultural Validation and Organizational Support

Culture relevance has become one of the most significant factors in determining the success of technology. Such systems are more likely to be actively used by users because they find that their experiences and identities are more closely relevant (Allam et al., 2024). Concurrently, robust organizational support structures, including associated training programs, user support services, and visible organizational backing, foster an environment where users feel capable and motivated to adopt new systems (Allam et al., 2019).

The Role of Perceived Transparency

Gaining users' trust is crucial, especially in hedonic contexts where the quality of offerings is partly derived from user data and interpersonal interactions. The development of transparent approaches to data use, privacy policies, and content control has contributed to the improvement of user trust and participation (Ernst, 2014). Furthermore, it is crucial to have agency and control over your tagging and browsing experience to foster sustained engagement. User enjoyment and ownership are often driven by a sense of agency- the ability to manipulate the game environment (Hickey et al., 2002). Users can feel that they have more agency when they can customize their play experiences, selecting when and how to tag (Allam et al., 2019).

Enjoyment as a Primary Driver

Enjoyment underlies the adoption of the hedonic system. Emotional satisfaction is found to be one of the highest predictors of users' behavioral intent to use social tagging tools, which is consistent with the underlying effects of hedonic and utilitarian behaviors on broad social networking usage (Ernst et al., 2016; Ramírez-Correa et al., 2019). However, it is worth noting that not all players value fun equally. Other users put considerable consideration into the practical advantages, such as the perceived utility of tagging systems. This dual nature of emotion and reason implies the thoughtful production of successful system design by considering and catering to the interplay of emotional engagement and functional value.

3 Methods

This paper takes a qualitative, theory-driven investigation into the determinants of hedonic system acceptance. The literature review encompassed seminal technology acceptance models (TAM/UTAUT/UTAUT2) as well as more recent work on hedonic motivations, social engagement, cultural validation, and participatory design practices.

Literature was selected based on specific criteria and included empirical studies, conceptual models, and meta-analyses published between 2010 and 2024 that focused on educational technology, the adoption of social media, social tagging systems, and digital environments with gaming elements. Sources were collected from indexed databases, including IEEE Xplore, SpringerLink, and MDPI, as well as through purposive searches for works related to the adoption of hedonic versus utilitarian systems.

Thematic analysis revealed emergent themes, and patterns across studies were further examined to highlight limitations of existing models and the necessity for a broader conceptualization. This approach enabled a detailed, yet comprehensive, understanding of both the impact and the moderators of intrinsic motivators and contextual factors in shaping technology acceptance in the hedonic context.

4 Discussion

The results of this study contribute to an emerging literature that has called for redefining the constructs of technology acceptance, specifically those related to hedonic systems. Classical TAM has focused on perceived usefulness as the fundamental determinant of user behavior. Nevertheless, increasing evidence suggests that intrinsic motivations, including enjoyment and curiosity, play a central role in forming behavioral intentions when interacting in play, adventure, and socializing systems.

Intrinsic Versus Extrinsic Motivators

Differentiating between the two metapragmatic motivations is particularly relevant to user behavior in hedonic and utilitarian environments. Research suggests that intrinsic factors, such as enjoyment and playfulness, have a significant impact on adoption and prolonged use of hedonic systems (Wu et al., 2012; Wu & Lu, 2013). By contrast, extrinsic motivators such as productivity and efficiency dominate in utilitarian contexts.. These results underscore the need for a new paradigm in adoption models, where perceived enjoyment is at least as important as, and possibly more important than, the traditional utilitarian constructs of usefulness (Nkwe & Cohen, 2016).

Cultural and Organizational Considerations

Institutional and organizational variables also affect the use of the hedonic system. The presence of training programs and the availability of resources are the major driving factors that positively influence participation. Furthermore, the significance of place-based design, such as a multilingual interface and cultural customization, has been evidenced in different regions, including the UAE (Wu & Lu, 2013). In other words, Noble's (2018) condemnation of culturally blind tech design underscores the threats of bias reinforcement that result from the omission of cultural aspects. These findings suggest that inclusive, contextually aware system design is not only best practice but also essential for successful technology implementation.

Co-Design and User Participation

One efficient approach to enhancing the system's acceptance is to involve users through co-design activities. Participatory design activities in educational environments have led to increased engagement and reduced user bias in decision-making (Nkwe & Cohen, 2016). Bringing users to the center of a participatory design process enabled them to feel valued, make a meaningful impact, and become part of the community and system, ultimately generating long-term system support.

Nevertheless, independent of intrinsic motivators, the argument acknowledges that perceived usefulness is not something to be ignored entirely, for the simple reason that practical concerns still matter, both in school and beyond. A holistic model that encompasses both intrinsic (e.g., pleasure and curiosity) and extrinsic (e.g., value and efficacy) factors may provide a more comprehensive explanation of technological acceptance across various platforms and user types.

5 Conclusion

Embracing hedonic systems necessitates a broader and deeper perspective than can be achieved with utility-based thinking. What we brought to the fore in this study are not peripheral but rather vital issues in determining user engagement in a hedonic context: intrinsic drives, social acknowledgement, cultural affirmation, and co-design. Leisure, entertainment, and social systems succeed when they support and enhance users' emotional and social desires in addition to (if not more than) their functional needs.

