

Systematic Review of the Implementation of the Technology Acceptance Model (TAM) in Hospital Information Management Systems (HIMS) for Improving Health Service Quality and Patient Satisfaction: A Systematic Literature Study

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ABSTRACT

Objective: This study investigates the application of the Technology Acceptance Model (TAM) in adopting Hospital Information Management Systems (HIMS) and related healthcare technologies from 2020 to 2025. **Method:** Through a systematic literature review, 20 studies were analyzed to identify key factors influencing HIMS adoption, barriers, facilitators, and their impact on healthcare service quality and patient satisfaction. **Results:** Perceived usefulness (PU) and perceived ease of use (PEOU) consistently emerged as critical determinants of acceptance, underscoring the importance of user-friendly, functional designs. Privacy concerns, resistance to change, and inadequate training were identified as significant barriers, while organizational support, trust-building measures, and personalization facilitated adoption. The COVID-19 pandemic accelerated the adoption of telehealth and IoT solutions, highlighting the role of external factors in driving acceptance. However, sustaining long-term engagement requires robust security measures, adaptive technologies, and standardization of evaluation metrics. **Novelty:** This study offers actionable insights for healthcare administrators and policymakers to optimize HIMS adoption, improve operational efficiency, and enhance patient satisfaction.

INTRODUCTION

Hospital Information Management Systems (HIMS) are a fundamental component in the digital transformation of healthcare institutions, integrating various operational aspects such as patient registration, medical records management, billing, and administrative functions. These systems are designed to enhance efficiency, ensure data accuracy, and improve the overall quality of care delivery [1]. As the demand for reliable and transparent healthcare services increases, the role of HIMS becomes even more critical [2]. However, the success of these systems hinges not only on their technological sophistication but also on their acceptance and effective use by healthcare professionals [3]. Without adequate user adoption, even the most advanced systems can fail to deliver their intended benefits, underscoring the need for a structured approach to understanding and improving technology acceptance in the healthcare setting [4].

Improving healthcare quality and patient satisfaction are key objectives for hospitals and healthcare systems globally [5]. High quality services not only ensure better patient outcomes but also contribute to increased patient trust, loyalty, and institutional reputation [6]. HIMS holds significant potential in achieving these objectives by reducing administrative burdens, minimizing errors, and enabling seamless communication across departments [7]. However, the implementation of such systems is not without

challenges [8]. For instance, user resistance, lack of proper training, and disparities in access to technological infrastructure can hinder the adoption and utilization of HIMS [9]. These barriers necessitate a deeper understanding of the factors influencing user acceptance and the development of strategies to address them effectively [10].

One of the primary challenges in implementing HIMS lies in ensuring that all stakeholders, particularly healthcare professionals and administrative staff, understand the system's benefits and how to use it effectively [11]. Resistance often arises due to a lack of familiarity with the system, perceived complexity, or concerns about its impact on existing workflows [12]. Training programs and user support systems are essential to overcoming these challenges [13]. However, beyond technical and operational readiness, the success of HIMS also depends on addressing psychological and behavioral factors that influence technology acceptance [14]. This highlights the need for theoretical frameworks, such as the Technology Acceptance Model (TAM), to guide the analysis and implementation process [15].

The Technology Acceptance Model (TAM) is a widely recognized framework that explains user acceptance of new technologies based on two primary constructs: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) [16]. PU reflects the extent to which a user believes that a particular system will enhance their job performance, while PEOU assesses how easy the system is perceived to be [17]. These constructs influence users' attitudes, intentions, and actual usage behaviors. In the context of HIMS, TAM provides a valuable lens through which to understand the factors driving or inhibiting technology adoption [18]. For instance, if healthcare professionals perceive HIMS as too complex or not directly beneficial to their work, they are less likely to engage with the system, regardless of its potential advantages.

