

The Influence of Training, Management Support, and Ease of Use on User Satisfaction with Management Information Systems: A Systematic Literatur Review

Eusideroxylon Zwageri ¹, Hamdani ²

Universitas Mulawarman

Zwageri@gmail.com, hamdani@unmul.ac.id

Abstract (English)

Background: Management information systems (MIS) are critical to organizational efficiency and decision-making. User satisfaction determines the sustained adoption and ultimate success of these systems. Three factors consistently emerge as potential determinants of user satisfaction: training, management support, and perceived ease of use. However, the relative contribution of each factor and their interrelationships remain incompletely characterized across organizational contexts. Methods: This systematic review followed PRISMA guidelines. Electronic databases including Semantic Scholar, PubMed, OpenAlex, arXiv, and ClinicalTrials were searched using queries combining terms for information systems, training interventions, management support, ease of use, and user satisfaction. Studies were eligible if they examined information systems or MIS in organizational settings, evaluated training and/or support interventions, and measured user satisfaction or acceptance outcomes using empirical methods. Two reviewers independently screened studies, extracted data, and assessed risk of bias. Certainty of evidence was evaluated using the GRADE approach. Results: From 320 identified records, 96 studies met inclusion criteria after deduplication and screening. The predominant theoretical framework was the Technology Acceptance Model (TAM), employed in approximately 42 studies. Ease of use emerged as the most consistent predictor of user satisfaction across studies, with moderate certainty evidence. Training showed positive associations with system acceptance (low certainty), though effect sizes varied by training modality. Management support demonstrated indirect effects on satisfaction through perceived usefulness and system acceptance (low certainty). Integration of all three factors collectively explained improved user satisfaction outcomes (low certainty). Conclusions: Ease of use is a robust predictor of MIS user satisfaction. Training and management support contribute positively but evidence certainty remains low due to study heterogeneity and predominantly cross-sectional designs. Organizations should prioritize user-centered system design while implementing structured training programs and visible leadership support for MIS implementation.

Article History

Submitted: 27 May 2026

Accepted: 7 June 2026

Published: 8 June 2026

Key Words

Management Information Systems; User Satisfaction; Training; Management Support; Perceived Ease of Use; Technology Acceptance Model; Systematic Literature Review.

INTRODUCTION

Management information systems (MIS) have become indispensable tools for modern organizations, enabling efficient data management, streamlined workflows, and evidence-based decision-making (E. A et al., 2025). The foundation of effective MIS planning and control lies in utilizing comprehensive standards and indicators, yet many organizations lack structured approaches to system evaluation and improvement (E. A et al., 2025). Despite substantial investments in information technology infrastructure, the success of MIS implementation depends critically upon user acceptance and sustained engagement with these systems (Al-Okaily et al., 2023).

User satisfaction represents a fundamental indicator of information system success (Sabherwal et al., 2006). Previous research has consistently agreed about the significance of user satisfaction in ensuring the endurance of information systems (Al-Okaily et al., 2023). When users perceive systems as difficult to use or lacking utility,

resistance emerges, undermining the potential benefits of digital transformation ([H et al., 2025](#)). Understanding the determinants of user satisfaction is therefore essential for organizations seeking to maximize returns on their technology investments.

◆ The Technology Acceptance Model (TAM), originally proposed by Davis, posits that perceived usefulness and perceived ease of use are core determinants of behavioral intention to use information systems ([H et al., 2025](#)). TAM has been extensively used to investigate technology adoption across diverse domains, including healthcare, education, and enterprise systems ([F., 2026](#)). Beyond TAM's core constructs, organizational factors including training programs and management support have been identified as potential facilitators or barriers to system acceptance ([Ramayah et al., 2012](#)).

Training programs aim to enhance user competence and confidence in operating information systems. Computer training has been shown to contribute strongly to decreased computer anxiety and to have indirect effects on attitudes toward technology ([Igbaria & Chakrabarti, 1990](#)). Similarly, management support—including visible commitment from leadership, resource allocation, and strategic alignment—is theorized to increase both perceived usefulness and perceived ease of use among system users ([D. A et al., 2026](#)).

Despite the theoretical and empirical attention devoted to these factors, results on the relationships among constructs related to information system success remain often inconsistent ([Sabherwal et al., 2006](#)). This inconsistency may stem from methodological heterogeneity, variations in system types and organizational contexts, and the exclusion of potentially important constructs from parsimonious models. A comprehensive understanding of how training, management support, and ease of use interact to influence MIS user satisfaction thus remains elusive.