Furthermore, the dynamic between intrinsic and extrinsic motivations suggests that acceptance models should move away from binary models to adopt hybrid models that consider both affective involvement and pragmatic utility. No less important is the significance of the institutions supporting adoption — and the culture that surrounds them — insofar as they are congruent with users' lifeworld and are positively biased toward their experiences and expectations.

The development of these integrated models should be an area of future research where attention is paid to different levels of context, localized design activity, and co-design approaches that impact technology acceptance in diverse contexts. Only by accommodating the complete richness of user motivation can we design systems that are adopted and embraced as meaningful adjuncts to users' digital lives.

Acknowledgement

The author acknowledges that all research, analysis, and writing were conducted independently without external assistance. Grammarly, an AI-powered writing assistant, was used solely during the revision stage to support minor improvements in grammar, clarity, and readability, without contributing to the intellectual content or structure of the manuscript.

References

1. Akça, Y., & Özer, G. (2012). The use of the Technology Acceptance Model in Enterprise Resource Planning implementations. *Business and Economics Research Journal, 3*(2), 1–79.
2. Al-Kfairy, M. (2024). Factors impacting the adoption and acceptance of ChatGPT in educational settings: A narrative review of empirical studies. *Applied System Innovation, 7*(6), 110. https://doi.org/10.3390/asi7060110
3. Allam, H., Bliemel, M., Ali-Hassan, H., Blustein, J., & Spiteri, L. (2020). If you build it, they will not come: What motivates employees to create and share tagged content? *International Journal of Information Management, 54*, 102148. https://doi.org/10.1016/j.ijinfomgt.2020.102148
4. Allam, H., Bliemel, M., Spiteri, L., Blustein, J., & Ali-Hassan, H. (2019). Applying a 3-D hedonic concept of intrinsic motivation to the acceptance of social tagging tools. *International Journal of Information Management, 45*, 211–222. https://doi.org/10.1016/j.ijinfomgt.2018.11.003
5. Allam, H., Bliemel, M., Spiteri, L., Blustein, J., & Ali-Hassan, H. (2019a). Applying a multi-dimensional hedonic concept of intrinsic motivation on social tagging tools: A theoretical model and empirical validation. *International Journal of Information Management, 45*, 211–222. https://doi.org/10.1016/j.ijinfomgt.2018.11.003
6. Allam, H., Qusa, H., Alameer, O., Ahmad, J., Shoib, E., & Tammi, H. (2019B). Theoretical perspective of technology acceptance models: Towards a unified model for social media applications. In *2019, Sixth HCT Information Technology Trends (ITT)* (pp. 154–159). IEEE. https://doi.org/10.1109/ITT48889.2019.9075219
7. Allam, H., Dempere, J., Kalota, F., & Hua, D. (2024). Enhancing educational continuity: Exploring factors affecting the success of learning management systems in Dubai higher education. *Frontiers in Education, 9*, 1382021. https://doi.org/10.3389/feduc.2024.1382021
8. Alshammari, S. H., & Rosli, M. S. (2020). A review of technology acceptance models and theories. *International Journal of Technology in Education and Science, 4*(2), 12–22.
9. Altemeyer, B. A. (2014). *The importance of trust and cognitive ability measures in hedonic and utilitarian technology acceptance models: The development of the LTAM* [Master's thesis].
10. Balasubramanyam, A. (2023). Technology acceptance and adoption in education. In *Handbook of Open, Distance and Digital Education* (pp. 183–197). Springer. https://doi.org/10.1007/978-981-19-2080-6_11
11. Buolamwini, J., & Gebru, T. (2018). Gender shades: Intersectional accuracy disparities in commercial gender classification. *Proceedings of the Conference on Fairness, Accountability and Transparency, 81*, 77–91. https://doi.org/10.1145/3178876.3186160
12. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340.
13. Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness. In *Proceedings of the 15th International Academic MindTrek Conference* (pp. 9–15). https://doi.org/10.1145/2181037.2181040
14. Ernst, C.-P. H. (2015). Hedonic and utilitarian motivations of social network site usage. In *Social Computing and Social Media* (pp. 11–28). Springer. https://doi.org/10.1007/978-3-658-09918-3_2
15. Kakar, A. K., & Kakar, A. (2017). *A general theory of technology adoption: Decoding TAM from a user value perspective.*

16. Noble, S. U. (2018). *Algorithms of oppression: How search engines reinforce racism.* NYU Press.
17. Rosen, P. A., & Sherman, P. (2006). Hedonic information systems: Acceptance of social networking websites. *Americas Conference on Information Systems.*
18. Silva, P. (2015). Davis' Technology Acceptance Model (TAM) (1989). In *Encyclopedia of Information Science and Technology* (3rd ed., pp. 205–219). IGI Global. https://doi.org/10.4018/978-1-4666-8156-9.CH013
19. Taherdoost, H., Mohamed, N., & Madanchian, M. (2024). Navigating technology adoption/acceptance models. *Procedia Computer Science, 237*, 833–840. https://doi.org/10.1016/j.procs.2024.05.172
20. Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly, 27*(3), 425–478.