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Nurses' Demographic and Professional Characteristics and Their Acceptance of Hospital Information Systems: Basis for a Nurse–Centered HIS Acceptance Enhancement Framework

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Abstract: This study examined nurses' demographic and professional characteristics and their acceptance of the Hospital Information System (HIS) as the basis for the development of a Nurse–Centered HIS Acceptance Enhancement Framework. Specifically, the study described the respondents' profile in terms of age, sex, years of nursing experience, area of practice, perceived level of computer skills, frequency and duration of HIS usage, and HIS-related training. It also determined the level of HIS acceptance in terms of perceived usefulness and perceived ease of use. The study utilized a descriptive cross-sectional survey design and involved 121 licensed registered nurses from Quirino Memorial Medical Center who had at least one year of HIS experience. Data were gathered using an adapted and validated questionnaire based on the Technology Acceptance Model and were analyzed using frequency, percentage, mean, and standard deviation. Findings revealed that most respondents were female, mid-career nurses with good computer skills and daily HIS usage. The respondents demonstrated a moderate level of HIS acceptance, with perceived usefulness obtaining a moderate level while perceived ease of use remained neutral. The findings indicated that nurses recognized the efficiency and productivity benefits of HIS; however, usability concerns such as interface complexity and workflow integration challenges persisted. Based on the results, a Nurse–Centered Hospital Information System Acceptance Enhancement Framework was proposed to improve system usability, user engagement, workflow compatibility, and technology adoption among nurses. The study highlighted the importance of user-centered strategies and targeted interventions in strengthening digital healthcare implementation and improving the quality of patient care.

Keywords: *Hospital Information System, Nursing Acceptance, Perceived Usefulness, Perceived Ease of Use, Technology Acceptance Model.*

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I. INTRODUCTION

Hospital Information Systems (HIS) have become integral to modern healthcare delivery, enabling more efficient documentation, streamlined communication, improved clinical decision-making, and enhanced continuity of patient care across healthcare settings. As healthcare organizations increasingly transition toward digital transformation, the successful implementation of HIS depends not only on technological infrastructure but also on the acceptance and sustained utilization of these systems by frontline healthcare professionals, particularly nurses, who constitute the largest segment of the healthcare workforce and are primary users of clinical information systems (Villemagne, 2023; Omol, 2023; Cortez, 2025). Because nurses engage extensively in patient documentation, medication administration, care coordination, and clinical reporting, their acceptance of HIS is critical to maximizing the intended benefits of digital health technologies.

Technology acceptance in healthcare has been widely explained through the Technology Acceptance Model (TAM) developed by Fred Davis, which posits that users' perceptions of usefulness and ease of use significantly influence their intention to adopt and use technological systems (Davis, 1989). In nursing contexts, prior studies have shown that nurses are more likely to embrace HIS when systems improve workflow

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efficiency, support patient care tasks, and reduce documentation burden (Miller, 2024). Conversely, system complexity, poor interface design, insufficient training, and workflow incompatibility may hinder adoption despite recognition of system benefits (Wan & Guo, 2025).

Beyond system-related factors, demographic and professional characteristics also shape nurses' acceptance of health technologies. Variables such as age, years of experience, clinical area of practice, computer literacy, frequency of system use, and training exposure influence how nurses perceive and interact with digital systems (Burgess & Honey, 2022). Younger, more technologically confident nurses tend to report greater ease of use and stronger acceptance, whereas nurses with limited training or lower digital proficiency may experience greater resistance and usability challenges (Wynn & Garwood-Cross, 2024). These findings suggest that HIS acceptance is not solely a technological issue but also a user-centered organizational concern requiring contextualized interventions (Dopp et al., 2018; Cortez et al., 2025).

