

How Knowledge Management Systems Improve Decision Quality: The Roles of Information Behaviours and Values and Knowledge Self Efficacy

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Abstract

This study examines the effects of system quality and knowledge content quality on decision quality, considering information behaviors and values as mediators and knowledge self-efficacy as a moderator. A quantitative, cross-sectional research design was employed, using questionnaire data collected from 393 respondents. Measurement scales were adopted from previous research. SmartPLS 4 was used to assess measurement reliability, validity, explanatory power, and structural relationships. Hypotheses were tested using path analysis, mediation analysis, and moderation analysis. The results demonstrate that system quality and knowledge content quality positively influence decision quality. Information behaviors and values significantly mediate both relationships, indicating that information-related practices help translate technological and knowledge resources into effective decisions. Furthermore, knowledge self-efficacy positively moderates the relationship between information behaviors and

values and decision quality. All five hypotheses were supported, demonstrating the importance of technological characteristics, information utilization, and individual confidence in explaining decision-making outcomes. This study integrates information systems success, information culture, and social cognitive perspectives within a unified conceptual framework. Its originality lies in examining direct relationships, mediation mechanisms, and moderation effects simultaneously. Practically, the findings encourage organizations to improve system reliability, maintain high-quality knowledge, promote effective information-sharing practices, and strengthen employees' confidence in applying knowledge. These strategies may support more informed, consistent, and effective organizational decision-making.

Keywords: System Quality, Knowledge Content Quality, Decision Quality, Information Behaviors and Values, Knowledge Self-Efficacy.

Introduction

Information systems have become a vital tool for an organization to utilize since they have given people access to knowledge, options for evaluating alternatives and the ability to make informed decisions (Kirchner-Krath et al., 2024). Digital platforms are becoming essential tools for organisations to handle information, coordinate activities and inform decision making for operational, managerial and strategic purposes (Jahed and Abdekhoda, 2025). The effectiveness of these systems is reliant on the

technical functionality, and the quality of knowledge that is accessible to users. System quality involves reliability, availability, responsiveness, usability and technical performance that enables interaction with information technology (Tejay and Winkfield, 2026). Knowledge content quality refers to the accuracy, relevance, completeness, consistency and timeliness of the information delivered via technological platforms (Budur et al., 2023). The quality of decisions is measured by their appropriateness, evidence-based, accuracy and adherence to organizational goals. Past studies on information systems have highlighted the importance of technology attributes and information quality on user experience and the value that users get from digital resources (Abdelwahed et al., 2025). But even though technology is available one cannot make good decisions without having to de-interpret information and use it properly. Information behaviors and information values can support this process by leading the way towards information seeking, assessment, sharing and use (Payne, 2024). Self-efficacy for knowledge use could also be a factor in whether or not someone feels confident in converting information use practices into effective decisions.

The empirical research conducted so far has focused the information systems success and has revealed the significance of system quality, information quality and user related outputs. Madaki et al. (2026) emphasized the role of information systems success and its related organizational benefits, which are contributed by system quality and information quality. Vasudevan et al. (2025) concluded from their research that there are empirical relationships between the different dimensions of information systems success and information systems outcomes in various research settings. Jahed and Abdekhooda (2025) proved that system and system information features play a crucial role in understanding users' beliefs and satisfaction with information technology. Another objective of research in the field of organizational information culture is to examine the influence of information related practices and values on organizational performances and on the use of information (Al-Shaboul et al., 2024). Moreover, the social cognitive theory implies that the self-efficacy of people is a factor that determines effort, persistence, and performance in difficult activities (Bandura, 2001). In total, these results suggest that technological features, information-related practices and people's abilities can help inform good decision-making.

However, the magnitude and mechanisms of these relationships may differ from one organizational context to another and from one decision making situation to another. Thus, more empirical research is needed to understand the interaction of these factors in an explanation of decision quality in technology-supported environments.

Although there is a vast amount of research on information systems success, there are still significant research gaps in the research on the mechanisms linking the quality of the information systems with individual decision making outcomes. Most previous studies have explored system quality and information quality in terms of user satisfaction, system use and organizational performance and not decision quality more specifically (Bondac et al., 2026). The research results also show the relationship between the dimensions of information systems success are different in each context, meaning there is a need to investigate additional explanatory variables (Dong et al., 2025). Furthermore, there has been little research that explores how information behaviors and values mediate between the system characteristics and the outcomes of the decisions. Current studies also fail to explain how information behaviors and values are related to decision quality, and whether knowledge self-efficacy increases this relationship (Xiao et al., 2026). The identified gaps suggest the need for an integrated framework that takes into account both direct relationships, mediation mechanisms and individual-level moderation under the same conceptual model. These constraints can help explain the practical value of information related practices and users' self-confidence in their knowledge skills in the context of technological resources.

This study is designed to explore the relationships between technological quality and knowledge characteristics and the effectiveness of decision-making processes by individual information. In particular, the first aim is to examine the impact of system quality and content quality of knowledge on decision quality. The second aim is to analyze the mediating role of information behaviours and information values between the system quality, knowledge content quality and decision quality. The third goal is to determine if knowledge self-efficacy is a moderator between information behaviours and values and decision quality. The fourth goal is to find out if the relationship is strengthened if individuals have higher knowledge self-efficacy. All of these goals

aim to provide a holistic perspective on technological, behavioral, and individual factors affecting decision-making results.

Theoretically, this research is useful because it combines the quality of technologies, information-related practices, and individual confidence in a single decision-making process. Practically, this research is useful because it can provide a reference or model for other researchers. The results might provide insight into organizational managers' reasons for the importance of reliable systems and relevant knowledge in making effective decisions. A study of mediation can reveal the mechanisms by which information behaviours and values map to the benefits of technology for better decision-making. Studying moderation could also help elucidate the extent to which employees' confidence in their knowledge capacities increases the value of effective information practices. In practical terms, organisations could leverage these insights for enhancements to digital platforms, policies for information evaluation, and employee confidence in their knowledge related abilities. The framework suggested in this paper can also help information system designers to take into account the both technical performance and users' information utilization requirements. Therefore, the study might offer a valuable basis for implementing organizational strategies which can facilitate informed judgments and better decision-making.