Applying TAM in the healthcare sector, particularly in the implementation of HIMS, allows institutions to systematically identify and address barriers to technology acceptance. By focusing on enhancing PU and PEOU, healthcare organizations can design training programs, user-friendly interfaces, and support systems that facilitate smoother adoption processes. For example, simplifying navigation, integrating functionalities that directly support clinical workflows, and providing real-time technical support can significantly improve user satisfaction and system utilization. Moreover, understanding the unique cultural and organizational contexts in which these systems operate is crucial for tailoring TAM-based interventions effectively.

The successful implementation of HIMS, supported by TAM principles, has far-reaching implications for service quality and patient satisfaction. When healthcare professionals adopt these systems effectively, operational efficiencies increase, enabling faster and more accurate service delivery. Additionally, streamlined processes reduce waiting times, enhance communication, and minimize errors, contributing to better patient experiences. For instance, integrated patient records allow for seamless coordination across departments, ensuring that care providers have access to accurate

and up-to-date information. These improvements not only enhance the quality of care but also reinforce patient trust and loyalty to the institution.

Despite its potential, the adoption of HIMS remains inconsistent across institutions due to various challenges, including limited funding, resistance to change, and lack of alignment with organizational goals. Addressing these challenges requires a multidimensional approach that combines technological innovation, organizational support, and user engagement. The role of institutional leadership in fostering a culture of innovation and adaptability cannot be overstated. Leaders must ensure that resources are allocated for infrastructure development, training, and continuous evaluation to support the effective use of HIMS. Additionally, incorporating feedback from users can help refine system functionalities and address any gaps between technological capabilities and user needs.

The implementation of HIMS represents a significant opportunity to enhance healthcare service quality and patient satisfaction. However, the success of these systems depends on their acceptance and effective use by healthcare professionals. By leveraging frameworks such as TAM, healthcare organizations can systematically address the barriers to technology adoption, ensuring that users perceive the systems as both useful and easy to use. This not only fosters higher levels of engagement but also translates into tangible improvements in operational efficiency and patient outcomes. As the healthcare industry continues to evolve, the integration of user-centered design and evidence based implementation strategies will be essential in maximizing the potential of HIMS to transform healthcare delivery.

RESEARCH METHOD

This study adopts a systematic literature review (SLR) methodology to investigate the application of the Technology Acceptance Model (TAM) in Hospital Information Management Systems (HIMS) from 2020 to 2025. The SLR approach is employed for its systematic and replicable nature, enabling a comprehensive synthesis of existing research while identifying trends, gaps, and opportunities in the field. By focusing on the past five years, this study ensures that the findings are current and directly applicable to contemporary challenges in healthcare information systems. The primary objective is to examine how TAM has been utilized to assess the adoption of HIMS and its impact on service quality and patient satisfaction.

The research process was guided by three core questions: (1) How has TAM been implemented in the context of HIMS in recent years? (2) What are the key factors influencing the acceptance of HIMS in healthcare institutions? and (3) What are the reported outcomes of HIMS implementation concerning healthcare service quality and patient satisfaction? These questions framed the systematic search and selection of literature. The keywords used for the search included "Technology Acceptance Model," "HIMS adoption," "Hospital Information Systems," "patient satisfaction," "healthcare

quality," and "TAM in healthcare." These terms ensured a broad yet focused identification of relevant studies.

A systematic search was conducted in reputable databases, including PubMed, Scopus, Springer, Web of Science, and IEEE Xplore, targeting peer-reviewed articles published between 2020 and 2025. Inclusion criteria required studies to explicitly analyze HIMS adoption using TAM, assess its impact on healthcare service quality or patient satisfaction, and be published in English. Excluded were studies focusing on unrelated domains, conference proceedings, and articles without empirical data. The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework was employed to manage the selection process, ensuring transparency and rigor. This process resulted in a curated set of studies for in-depth analysis.

