LEVERAGING IT USE IN HEALTHCARE RECORDS MANAGEMENT: IMPACT ON CUSTOMER SATISFACTION AND FINANCIAL PERFORMANCE THROUGH KNOWLEDGE TRANSFER AND ABSORPTIVE CAPACITY

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Abstract. This research looks at how IT use in managing healthcare records benefits organizational performance. This paper addresses a critical research gap by examining how the implementation of IT affects performance through organized learning mechanisms, absorptive capacity and knowledge transfer effectiveness, two under researched components from prior healthcare IT literature. Based on organizational learning theory, the study proposes internal capabilities mediate the relationship between the use of IT and organizational performance. A quantitative survey of 304 healthcare professionals was conducted, with data analysed using structural equation modelling and SmartPLS. The findings indicate that IT use has a substantial impact on knowledge transfer, and that knowledge transfer mediating the relationship between absorptive capacity and both customer satisfaction and financial performance. This study theoretically extends the discourse on IT enabled organizational performance by focusing on the role of organizational learning in the IT performance relationship. In practice, it provides operational ramifications for health-care leaders by emphasizing the need to align digital investments of that organization with its learning strategy to increase its sustainable performance improvement. The theoretical and empirical contributions conferred by this research are one of providing an integrated framework integrating IT use, organizational learning mechanisms, and performance outcomes in healthcare settings.

1. Introduction

Healthcare record management in healthcare organizations is a growing challenge including a reduction in public funds, increased demands for excellent service, along with an obligation to optimize operational efficiency, necessitate the application of Information Technology (IT) in healthcare records management (Braithwaite et al., 2020). Global health shocks such as the COVID-19 pandemic have further exacerbated these systemic pressures while simultaneously accelerating the need for digital transformation to increasingly resilient healthcare delivery to maintain the accessibility of critical data (Haraldsdottir et al., 2023). Records management is in this transformation, it allows for efficient management of patient data, for use in clinical decision making and for prompt handling, accurate information exchange to improve patient outcomes (Ruel et al., 2021; Yang et al., 2021).

In Indonesia, managing health records highlights both the opportunities and barriers in digital transformation. With a population exceeding 270 million, the healthcare system generates enormous volumes of data – yet over 80% of facilities still rely on manual, paper-based processes (Ministry of Health of the Republic of Indonesia, 2021). These outdated systems lead to fragmented data, inefficiencies in patient care, and barriers to evidence-based decision-making. To address this, the Indonesian Ministry of Health launched the Digital Transformation Blueprint 2024 and introduced the Digital Maturity Index (DMI) to track progress across governance, infrastructure, and interoperability. However, as of 2022, the national average DMI score remains low at 2.54 out of 5, and EMR adoption

is still at level 3 – revealing significant gaps in digital readiness and regional disparities (Ministry of Health of the Republic of Indonesia, 2024).

These findings indicate that technology alone is not sufficient to ensure digital success in healthcare. Instead, internal organizational capabilities – particularly the ability to learn, share, and absorb new knowledge – are essential for sustaining IT-driven performance improvements (Cartwright, 2023; Martínez-Peláez et al., 2023). This highlights the importance of organizational learning, a dynamic capability that enables healthcare institutions to adapt, integrate innovations, and improve service outcomes (Simwaka & Malanga, 2023). Organizational learning in this context is operationalized through two core objectives: knowledge transfer effectiveness and absorptive capacity (Martínez-Peláez et al., 2023). It promotes the knowledge transfer of such new technologies as Health Information Systems (HIS), Electronic Medical Record (EMR) to frontline professionals, which can help them to better use these tools (AlSaied & Alkhoraif, 2024; Duan et al., 2020). At the same time, absorptive capacity enables organizations to recognize and incorporate external knowledge that provides innovation opportunities and consequently achieve better performance (Scuotto et al., 2022).

Knowledge transfer and absorptive capacity have been found in the empirical studies to aid staff in using IT systems, improving patient outcomes, while the absorptive capacity acts as a means of translating new knowledge into practice (Neirotti et al., 2021; Rhodes et al., 2008). Furthermore, IT contributes to customer satisfaction by reducing the paperwork, minimizing delays and providing for better service experiences (Oladejo & Hadžidedi, 2021). These improvements can be translated into better financial performance of an organization through a superior quality of services delivered, increased patient retention and reduced operational costs (Tahir et al., 2023). However, most existing studies tend to examine these factors – IT use, absorptive capacity, or customer satisfaction – in isolation, lacking an integrated approach to understand their combined effect (Human, 2021; Salmanizadeh et al., 2022; Selna et al., 2022).