Despite the growing body of literature on HIS adoption, many implementation strategies remain system-centered rather than nurse-centered, often emphasizing technological deployment over user-specific adaptation and workforce readiness (Mina & Campos, 2020). Moreover, there remains limited empirical evidence in the Philippine healthcare context examining how nurses' demographic and professional characteristics interact with perceived usefulness and ease of use to influence HIS acceptance. This gap impedes the development of localized, context-sensitive interventions tailored to the needs of Filipino nurses in hospital settings.

Addressing this gap, the present study investigates nurses' demographic and professional characteristics and their acceptance of Hospital Information Systems, as measured by perceived usefulness and perceived ease of use. Specifically, it seeks to generate empirical evidence that will serve as the basis for proposing a Nurse–Centered Hospital Information System Acceptance Enhancement Framework. By identifying the user-, system-, and context-related determinants of HIS acceptance, the study advances evidence-based strategies to improve system usability, enhance nurse engagement, and strengthen digital healthcare implementation in hospital environments. The findings may inform hospital administrators, nurse leaders, and health informatics developers in designing targeted interventions that raise greater HIS adoption, optimize workflow integration, and improve the quality of patient care.

- *Research Problem*

The study described the profile of the nurse–respondents in terms of age, sex, years of nursing experience, area of practice, perceived level of computer skills, frequency of Hospital Information System (HIS) usage, duration of HIS usage, and number of HIS-related training attended. It also determined the level of acceptance of the Hospital Information System among nurse–respondents in terms of perceived usefulness and perceived ease of use. Furthermore, the study proposed a Nurse–Centered Hospital Information System Acceptance Enhancement Framework based on the findings of the study.

II. MATERIALS AND METHODS

This study employed a descriptive cross-sectional survey design to examine nurses' demographic and professional characteristics and their acceptance of the Hospital Information System (HIS). A descriptive design was deemed appropriate because the study aimed to systematically describe and summarize the current state of HIS acceptance among nurses without manipulating variables or establishing causal relationships (Polit & Beck, 2017). Cross-sectional surveys are widely used in health informatics and nursing research for their efficiency in capturing data from a large number of respondents at a single point in time, thereby providing an accurate snapshot of user perceptions and behaviors (Setia, 2016). This design is particularly suited for studies that seek to characterize demographic profiles and measure attitudinal constructs such as perceived usefulness and perceived ease of use, as it allows for the simultaneous collection and comparison of multiple variables across a defined population (Kelley et al., 2003).

The study was grounded in the Technology Acceptance Model (TAM) originally developed by Fred Davis (1989), which posits that perceived usefulness and perceived ease of use are the two primary determinants of an individual's intention to adopt and continue using a technology. TAM has been extensively validated and applied in healthcare and nursing informatics research as a robust theoretical framework for evaluating user acceptance of clinical information systems (Holden & Karsh, 2010; Scherer et al., 2018). Its application in this study was justified by its conceptual alignment with the research objectives, which sought to measure the degree to which nurses find HIS functionally valuable and operationally manageable within their clinical practice. The use of TAM ensured conceptual consistency with a well-established body of literature and provided a theoretically sound basis for instrument development and data interpretation.

The study was conducted at Quirino Memorial Medical Center, a government tertiary hospital in Metro Manila, Philippines, where the HIS has been actively deployed across clinical units. The target population consisted of licensed registered nurses who were actively assigned to clinical units utilizing the HIS. Eligibility criteria required respondents to have at least one year of HIS experience, ensuring that participants possessed sufficient familiarity with the system to provide meaningful and informed assessments of its usefulness and ease of use. A total of 121 nurses participated in the study.

Respondents were selected through systematic random sampling, a probability sampling technique that involves selecting every nth element from a complete and ordered list of the target population. This approach was chosen because it

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provides an equal and unbiased probability of selection for all eligible members of the population, thereby enhancing the representativeness of the sample and the generalizability of findings (Etikan & Bala, 2017). Systematic random sampling is considered especially practical in clinical settings where a structured roster of nurses is readily available, as it balances randomization with organizational feasibility.