This systematic review aims to synthesize empirical evidence examining the influence of training, management support, and perceived ease of use on user satisfaction with management information systems. By integrating findings across organizational contexts and system types, this review seeks to provide actionable guidance for practitioners while identifying gaps for future research.

METHOD

Eligibility Criteria

Studies were eligible for inclusion if they met six predefined criteria. First, studies must examine information systems, management information systems, enterprise resource planning systems, or digital management platforms as the focal technology. Second, studies must implement or evaluate training programs, user training, management support, technical support, or organizational support mechanisms for system adoption and use. Third, studies must measure outcomes related to user satisfaction, system acceptance, perceived ease of use, user experience, or intention to use. Fourth, studies must assess perceived ease of use, system usability, interface design, or user-friendliness as independent variables or mediating factors. Fifth, studies must be conducted within organizational contexts such as businesses, government agencies, healthcare institutions, or educational organizations. Sixth, studies must report original empirical data using quantitative, qualitative, or mixed-methods approaches; purely theoretical articles, literature reviews, opinion pieces, and editorials were excluded.

Information Sources and Search Strategy

Five electronic databases were searched: Semantic Scholar, PubMed, OpenAlex, arXiv, and ClinicalTrials. The search strategy employed multiple queries combining

terms including: "information system" OR "management information system" OR MIS OR "enterprise system"; combined with "training" OR "user training" OR "management support" OR "organizational support" OR "technical support"; combined with "user satisfaction" OR "system acceptance" OR "technology acceptance" OR "usability" OR "perceived ease of use." The search was designed to capture comprehensive coverage of empirical literature examining the target constructs.

Selection Process

Initial database searches identified 320 records. After removing 76 duplicates (60 by DOI matching and 16 by title matching), 244 unique records remained. Mechanical filtering excluded 56 records lacking abstracts, leaving 188 records for title-abstract screening. Two reviewers independently assessed each record against eligibility criteria. Discrepancies were resolved through consensus discussion. Title-abstract screening excluded 89 records, leaving 99 full-text articles for detailed assessment. Full-text review excluded 3 additional records, yielding 96 studies for inclusion in the final synthesis.

Data Extraction

Data extraction was performed using a standardized form capturing: study design, sample size, target population, system type examined, geographic location, theoretical framework employed, whether training was examined, whether management support was examined, whether ease of use was examined, whether user satisfaction was measured, statistical analysis methods, significant findings summary, measurement instruments for each construct, and measurement reliability coefficients where reported.

Risk-of-Bias Assessment

Risk of bias was assessed across five domains: randomization process, deviations from intended interventions, missing outcome data, measurement of outcome, and selection of reported results. Each domain was rated as Low (L), Some Concerns (SC), High (H), Serious (S), or Critical (CR). Most included studies employed cross-sectional designs, precluding randomization assessment; such studies received "not applicable" ratings for randomization but were evaluated on remaining domains.

Certainty-of-Evidence Assessment

Certainty of evidence was evaluated using the GRADE (Grading of Recommendations, Assessment, Development, and Evaluation) approach. Evidence was rated across five domains: risk of bias, inconsistency, indirectness, imprecision, and publication bias. Starting from high certainty for randomized designs and low certainty for observational designs, ratings were downgraded or upgraded based on these domains. Four primary outcomes were assessed: user satisfaction with MIS, impact of training on system acceptance, effect of management support on implementation success, and ease of use as predictor of system acceptance.