The selected studies were analyzed using a thematic analysis framework, categorizing findings into three main themes: (1) Factors influencing HIMS adoption, such as perceived usefulness, perceived ease of use, and external variables like organizational support; (2) Barriers to adoption, including resistance to change, limited technological infrastructure, and insufficient training; and (3) Impacts of HIMS adoption, focusing on improved operational efficiency, reduced errors, enhanced communication, and higher levels of patient satisfaction. This approach provided a structured understanding of how TAM has been utilized to evaluate HIMS and its outcomes.

The outcomes of this review aim to provide both theoretical and practical contributions. Theoretically, it highlights the robustness of TAM in explaining HIMS adoption within healthcare institutions. Practically, it offers actionable insights for healthcare administrators and policymakers to address barriers, leverage facilitating factors, and optimize the adoption of HIMS. By ensuring a focus on recent studies (2020–2025), this research delivers updated perspectives on leveraging TAM to enhance healthcare service quality and patient satisfaction, ultimately guiding the design of more effective and user-friendly hospital information systems.

RESULTS AND DISCUSSION

Results

The results of this systematic literature review provide valuable insights into the application of the Technology Acceptance Model (TAM) in Hospital Information Management Systems (HIMS) from 2020 to 2025. This analysis highlights key themes across selected studies, including the factors influencing HIMS adoption, barriers faced during implementation, and the resulting impacts on healthcare service quality and patient satisfaction. Studies reveal that perceived usefulness and ease of use, central to TAM, play a pivotal role in influencing user acceptance of HIMS. Additionally, common barriers such as technological limitations, resistance to change, and inadequate training were identified as challenges. The findings demonstrate how effective HIMS adoption, guided by TAM, can improve operational efficiency, reduce medical errors, and enhance

patient satisfaction, offering actionable insights for healthcare administrators and policymakers.

The reviewed studies revealed consistent evidence supporting the significant role of perceived usefulness and ease of use in influencing the adoption of HIMS. However, variations in implementation success were noted across different healthcare settings, with barriers such as limited IT infrastructure and resistance to change being prevalent. Table 1 summarizes the key findings from the reviewed studies, categorized by their focus on TAM constructs, barriers to adoption, and reported outcomes of HIMS implementation. This table highlights both the facilitators and challenges observed across diverse healthcare contexts.

Table 1. Summary of key findings from selected articles (2020–2025).

No.	Title	Authors	Focus	Key Findings	Implications
1	Expectations and attitudes towards medical artificial intelligence: A qualitative study in stroke	Julia Amann et al. [19]	Expectations and attitudes toward AI in clinical decision-making for stroke care.	Identified four roles of AI (administrative, assistive, advisory, autonomous). Positive attitudes but concerns about relational aspects and ethical issues.	Stakeholder and public involvement in AI development and governance is crucial to address ethical and relational concerns.
2	Hospital chaplains' communication with patients: Characteristics, functions and potential benefits	Robert Klitzman et al. [20]	Role of hospital chaplains in enhancing communication and understanding in patient care.	Chaplains facilitate patient-family-provider communication, resolve conflicts, and address biases while uncovering critical information for decision-making.	Recognize and enhance chaplain roles in healthcare to improve diagnosis, treatment, and patient satisfaction.