Data were gathered using a structured questionnaire adapted from validated TAM-based instruments. The questionnaire comprised two major sections: a respondent profile section capturing demographic and professional variables such as age, sex, years of nursing experience, area of practice, perceived level of computer skills, frequency and duration of HIS usage, and number of HIS-related training attended; and a TAM-based measurement section assessing perceived usefulness and perceived ease of use of the HIS. The items on perceived usefulness and perceived ease of use were adapted from Davis (1989) and were rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire underwent content validation and pilot testing to ensure its relevance, clarity, and reliability within the Philippine nursing context. The use of an adapted and validated instrument was justified by the established psychometric properties of TAM-based scales and their demonstrated reliability across diverse healthcare settings (Holden & Karsh, 2010).

Descriptive statistical analyses were employed to analyze the collected data. Frequency and percentage were used to describe the distribution of respondents according to their demographic and professional characteristics. Mean and standard deviation were computed to determine and quantify the level of HIS acceptance in terms of perceived usefulness and perceived ease of use. These descriptive measures were deemed appropriate given the study's non-inferential objectives, which centered on characterizing patterns and levels of HIS acceptance rather than testing hypotheses or examining relationships among variables (Creswell & Creswell, 2018). Verbal interpretations were assigned to mean scores using a predetermined scale to facilitate meaningful and contextually relevant interpretation of the findings.

Ethical considerations were observed throughout the research process. Informed consent was obtained from all participants prior to data collection, ensuring voluntary participation and full understanding of the study's purpose and scope. Confidentiality of respondents' personal information was strictly maintained, and data were used solely for academic and research purposes. Approval from the relevant institutional authority was secured before the commencement of data collection, in accordance with established ethical standards in nursing and health research (World Medical Association, 2013).

III. RESULTS AND DISCUSSION

This section presents the analysis and interpretation of the nurses' perceived ease of use of the Hospital Information System, highlighting usability strengths, operational challenges, and their implications for enhancing nurse–centered HIS acceptance.

- *Profile of the Respondents*

Table 1 presents the respondents' profile.

Table 1. Respondents' Profile

Variables	Frequency	Percentage (%)
Age		
24 – 32 years old	22	18.18
33 – 41 years old	63	52.07
42 – 50 years old	19	15.70
51 – 59 years old	17	14.05
Sex		
Male	24	19.83
Female	97	80.17
Years of Nursing Experience		
1–5 years	77	63.64
More than 5 years	44	36.36
Area of Practice		
Critical Care/High–Acuity Units	26	21.49
General Inpatient Wards	48	39.67
Outpatient/Emergency/Procedural Units	47	38.84
Perceived Level of Computer Skills		
Fair	5	4.13
Good	98	80.99
Very Good	18	14.88
Frequency of HIS Usage		

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Daily	99	81.82
Weekly	13	10.74
Occasionally	9	7.44
Duration of HIS Usage		
1–3 years	93	76.86
More than 3 years	28	23.14
HIS–Related Training		
Without Training	73	60.33
With Training	48	39.67

The age distribution of respondents in the above table shows that majority of nurses fall in the 33–41 years old bracket (52.07%), followed by 24–32 years old (18.18%), 42–50 years old (15.70%) and 51–59 years old (14.05%). This shows that the study's nursing workforce is primarily made up of mid–career nurses. These nurses are likely to be experienced in clinical practice but also engaged in technology–integrated healthcare contexts. The prevalence of this age group may indicate a favourable environment for the implementation of Hospital Information System (HIS). Nurses in mid–adulthood are expected to have a blend of professional competence and receptiveness to technological developments. Research indicates that younger and middle–aged nurses demonstrate greater confidence and receptiveness to digital health technology than their older counterparts, which affects system acceptability and use. Furthermore, age is acknowledged as a crucial demographic variable influencing technology adoption, with younger professionals typically indicating higher perceived ease of use and technological self–efficacy. Alam et al. (2020) and Sinha et al. (2021) highlighted age as a significant factor influencing the acceptance and utilization of health information technology.