To address this gap, this study investigates how IT use in healthcare records management influences organizational performance – specifically customer satisfaction and financial performance – through the mediating roles of knowledge transfer effectiveness and absorptive capacity. This study provides both theoretical and practical contributions. Theoretically, it extends the understanding of how IT use drives performance by integrating organizational learning theory, focusing on knowledge-related capabilities that are often overlooked in healthcare IT literature. Practically, the study offers insights for healthcare leaders and policymakers on aligning IT investments with internal learning mechanisms to foster sustainable, long-term transformation. This leads to the central research question:

RQ1: How does IT use in records management influence healthcare organizations' performance through organizational learning mechanisms?

2. Literature review and hypothesis development

2.1. IT use, organizational learning, and knowledge integration in records management

The integration of IT use into healthcare records management has transformed the way information is collected, stored, and utilized across hospitals and clinics (Daskalopoulou & Palmer, 2021). EMR and HIS offer more comprehensive, accessible, and organized patient data compared to traditional paper-based systems (Hagen, 2023). These digital tools help reduce redundant testing, prevent clinical errors, and lower documentation costs (Salmanizadeh et al., 2022). Beyond operational efficiency, IT systems provide real-time insights, enhance coordination among healthcare teams, and support clinical decision-making (Selna et al., 2022).

The implementation of IT alone does not guarantee better performance results in organizations. Organizations achieve better results only after they develop effective learning methods to adapt and utilize knowledge found in these technological platforms (Ghasemzadeh et al., 2022). Ferreira and Ferreira (2023) point out that organizational learning constitutes the capability of organizations to derive useful knowledge through acquisition sharing and its utilization for continuous growth. Organizational learning plays an essential role in enabling safe and efficient health care delivery because of systems complexity and sensitive procedural outcome responses (Halim et al., 2019; Sharma & Lenka, 2019). Digital record conversion becomes possible through organizational learning as it helps employees develop new workflows while receiving training and reflecting on their processes (Mahmood & Mubarik, 2020; Rubbio & Burccoleri, 2023).

This learning process depends on both technical support and intellectual capabilities which are enabled by IT use (Iyanna et al., 2022). According to Li et al. (2024), the implementation of IT technology creates avenues to store and deliver and transmit organizational knowledge within interconnected facilities such as hospitals. Digital systems enable staff members to better perform task coordination alongside the standardization of processes for efficient best practice sharing (Verhoef et al., 2021). The use of IT provides organizations with operational transformation together with essential learning capabilities which drive technology-driven transformation (Sakellarios et al., 2022). The research presents these subsequent hypotheses:

H1: IT use in records management has a positive impact on knowledge transfer effectiveness.

H2: IT use in records management has a positive impact on customer satisfaction.

H3: IT use in records management has a positive impact on financial performance.

A central concept that links IT use and organizational learning to performance outcomes is Knowledge Transfer

Effectiveness (KTE) (Ramadan et al., 2023). KTE refers to how effectively knowledge – especially the kind embedded in IT systems – is shared and applied across individuals, teams, and departments (Dhaheri et al., 2024; Zhu et al., 2024). In healthcare, effective knowledge transfer ensures that clinical and administrative staff can understand system functionalities, internalize new workflows, and adapt digital tools to local needs (Dabic et al., 2023; Human, 2021). Without effective KTE, IT systems often remain underutilized, with minimal impact on service quality or operational efficiency (Lakshman et al., 2022).

An important downstream capability that benefits from KTE is Absorptive Capacity (AC) – the organization's ability to acquire, assimilate, transform, and apply external knowledge internally (Sancho-Zamora et al., 2021). AC enables healthcare providers to interpret external technologies, fit them with internal processes and use them to innovate and improve performance (Bag et al., 2023). In fact, numerous studies have shown that directly related to IT use is the improvement of absorptive capacity, particularly when helped by structured knowledge exchange practices (Manfreda et al., 2014). Organizations become more capable of seeing the value of the new information, integrating, and putting it into action if they are good at learning and sharing (Al-Husseini, 2024). In addition, there is high interdependency between KTE and AC. AC begins with knowledge transfer processes that assist people and teams in deriving, interpreting, and using new insights in ways that result in improved outcomes (Rosen et al., 2018). At the same time, they promote an organization's agility and capability to perused and leverage complex IT based innovations (Singh et al., 2023). The formulation of the following hypothesis based on the analysis provided above:

H4: Knowledge transfer effectiveness has a positive impact on absorptive capacity.