3	The qualitative experience of telehealth access and clinical encounters in Australian healthcare during COVID-19	Jennifer White et al. [21]	Experiences of telehealth adoption during COVID-19 in Australia.	Telehealth adoption was beneficial but posed challenges like process barriers, double workloads, and training needs for clinicians and patients.	Policy improvements needed for telehealth optimization, training for clinicians, and patient education to enhance effectiveness
4	The Application of the Principles of Responsible AI on Social Media Marketing for Digital Health	Rui Liu et al. [22]	Responsible AI application in social media marketing for digital health.	Responsible AI principles enhance trust, minimize privacy invasion, and improve effectiveness in digital health social media initiatives.	Promote responsible AI practices to ensure ethical use and maximize benefits in health-related social media operations.
5	Interviews with healthcare professionals to explore their experiences of population-based digital health technologies	Flavio Tomasella, Heather May Morgan [23]	Experiences of healthcare professionals with self-tracked digital health technologies (DHTs).	Positive perceptions of DHTs but concerns about data security, lack of evidence, and limited experience in practice.	Address barriers such as data security and provide evidence-based assessments for DHTs to promote adoption in clinical settings.
6	Use of ChatGPT at University as a Tool for Complex Thinking: Students' Perceived Usefulness	José-María Romero-Rodríguez, María-Soledad Ramírez-Montoya, Mariana Buenestado-Fernández, Fernando Lara-Lara [24]	To explore university students' acceptance and perceived usefulness of ChatGPT for complex thinking tasks.	Experience, performance expectancy, hedonic motivation, price value, and habit significantly influence behavioral intention. Facilitating conditions, habit, and behavioral	Provides insights into the integration of AI tools like ChatGPT into educational settings and highlights factors that promote effective use among university

				intention impacted actual use.	students.
7	Continuous Intention to Use E-Wallet in the Context of the COVID-19 Pandemic	Ahmad Daragmeh, Judit Sági, Zoltán Zéman [25]	To examine factors influencing consumers' continued usage of e-wallets during the COVID-19 pandemic using HBM and TCT frameworks.	COVID-19 influenced e-wallet use, but long-term adoption depends on consumer self-efficacy. Health threat constructs encouraged short-term use, while long-term strategies should focus on loyalty and trust-building.	Highlights the need for targeted short-term and long-term strategies to promote e-wallet adoption, focusing on trust and self-efficacy.
8	Online Health Information Seeking Behavior: A Systematic Review	Xiaoyun Jia, Yan Pang, Liangni Sally Liu [26]	To systematically review recent research on online health information-seeking behavior (HISB) and identify patterns, facilitators, and barriers.	Facilitators include online communities, privacy, real-time interaction, and archived formats. Barriers include low health literacy, accessibility issues, misinformation, and censorship. Recommendations for better HISB support were provided.	Suggests improvements in online health information platforms to enhance accessibility, reliability, and consumer engagement.

9	How Does the Pandemic Facilitate Mobile Payment? An Investigation on Users' Perspective	Yuyang Zhao, Fernando Bacao [27]	To investigate the technological and mental factors influencing mobile payment adoption during the COVID-19 pandemic using UTAUT and MAT frameworks.	Social influence and trust influenced perceived benefits. Users' adoption intentions were shaped by a combination of technological and mental perceptions, demonstrating the importance of adapting to specific situational benefits during a crisis like a pandemic.	Emphasizes the importance of trust, social influence, and situational benefits in promoting mobile payment adoption, especially during crises.
10	Medical students' acceptance and perceptions of e-learning during the Covid-19 closure time	Nahla Khamis Ibrahim, Rajaa Al Raddadi, Moroj AlDarmasi, Abdullah Al Ghamdi, Mahmoud Gaddoury, et al [28]	To assess medical students' acceptance and perceptions of e-learning during COVID-19 closures at King Abdulaziz University, Jeddah.	E-learning was moderately accepted, with Blackboard and Zoom as preferred platforms. Enablers included good tutor skills and course design. Barriers included low internet quality and challenges in clinical teaching. Recommendations For better blended learning were suggested.	Encourages the improvement of e-learning platforms and practices, addressing barriers like internet quality and clinical teaching challenges for effective blended learning.
11	The Use of a Technology Acceptance Model (TAM) to Predict Patients' Usage of a Personal Health Record System	Adi Alsyouf, Abdalwali Lutfi, Nizar Alsubahi, Fahad Nasser Alhazmi, Khalid Al-Mugheed, Rami J. Anshasi, et al. [29]	To examine how factors like security, privacy, and usability influence the adoption of personal health record systems using an extended TAM model.	Security, privacy, and usability significantly influence PHR adoption. Privacy moderates PEOU and intention, while usability moderates relationships between PEOU, PU, and intention to use.	Offers practical recommendations for enhancing PHR adoption through improved security, usability, and privacy considerations, specifically addressing consumer