The DeLone and McLean information systems success model serves as the key theoretical basis for the research, by clarifying the relationship between information systems effectiveness and system quality and information quality (Al-Shaboul et al., 2024). The information culture theory adds to this perspective by highlighting the impact of information-related behaviors and values on organizational information use (Marchand et al., 2001). It is suggested that knowledge self-efficacy is a moderating factor, as individual's capability beliefs affect efforts, persistence, and performance (Bandura, 2001). These are complementary approaches and will be useful for studying the link between system quality and knowledge quality on the one hand and decision quality on the other, as well as how the quality of knowledge contributed through information behaviors and values. They also detail why people with higher knowledge self-efficacy might be able to better make decisions relating to information practices. The research, therefore, draws on technology, behavior,

and psychology approaches to provide explanations on the quality of decisions based on the direct, mediating, and moderating relationships implied.

Literature Review

System Quality and Decision Quality

System quality is the degree of reliability, usability, responsiveness, accessibility, flexibility, and efficient technical functioning of an information system (Bhagat, 2026). All of these attributes affect the effectiveness of the information retrieval, evidence processing, alternative comparison, and decision-making tasks in organizational settings. Decision quality is determined by how accurate, appropriate, consistent and well-informed decisions are in terms of relevant evidence and intended objectives. System quality is one of the basic factors that impact the effectiveness and value that can be gained from information systems (IS) (Delone and McLean, 2003). It has been found from empirical research that technical reliability and usability affects users' interactions with information systems, and the users' perception of the effectiveness of the system (Budur et al., 2023). A meta-analysis of the 52 empirical studies found strong empirical evidence for the relationship proposed within the information systems success framework, which emphasizes the importance of quality dimensions in explaining individual-level outcomes (Sarma et al., 2024). In addition, studies that focus on accounting information systems have found that system quality is related to system outcomes, and that the use of information systems is related to sustainable decision making (Al-Okaily and Al-Okaily, 2024). A technically sound system can help make better decisions by minimizing interruptions, reduce unnecessary information searching and help the user focus on relevant information to evaluate (Bhagat, 2026). On the other hand, complex interfaces and varying system behavior can make it harder for users to assess their options and to identify the right ones, which will lead to cognitive load and make it more difficult for them to evaluate their systems. While system quality is not directly responsible for the accuracy of decision, it serves as a technological basis for the effective processing of information and for making a judicious decision.

H1: System quality has a significant positive effect on decision quality.

Knowledge Content Quality and Decision Quality

Knowledge content quality is the degree of correctness, relevance, completeness, understandability, consistency and timeliness of the knowledge delivered through an information system (Jahed and Abdekhoda, 2025). Decision quality is related to the suitability, correctness, and success of the decisions made based on the information available and the possible decisions that can be taken (Budur et al., 2023). Good knowledge helps decision makers to view problems clearly and to examine the factors they should consider and the various options that may occur and their associated outcomes (Abdelwahed et al., 2025). The information systems success model considers information quality as something very important in the success of information systems and the benefits that users can get from information technology (IT) (Delone and McLean, 2003). Empirical studies have proven that the quality of information affects users' perceptions of information systems and their use of system-generated information (Zhang et al., 2025). In addition, a review of individual-level information systems success data showed significant support for the relationships between the key dimensions of the IS model, which justifies the significance of quality-related dimension (Farooq, 2022). Other studies on accounting information systems explored how information quality and system use contribute to sustainable organizational decision-making (Junaidi, 2025). Knowledge content that is accurate, relevant and comprehensive, with supporting evidence can eliminate uncertainty and assist decision makers to filter out information from noise. On the other hand, false, incomplete or inaccurate information can bias interpretation of the problem, can raise uncertainty, and can lead to faulty judgments (Xiao et al., 2026). The research in information quality and decision quality also indicates that the quality of information does not necessarily lead to good decisions as decisions are made by the individual decision makers and their situation at the time of the decision (Bondac et al., 2026). However, if knowledge pertains to the decision context and is used in the appropriate manner, then it can enhance the evidence for the selection of appropriate alternatives.

H2: Knowledge content quality has a significant positive effect on decision quality.

Information Behaviors and Values as Mediator

Information behaviors and values are information-related practices and principles, such as information seeking, sharing, evaluation, application and the significance of reliable information, that users practice or hold (Farooq, 2022). Information behaviours refer to an individual's interactions with information available to them, while information values refer to the principles that guide the individual's evaluation of the credibility, usefulness, and responsible use of information (Jahed and Abdekhoda, 2025). The idea of information culture research focuses on the importance of the values and information practices of organizations on the ways in which individuals learn, communicate, and utilize information to accomplish their work-related tasks (Marchand et al., 2001). A trustworthy and accessible information system can motivate information consumers to frequently seek information, critically review information, and disseminate applicable information to other decision makers (Madaki et al., 2026). Research of information systems success indicates that the quality of the system can impact on a user's experience and interaction with technological resources, thereby providing conditions that enable people to use information effectively (Orrensalo et al., 2024). In the same way, research on information culture suggests that information-related behaviors and values have a role in understanding information transformation in the available information into the useful information for the organization (Sarma et al., 2024). If users feel the system is reliable and easy to use, they may use information more effectively and trust more in the information they are given by the system. These behaviours can assist in making decisions in a systematic way, thereby minimizing the need to make assumptions that are not supported, and to make use of relevant knowledge (Vasudevan et al., 2025). Moreover, information values that focus on accuracy, transparency, and responsible information use could lead users to consider critically their evidence and draw their conclusions accordingly. The mediation effect can be explained, therefore, by the idea that system quality affects decision quality in part by impacting the user's information practices and the values that underlie information use.

H3: Information behaviors and values mediate the relationship between system quality and decision quality.