2.2. Impact on organizational performance: customer satisfaction and financial outcomes

The highly competitive healthcare landscape leads to the measurement of organizational performance using both customer satisfaction and outcomes. As it can be seen, these two performance indicators are highly interrelated and can be improved significantly through an effective use of IT, learning capabilities and absorptive capacity (Kostopoulos et al., 2011). The long run success of the service sector depends upon the ability to maximize customer satisfaction. In healthcare context, it is patients' perceptions of service quality, trust in the organization as well as willingness to come again and recommend services (Ozdemir et al., 2022). As per ACSI (American Customer Satisfaction Index) model satisfaction not just raises retention however additionally has direct and indirect impacts on the financial performance (Eachempati et al., 2022; Golovokva et al., 2019).

Likewise, organizations possessing higher levels of AC are position to align their service offerings with the patient expectations which results in higher satisfaction rates

(Naqshbandi & Jasimuddin, 2022). This capability gives them the ability to accept and operatorate interventions, fix workflows and adopt new technologies as required – moving towards more rapid and patient facing care (Rubbio & Bruccoleri, 2023). This is because satisfied customers provide stable revenue streams, repeat visits and a positive reference to others all of which have a positive effect on financial performance (Malehmirchegini & Farzaneh, 2023; Suharyanti & Dewa, 2019). Customer-oriented strategies, enabled by IT and learning processes, serve as competitive advantages in the market (Saura et al., 2022). Hospitals that prioritize satisfaction have been found to outperform less customer-focused institutions in terms of profitability (Hairuzzaman, 2019; Suchanek & Kralova, 2023). Thus, we formulate the following hypothesis:

H5: Absorptive capacity has a positive impact on customer satisfaction.

H6: Absorptive capacity has a positive impact on financial performance.

H7: Customer satisfaction has a positive impact on financial performance.

3. Methodology

This study employed a quantitative method with a descriptive-analytical approach, collecting data through an online survey using Google Forms. The survey was distributed via widely used social media platforms in Indonesia, including WhatsApp, Facebook, and LINE, to reach hospital staff. The data collection period lasted from July to August 2024. A snowball sampling technique was used to reach a broader set of respondents from various hospitals. The target population consisted of hospital employees who were actively involved in inpatient services, including doctors, nurses, administrative staff, and hospital managers. These roles were selected due to their familiarity with hospital IT systems, performance evaluation processes, and internal knowledge management. Hospitals involved in this study included both public and private institutions, and represented various types of hospitals (from type A to D) across Indonesia. Out of 231 total responses received, 224 valid responses were used for analysis after eliminating duplicates, incomplete responses, and outliers. The characteristics of the respondents are detailed in Table 1. Additionally, the operational definitions and measurement items for each construct are provided in Appendix Table A1.

Table 1. Profile of respondents (source: authors' own data collecting, 2024)

Measurement	Items	Frequency	Percentage
Gender	Female	156	69.64%
	Male	68	30.36%
Age	20–25	44	19.64%
	26–30	111	49.55%
	31–40	52	23.21%
	>40	17	7.58%

End of Table 1

Measurement	Items	Frequency	Percentage
Occupation	Doctor	56	25%
	Nurse	88	39.29%
	Managerial	26	11.61%
	Staff Administrative	35	15.63%
	Medical Analyst, Radiologist, Pharmacy	19	8.48%
Work long experience (years)	<3	98	43.75%
	3–10	81	36.16%
	11–20	30	13.39%
	>20	15	6.69%

The study analyzes five main variables, specifically IT use, knowledge transfer effectiveness, absorptive capacity, customer satisfaction and financial performance. The measurement of variables in this study was carefully adapted from previous research to ensure both reliability and validity. IT use, knowledge transfer effectiveness, and absorptive capacity measurement was adapted from Iyengar et al. (2015) using 3 items, 6 items, and 10 items respectively. At the same time, customer satisfaction and financial performance measurement were adapted from Grigoroudis et al. (2012). The 5-point Likert scale with 1 for strongly disagree and 5 for strongly agree was used for measuring each variable. The scale was determined to determine how respondents would agree with each statement as to their organization used IT systems.