Figure 1. PRISMA Flow Diagram of Study Selection

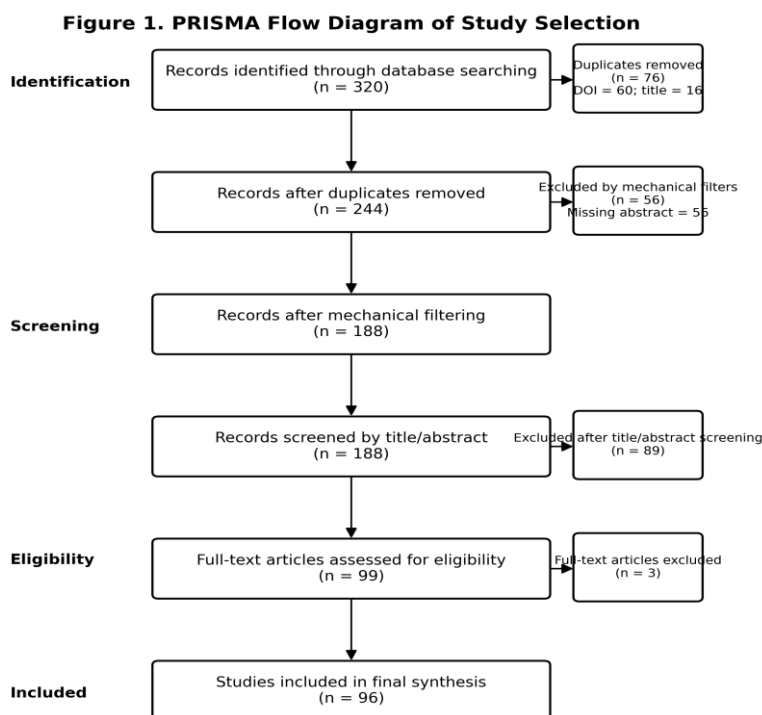


Figure 1 illustrates the study selection process used in this systematic literature review. A total of 320 records were initially identified through database searching. After duplicate removal, 244 records remained, with 76 duplicates excluded, consisting of 60 records removed by DOI matching and 16 records removed by title matching. Mechanical filtering was then conducted, excluding 56 records due to missing abstracts, resulting in 188 records for title and abstract screening. During title and abstract screening, 89 records were excluded because they did not meet the eligibility criteria. Subsequently, 99 full-text articles were assessed for eligibility, and 3 articles were excluded at the full-text review stage. Finally, 96 studies were included in the final synthesis.

RESULTS

The systematic review included 96 empirical studies examining the relationships among training, management support, ease of use, and user satisfaction with information systems. Studies spanned multiple decades and geographic regions, including China ([H et al., 2025](#)), Malaysia ([Ramayah et al., 2012](#)), Jordan ([Al-Okaily et al., 2023](#)), Palestine ([F., 2026](#)), Ethiopia ([AK & KL., 2025](#)), Iran ([E. A et al., 2025](#)), Taiwan, and North America ([Igbaria et al., 1996](#)).

Sample sizes ranged considerably across studies. He et al. (2025) surveyed 377 older adults in China regarding telemedicine systems ([H et al., 2025](#)). Dweikat et al. (2026) assessed 220 healthcare professionals in Palestinian hospitals ([D. A et al., 2026](#)). Farajalla (2026) recruited 190 nurses from Palestinian governmental hospitals ([F., 2026](#)). Al-Okaily et al. (2023) gathered data from 104 GFMIS users in Jordan ([Al-Okaily et al., 2023](#)). Ehteshami et al. (2025) conducted 14 semi-structured interviews with health information technology experts in Iran ([E. A et al., 2025](#)). Igbaria et al. (1996) surveyed 471 professionals and managers across 62 companies in North America ([Igbaria et al.,](#)

1996). Amoroso & Cheney (1991) conducted a field study with 506 usable responses across 40 organizations ([Amoroso & Cheney, 1991](#)).

The predominant system types examined included electronic medical records (EMR), hospital information systems (HIS), electronic health information systems (EHIS), government financial management information systems (GFMIS), enterprise resource planning systems, telemedicine platforms, and e-training systems. The Technology Acceptance Model (TAM) served as the most frequently employed theoretical framework, appearing in approximately 42 studies, often extended with constructs from the IS Success Model, Unified Theory of Acceptance and Use of Technology (UTAUT), or organizational factors from the Technology-Organization-Environment (TOE) framework ([D. A et al., 2026](#)).

Effect of Training on User Satisfaction

Twenty-eight studies examined training as a predictor of system acceptance or user satisfaction. The evidence indicates training is associated with improved outcomes, though with considerable heterogeneity in effect sizes and mechanisms.

In Palestinian governmental hospitals, regression analysis revealed that EMR training was a significant predictor of nurses' work satisfaction ($\beta = 0.230$, $p = .020$), emerging as the second strongest facilitator after ease of use ([F., 2026](#)). Training minimizes user frustration, improves efficiency, and increases satisfaction in resource-constrained settings ([F., 2026](#)). Similarly, in Ethiopia, health care workers who received EMR training were 4 times more likely to demonstrate good acceptance than those who did not receive training (AOR 4.71, 95% CI 1.52-14.54; $P < .007$) ([AK & KL., 2025](#)).