Studies on organizational information culture have highlighted the role of information-related behaviours and values in the use of information and effectiveness of the organization (Xiao et al., 2026). Quality of Knowledge Content is the ability of the information to be accurate, relevant, complete, consistent, and appropriate to solve specific decision-making needs (Vasudevan et al., 2025). But the availability of high quality knowledge does not ensure effective decisions, since people have to see its relevance, assess its reliability, and use it correctly. Studies on information quality suggest that usefulness of information also relies on the appropriateness of the information for users' tasks and users' uses (Delone and McLean, 2003). Users who are presented with reliable, relevant knowledge may be more likely to be ready to engage in systematic information seeking, evaluation of evidence, and knowledge sharing (Kirchner-Krath et al., 2024). These information behaviors can assist decision makers to make comparisons, to recognize inconsistencies, and to integrate important information into making decisions. Likewise, information values that foster accuracy, relevance, and responsible information use can make people more likely to rely on reliable information instead of making up their own information (Al-Shaboul et al., 2024). These practices can help improve the linkage between knowledge content and decision quality and thus facilitate informed assessment and use of the knowledge that is available.

H4: Information behaviors and values mediate the relationship between knowledge content quality and decision quality.

Knowledge Self-efficacy as Moderator

Knowledge self-efficacy is one's confidence to learn knowledge, understand, communicate and apply knowledge in an effective way to solve tasks and problems (Junaidi, 2025). Information behaviors and values include information-seeking behaviors, evaluating evidence, sharing knowledge, and information use values when making decisions. Decision quality is a measure of how well decisions are made for the facts and alternatives at their disposal. According to social cognitive theory, a person's belief in his or her capabilities affects his or her effort, persistence and performance in the face of an activity's challenge (Bandura, 2001). In the same way, Bandura (2001) argued that self-efficacy plays a part in the way individuals utilize

their cognitive resources and apply the knowledge they have gained to attain desired results. Studies on knowledge management have emphasized the need for user confidence in knowledge-related activities, such as knowledge sharing and successful use of organizational knowledge (Zhang et al., 2025). People who exhibit positive information behaviours and values will be more likely to look for evidence to support their information needs, evaluate the credibility of the information, and integrate information into their decisions (Junaidi, 2025). The usefulness of these practices, however, could be determined by whether or not a person thinks he or she has the skills needed to understand and use information in a proper way (Jahed and Abdekhoda, 2025). People who have high knowledge self-efficacy might feel more confident on assessing competing explanations, synthesizing various types of information sources, and justifying their evaluations with evidence (Xiao et al., 2026). This means that their information behaviours and values can more consistently be reflected in decisions made accurately and appropriately. On the other hand, people who have low information knowledge self-efficacy may not be able to make good use of information despite their awareness of its value and their actions of seeking it appropriately (Malhotra et al., 2026). The lack of confidence in managing knowledge can restrict the added value of information evaluation and responsible information use in practice.

H5: Knowledge self-efficacy positively moderates the relationship between information behaviors and values and decision quality, such that the positive relationship is stronger when knowledge self-efficacy is high.

Theoretical Framework Supporting the Research

The DeLone and McLean information systems success model serves as a theoretical basis for explaining how information system quality and knowledge content quality impact decision quality via users' information-related practices (Delone and McLean, 2003). The focus of the model is on the experiences and benefits that will be gained from effective information use, as these are influenced by the characteristics of the information system. Knowledge content quality defines if the available knowledge supports the user's decision-making needs, while system quality helps to ensure reliable access to the information. The information culture theory is another theory that describes the relationship

between information behaviors and values and how people learn, assess, disseminate and use organizational information. (Marchand et al., 2001) These orientations imply that the relationships between these quality dimensions and decision quality might be mediated by information behaviors and values as effective means for using information. An additional theoretical explanation relates to knowledge self-efficacy, as individuals' confidence in their knowledge-related skills can impact their successful utilization of information practices to achieve decision outcomes (Bandura, 2001). People who have increased knowledge self-efficacy will be able to apply knowledge with greater confidence,

evaluate options more critically, and use evidence more effectively. Thus, it is expected that knowledge self-efficacy will enhance the positive relationship between information behaviors and values, and decision quality. The proposed direct relationships, as well as the proposed mediation of information behaviors and values, and the proposed moderation by knowledge self-efficacy are presented in Figure 1: Conceptual Framework. The framework combines information systems success, information culture and self-efficacy theories to account for the impact of technological quality, knowledge utilization and individual confidence on decision quality.