The sex distribution of respondents indicates that the majority of nurses were female (80.17%), whilst male nurses constituted just 19.83% of the sample. This illustrates the enduring female dominance in the nursing profession, aligning with both global and local workforce statistics that indicate nursing is predominantly a female field. The preponderance of female participants indicates that the study's conclusions about Hospital Information System (HIS) acceptability predominantly reflect the views of women in nursing practice. Although sex alone may not directly dictate technology acceptance, previous research suggests that gender disparities can affect perceptions of system utility and usability through differences in technological competence and experience. Cezar-Vaz et al. (2022) reports that women constitute the predominant segment of the global nursing workforce, however Ameen et al. (2018) recognized gender as a moderating component in technological acceptance behavior.

Furthermore, the data indicates that the majority of respondents possessed 1–5 years of nursing experience (63.64%), whilst 36.36% had over 5 years of experience. The nursing workforce in the study primarily consists of early–career professionals who are in the formative stages of clinical knowledge, yet are likely more familiar with modern technology–driven healthcare systems throughout their education and practice. Nurses with less experience may exhibit increased familiarity and comfort with digital platforms, perhaps leading to greater acceptance of Hospital Information Systems (HIS). Conversely, more experienced nurses might be able to leverage their broad understanding of clinical workflow to provide insights. Professional experience impacts the adoption of healthcare technology and the use of systems, as found previously by Verina et al. (2025) and Aurore et al. (2016).

Moreover, the respondents' areas of practice indicate that the majority of nurses were allocated to General Inpatient Wards (39.67%), closely followed by Outpatient/Emergency/Procedural Units (38.84%), with 21.49% employed in Critical Care/High–Acuity Units. This distribution indicates that the respondents embody varied clinical settings where Hospital Information Systems (HIS) are essential for patient recording, care coordination, and workflow management. Nurses in inpatient and emergency settings frequently depend on prompt and precise electronic information due to elevated patient turnover and documentation requirements, which may enhance their perceptions of the usefulness and usability of Health Information Systems (HIS). The clinical area has been recognized as a contextual factor affecting health technology uptake due to the variability in workflow complexity and information requirements among units. Research conducted by Sinha et al. (2021) and Sofilkanych (2022) substantiates the impact of work environment on the adoption and acceptance of Health Information Systems (HIS).

The respondents' self–assessed computer skills reveal that the majority evaluated their proficiency as Good (80.99%), followed by Very Good (14.88%), with only 4.13% deeming their skills as Fair. This indicates that the majority of nurses have sufficient digital literacy, potentially promoting more seamless engagement with Hospital Information Systems (HIS) and improving perceptions of usability and utility. Computer proficiency is a strong prerequisite for HIS adoption, because users with better technological confidence are generally more able to use electronic systems efficiently and to adapt to digital processes (Domingo et al., 2024). The results suggest that the respondents are technologically prepared to communicate with HIS in clinical practice. According to Scherer et al. (2018) and

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He et al. (2018) computer self–efficacy was a strong predictor of health information technology uptake.

The data indicate that the majority of nurses used the Hospital Information System (HIS) daily (81.82%), whilst lower percentages reported weekly (10.74%) and occasional use (7.44%). This signifies that HIS has integrated into the nurses' usual clinical workflow and is likely a crucial element of patient documentation, communication, and care coordination in their environment. Regular system exposure may boost familiarity, increase competency, and nurture more positive impressions of utility and usability, as frequent engagement typically improves user acceptance of technology. Daily usage indicates organizational reliance on digital health records and information systems within nursing practice. Venkatesh et al. (2016) asserted that actual system utilization bolsters technology adoption, whereas Kim et al. (2013) correlated frequent exposure with increased acceptance of health information technologies.