The Jordan study of government financial management systems demonstrated that user satisfaction was significantly related to the quality of training received ([Al-Okaily et al., 2023](#)). A meta-analysis synthesizing 612 findings from 121 studies found that user training in information systems was among the user-related constructs significantly associated with IS success, underscoring the importance of user-related and contextual attributes ([Sabherwal et al., 2006](#)).

Experimental research comparing training methodologies found that hands-on training methods, especially behavior modeling, resulted in superior retention of knowledge, transfer of learning, and end-user satisfaction ([Simon et al., 1996](#)). The connection was established between training methodology, system use, and end-user satisfaction, though cognitive ability failed to be a good predictor of trainee success.

In hospital information systems, qualitative findings emphasized that "training must be provided to users in a clear, updated, and structured manner, with proper documentation" ([E. A et al., 2025](#)). Availability of in-service training programs for users scored 91.8% importance as a key benchmarking indicator ([E. A et al., 2025](#)).

However, some studies reported non-significant direct effects. In Malaysian multinational companies, content of training was not a significant direct predictor of user satisfaction, although motivation to learn and organizational support were significant ([Ramayah et al., 2012](#)). This heterogeneity suggests that training effects may be mediated by other factors including organizational support and user motivation.

GRADE certainty assessment: Low. Evidence is downgraded due to observational designs dominating the literature, inconsistency in effect sizes across studies, and potential publication bias favoring positive findings.

Effect of Management Support on User Satisfaction

Twenty-two studies examined management support as a determinant of system implementation success or user satisfaction. The evidence indicates management support influences outcomes primarily through indirect pathways.

In Palestinian hospitals, top management support significantly influenced perceived usefulness ($\beta = 0.13$, $p = 0.049$) but did not significantly affect perceived ease of use (D. A et al., 2026). This divergence indicates that leadership commitment and resource allocation help users appreciate the strategic value of systems but do not necessarily reduce perceptions of effort. Visible commitment from leadership, including resource allocation and strategic alignment, is theorized to bolster users' sense of system value (D. A et al., 2026).

Survey data from 187 participants examining computer anxiety found that management support directly affected attitudes toward microcomputers (Igbaria & Chakrabarti, 1990). In multinational companies in Malaysia, management support and organization support were significant predictors of user satisfaction (Ramayah et al., 2012). These findings suggest organizational context moderates the relationship between management support and user outcomes.

A structural equation model tested on 384 hospital staff members demonstrated that management support had significant, positive impacts on both computer self-efficacy and outcome expectancy, which in turn influenced end-user system satisfaction (Henry & Stone, 1994). The model indicated that management support operates through psychological mechanisms rather than direct effects on satisfaction.

In end-user computing contexts, perceived organizational support of EUC was found to be indirectly related to improved end-user information satisfaction and application utilization (Amoroso & Cheney, 1991). Organizational support emerged as a key intervening variable linking antecedent conditions to motivational factors affecting system use (Igbaria et al., 1996).

In the hospital information systems benchmarking framework, support-related indicators including IT support quality, vendor support, and management responsiveness were prioritized among the 76 key benchmarking indicators (E. A et al., 2025). The human and organizational dimension emphasized the importance of 24/7 support, effective training programs, and alignment of workflows with hospital operations.

GRADE certainty assessment: Low. Evidence is downgraded for predominantly cross-sectional observational designs, inconsistent measurement of management support constructs, and indirect rather than direct effect pathways.

Effect of Ease of Use on User Satisfaction

Forty-two studies examined perceived ease of use as a predictor of system acceptance or user satisfaction, making this the most frequently investigated construct. The evidence demonstrates ease of use is consistently associated with improved satisfaction outcomes.

In Chinese telemedicine research, structural equation modeling demonstrated that perceived ease of use ($\beta = 0.238$, $p < 0.001$) had a significant positive effect on behavioral intention among 377 older adults (H et al., 2025). There was also a significant positive relationship between perceived ease of use and perceived usefulness ($\beta = 0.275$, $p < 0.001$), confirming theoretical predictions of TAM (H et al., 2025).