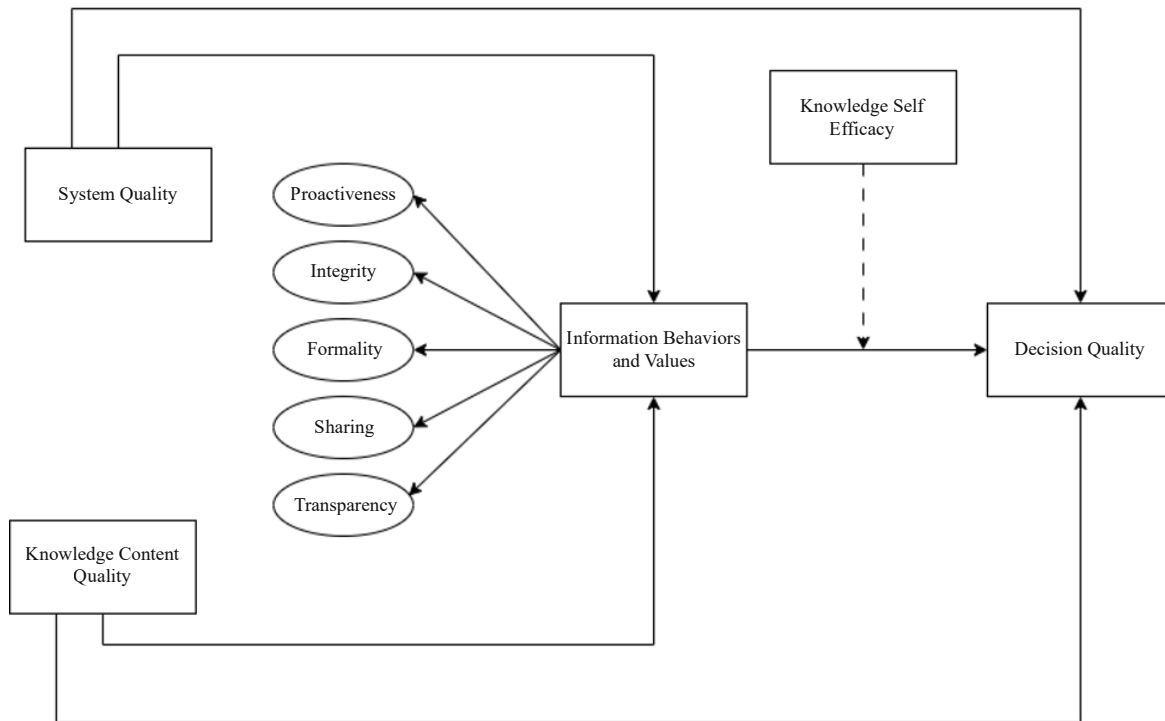


Figure 1: Conceptual Framework.

Methodology

Research Design

A quantitative, cross sectional research approach was used to explore the relationships between system quality, knowledge content quality, information behaviors and values, knowledge self-efficacy, and decision quality. Due to the nature of the research, which involved testing pre-formulated hypotheses and measuring direct, indirect, and

moderating relationships among the constructs in the study, a quantitative approach was used. As for the evaluation of the proposed conceptual framework, the respondents were asked for cross-sectional data which were obtained at one time. The study was deductive as it was based on existing theoretical frameworks and studies that provided the hypotheses for the statistical analysis. Partial least squares structural equation modeling (PLS-SEM) method was used for the evaluation of both measurement model and structural model. This is appropriate for predictive

research with more than one construct, mediation and moderation (Hair et al., 2021).

Population, Sample Size, and Sampling Technique

The population was the users of information systems or knowledge-based resources in relation to their organizational decisions or their work tasks. These individuals were relevant because their experiences could be used to gain insight into the quality of technological systems, the usefulness of available knowledge and their information practices influencing their decisions. A total of 393 respondents were analysed. The sample was used as an empirical basis for determining the measurement properties of the constructs and testing the five hypothesized relationships. The use of PLS-SEM requires no assumption regarding normally distributed data, though the PLS-SEM model needs to be assessed on the basis of the expected magnitude of the relationships, statistical power, and model complexity (Hair et al., 2021). The sampling technique used was non-probability sampling technique to gather responses from the people relevant to the research objectives. This was appropriate for accessing the population that had experience with information systems and that sought information to make decisions. The participants were chosen based on their relevance to the study context and their capacity to give information regarding the constructs of the study. A total of 393 valid responses were analyzed.

Data Collection Method and Procedure

Data were collected through a structured questionnaire developed using measurement scales adopted from previous research. The questionnaire included items measuring system quality, knowledge content quality, information behaviors and values, knowledge self-efficacy, and decision quality. Adopting previously established scales helped maintain conceptual consistency with existing literature and provided a foundation for evaluating the constructs. Minor wording adjustments, where necessary, should preserve the original meanings of the measurement items and their suitability for the research context. Respondents were asked to evaluate statements according to their experiences and perceptions of information systems, knowledge utilization, and decision-making practices. The completed questionnaires were screened for completeness and

suitability before statistical analysis. Following this process, 393 usable responses were retained for analysis. These responses constituted the final dataset used to assess the measurement model and test the proposed hypotheses. The structured questionnaire approach supported standardized data collection and enabled systematic comparison of responses across participants.

Measurement Scales

To ensure theoretical consistency and establish measurement foundations, all constructs were measured through scales taken from previous studies. System quality was evaluated based on the five items used in the evaluation of system reliability, system accessibility, system usability, system technical performance, following Visinescu et al. (2017) and Wu and Wang (2006). Items measuring information accuracy, relevance, completeness, and usefulness were used to measure knowledge content quality, using existing literature on information quality (Choo et al., 2008; Kulkarni et al., 2006). Organizational information culture (Marchand et al., 2001) served as the conceptual basis for the operationalization of information behaviors and values in five dimensions: informality, integrity, proactiveness, sharing and transparency. To measure knowledge self-efficacy, the items used were those that measured the confidence of the respondents in their ability related to knowledge (Kankanhalli et al., 2005), in line with the social cognitive theory. Decision quality was evaluated by items adapted from Visinescu et al. (2017) that examined how well the decisions and their actions were perceived as effective and appropriate.

Common Method Bias

The Kock (2015) full collinearity assessment approach was used to assess common method bias (CMB). This procedure is used to assess if there is common method bias that may inflate relationships among constructs, through variance inflation factors (VIFs). The results showed that the VIF values for all the full collinearity variables were less than 3.3, which is the recommended cut-off value. The results indicate that common method bias does not seem to be a major source of problems in the data. Therefore, data gathered were deemed appropriate to be used in the subsequent measurement model assessment and structural model analysis.

Data Analysis Tool and Procedure

To understand complex relationships between latent constructs, analyses of the collected data were carried out using SmartPLS 4 which supports partial least squares structural equation modeling. The proposed framework involved direct effects, mediation, and moderation, which was suitable for the evaluation using PLS-SEM. To follow the methodology that has been recommended (Hair et al., 2021), the analysis was first conducted by assessing the measurement model, and then the structure model was assessed. The indicator loadings, Cronbach's alpha, CRT, AVE and HTMT ratios were used to check the measurement model. The procedures assessed indicator reliability, internal consistency, convergent validity and discriminant validity. The structural model was then evaluated based on the path coefficients, significance test, confidence interval, coefficient of determination, predictive relevance and effect size. The hypothesized relationships and indirect effects were assessed statistically using the bootstrapping method. Mediation analysis was used to determine if the effect of system quality and knowledge content quality was mediated by information behaviors and values. Moderation analysis was used to determine whether knowledge self-efficacy enhances the relationships between information behaviors, values and decision quality. Lastly, the degree of model's explanatory power and predictive performance were tested by the R^2 , adjusted R^2 , the Q^2 predict, RMSE, MAE, and appropriate effect-size measures. These procedures served as a systematic approach for assessing the quality of the measurement and empirical evidence of the five hypotheses.