The period of Hospital Information System (HIS) utilization reveals that 76.86% of respondents utilized the system for 1–3 years, and 23.14% indicated usage above 3 years. This indicates that the majority of nurses have moderate experience with HIS, demonstrating adequate exposure to its functionalities while remaining in the phase of adaptation and skill enhancement. Prolonged engagement with information systems typically improves user proficiency, diminishes resistance, and reinforces perceptions of system utility and user–friendliness through continuous interaction and experience-based learning. The findings suggest that responders are likely able to offer knowledgeable assessments of HIS acceptability based on prolonged practical use. Al-Adwan et al. (2023) and Fedorko et al. (2022) observed that previous system experience markedly affects technology acceptability and the intention to use.

Ultimately, the respondents' training profile concerning Hospital Information Systems reveals that a majority of nurses (60.33%) had not obtained formal training, whilst only 39.67% indicated they had taken HIS–related training. This indicates that several nurses may depend on self–directed learning, peer support, or experiential exposure to maneuver through the system. While regular system usage may mitigate the effects of inadequate formal training, the absence of structured education could impair users' productivity, confidence, and comprehensive engagement with the system. Training is seen as a vital enabler of health information technology acceptability, since it enhances technical proficiency and mitigates user resistance during system implementation. The results indicate a possible deficiency in the capacity–building initiatives of the organization regarding HIS. Comparcini et al. (2025) and Biruk and Abetu (2018) underscored that training markedly improves healthcare personnel' adoption and proficient utilization of information technology.

- *The Level of Acceptance for Hospital Information System (HIS)*

Table 2 presents the level of acceptance on the Hospital Information System (HIS).

Table 2. Level of Acceptance of Hospital Information System (HIS)

Dimensions	Mean	SD	Verbal Description
Perceived Usefulness	3.98	0.90	Moderate
Perceived Ease of Use	2.89	0.65	Neutral
Overall Acceptance	**3.43**	**0.67**	**Moderate**
Legend: *1.00–1.79 = Very Low; 1.80–2.59 = Low; 2.60–3.39 = Neutral; 3.40–4.19 = Moderate; 4.20–5.00 = High*			

The findings from the table above indicate that nurse–respondents demonstrated a moderate level of acceptance of the Hospital Information System (HIS), as reflected in the overall mean of 3.43 (SD = 0.67). Specifically, respondents perceived the HIS as moderately useful (M = 3.98, SD = 0.90), suggesting recognition of its potential to improve clinical efficiency, documentation accuracy, and patient care processes. However, the neutral rating for perceived ease of use (M = 2.89, SD = 0.65) implies that respondents may experience some difficulty navigating or operating the system. This pattern aligns with the Technology Acceptance Model of Fred Davis, which emphasizes perceived usefulness and ease of use as critical determinants of technology adoption. Similar findings were reported by Lyon et al. (2021) and Alsyouf et al. (2023), who noted that healthcare professionals are more likely to accept information systems when they find them beneficial yet may hesitate when usability challenges persist. Table 3 presents the level of acceptance for Hospital Information System (HIS) in terms of Perceived Usefulness.

Table 3. Level of Acceptance for Hospital Information System (HIS) in terms of Perceived Usefulness

Indicators	Mean	SD	Verbal Description
1. My job would be difficult to perform without HIS.	3.89	1.00	Agree
2. Using HIS gives me greater control over my work.	3.92	0.92	Agree
3. Using HIS improves my job performance.	3.99	0.99	Agree
4. The HIS system addresses my job–related needs.	3.93	0.94	Agree
5. Using HIS saves me time.	4.04	0.98	Agree

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6. HIS enables me to accomplish tasks more quickly.	4.06	0.98	Agree
7. HIS supports critical aspects of my job.	3.91	0.97	Agree
8. Using HIS allows me to accomplish more work than would otherwise be possible.	3.98	0.94	Agree
9. Using HIS reduces the time I spend on unproductive activities.	3.93	0.94	Agree
10. Using HIS enhances my effectiveness on the job.	3.99	0.98	Agree
11. 11. Using HIS improves the quality of work I do.	4.02	0.95	Agree
12. Using HIS increases my productivity.	4.00	0.94	Agree
13. Using HIS makes it easier to do my job.	4.01	0.94	Agree
14. Overall, I find the HIS system useful in my job.	4.01	0.87	Agree
Grand Mean	**3.98**	**0.90**	**Moderate**
Legend: *1.00–1.79 = Very Low; 1.80–2.59 = Low; 2.60–3.39 = Neutral; 3.40–4.19 = Moderate; 4.20–5.00 = High*			