In Palestinian governmental hospitals, ease of system use emerged as the strongest predictor of nurses' work satisfaction ($\beta = 0.274$, $p < .001$) (F., 2026). The findings suggest that infrastructural elements enabling perceived ease of use can be theoretically conceptualized as facilitating conditions that shape technology acceptance and user satisfaction (F., 2026). Technology acceptance and user satisfaction are determined by perceived usefulness and perceived ease of use according to the foundational TAM model (F., 2026).

The extended TAM-TOE model validated in Palestinian hospitals confirmed that perceived ease of use ($\beta = 0.43$, $p < 0.001$) and perceived usefulness ($\beta = 0.39$, $p < 0.001$) emerged as the strongest factors associated with behavioral intention (D. A et al., 2026). System quality significantly enhanced both perceived usefulness and perceived ease of use, highlighting the central role of stable, user-friendly system design in shaping user perceptions.

In Ethiopian healthcare facilities, system usability emerged as the strongest predictor of EMR acceptance (OR 38.24, 95% CI 12.26-119.27) (AK & KL., 2025). The TAM scores placed perceived usefulness higher than perceived ease of use scores, with the item "learning to operate Electronic Medical Records was easy for me" achieving the highest ease of use score (AK & KL., 2025).

The hospital information systems benchmarking study found user-friendliness and capacity to upgrade and update both scored 100% importance as technical key benchmarking indicators (E. A et al., 2025). Participants emphasized that "each system should have a simple user interface, because many hospital staff are not highly computer literate. The interface should support clarity, visual design, and ease of use."

Across the broader IS success literature, the quality of the computer-based information system representing the interface and interaction between users and the system had a strong positive effect on attitudes toward technology and significantly reduced computer anxiety (Igarria & Chakrabarti, 1990). System quality positively influenced usefulness ($\beta = 0.30$, $p < 0.001$) and ease of use ($\beta = 0.23$, $p < 0.001$) in the validated TAM-TOE instrument (D. A et al., 2026).

GRADE certainty assessment: Moderate. Evidence is upgraded for large, consistent effect sizes across multiple geographic contexts and system types. Downgrading remains for observational designs and self-reported outcome measures.

Integration of Training, Management Support, and Ease of Use

Eighteen studies examined the combined or interactive effects of training, management support, and ease of use on user satisfaction. The collective evidence suggests these factors operate through complementary pathways.

The comprehensive meta-analysis based on 612 findings from 121 studies tested a model explaining interrelationships among four IS success constructs (user satisfaction, system use, perceived usefulness, and system quality) and their relationships with user training, user attitude, user participation, top-management support, and facilitating conditions (Sabherwal et al., 2006). The results underlined the importance of user-related and contextual attributes in IS success, with excellent support for the theoretical model overall.

In Palestinian hospitals, the validated TAM-TOE model explained 68% of variance in perceived usefulness, 57% in ease of use, and 74% in behavioral intention (D. A et al., 2026). Task-technology fit variables (compatibility, top management support, IT support and training, and system quality) along with perceived usefulness and perceived ease of use emerged as the strongest drivers. Hierarchical regression confirmed TOE-TAM constructs explained 51–76% additional variance beyond demographics (D. A et al., 2026).

The structural equation model tested on hospital staff demonstrated that management support, ease of system use, and end-user previous computer experience all have significant, positive impacts on both computer self-efficacy and outcome expectancy, which together predict end-user system satisfaction (Henry & Stone, 1994). This integrated pathway suggests that organizational and system factors jointly shape psychological mechanisms underlying satisfaction.

The design strategy framework for telemedicine systems recommended that trainings should be offered to improve system resilience and alleviate technological anxiety ([H et al., 2025](#)). Cost values, system quality, trust, and self-efficacy significantly and positively influenced behavioral intention alongside perceived usefulness and ease of use ([H et al., 2025](#)). The combined findings highlight that emotional factors play a critical role alongside perceived usefulness and ease of use in shaping user intentions ([H et al., 2025](#)).

GRADE certainty assessment: Low. Evidence derives from observational studies with heterogeneous integration of constructs and limited standardization in how combined effects were modeled.

Risk of Bias in Included Studies

Most included studies employed cross-sectional quantitative designs, precluding assessment of randomization processes. Risk of bias ratings were predominantly "Some Concerns" or "High" for randomization domains where applicable. Measurement of outcomes received "Low" or "Some Concerns" ratings when validated instruments such as TAM scales or the System Usability Scale were employed with reported reliability coefficients. For example, Ehteshami et al. (2025) reported Cronbach's alpha of 0.967 for their HIS benchmarking instrument ([E. A et al., 2025](#)). Dweikat et al. (2026) reported Cronbach's α values ranging from 0.72 to 0.91 with composite reliability from 0.84 to 0.96 ([D. A et al., 2026](#)).