Results

The measurement properties of all constructs are presented in Table 1: the item loadings, Cronbach's alpha, composite reliability and average variance extracted. The standardized item loadings are ranging from 0.777 to 0.915 which is higher than the recommended minimum acceptable loading of 0.70 for indicator reliability (Hair et al., 2021). Decision quality has a Cronbach's alpha of 0.851 and a composite reliability of 0.899, which are satisfactory levels of reliability. Informality is also acceptable reliable with its values of 0.818 and 0.892 respectively. The Cronbach's alpha and composite reliability for Integrity

are 0.873 and 0.913, respectively, suggesting good internal consistency for the indicators. The composite reliability for knowledge content quality is 0.902 and the Cronbach's alpha for the two measurement items is 0.783. The Cronbach's alpha and composite reliability values of Knowledge self-efficacy are 0.869 and 0.911 respectively, which meet the acceptable standards. The reliability coefficient for proactiveness is 0.786 and 0.875 for sharing, respectively, with respectively. The reliability coefficients for proactiveness and sharing are 0.786 and 0.875, respectively. System indicates that the reliability of the system is acceptable with Cronbach's alpha of 0.840 and composite reliability of 0.893. The reliability of transparency is also good, with Cronbach's alpha is 0.834 and composite reliability is 0.900. Average variance extracted values are between 0.652 and 0.821, which is higher than the recommended level of 0.50. The results as a whole confirm internal consistency and convergent validity of the measurement constructs.

Table 1: Construct Reliability and Validity.

Construct	Item	Loading	Cronbach's Alpha	CR	AVE
Decision Quality	DQ1	0.851	0.851	0.899	0.691
	DQ2	0.813			
	DQ3	0.848			
	DQ4	0.812			
Informality	INF1	0.838	0.818	0.892	0.733
	INF2	0.857			
	INF3	0.873			
Integrity	INT1	0.858	0.873	0.913	0.725
	INT2	0.858			
	INT3	0.848			
	INT4	0.841			
Knowledge Content Quality	KCQ1	0.915	0.783	0.902	0.821
	KCQ2	0.898			
Knowledge Self Efficacy	KSE1	0.814	0.869	0.911	0.718
	KSE2	0.865			
	KSE3	0.850			
	KSE4	0.861			
Proactiveness	PRO1	0.841	0.786	0.875	0.700
	PRO2	0.847			
	PRO3	0.821			
Sharing	SHR1	0.861	0.866	0.903	0.652
	SHR2	0.796			
	SHR3	0.793			
	SHR4	0.777			
	SHR5	0.809			
System Quality	SQ1	0.819	0.840	0.893	0.676
	SQ2	0.824			
	SQ3	0.822			
	SQ4	0.824			
Transparency	TRN1	0.863	0.834	0.900	0.751
	TRN2	0.870			
	TRN3	0.866			

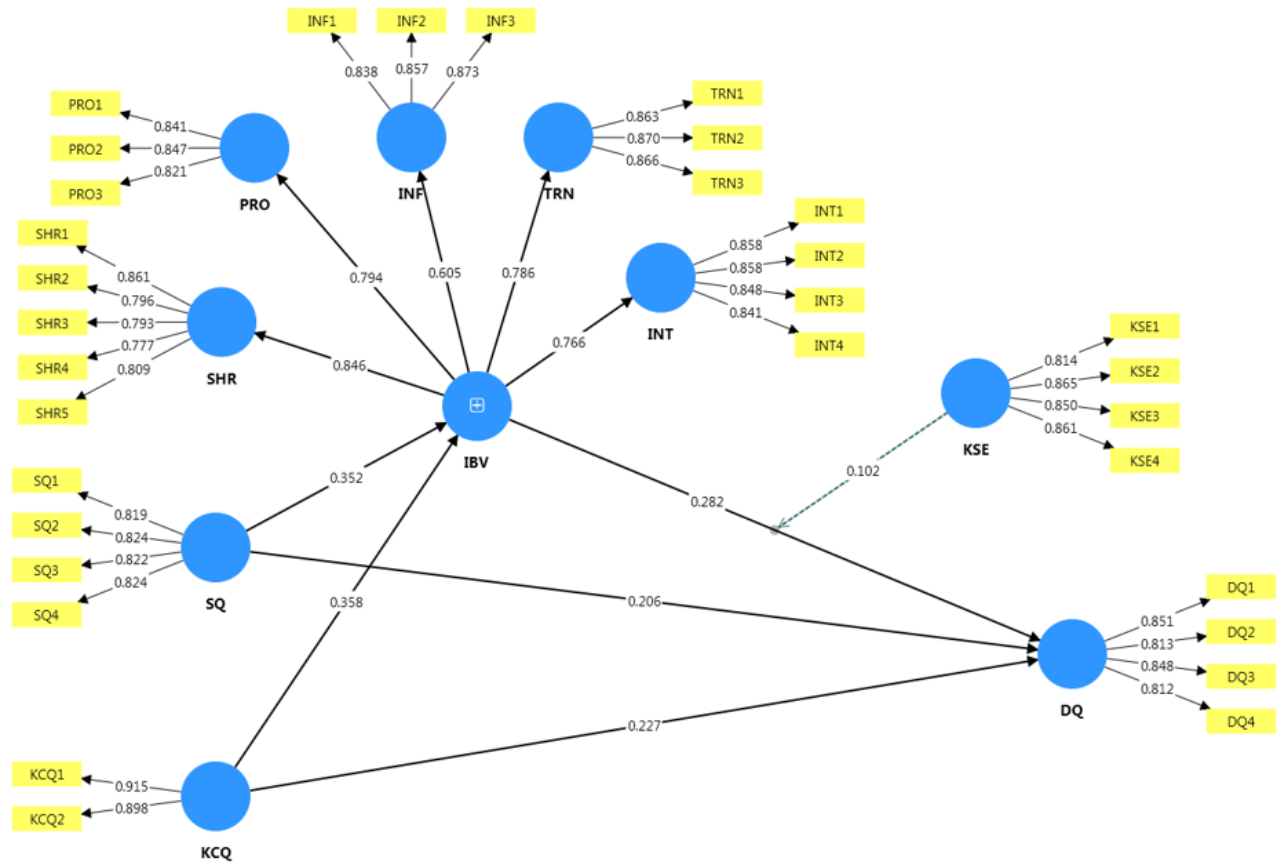


Figure 2: Measurement Model.