The results from the table above indicate that nurse–respondents generally perceive the Hospital Information System (HIS) as useful in their professional practice, as evidenced by the grand mean of 3.98 (SD = 0.90), verbally interpreted as Agree, suggesting a favorable perception of the system's functional value. The highest–rated item, "HIS enables me to accomplish tasks more quickly" (M = 4.06), followed closely by "Using HIS saves me time" (M = 4.04), indicates that nurses primarily value HIS for its efficiency–enhancing capabilities. This implies that the system is perceived as facilitating faster documentation, retrieval of patient records, and streamlined workflow processes. Conversely, the lowest–rated item, "My job would be difficult to perform without HIS" (M = 3.89), while still interpreted positively, suggests that nurses may still view traditional or manual methods as viable alternatives, indicating partial rather than complete dependence on the system.

These findings support the Technology Acceptance Model proposed by Fred Davis, which posits that perceived usefulness strongly predicts technology acceptance and continued system use. The results are consistent with prior studies showing that healthcare professionals adopt HIS more readily when systems demonstrably improve efficiency and task performance. For instance, Mazmi (2025) found that perceived usefulness significantly influences clinicians' acceptance of health technologies. Similarly, Rojas-Sánchez et al. (2022) emphasized that workflow enhancement and productivity gains increase nurses' technology adoption. Almalki et al. (2012) reported that time–saving functionalities are among the strongest predictors of HIS satisfaction among nurses. Kotp et al. (2025) likewise noted that digital systems improve clinical productivity when aligned with nursing tasks. Moreover, Demsash et al. (2024) found that systems perceived as supportive of care delivery improve user acceptance and sustained utilization. Collectively, the findings suggest that reinforcing efficiency, task support, and workflow alignment should remain central to a nurse–centered HIS acceptance enhancement framework. Table 4 presents the level of acceptance for Hospital Information System in terms of perceived ease of use.

Table 4. Level of Acceptance for Hospital Information System in terms of Perceived Ease of Use.

Indicators	Mean	SD	Verbal Description
1. I often become confused when I use the HIS system.	2.22	0.88	Disagree
2. I make errors frequently when I use the HIS system.	2.15	0.87	Disagree
3. Interacting with the HIS system is often frustrating.	2.24	0.98	Disagree
4. I need to consult the user manual often when using HIS.	2.24	0.95	Disagree
5. Interacting with the HIS system requires a lot of my mental effort.	2.12	0.91	Disagree
6. I find it easy to recover from errors encountered while using HIS.	2.96	0.99	Neutral
7. The HIS system is rigid and inflexible to interact with.	2.54	0.97	Disagree
8. I find it easy to get the HIS system to do what I want to do.	3.23	0.97	Neutral
9. The HIS system often behaves in unexpected ways.	3.19	0.99	Neutral
10. I find it cumbersome to use the HIS system.	3.00	0.91	Neutral
11. My interaction with the HIS system is easy for me to understand.	3.63	0.98	Neutral
12. It is easy for me to remember how to perform tasks using HIS.	3.60	0.96	Neutral
13. The HIS system provides helpful guidance in performing tasks.	3.60	0.99	Neutral
14. Overall, I find the HIS system easy to use.	3.69	0.99	Neutral
Grand Mean	**2.89**	**0.65**	**(Neutral)**
Legend: *1.00–1.79 = Very Low; 1.80–2.59 = Low; 2.60–3.39 = Neutral; 3.40–4.19 = Moderate; 4.20–5.00 = High*			