The data was analyzed with Partial Least Squares Structural Equation Modeling approach in SmartPLS 4.0. Therefore, PLS-SEM was selected because it can perform both regression, and confirmatory factor in two stages (Edeh et al., 2023). The overall research process is illustrated in Figure 1. The measurement quality of the indicators is evaluated through reliability and convergent validity by the outer model. The evaluation of the proposed hypotheses is made based on the assessed correlations between latent variables. The outer model employed in the measurement process investigates the latent variables of IT use, knowledge transfer effectiveness, absorptive capacity, customer satisfaction and financial performance using the indicators to assess the reliability and validity of the indicators, as well as their structure relationships in determining the proposed hypotheses.

4. Result

This study also employs the approach recommended by Kock (2015) to address the possibility of the presence of common method bias (CMB) by using a Variance Inflation Factor (VIF) value greater than 3.3 as an indication of pathological collinearity and probable CMB contamination. Because the data were collected through a self-administered questionnaire, bias assessment must be undertaken. For this reason, the VIF technique is used in the study and, as shown in Table 2, all the VIF values are below the 3.3 threshold and no common method bias occurs in this research.

Table 2. Collinearity statistic (source: data processed, 2024)

Variable	VIF
IT Use → Knowledge Transfer Effectiveness	1.000
IT Use → Customer Satisfaction	1.629
IT Use → Financial Performance	1.674
Knowledge Transfer Effectiveness → Absorptive capacity	1.000
Absorptive capacity → Customer Satisfaction	1.629
Absorptive capacity → Financial Performance	2.486
Customer Satisfaction → Financial Performance	2.147

This study examines the hypotheses using SEM-PLS approach with SmartPLS software. The reason behind this selection of the method is that it can be applied in complex models with many constructs and is appropriate to estimate the relationships between latent variables. A stringent procedure was applied to the assessment of the measurement model for construct reliability and validity. All retained items had outer loadings greater than 0.70 and all AVE values of all constructs were above the 0.50 benchmark, allowing us to confirm convergent validity (Hair et al., 2017). Weak factor Loadings below 0.70 of several items in Absorptive Capacity and Customer Satisfaction measurement were removed as we believe the items may contribute to reduce construct clarity and construct discriminant validity. To sharpen the model, these items were omitted so that the quality of measurement improves
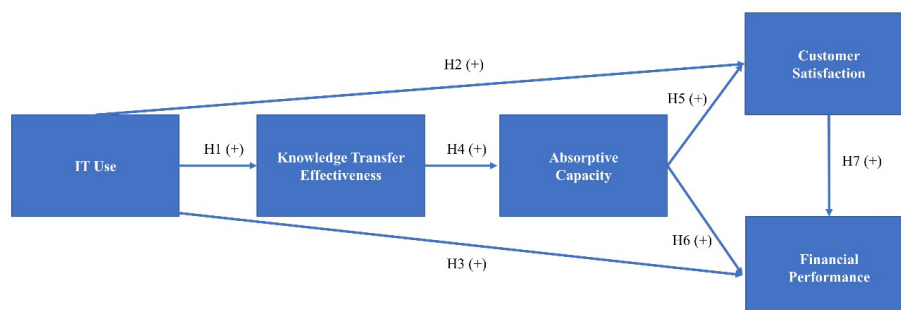
Figure 1. Research methodology (source: author's own work, 2024)

making hypothesis testing more reliable. This being the case, the CR values of all constructs in Table 3 are above 0.80, Cronbach's Alpha coefficient for all constructs in Table 3 is >0.70, meaning good internal consistency and reliability within construct (Cheung et al., 2024).

To assess fit of the overall structural model using S martPLS, Standardized Root Mean Square Residual (SRMR) and Normed Fit Index (NFI) were used to evaluate how well a model fits the data. The results for the saturated and estimated model SRMR are 0.062 and 0.085, respectively, as shown in Table 4. Both values are below the recommended condition of 0.8, meaning the model is fitted satisfactorily (Finch, 2020). The values of the NFI for the saturated model are 0.818; for the estimated model, it is 0.808. These values lie within the range of 0.6-0.9 and hypothesis that the model fits the data well (Bentler & Bonett, 1980). Together, these results demonstrate that both the saturated and estimated models meet key model fit criteria, ensure transparency

and provides a more comprehensive view of the model's predictive accuracy and structural validity.