Heterotrait-monotrait ratio was used to test for discriminant validity for the nine constructs used within the measurement model and is reported in Table 2. The range of HTMT values is between 0.183 to 0.717, which are all below 0.85 recommended by Henseler et al. (2015), for establishing discriminant validity. The highest ratio occurs between proactiveness and transparency, reaching 0.717, while the lowest ratio

appears between informality and knowledge self-efficacy. Decision quality demonstrates acceptable discriminant validity against all other constructs, with its highest HTMT value reaching 0.639 for knowledge content quality. These findings indicate that the constructs exhibit adequate empirical distinctiveness and measure conceptually distinguishable dimensions within the proposed research model.

Table 2: Discriminant Validity (HTMT).

	DQ	INF	INT	KCQ	KSE	PRO	SHR	SQ	TRN
Decision Quality									
Informality	0.409								
Integrity	0.485	0.406							
Knowledge Content Quality	0.639	0.331	0.447						
Knowledge Self Efficacy	0.466	0.183	0.295	0.399					
Proactiveness	0.569	0.465	0.635	0.542	0.347				
Sharing	0.515	0.505	0.564	0.570	0.386	0.710			
System Quality	0.600	0.455	0.495	0.568	0.402	0.477	0.452		
Transparency	0.537	0.437	0.580	0.520	0.331	0.717	0.680	0.499	

The results of the structural model are displayed in terms of explanatory power, predictive relevance, prediction errors and effect sizes in Table 3. The value

of R^2 is 0.453, and the value of adjusted R^2 is 0.446, which means that the predictors explain 45.3% of its variance. The information behaviours and values

have an R^2 value of 0.369, indicating that 36.9% of the variation in information behaviours and values is explained by the system quality and knowledge content quality. Positive predict values for both endogenous constructs report the predictive relevance in the reported predictive assessment. The values of these decision quality records are 0.788 for RMSE and 0.644 for MAE as well as 0.803 for RMSE and 0.646 for MAE for information behaviours and values. The reported

effect sizes show that both the quality of the system and the quality of the information content explain the information behaviours and values (with an f^2 value of 0.160 and 0.155, respectively). The contributions of their direct effects on decision quality are smaller, effect sizes being 0.051 and 0.062, respectively. This interaction effect has an f^2 of 0.022, which is relatively low, meaning that this effect is only a small part of the explanation for the quality of the decision.

Table 3: R^2 , Q^2 , f^2 and Model Fit.

Endogenous Construct	R^2	Adjusted R^2	Q^2_{predict}	RMSE	MAE	SRMR
Decision Quality	0.453	0.446	0.386	0.788	0.644	
Information Behaviours and Values	0.369	0.366	0.361	0.803	0.646	
Predictor			f^2 on Decision Quality	f^2 on Information Behaviours and Values		
Information Behaviours and Values			0.089			
Knowledge Content Quality			0.062	0.155		
Knowledge Self Efficacy			0.041			
Knowledge Self Efficacy x Information Behaviours and Values			0.022			
System Quality			0.051	0.160		