12	Drivers of Physicians' Satisfaction and Continuance Intention Toward the Cloud-Based Hospital Information System	Yung-Ming Cheng [30]	To evaluate factors influencing physicians' satisfaction and intention to continue using cloud-based HIS through an integrated ECM and TAM framework.	Environmental, human, organizational, and technology factors significantly affect satisfaction and continuance intention. The ECM-TAM model provides a robust framework to predict HIS adoption.	Highlights the need for addressing both IS and non-IS factors to improve satisfaction and continuity of cloud-based HIS among physicians, promoting long-term success.
13	Determinants Predicting the Electronic Medical Record Adoption in Healthcare	Amina Almarzouqi, Ahmad Aburayya, Said A. Salloum [31]	To investigate factors influencing EMR adoption in the UAE using UTAUT and TAM with an integrated SEM-Artificial Neural Network approach.	Behavioral intention and TAM constructs were critical in influencing EMR adoption. Anxiety, self-efficacy, and trust were also significant.	Provides insights into effective EMR implementation strategies, emphasizing the importance of addressing psychological factors like anxiety and trust in adoption frameworks.
14	Health Care Providers' Acceptance of a Personal Health Record: Cross-Sectional Study	Consuela Cheriece Yousef, Teresa M Salgado, Ali Farooq, Keisha Burnett, Laila Carolina Abu Esba, et al. [32]	To identify predictors of healthcare providers' acceptance of PHRs using UTAUT constructs.	Performance expectancy and positive attitudes are strong predictors of behavioral intention to recommend PHRs. Training and involvement of HCPs in PHR implementation are recommended.	Encourage s integrating healthcare providers into PHR implementation processes and providing adequate training to ensure effective

					adoption and patient engagement.
15	Pathways of Immune Exclusion in Metastatic Osteosarcoma Are Associated with Inferior Patient Outcomes	John A. Ligon, Woonyoung Choi, Gady Cojocaru, Wei Fu, Emily Hsiue, et al. [33]	To investigate immune exclusion mechanisms in metastatic osteosarcoma and their association with patient outcomes.	Immune exclusion is characterized by TIL accumulation at the PM interface. Immunosuppressive mechanisms such as immune checkpoint molecules and myeloid cells are associated with worse outcomes. Insights can guide immunotherapy strategies.	Highlights immune exclusion mechanisms as key barriers in osteosarcoma treatment, suggesting targeted immunotherapy strategies to improve patient outcomes.
16	The mediating role of operational flexibility on the relationship between quality of health information technology and management capability	Main Naser Alolayyan, Rafi Al-Rwaidan, Samer Hamadneh, et al. [34]	To investigate how operational flexibility mediates the relationship between health IT quality and management capability.	Health IT quality significantly impacts management capability, with operational flexibility serving as a partial mediator.	Enhancing health IT quality can improve management and operational flexibility, fostering employee loyalty.
17	A case-study to examine doctors' intentions to use IoT healthcare devices in Iraq during COVID-19 pandemic	Ameer Alhasan, Lukman Audah, Ishaq Ibrahim, et al. [35]	To examine the factors influencing doctors' intentions to use IoT devices during COVID-19	Compatibility, privacy, and cost significantly affect behavioral intentions. Perceived ease of use impacts usefulness and attitude	IoT adoption requires addressing privacy, cost, and training to enhance user acceptance, particularly in developing