Table 4. Model fit (source: data processed, 2024)

	Saturated Model	Estimated Model
SRMR	0.062	0.085
d_ULS	1.809	3.397
d_G	0.868	0.950
Chi-Square	1109.386	1170.768
NFI	0.818	0.808

The Pearson correlation matrix in Figure 2 highlights significant relationships among key variables. IT use in records management is strongly correlated with knowledge transfer effectiveness (0.733), indicating that effective IT use enhances knowledge transfer processes. Followed by the correlations with customer satisfaction (0.538) and financial performance (0.470). Knowledge transfer

Table 3. Reliability and validity analysis (source: data processed, 2024)

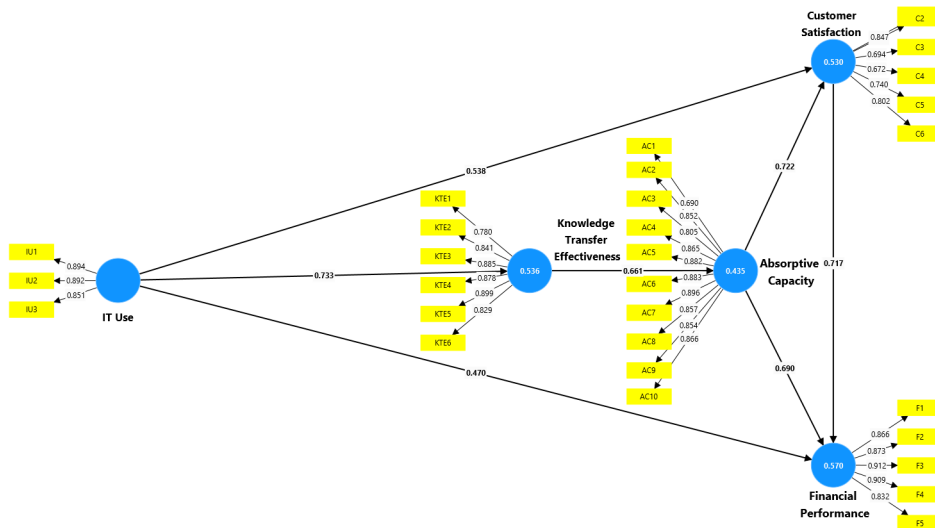| Construct		Items	Loading	Composite Reliability	Average Variance Extracted	Cronbach's Alpha
IT Use		IU1	0.894	0.911	0.773	0.853
		IU2	0.892			
		IU3	0.851			
Knowledge Transfer Effectiveness		KTE1	0.780	0.941	0.728	0.925
		KTE2	0.841			
		KTE3	0.885			
		KTE4	0.878			
		KTE5	0.899			
		KTE6	0.829			
Absorptive capacity		AC1	Deleted	0.962	0.717	0.956
		AC2	0.852			
		AC3	0.805			
		AC4	0.865			
		AC5	0.882			
		AC6	0.883			
		AC7	0.896			
		AC8	0.857			
		AC9	0.854			
		AC10	0.866			
Organizations Performance	Customer Satisfaction	C1	0.847	0.897	0.595	0.861
		C2	0.853			
		C3	Deleted			
		C4	Deleted			
		C5	0.740			
		C6	0.802			
	Financial Performance	F1	0.866	0.944	0.772	0.926
		F2	0.873			
		F3	0.912			
		F4	0.909			
		F5	0.832			

Figure 2. Construct's loading and correlation of SEM-PLS result (data processed, 2024)

effectiveness also has a robust positive correlation with absorptive capacity (0.661), highlighting that effective knowledge transfer significantly enhances the ability to assimilate new information. Notably, absorptive capacity shows strong correlations with both customer satisfaction (0.722) and financial performance (0.570), demonstrating its crucial role in improving these outcomes. Overall, the matrix suggests that all variables are positively related.