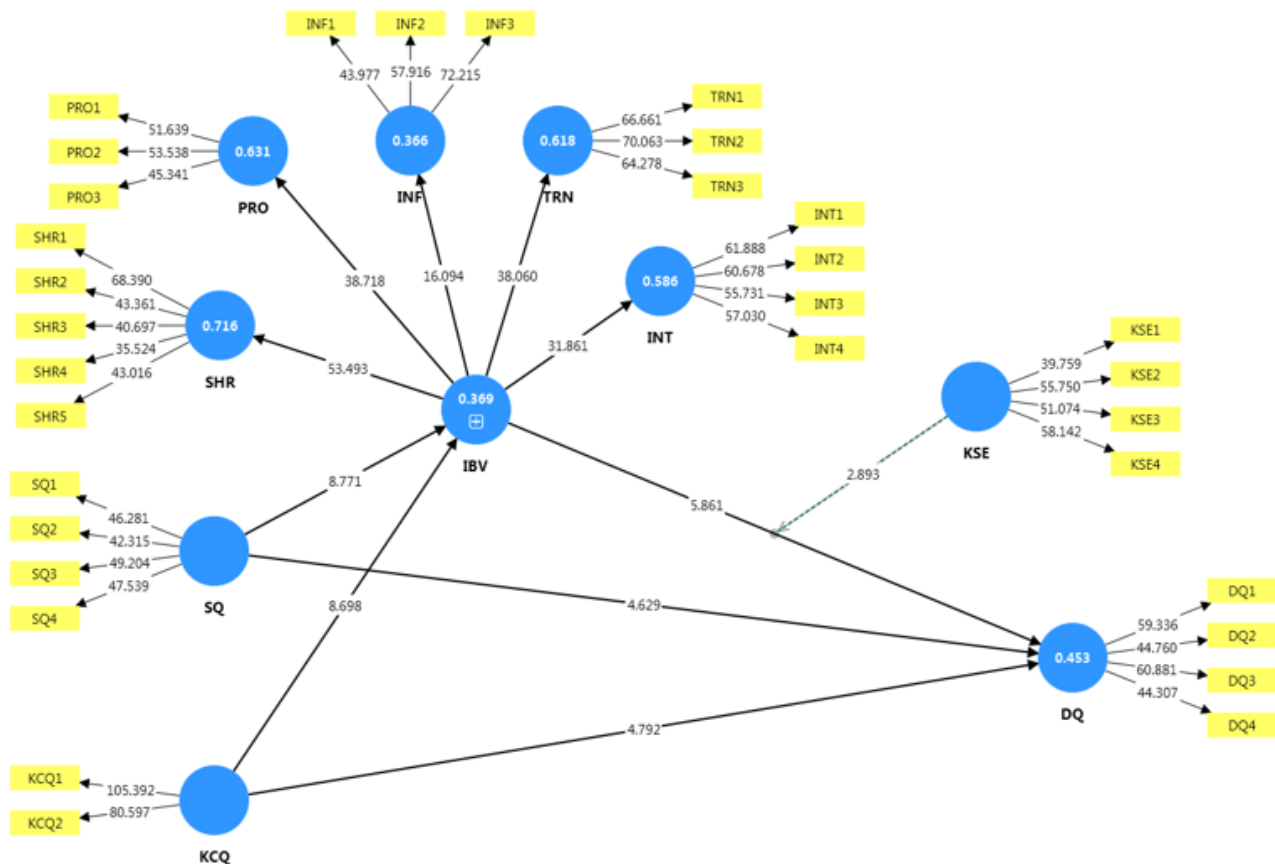


Figure 3: Structural Model.

The results of the hypothesis tests are shown in Table 4 with standardized coefficients, test statistics, significance level, and confidence intervals. H1 is supported by the positive prediction of system quality

on decision quality ($\beta = 0.206$, $p < 0.001$). Quality of knowledge content also shows a significant positive effect ($\beta = 0.227$, $p < 0.001$) that supports H2. System quality exerts an indirect effect on information

behaviours and values, and this is significant with $\beta = 0.099$ ($p < 0.001$) which supports H3. Similarly, for knowledge content quality, the indirect effect through the mediator is significant ($\beta = 0.101$, $p < 0.001$), and thus is supported H4. Last, the interaction of knowledge

self-efficacy and information behaviours and values is a significant positive predictor of decision quality ($\beta = 0.102$, $p = 0.002$) to support H5. The statistical results from the report support all five hypotheses.

Table 4: Path Analysis.

Hyp.	Path	Beta	SD	t Value	p Value	95% CI	Decision
H1	System Quality → Decision Quality	0.206	0.044	4.629	<0.001	0.131- 0.277	Supported
H2	Knowledge Content Quality → Decision Quality	0.227	0.047	4.792	<0.001	0.150- 0.305	Supported
H3	System Quality → Information Behaviours and Values → Decision Quality	0.099	0.022	4.882	<0.001	0.068 - 0.134	Supported
H4	Knowledge Content Quality → Information Behaviours and Values → Decision Quality	0.101	0.022	4.522	<0.001	0.067 - 0.139	Supported
H5	Knowledge Self Efficacy x Information Behaviours and Values → Decision Quality	0.102	0.035	2.893	0.002	0.042 - 0.159	Supported

Discussion

In today's world, in which awareness is obtained, and alternatives assessed and decisions made, increasingly through digital information systems, pertinent examples of the impact of such digital systems on organizations are provided. Pertinent examples are provided of how organizations have been affected by digital information systems in today's world of increasingly complex environments in which they are increasingly relying on these systems to acquire knowledge, evaluate alternatives, and make decisions (Tejay and Winkfield, 2026). Yet, while there is technology and information available, this is not necessarily enough to make the right decisions. The value of information systems is realized when they are supported by a reliable technological infrastructure, meaningful knowledge content, constructive information practices, and individual capabilities, all of which contribute to good judgment. Given this background, the present research investigates the indirect effects of system quality and knowledge content quality on decision quality through mediators (information behaviors and information values) and a moderator (knowledge self-efficacy) (Sarma et al., 2024). The results offer significant knowledge on the processes of technological, behavioral, and psychological decision making effectiveness. This discussion distills the empirical findings in the light of already developed theoretical concepts and previous studies, situating the findings in relation to the theories and the contribution these make to the comprehension of how information resources in organizations can be turned into meaningful decision making outcomes.

The first hypothesis investigated system quality

and decision quality relationship, and it was found that there is highly significant positive correlation between the two. This discovery implies that high quality, easily available, responsive and user-friendly systems can help inform better choices without imposing unnecessary technological barriers. As users engage with systems that are reliable, they are able to focus more on information interpretation and alternative solutions evaluation. This interpretation is consistent with the DeLone and McLean model of information systems success (Delone and McLean, 2003), which sees 'System Quality' as an important factor which determines information systems effectiveness. The framework implies that the successfulness of the task completion is dependent on the effective usage of technological resources and the benefits they bring for the users. Similarly, Payne (2024) found significant relationships between the dimensions of information systems quality and individual and organizational outcomes. The current results broaden this view by revealing that the quality of the decisions as a key outcome of system efficacy is an important concern. Reliable systems can also enhance the consistency of decision-making by providing users with access to information that is relevant to their decisions without the need for repetitive interruptions or unnecessary delays. The advantages are most significant when organizations need to make decisions based on evidence, take careful comparisons, and process information in a coordinated way, which takes time.

The second hypothesis focused on the quality of the knowledge content and found that it positively correlates with decision quality. The discovery here suggests that appropriate, accurate, complete and understandable knowledge leads to better evaluation

and judgment. Effective materials to help decision-makers identify issues, assess choices, and predict outcomes are essential. If information is incomplete or inaccurate, they might misread a situation and choose a solution that doesn't meet the needs of the organization. This interpretation aligns with the DeLone and McLean model of information systems success that views information quality as an important factor in determining the information systems benefits. Madaki et al. (2026) also stressed the significance of information quality for the user's perceptions and experiences of information technology. Dong et al. (2025) conducted a literature review and found significant findings on the relationships existing in the information systems success framework. From this body of literature, the present results highlight the role of knowledge content rather than just technology effectiveness for outcomes related to decisions. Good knowledge can eliminate uncertainty, facilitate comparison and help to make decisions based on pertinent evidence.