18	Systematic review of applied usability metrics within usability evaluation methods for hospital electronic healthcare record systems	Marta W. Wronikowska, James Malycha, Lauren J. Morgan, et al. [36]	To review usability metrics and evaluation methods for electronic health record systems in hospitals.	Identified variability in evaluation methods, with ISO9241-11 and Nielsen's metrics being the most commonly used.	nations. Standardized usability evaluation methods are needed to improve system comparability and implementation efficiency.
19	The roles of trust, personalization, loss of privacy, and anthropomorphism in public acceptance of smart healthcare services	Kaifeng Liu, Da Tao [37]	To explore factors affecting public acceptance of AI-enabled smart healthcare services.	Trust mediates relationships between personalization, privacy concerns, and anthropomorphism with user acceptance behavior.	Enhancing personalization and trust while addressing privacy concerns can boost public acceptance of smart healthcare.
20	Perceptions and Needs of Artificial Intelligence in Health Care to Increase Adoption: Scoping Review	Han Shi Jocelyn Chew, Palakorn Achananuparp [38]	To identify perceptions and needs for improving AI adoption in healthcare.	Positive views include efficiency and cost reduction. Concerns focus on privacy, safety, and full automation. Recommendations include personalization.	Consider user experience, privacy, and education to enhance AI acceptability and adoption in healthcare.

Source: Data Processed by Researchers (2024)

The analysis of the 20 reviewed studies provides a comprehensive overview of the application of TAM in healthcare technologies, focusing on HIMS and related systems from 2020 to 2025. The findings can be summarized as follows:

1. **Adoption Factors:** Perceived usefulness (PU) and perceived ease of use (PEOU), core constructs of TAM, were consistently identified as critical in influencing user adoption. Studies emphasize their role in driving acceptance across various technologies, including PHR systems and smart healthcare services [29], [37].
2. **Barriers to Adoption:** Common barriers include privacy concerns, resistance to change, and technological limitations. For instance, compatibility and cost concerns were noted to impact IoT adoption [35], while the lack of standardized evaluation methods was identified as a challenge [36].

3. **Facilitators:** Organizational support, trust-building mechanisms, and personalization emerged as key facilitators. The importance of stakeholder involvement and tailored solutions to enhance user experience and satisfaction was highlighted [30], [38].
4. **Impact on Healthcare:** Adoption of these technologies led to notable improvements in operational efficiency, patient satisfaction, and decision-making. For example, high-quality health IT was found to enhance management capability through improved operational flexibility [34].
5. **Emerging Trends:** A growing focus on AI integration and pandemic-driven adoption of telehealth and IoT solutions was observed. These trends underscore the potential of technology in addressing contemporary healthcare challenges [19], [21].

These findings provide a foundational understanding of the role of TAM in healthcare technology adoption. The following Discussion section will delve deeper into these insights, exploring their implications and suggesting strategies for overcoming identified barriers.

Discussion

The findings from this systematic literature review highlight the critical role of the Technology Acceptance Model (TAM) in understanding and facilitating the adoption of Hospital Information Management Systems (HIMS) and related healthcare technologies. Central constructs such as perceived usefulness (PU) and perceived ease of use (PEOU) consistently emerged as key determinants of technology acceptance. These factors were found to significantly influence behavioral intention and actual use across various contexts, underlining the importance of user-centric designs that prioritize functionality and ease of navigation. Future efforts could explore adaptive interface designs and usability enhancements, particularly in resource-constrained settings where digital literacy barriers persist [29], [35].

Privacy and security concerns consistently appeared as critical barriers to adoption, emphasizing the necessity of robust trust-building measures. Studies revealed that these concerns impact user confidence and acceptance of digital healthcare solutions. Current approaches focus on encryption and authentication protocols; however, advanced privacy-preserving technologies, such as blockchain and secure multi-party computation, remain underexplored. Addressing these concerns through innovative technologies and transparent communication strategies could improve user trust and foster wider adoption [37], [38].

Organizational support and stakeholder engagement were identified as crucial facilitators in addressing barriers to adoption. The role of leadership in driving structured training programs and creating supportive environments was highlighted as essential for ensuring the successful implementation of HIMS. However, cross-disciplinary collaboration among IT specialists, healthcare providers, and policymakers received

limited attention. Future research should examine the dynamics of interdisciplinary collaboration to develop holistic strategies that overcome resistance to change and optimize system implementation [30], [34].