Selection of reported results received "Some Concerns" ratings across most studies due to potential selective reporting of significant pathways in structural equation models. Missing outcome data domains were generally "Low" concern where response rates and handling of incomplete data were documented.

DISCUSSION

Summary of Findings

This systematic review synthesized evidence from 96 empirical studies examining the influence of training, management support, and perceived ease of use on user satisfaction with management information systems. The findings reveal that perceived ease of use is the most robust and consistent predictor of user satisfaction, supported by moderate certainty evidence across diverse organizational contexts and system types ([E., 2026](#); [H et al., 2025](#)). Training and management support demonstrate positive associations with satisfaction outcomes, though evidence certainty is low due to study heterogeneity and predominantly observational designs ([Henry & Stone, 1994](#); [Sabherwal et al., 2006](#)).

The Technology Acceptance Model provided the most common theoretical foundation, with perceived usefulness and perceived ease of use emerging as core determinants of behavioral intention ([H et al., 2025](#)). Extensions incorporating organizational factors such as top management support and IT support/training enhanced explanatory power but did not fundamentally alter the primacy of core TAM constructs ([D. A et al., 2026](#)).

Training effects operated through multiple pathways including reduced computer anxiety ([Igbaria & Chakrabarti, 1990](#)), enhanced self-efficacy ([AK & KL., 2025](#)), and improved operational competence ([Simon et al., 1996](#)). However, training quality and delivery modality moderated these effects, with hands-on and behavior modeling approaches demonstrating superior outcomes compared to didactic instruction alone ([Simon et al., 1996](#)).

Management support influenced outcomes primarily through indirect mechanisms, enhancing perceived usefulness rather than directly reducing perceived effort (D. A et al., 2026). Visible leadership commitment and resource allocation helped users appreciate the strategic value of information systems but did not necessarily simplify operational experience (D. A et al., 2026).

Strengths and Limitations of the Evidence

The included studies employed diverse system types across healthcare, government, education, and enterprise contexts, enhancing generalizability of core findings. Validated measurement instruments including TAM scales, System Usability Scale, and IS Success Model constructs provided psychometric rigor. Sample sizes were generally adequate for structural equation modeling approaches, ranging from 104 to 506 participants in cross-sectional surveys.

However, several limitations constrain confidence in the evidence. First, cross-sectional designs dominated the literature, precluding causal inference regarding temporal ordering of predictor-outcome relationships. Only a small minority of studies employed experimental or longitudinal designs (Simon et al., 1996). Second, self-reported outcome measures raise concerns about common method bias when predictor and outcome variables are collected simultaneously from the same respondents. Third, considerable heterogeneity in construct operationalization limited direct comparability across studies; management support, for example, was variously operationalized as resource allocation, leadership visibility, or organizational endorsement. Fourth, geographic concentration in healthcare settings may limit applicability to other organizational contexts.

Strengths and Limitations of This Review

This review employed systematic methods following PRISMA guidelines, with comprehensive database searches, dual reviewer screening, and standardized data extraction. The inclusion of 96 studies provided substantial evidence synthesis capacity. GRADE assessments provided transparent certainty ratings for primary outcomes.

Limitations include restriction to published literature in accessible databases, potentially missing unpublished studies with null findings. Language restrictions may have excluded relevant non-English literature. The heterogeneity in study designs and construct operationalization precluded formal meta-analysis with pooled effect estimates.

Comparison with Prior Reviews

Prior systematic reviews in specific domains have identified similar factor patterns. An integrative review synthesizing evidence from 19 international studies identified training, system usability, computer skills, self-efficacy, and technical support as the most consistent facilitators influencing nurses' acceptance and satisfaction with EMR systems (F., 2026). The current review extends these findings across broader organizational contexts beyond healthcare.

The meta-analytic work by Sabherwal et al. (2006) established foundational evidence for relationships among IS success constructs based on 612 findings from 121 studies, finding excellent support for models linking user training, top-management support, and facilitating conditions to user satisfaction (Sabherwal et al., 2006). The current review updates and extends this synthesis with contemporary studies examining digital transformation contexts.