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The findings from the data above revealed that nurse–respondents hold a neutral perception regarding the ease of use of the Hospital Information System (HIS), with a grand mean of 2.89 (SD = 0.65), indicating that while the system is generally manageable, usability concerns remain. Respondents disagreed that the HIS causes confusion (M = 2.22), frequent errors (M = 2.15), frustration (M = 2.24), or excessive mental effort (M = 2.12), suggesting that the system is not perceived as overtly difficult or burdensome. However, neutral ratings on items such as ease of recovering from errors (M = 2.96), system predictability (M = 3.19), cumbersomeness (M = 3.00), and overall ease of use (M = 3.69) imply lingering concerns regarding intuitiveness, flexibility, and interface responsiveness. These results suggest that while nurses can operate the HIS adequately, they may not yet perceive it as fully user–friendly or seamlessly integrated into workflow (Quijano et al., 2021). Similar organizational studies emphasize that effective operational systems require structured management strategies and risk-mitigating approaches to address implementation barriers and improve organizational performance outcomes (Mina, 2024).

This finding aligns with the Technology Acceptance Model of Fred Davis, which identifies perceived ease of use as a core determinant of system acceptance. Archer and Cocosila (2011) emphasized that usability issues in health information technologies often reduce clinician satisfaction despite perceived usefulness. Cerchione et al. (2022) found that nurses' acceptance of electronic systems declines when interfaces are complex or inconsistent. Similarly, Enabulele et al. (2025) reported that poor usability and error recovery features negatively affect workflow and increase cognitive load among healthcare professionals. Mara et al. (2023)) observed that system instability and cumbersome interfaces contribute to stress and lower satisfaction among nurses. Moreover, An et al. (2025) stressed that intuitive navigation and effective guidance features are critical for sustained HIS adoption. These findings suggest that improving interface design, error recovery mechanisms, and workflow compatibility is essential in developing a nurse–centered HIS acceptance enhancement framework.

- *Nurse–Centered Hospital Information System Acceptance Enhancement Framework*

The figure below presents the Proposed Nurse–Centered Hospital Information System Acceptance Enhancement Framework