Based on the results presented in Table 5, all seven proposed hypotheses (H1–H7) are supported by the data, as indicated by T-statistics exceeding the critical value of 1.96 and p-values below the 0.05 threshold (Kim & Park, 2019). The T-value for the relationship between IT use and knowledge transfer effectiveness (H1) is 21.084 with a significance level of 0.000, indicating a strong and positive influence of IT use on knowledge transfer effectiveness. The H2 (T = 7.839) and H3 (T = 7.141) are significant at 0.001 level and equal validate the importance of IT use in attaining customer satisfaction and financial performance respectively. In addition, absorptive capacity (H4) is greatly increased with a T value of 15.071 when knowledge transfer effectiveness is high. Accordingly, absorptive capacity features a positive relationship with customer satisfaction

(H5: T = 16.858) and, in turn, with financial performance (H6: T = 13.170). At last, financial performance is improved by customer satisfaction (H7) with a T value of 5.580. These findings underscore the vital role of IT in explaining how it stimulates organizational performance through the intermediating effects of knowledge transfer and absorptive capacity.

5. Discussion and conclusions

The purpose of this study was to analyze the effect of IT use in the healthcare records management on knowledge transfer effectiveness (KTE), absorptive capacity (AC), customer satisfaction (CS), and financial performance (FP). Our results based on the organizational learning theory are based on strongly compelling empirical evidence that the knowledge processes enabled by IT contribute to improved nonfinancial and financial outcomes in healthcare institutions. In short, this work suggests that IT has been an enabling technology in healthcare, and as such, coupled with organizational learning, the evidence is robust. The findings reinforce the importance of seeing IT as a means to digitalize as much as to transform a whole organization.

Table 5. Hypothesis testing (source: data processed, 2024)

	Hypothesis Variable	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics	P Values	Remarks
H1	IT Use → Knowledge Transfer Effectiveness	0.719	0.034	21.084	0.000*	Significant
H2	IT Use → Customer Satisfaction	0.334	0.042	7.839	0.000*	Significant
H3	IT Use → Financial Performance	0.308	0.043	7.141	0.000*	Significant
H4	Knowledge Transfer Effectiveness → Absorptive capacity	0.652	0.043	15.071	0.000*	Significant
H5	Absorptive capacity → Customer Satisfaction	0.710	0.042	16.858	0.000*	Significant
H6	Absorptive capacity → Financial Performance	0.655	0.050	13.170	0.000*	Significant
H7	Customer Satisfaction → Financial Performance	0.501	0.089	5.580	0.000*	Significant

Note: Significance at: ***p < 0.1, **p < 0.05, *p < 0.001.

The strongest and most significant relation was from IT use to knowledge transfer effectiveness (t = 21.084), confirming that the digital infrastructure is the foundation for the flow of organizational knowledge and without it, nothing is possible. This is consistent with the findings by Selna et al. (2022) and Hagen (2023), that EMR and HIS support comprehensive, timely and accurate knowledge sharing. Salmanizadeh et al. (2022) further support that these systems reduce redundant diagnostic tests, mitigate clinical errors, and streamline documentation resulting in credibility and timeliness of sharing knowledge. They indicate that IT in records management is not meant to be just a data repository, but also a structural enabler of knowledge dissemination between healthcare departments.

Furthermore, the significant effect of KTE in absorptive capacity (bar = 15.071) adds that effective internal knowledge processes are the basis for the more advanced organizational learning capabilities. The results conform to the previous studies by Dhaheri et al. (2024) and Zhu et al. (2024), that show absorptive capacity is a dynamic capability based in the accessibility and use of knowledge. Improved KTE enhances the healthcare organizations' ability to better recognize, assimilate, and apply both internal and external knowledge that improves their agility to respond to new challenges and innovations. In line with Dhaheri et al. (2024), it is argued that such capability to learn and reconfigure the resources quickly sustains competitive advantage in turbulent environment of such as healthcare.

It was found that absorptive capacity also had a major impact with respect to customer satisfaction (t = 16.858) and financial performance (t = 13.170) confirming that it served as a mediator that translates knowledge related resources into tangible outcomes. These findings are in accord with Rubbio and Burccoleri (2023), who demonstrate that AC is positively associated with patient centered care. Inserting external knowledge into the practice of daily routines bring care providers closer to patient's expectancies as well as institutional outcomes (Hermes et al., 2020). Continual consumptions, stronger financial outcomes and customer satisfaction improves, leading to higher customer loyalty and repeat usage (Prakash & Srivastava, 2019).

Moreover, the results for the direct effect of IT use on both customer satisfaction (t = 7.839) and financial performance (t = 7.141) were statistically significant and indicate a strategic role of IT beyond their operational tasks. Our findings align with Tuan et al. (2019) and Ozdemir et al. (2022), who contended that digital records hasten wait times, improve consistency of service and enhance transparency in the way of providing services. Patient adherence expectations, patient satisfaction, and patient's willingness to return are driven directly by these improvements. Financially, digital transformation reduces errors, reduces administration costs and improves reimbursement processes to ultimately improve profitability (Eachempati et al., 2022).