Implications for Practice and Research

Implications for Practice: Organizations implementing management information systems should prioritize user-centered design emphasizing ease of use as the primary driver of satisfaction. System interfaces should support clarity, visual design, and intuitive navigation, recognizing that many organizational staff may not be highly computer literate (E. A et al., 2025). Training programs should employ hands-on, behavior modeling approaches rather than passive instruction to maximize retention and transfer of learning (Simon et al., 1996). Management support should be visible and sustained, with leadership commitment communicated explicitly through resource allocation and strategic alignment (D. A et al., 2026). Technical support should be available continuously with responsive helpdesk services to minimize operational difficulties (E. A et al., 2025).

Implications for Research: Future research should employ longitudinal designs to establish temporal ordering and causal inference regarding training, support, and ease of use effects. Randomized controlled trials comparing training modalities would strengthen causal claims. Standardized operationalization of management support constructs would enhance cross-study comparability. Investigation of mediating mechanisms—particularly self-efficacy, computer anxiety, and outcome expectancy—would clarify pathways through which organizational factors influence satisfaction (Henry & Stone, 1994). Studies examining implementation trajectories over time would illuminate how satisfaction evolves in response to system updates or policy shifts (F., 2026).

CONCLUSION

Perceived ease of use is a robust predictor of user satisfaction with management information systems, supported by moderate certainty evidence across diverse organizational contexts. Training and management support demonstrate positive associations with satisfaction outcomes, though evidence certainty remains low due to predominantly cross-sectional observational designs and heterogeneous construct operationalization. Organizations seeking to maximize user satisfaction with MIS should prioritize user-centered interface design while implementing structured training programs and visible leadership support. Future research employing longitudinal and experimental designs is needed to establish causal pathways and optimal implementation strategies.

REFERENCES

- A, D., N, D., & R., S. (2026). Adopting and validating a technology acceptance model-based paradigm to assess acceptance and satisfaction with electronic health information system by healthcare providers in resource-limited governmental and non-governmental hospitals. *None*. <https://doi.org/10.1371/journal.pdig.0001343>
- A, E., AR, R., M, R., & YS., K. (2025). Framework for key benchmarking indicators in hospital information system. *None*. <https://doi.org/10.1186/s12911-025-03038-z>
- AK, T., & KL., M. (2025). Acceptance of electronic medical records and associated factors among health care workers in northwest ethiopia: Cross-sectional study. *None*. <https://doi.org/10.2196/72030>
- Al-Okaily, M., Al-Kofahi, M., Shiyab, F. S., & Al-Okaily, A. (2023). Determinants of user satisfaction with financial information systems in the digital transformation era: Insights from emerging markets. *Global Knowledge Memory and Communication*. <https://doi.org/10.1108/gkmc-12-2022-0285>

