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The Impact of Information Systems on the Decision-Making Process in Project Management

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Abstract

Purpose: Effective project management is crucial for organizational success and competitiveness in today's business environment. Making informed decisions is an essential part of project management as the speed and quality of these decisions immediately affect the project's outcomes. With the quick development of information technology, complex information systems (IS) facilitate decision-making processes at the organizational level. The study explores the influence of information systems (IS) on the project management decision-making process in the highly technologically sophisticated context of the UAE. Through an emphasis on critical elements, including decision speed, quality, and risk management, the study offers a thorough understanding of how information technologies can improve project outcomes.

Methodology: A quantitative research methodology with standardized surveys was employed to gather data from many government and private sector organizations in the UAE, including IT, healthcare, construction, etc. The targeted audience for the research includes professionals actively involved in project management, i.e., project managers, coordinators, team leads, and others. A stratified random sample technique was employed to select the sample respondents randomly. 152 quantitative responses were collected from responders for statistical analysis using JASP software. Quantitative data from the respondent sheet, descriptive statistics, correlation, and regression analysis were carried out on the data obtained.

Findings: The results revealed a moderate positive and statistically significant relationship between better decision-making outcomes and the quality of information systems' output. More specifically, it revealed that superior information systems will result in quicker and better-informed decision-making, which will successfully reduce project risks as a proactive measure.

Unique Contribution to Theory, Practice and Policy: In line with the United Arab Emirates Vision 2021 and efforts towards digital transformation, the research presented useful recommendations for improving project management techniques. The study also adds to the body of knowledge in academia by offering theoretical and empirical support for the idea that information systems play a crucial role in project management. The research provides useful insights for the organization in the areas of strategic investment, operational efficiency, and risk management.

Keywords: *Information System (IS), Project Management, Decision Quality, Risk Management, Decision-Making Process, Enterprise Resource Planning (ERP) System, Customer Relationship Management (CRM) System*

JEL Codes: *M15, M11, D81, D83, G32, M31*

INTRODUCTION

Effective project management is crucial for organizational success and competitiveness in today's business environment. To satisfy project requirements, a project manager needs to have a thorough understanding of project management, which comprises using knowledge, tools, skills, and procedures for project activities from planning to closure (PMI, 2021). Making decisions is essential in this process as they impact project planning, development, implementation, and closure. Making informed decisions is a crucial part of project management as the speed and quality of these decisions immediately affect the project's outcomes. With the quick development of information technology, complex information systems (IS) facilitate decision-making processes at the organizational level. Information systems are used to gather, store, process, retrieve, and distribute data, knowledge, information, and digital goods. With the help of such systems, which offer project managers real-time data, extensive reporting capabilities, and predictive analytics, information management and utilization in project management have completely changed (Laudon & Laudon, 2022).

Despite the latest developments in this domain of research, empirical studies are still required to develop a thorough understanding of the precise influence of information systems on various project management decision-making processes. Existing literature and research have predominantly concentrated on the technical capacities of information systems and the obstacles associated with their implementation within the organization, but the complex implications of these systems on risk management, decision speed, and quality within the framework of project management are still to be explored more precisely. By examining how information technologies impact project management decision-making, this research study seeks to fill this gap in the existing literature. Through an emphasis on decision quality, decision speed, and risk management, this study offers a thorough understanding of the advantages and difficulties associated with information system integration in project management.

Prior researches have emphasized the importance of IS in project management context with a primary focus on operational benefits such data management effectiveness, process automation and system usability (Petter, DeLone, & McLean, 2008; Al-Jabri & Roztocki, 2015). The existing literature still lacks on the influence of these systems on decision-making aspects including decision quality, decision speed and risk management in project management. For example, although Alhawari et al. (2022) highlighted IS contributions to risk control and Al-Jabri & Roztocki (2015), revealed decision-making speed with ERP systems as they frequently explored these factors separately, lacking an integrated understanding of IS influence on comprehensive decision-making processes. Furthermore, in dynamic or remote project contexts, few studies have explored these correlations from multiple managerial roles such as coordinators, team leads, and the project managers. This study is intended to fill this significant research gap in current project management practices by providing a more

comprehensive and role-inclusive point of view on how IS especially ERP and CRM systems improve decision quality and risk handling.