Finanial performance was also found to be positively associated with customers satisfaction (t = 5.580), which support theories in service marketing and healthcare management (Mittal et al., 2023). The satisfied patients are most likely to refer services, come back for future treatment, and produce a good reputation that led to an ongoing financial health (Suharyanti & Dewa, 2019). Such a chain of effects supports a serial mediation model, which clearly shows the mechanism through which the technological investments result in performance gains by means of organizational learning mechanism.

Theoretical and practical contribution

The theory developed in this research significantly contributes to the theory development of the organizational learning framework in understanding how the use of IT in records management supports knowledge-driven performance improvement in healthcare institutions. This contribution is built on the perspective that IT systems do not just operate as operational tools, quite to the contrary, they are the tool enablers of learning-intensive processes that help to deliver organizational effectiveness (Iyanna et al., 2022; Li et al., 2024). This study first contributes empirical evidence of the crucial effect of Knowledge Transfer Effectiveness (KTE) in the organizational learning process. It also shows how IT use enables better accurate, accessible and timely sharing of information across healthcare departments (Daskalopoulou & Palmer, 2021; Hagen, 2023). These insights reinforce the fact that learning happens in isolation and that there are mechanisms to share, absorb and apply what is known (Dhaheri et al., 2024; Ferreira & Ferreira, 2023). Through such findings, the theory of organizational learning is advanced by recognizing digital records management systems like EMR and HIS as critical infrastructures within interdepartmental flows of knowledge (Salmanizadeh et al., 2022; Selna et al., 2022).

Second, the paper also provides a nice lens to focus in on AC as more dynamic and interactive capability than static knowledge repository. In line with Bag et al. (2023), AC is considered as continuous and in flux process by which knowledge is absorbed, assimilated, transformed and exploited by the firm, from internal knowledge dynamics and external environmental changes (Sancho-Zamora et al., 2021). AC as a mediator was empirically validated in a role of a strategic learning mechanism between IT use and the performance outcome (Manfreda et al., 2014). Thus, this is consistent with the idea that organizations need to create not only technical but also cognitive capabilities to perceive and react to knowledge physically located in their environments (Rubbio & Burccoleri, 2023; Singh, 2024).

Third, this study contributes to the organizational learning literature by embedding these constructs – Knowledge Transfer Effectiveness and Absorptive Capacity – within the healthcare context, which is often underrepresented in learning-based theories (Halim et al., 2019; Sharma & Lenka, 2019). Unlike relatively stable sectors such as manufacturing, healthcare operates in a dynamic, high-risk, and complex environment where knowledge is highly fragmented and time-sensitive (Human, 2021). By

demonstrating that learning mechanisms mediated by IT use can improve both non-financial (customer satisfaction) and financial outcomes, this research extends the applicability of the organizational learning framework to critical service sectors (Naqshbandi & Jasimuddin, 2022; Ozdemir et al., 2022).

In practical terms, the study offers several important recommendations for healthcare managers and decision-makers. The first is the need to reframe IT investments not just as automation initiatives but as knowledge infrastructure projects (Ghasemzadeh et al., 2019; Hermawan et al., 2025a). To this end, organizations should prioritize the acquisition and implementation of IT systems that support interactive data flows, cross-functional collaboration, and real-time decision-making (Sakellarios et al., 2022). Data visualization, feedback loops and clinical dashboards should be seen as learning tools rather than a reporting exercise (Rosen et al., 2018). Second, the results emphasize the importance of making knowledge sharing a practice. It is in healthcare administrators' interests to create spaces for staff to openly share their thoughts, reflect on management in their practice, and work to continuously improve (Dabic et al., 2023). Such constructed initiatives could be interdisciplinary case reviews, communities of practice, or knowledge debriefing sessions immediately following critical events. Such practices are useful for leveraging frontline workers' contribution to organizational learning (Lakshman et al., 2022; Ramadan et al., 2023). In third, developing absorptive capacity should be seen as a long-term organizational capability. Since this implies investing in human capital as well, not only in technologies, but also in training, channels of open communication, knowledge integration workshops, and leadership which supports a learning-oriented culture (Al-Husseini, 2024). Making staff better able to interpret and apply new information makes the organization more responsive and adaptive to changes in external shifts in policy, regulation or technology and to changes in patient needs (Kostopoulos et al., 2011).