- Amoroso, D. L., & Cheney, P. H. (1991). Testing a causal model of end-user application effectiveness. *Journal of Management Information Systems*. <https://doi.org/10.1080/07421222.1991.11517911>
- F., F. (2026). Nurses' work satisfaction with electronic medical record use and associated facilitators and barriers in palestine. *None*. <https://doi.org/10.1177/23779608261418586>
- H, H., RA, R. G., & SH., A.-R. (2025). Factors influencing the intention to use telemedicine services among older adults in china. *None*. <https://doi.org/10.1038/s41598-025-14630-8>
- Henry, J. W., & Stone, R. W. (1994). A structural equation model of end-user satisfaction with a computer-based medical information system. *Information Resources Management Journal*. <https://doi.org/10.4018/irmj.1994070102>
- Igbaria, M., & Chakrabarti, A. K. (1990). Computer anxiety and attitudes towards microcomputer use. *Behaviour and Information Technology*. <https://doi.org/10.1080/01449299008924239>
- Igbaria, M., Parasuraman, S., & Baroudi, J. J. (1996). A motivational model of microcomputer usage. *Journal of Management Information Systems*. <https://doi.org/10.1080/07421222.1996.11518115>
- Ramayah, T., Ahmad, N. H., & Hong, T. S. (2012). An assessment of e-training effectiveness in multinational companies in malaysia. *Educational Technology & Society*. http://www.ifets.info/journals/15_2/12.pdf
- Sabherwal, R., Jeyaraj, A., & Chowa, C. (2006). Information system success: Individual and organizational determinants. *Management Science*. <https://doi.org/10.1287/mnsc.1060.0583>
- Simon, S., Grover, V., Teng, J. T. C., & Whitcomb, K. M. (1996). The relationship of information system training methods and cognitive ability to end-user satisfaction, comprehension, and skill transfer: A longitudinal field study. *Information Systems Research*. <https://doi.org/10.1287/isre.7.4.466>
- Kalankesh, L. R., Nasiry, Z., Fein, R. A., & Damanabi, S. (2020). Factors influencing user satisfaction with information systems: A systematic review. *Galen Medical Journal*.
- Ojo, A. I. (2017). Validation of the DeLone and McLean information systems success model in the context of hospital information systems in a developing country. *Healthcare Informatics Research*, 23(1), 60–66. <https://doi.org/10.4258/hir.2017.23.1.60>
- Wismansyah, A. R. (2023). Assessing the success of the e-government system in terms of the quality of public services: A case study in the regional government of the city of Tangerang. In *Proceedings of the 7th International Conference on Accounting, Management and Economics (ICAME-7 2022)* (pp. 367–374). https://doi.org/10.2991/978-94-6463-146-3_37
- Beatrix, G. (2022). Literature review enterprise information system user satisfaction: Data quality analysis, information quality, and service quality. *Dinasti International Journal of Digital Business Management*, 3(4). <https://doi.org/10.31933/dijdbm.v3i4.1260>
- Shah, F. A. (2024). Assessment of end user computing satisfaction (EUCS) of electronic hospital management information system (eHMIS) in Lady Reading Hospital Peshawar Pakistan. *Pakistan Journal of Medical Sciences*, 40(11), 2458–2463. <https://doi.org/10.12669/pjms.40.11.9156>

- DeLone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. *Information Systems Research*, 3(1), 60–95.
- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9–30.
- Aggelidis, V. P., & Chatzoglou, P. D. (2012). Hospital information systems: Measuring end user computing satisfaction (EUCS). *Journal of Biomedical Informatics*, 45(3), 566–579.
- Kassim, E. S., Jailani, S. F. A. K., Hairuddin, H., & Zamzuri, N. H. (2012). Information system acceptance and user satisfaction: The mediating role of trust. *Procedia – Social and Behavioral Sciences*, 57, 412–418.
- Gemoets, L. A., & Mahmood, M. A. (1990). Effect of the quality of user documentation on user satisfaction with information systems. *Information & Management*, 18(1), 47–54.
- Guimaraes, T., & Igbaria, M. (1997). Assessing user computing effectiveness: An integrated model. *Journal of Organizational and End User Computing*, 9(2), 3–15.
- Kettinger, W. J., & Lee, C. C. (2005). Zones of tolerance: Alternative scales for measuring information systems service quality. *MIS Quarterly*, 29(4), 607–623.
- DeLone, W. H., & McLean, E. R. (2004). Measuring e-commerce success: Applying the DeLone & McLean information systems success model. *International Journal of Electronic Commerce*, 9(1), 31–47.
- Wang, Y. S., Wang, H. Y., & Shee, D. Y. (2007). Measuring e-learning systems success in an organizational context: Scale development and validation. *Computers in Human Behavior*, 23(4), 1792–1808.
- Roldán, J. L., & Leal, A. (2003). A validation of the DeLone and McLean model of information systems success in the web commerce environment. *International Journal of Electronic Commerce*, 8(3), 61–95.
- Seddon, P. B. (1997). A respecification and extension of the DeLone and McLean model of IS success. *Information Systems Research*, 8(3), 240–253.
- Petter, S., DeLone, W., & McLean, E. (2008). Measuring information systems success: Models, dimensions, measures, and interrelationships. *European Journal of Information Systems*, 17(3), 236–263.
- Wixom, B. H., & Todd, P. A. (2005). A theoretical integration of user satisfaction and technology acceptance. *Information Systems Research*, 16(1), 85–102.
- 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.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- Xu, H., Dinev, T., Smith, J., & Hart, P. (2011). Information privacy concerns: Linking individual perceptions with institutional privacy assurances. *Journal of the Association for Information Systems*, 12(12), 798–824.
- Brown, S. A., & Venkatesh, V. (2005). Model of adoption of technology in households: A baseline model test and extension incorporating household life cycle. *MIS Quarterly*, 29(3), 399–426.