Problem Statement

For effective minimization of risks, distributing resources effectively, and accomplishing project goals, project managers must make difficult decisions regularly; therefore, they need timely and reliable information on which they can make informed decisions. Due to insufficient and ineffective information systems, many businesses continue to face decision-making difficulties even with the developments in project management approaches and technologies. Information systems are essential for supporting decision-making processes because they offer communication channels, pertinent data, analytical tools, etc. Nevertheless, the literature lacks research on how much these methods affect project management decision-making speed, quality, and risk management. Understanding how information quality and service quality delivered by information systems affect decision-making outcomes in diverse project situations is very important.

The lack of literature for a thorough understanding of how information systems impact project management decision-making processes is the gap filled by the undertaken research. Filling this gap is important because poor decision-making can result in project failure, cost overruns, and delays, all of which can lower an organization's ability to compete in the local and global environment and succeed. By tackling these problems, the study is expected to offer project managers, project professionals, and organizations practical advice on how to improve their ability to make decisions by utilizing information systems efficiently.

Empirical data revealed that initiatives to digitally transform many industries are growing in the UAE but decision-making challenges still exist because of inefficient IS integration. A PwC survey conducted in Middle East (2022), indicated that although 70% of UAE businesses have implemented ERP or CRM systems but only 38% of respondents think these technologies significantly improve the efficacy of decision-making specifically in project-driven environment. For example, fragmented decision-making and poor real-time data integration have been partially blame as cause for the delays and cost overruns in major infrastructure and construction projects, such those carried out by Dubai Municipality or ADNOC (PwC, 2022). These insights highlighted the urgent need for research studies that assess the extent to which information systems facilitate managerial choices in project contexts in the United Arab Emirates, particularly in intricate and dynamic industries like logistics, construction and smart city projects.

Significance of Study

The focus of the UAE Vision 2021 and later strategic plans is on innovation, sustainable growth, and technology development (Livsey, 2019). The research study examines and analyzes how information technology can improve project management techniques that are aligned with these national goals. The outcomes of the research help the UAE achieve its

objective of being a centre of innovation and superior project management worldwide. UAE is heavily investing in digital transformation across multiple sectors as part of its aim to become a leading digital economy (Livsey, 2019). Therefore, by emphasizing the value of effective information systems in project management, this research facilitates the UAE's organization for transition to a leading digital economy globally. The results also motivate businesses to make investments in reliable information systems to advance the UAE's larger digitization goal.

By investigating how information systems affect project management decision-making, the research study encourages cooperation, collaboration, and information exchange between government organizations within the United Arab Emirates (Livsey, 2019). Together, project managers, project professionals, IT specialists, and decision-makers may improve project management standards throughout the nation by drawing on each other's best practices and experiences. Finally, this study adds to the body of knowledge in the academic literature about project management and information systems, especially as it relates to the United Arab Emirates. In the fields of project management and information systems, researchers, teachers, professionals, and students can use the empirical data and theoretical insights it offers.

Research Objectives

The following are the research objectives for this research.

i. To investigate how an IS influences decision quality made in project management.
ii. To investigate the influence of IS on the speed of the decision-making process.
iii. To investigate the influence of IS on proactive risk management in project management.

LITERATURE REVIEW

The UAE is a renowned country for its quick development, large-scale initiatives in various sectors of life, and increased emphasis on technical innovation, which greatly benefits from these research outcomes. The research outcomes provide insightful knowledge about how information technology can improve project management decision-making within the particular socioeconomic environment of the United Arab Emirates (Livsey, 2019). Making wise and informed decisions is essential to the project's success (Takagi & Varajão, 2020). This research provides project managers and stakeholders with practical strategies to improve project outcomes, ensuring that projects are completed on time, within budget, and to the required standards, attaining all scope requirements, which will be accomplished by understanding how information systems influence decision quality, speed, and risk management.

Information Systems in Project Management

Project management relies heavily on Information Systems (IS), which offer crucial assistance, facilitation, and guidance for project planning, development, implementation, controlling, monitoring, and closing (Caniëls & Bakens¸ 2012). A large range of tools and technologies are

used with IS in project management to improve communication, engagement, and collaboration, streamline procedures, and increase overall productivity (Laudon & Laudon, 2022). These systems usually include various data analytics tools, ERP systems, CRM systems, and project management software.

Effective planning, scheduling, and resource allocation are facilitated by the widespread usage of project management software, such as Microsoft Project, Jira, Asana, Trello etc. which facilitate project managers to monitor their work progress and ensure that the project is completed on schedule offering features for task management, time tracking, coordination, collaboration, and reporting to the executive about progress (Kerzner, 2017). ERP systems combine different business processes and operations to make it easier for departments to share data in real-time, which is essential for managing complicated projects with the involvement of many stakeholders (Nguyen et al., 2016).