Thus, equates to a great social relevance of this research in health area in particular as related to improving service delivery in critical domains such as in health. The application of information technology in records management adds to improving the handling of patient data to lead to more coordinated and responsive care delivery (Ghasemzadeh et al., 2022; Trieu et al., 2023). This, in turn, increases the probability of the people's health and the people's trust towards the health institution (Suharyanti & Dewa, 2019). Moreover, the study underscores the social implication of improved records management and possible cost-saving in healthcare expenditure as well as the availability of quality services (Hairuzzaman, 2019; Hermawan et al., 2025b).

Limitation and future research

Despite its valuable contributions, this study is not without limitations, which future research could aim to address. Current study first concentrates on customer satisfaction and financial performance as the major outcome variables. While such dimensions are necessary, they may potentially overlook the whole spectrum of organizational performance. It could also open up this scope to further research in future, including other outcomes such as internal process efficiency, innovation capability, or clinical performance metrics (Kostopoulos et al., 2011; Malehmirchegini & Farzaneh, 2023). Second, the study is contextually limited to the healthcare sector. Although this sector provides a complex and high-stakes environment well-suited for examining knowledge transfer and absorptive capacity, the generalizability of the findings to other industries remains uncertain. Future studies are encouraged to replicate and test the proposed model in other domains such as education, logistics, or government services. Exploring how internal factors shape the effectiveness of IT use and organizational learning across different contexts may uncover sector-specific dynamics and enrich the theoretical understanding of digital transformation and learning mechanisms (Al-Husseini, 2024; Iyanna et al., 2022).

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Appendix

Table A1. Variable measurement (source: authors' data processing, 2024)

Variable		Indicator	Source
IT Use		IU1: My institution always uses health information technology (HIT).	Iyengar et al. (2015)
		IU2: My institution makes use of the complete range of functionality provided by HIT.	
		IU3: The technologies are completely support my business practices.	
Knowledge Transfer Effectiveness		KTE1: HIT provides necessary and useful knowledge to my institution. HIT provides necessary and useful knowledge to my institution.	Iyengar et al. (2015)
		KTE2: My institution knowledge base is enhanced by HIT.	
		KTE3: My institution has gained a lot of knowledge from HIT.	
		KTE4: My institution perceives HIT to be a useful source of knowledge.	
		KTE5: My institution often gets useful knowledge from HIT.	
		KTE6: Overall, the usage of HIT in my institution has increased my knowledge levels.	
Absorptive Capability		AC1: I am successful in learning new things (eg. HIT, HIS infrastructure, software, health information technology, electronic health record etc) within my institution.	Iyengar et al. (2015)
		AC2: My institution is effective in developing new knowledge or insights that have the potential to influence my work.	
		AC3: My institution is able to identify and acquire internal (e.i., within the institution) and external (e.i., external institution) knowledge.	
		AC4: My institution has effective routines to identify, value, and import new information and knowledge.	
		AC5: My institution has adequate routines to analyse the information and knowledge obtained.	
		AC6: My institution has adequate routines to assimilate new information and knowledge.	
		AC7: My institution can successfully integrate my existing knowledge with the new information and knowledge acquired.	
		AC8: My institution is effective in transforming existing information into new knowledge.	
		AC9: My institution is effective in transforming existing information into new knowledge.	
		AC10: My institution is effective in utilizing knowledge in new services.	
Organizational Performance	Financial Performance	F1: My institution has a positive cash flow.	Grigoroudis et al. (2012)
		F2: My institution has profit and can maintain the profit.	
		F3: Overall, from all sources of income, my institution has stable revenue in total.	
		F4: Exclude the income from national insurance, my institution has a stable revenue.	
		F5: My institution has high value from the health information technology.	
	Customer Satisfaction	C1: My institution has high patient (external customer) satisfaction index.	Grigoroudis et al. (2012)
		C2: My institution has high employee/user (internal customer) satisfaction index.	
		C3: On average, my institution has a low number of complains per month.	
		C4: On average, my institution has high number of patients per month (all kind of patient).	
		C5: On average, my institution has a high number of non-national insurance patient per months.	
		C6: My institution able to give the best quality of service.	