The third and fourth hypotheses were hypotheses of mediation that investigated whether information behaviors and values mediated between technological quality and decision quality. These both indirect relationships were confirmed, indicating that information-related practices offer a possible explanation of how technological resources are linked to the outcomes of decision-making. This reading is consistent with the research on information culture which focuses on the relationship between organizational information behaviours and values in relation to the utilization of information (Marchand et al., 2001). Enabling access to reliable and convenient information can lead to effective information seeking and sharing through system quality. Likewise, high quality knowledge can prompt users to better appraise, interpret and utilise evidence when making decisions. These practices can enhance decision outcomes as people are better prepared to explore options and to look at key information. The information culture theory is now found to be useful in understanding the benefits that may be gained from using technological resources in conjunction with constructive information-related behaviors and values. The findings also reinforce DeLone and McLean (2003) model by adding attention to how the processes of the system impact on the individual.

The fifth hypothesis investigated whether knowledge self-efficacy was a moderator between information behaviors and values and the quality of decisions. The results suggest that the proposed

moderation is supported as greater confidence in knowledge is associated with greater benefits from effective information practices. According to social cognitive theory, this relationship is explained by individuals' beliefs that they have the ability to engage in difficult activities, which are associated with their effort, persistence, and performance in said activities (Bandura, 2001). Enhanced knowledge self-efficacy could lead to greater confidence in interpreting evidence, weighing competing explanations and using information to make complex decisions. Thus, for confident knowledge users, constructive information behaviors and values might have a stronger impact on enhancing decision quality. However, people with negative self-perceptions can be less effective at applying information-seeking and/or evaluation skills to make judgements. This interpretation emphasizes the need to take psychological abilities into account besides technological resources and organizational information practices. The results, however, do not imply that self-efficacy is sufficient to ensure better decisions, and that problems with poor information don't exist. It could be beneficial for organisations to invest in training that enhances knowledge application, information evaluation and confidence in evidence-based reasoning.

Implications

Theoretical Implications

The results add to the body of knowledge of information systems and organizational decision making because they combine three technical, information, behavioural and psychological aspects in a single conceptual framework. First, the significant relationships between system quality, knowledge content quality and decision quality extend the application of the DeLone and McLean information systems success model. The findings highlight the importance of technology reliability and knowledge of meaning beyond general system effectiveness for outcomes related to decisions. Secondly, the mediation function of information behaviours and values helps to further the development of information culture studies by outlining how information technologies can contribute to better decision making via information seeking, sharing, evaluation and application. The results inspire researchers to investigate information-related practices as links between system characteristics and outcomes. Third, the moderating effect of knowledge self-efficacy

expands the scope of social cognitive theory and highlights the importance of people's confidence for using knowledge effectively. Based on the findings, it is hypothesized that information behaviors and values could play a stronger role in influencing the quality of decision making if the individuals have higher self-confidence in their information-related capabilities. Overall, these results provide evidence for a multifaceted model of decision quality, taking account of the system aspects, information culture and personal psychological resources. The integrated framework provides a foundation for future research on other individual difference factors and other mediators and contextual factors affecting decision making within different organizational contexts.

Practical Implications

The results offer practical recommendations on how to better utilize information systems and knowledge management to achieve better decision quality. Managers should ensure that the systems that are used are reliable, accessible and user-friendly so that employees can access relevant information when needed and make decisions that will help them. Organizations should also make sure that knowledge available is accurate, relevant, complete and understandable to inform evidence-based judgments. The findings of the mediator emphasize the significance of promoting positive information behaviours such as knowledge sharing, proactively seeking information, communicating openly and using information responsibly. Based on this, organizations can develop knowledge sharing processes, enhance the flow of information and offer training on key information evaluation. In addition, the moderating results indicate that the impact of effective information practices could be reinforced by building employees' knowledge self-efficacy. Therefore, training programmes should also enable workers to become confident in understanding evidence, considering alternatives, and using knowledge to solve real-life issues. Together with technological developments, more effective information practices and employee development, organisations can establish a working environment conducive to informed decision making, minimising unnecessary mistakes and the effectiveness of the activities undertaken by the organisation.

Limitations and Future Research Directions

Although this research has made contributions, it has some limitation which should be taken into account

when interpreting the finding of this research. One limitation of the cross-sectional design is the inability to make causal inferences between the constructs under examination. Longitudinal designs might be used in future studies to examine the changes in these relationships over time. Second, the analysis of common method bias does not guarantee that response biases are not present when using self-reported questionnaire information. Objective performance measures, supervisor evaluations, or more than one data source could be used in research. Third, the sample method might limit the extent to which results can be generalized to other organizations and populations. Probability sampling and a study of a variety of industries, organizational contexts, and cultural contexts could be used in future research. Further, other mediators such as information literacy or analytical capability could be included with other moderators such as digital competence and organizational support. In addition, further studies may explore the relationship between knowledge self-efficacy and relationship under other decision making conditions. These investigations would further the information systems and decision quality relationship.

Conclusion

This study explored the relationship between system quality and knowledge content quality to decision quality with the mediation of information behaviors and values and the moderation of knowledge self-efficacy. The results showed that technological quality and knowledge content quality have a positive effect on decision quality. Moreover, information behaviors and values as mediators of both relationships were significant, underscoring the need for good use of information to enable technology to facilitate greater decisions-making. Knowledge self-efficacy also reinforced the linkage between values and decision quality, and between information behaviors and values, highlighting the role of the individual's confidence for successful application of knowledge. These results combine the three viewpoints of information systems success, information culture, and social cognitive theories to account for the results of the decision-making process in technology-supported environments. The research signals that valuable systems and knowledge are increased when people interact with information and are confident in their information related abilities. In general, the study offers theoretical knowledge and practical advice for organizations aiming to enhance

the quality of decisions they make by investing in technology, practicing constructive information, and training their employees.

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