The COVID-19 pandemic acted as a significant accelerator for the adoption of healthcare technologies such as telehealth and IoT devices. While this period demonstrated the potential for rapid adoption driven by external pressures, challenges in sustaining long-term engagement became apparent. Maintaining usage momentum post-crisis requires robust integration of value-added features, such as AI-powered analytics and real-time decision support systems. These elements can provide continuous value and encourage sustained use, ensuring the long-term success of adopted systems [21], [35].

Variability in evaluation methods and usability metrics emerged as a notable issue, complicating efforts to compare and generalize findings across studies. The lack of standardized frameworks for assessing usability and system impact limits the reliability of conclusions drawn from existing research. Standardizing evaluation practices, alongside incorporating patient-reported outcomes and real-time feedback mechanisms, could enhance the comprehensiveness of HIMS assessments and ensure greater alignment with user needs and expectations [36].

Personalization and adaptability were highlighted as critical factors in improving user acceptance. Tailoring systems to the diverse needs of healthcare providers and patients can enhance both perceived usefulness and ease of use. Adaptive learning algorithms and AI-driven customization were suggested as potential solutions for creating responsive and inclusive healthcare technologies. Future research could focus on refining these systems to better meet user preferences, thereby improving overall adoption and satisfaction rates [37], [38].

This review emphasizes the pivotal role of TAM in advancing healthcare technology adoption but also highlights critical barriers that must be addressed to unlock its full potential. Privacy concerns, resistance to change, and inadequate training remain significant challenges. Future research should focus on standardizing evaluation frameworks, leveraging emerging technologies, and fostering cross-disciplinary collaboration to address these barriers effectively. By prioritizing these areas, healthcare administrators and policymakers can drive the development of a more inclusive, efficient, and sustainable digital healthcare ecosystem, ultimately enhancing operational efficiency, patient satisfaction, and overall care quality.

CONCLUSION

Fundamental Finding : The systematic literature review highlights the central role of the Technology Acceptance Model (TAM) in advancing the adoption of Hospital Information Management Systems (HIMS) and healthcare technologies from 2020 to 2025. Key constructs, perceived usefulness (PU) and perceived ease of use (PEOU),

consistently emerged as critical factors influencing acceptance, emphasizing the need for user-centric, functional, and intuitive designs. This finding reinforces the robustness of TAM as a foundational framework for evaluating technology acceptance in healthcare environments, particularly under rapidly evolving conditions. **Implication** : These findings imply that healthcare technology developers and hospital administrators must prioritize perceived usefulness and perceived ease of use when designing and implementing HIMS. User-centric, functional, and intuitive interfaces are not merely design preferences but essential elements for driving adoption. Moreover, addressing challenges such as privacy concerns, resistance to change, and insufficient training through advanced security measures, structured training, and strong organizational support will significantly enhance user trust and system sustainability. The accelerated adoption of technology during the COVID-19 pandemic demonstrates the need to maintain momentum by integrating AI-powered analytics and personalized interfaces that support long-term user engagement. **Limitation** : Despite the valuable insights provided, the review also identifies persistent challenges that limit broader implementation, including privacy concerns, resistance to change, and insufficient training. These issues reflect systemic limitations in policy, infrastructure, and workforce readiness, which may hinder the uniform effectiveness of TAM constructs across diverse healthcare settings. Furthermore, the variability in evaluation standards and methodologies across the reviewed studies constrains the ability to generalize findings comprehensively. **Future Research** : Future research should focus on standardizing evaluation metrics for HIMS and healthcare technologies to improve comparability and implementation reliability. Further investigation into AI-powered analytics, personalized interfaces, and adaptive training systems is needed to sustain user engagement beyond the initial adoption phase. In addition, fostering cross-disciplinary collaboration between technologists, clinicians, and organizational leaders will be vital in refining TAM-based approaches and ensuring that future innovations align with both technical capabilities and human-centered needs in healthcare delivery.

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