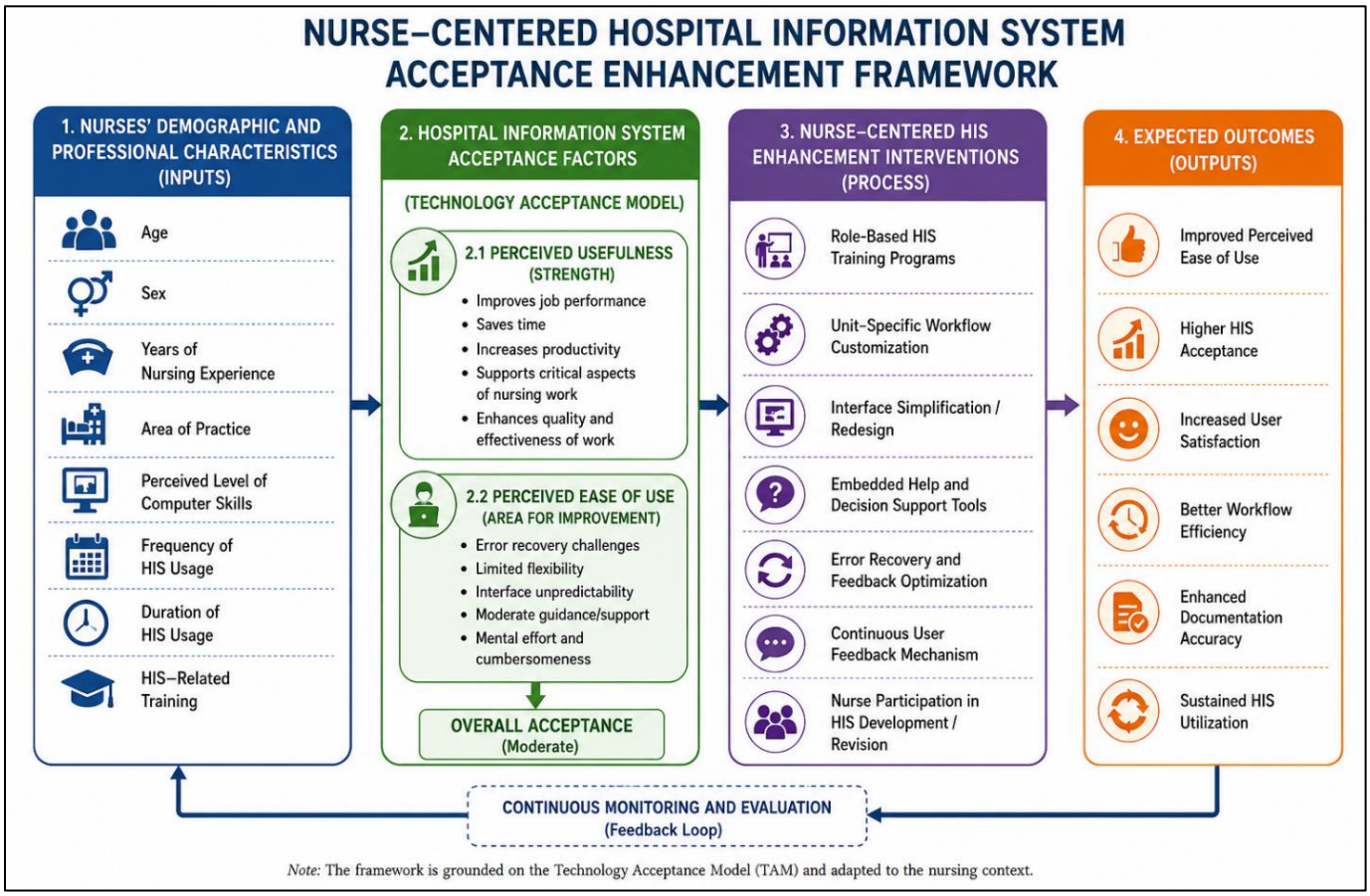

Fig 1. Nurse–Centered Hospital Information System Acceptance Enhancement Framework

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The Nurse–Centered Hospital Information System Acceptance Enhancement Framework provides a practical guide for healthcare institutions in improving nurses' acceptance and sustained utilization of HIS by aligning system enhancement initiatives with nurses' demographic characteristics, professional context, and technology acceptance determinants. Its implementation may help hospital administrators and system developers identify user-specific barriers, optimize training interventions, and redesign system features to better fit clinical workflows and nursing needs. By emphasizing usability, workflow compatibility, and participatory system improvement, the framework supports greater user satisfaction, stronger HIS adoption, and more efficient documentation. Ultimately, it contributes to improved nursing performance, better patient care quality, and more effective digital transformation in healthcare settings.

IV. CONCLUSION AND RECOMMENDATION

The study concludes that nurses demonstrated a moderate level of acceptance of the Hospital Information System, characterized by strong perceived usefulness but only neutral perceived ease of use, indicating that while nurses recognize the functional benefits of HIS in improving efficiency and productivity, usability-related concerns remain. Demographic and professional characteristics, along with system usability factors, significantly shape nurses' perceptions and acceptance of HIS. Based on these findings, the proposed Nurse–Centered Hospital Information System Acceptance Enhancement Framework offers a strategic and evidence-based model for improving HIS adoption and sustained utilization in clinical settings. It is recommended that hospital administrators, nurse managers, and information system developers adopt and operationalize the framework in planning HIS-related interventions, particularly in the areas of user training, interface redesign, workflow customization, and participatory system evaluation. Future HIS implementation initiatives should integrate the framework to promote greater usability, nurse satisfaction, workflow efficiency, and overall quality of digital healthcare delivery.

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