CRM systems, on the other hand, concentrate on handling client and customer relationships, which is especially crucial for projects involving significant and frequent customer/client involvement. According to Buttle and Maklan (2019), such a system facilitates organizations to monitor consumer requirements, control service delivery, and ensure customer happiness. Furthermore, because of their capacity to evaluate enormous volumes of data and offer insight that guides the decision-making process to make informed decisions, data analytics tools have become more and more popular in the project management field, which is significant evidence to support the benefit of IS in project management (Takagi & Varajão, 2020). A study by Caniëls & Bakens found that using IS improves coordination, and collaboration, lowers risk, and boosts resource usage efficiency during the project lifecycle, thereby contributing towards better project performance. Additionally, IS helps team members communicate and work together more effectively, creating a more unified and effective project environment for the organization's workforce to grow (Svejvig & Andersen, 2015). The efficient use of these systems can be hindered by problems like user resistance, high prices, and the requirement for ongoing training and assistance (Ali et al., 2016).

Decision Making in Project Management

A crucial component of project management is the decision-making process for the selection of an optimal course of action to be taken to meet project goals. To ensure that a particular project is finished on schedule, within budget, and achieves all scope requirements with appropriate quality standards, effective decision-making in project management is crucial (PMI, 2021). In project management, decision-making processes generally include problem identification and definition, alternative generation and evaluation of alternatives, and selection and implementation of the optimal solution (Kerzner, 2017).

The availability and quality of data and information, the processing of the information, the project complexity, the experience and skills of the PM, and the organizational environment are some of the variables that significantly influence the decision-making process in project

management (Obeidat & Aldulaimi, 2016). As it lowers uncertainty and offers a strong basis for weighing models, high-quality information is essential for making well-informed decisions in project management (Kerzner, 2017). The decision-making process is also impacted by the project's complexity, as complex decision-making processes are needed for projects with high levels of uncertainty and complexity, which are defined by a large number of interrelated activities, several stakeholders, and a great level of uncertainty (Kerzner, 2017). Project managers must use sophisticated analytical tools and procedures in these kinds of projects to properly manage risks and uncertainties (Urbański et al., 2019).

Making decisions is heavily influenced by the project manager's experience, skills, and knowledge. Expert project managers are better able to foresee possible problems, weigh their options, and make choices that support the goals of the project (Müller & Turner, 2010). Decision-making processes are also influenced by the corporate environment, which includes management practices, culture, and structure (Obeidat & Aldulaimi, 2016). Effective decision-making in project management is more likely to be supported by organizations that promote a culture of cooperation, collaboration, innovation, creativity, and continuous development (Svejvig & Andersen, 2015). Even though decision-making is crucial to project management, it is frequently difficult. Decision-making is a difficult and demanding process for project managers because they usually deal with time restrictions, resource limitations, and opposing stakeholder interests from the project as project expectations (Ali et al., 2016).

Impact of Information Systems on Decision Making

Information systems have a complex influence on decision-making in project management, impacting risk management, decision speed, and decision quality, which requires precise research to determine the influence. Project managers and coordinators require accurate, timely, and relevant information to make high-quality decisions, and information systems give them this access (Laudon & Laudon, 2022). Project managers can efficiently analyze alternatives and make informed decisions by using IS, which integrates data from several sources and provides comprehensive analytical tools. The improvement in decision quality is one of the major effects of IS on the decision-making process. Project managers and other professionals can make better judgments and have less uncertainty when they use high-quality information systems that enhance the accuracy and dependability of the data they have access to (Obeidat & Aldulaimi, 2016).

To help project managers make decisions that maximize resource usage and project results, ERP systems offer real-time data on resource availability, project progress, and financial performance (Nguyen et al., 2016). IS affects how quickly decisions are made. Project managers may make choices more rapidly based on automated data gathering and analysis capabilities of information systems, which shorten the time needed to obtain and process information (Svejvig & Andersen, 2015). For instance, real-time data on task status, resource allocation, and project timeframes are provided by project management software, which helps managers see problems and take prompt action (Kerzner, 2017). Information systems are also essential for managing

risk during the decision-making process (Urbański et al., 2019). Project managers can better manage risks and uncertainties by using IS tools for risk identification, assessment, and mitigation (Urbański et al., 2019).

Despite these advantages, the quality of information offered by the systems, their usability, and the project manager's ability to properly utilize them all affect how effective IS is in supporting decision-making (Nguyen et al., 2015). Making educated judgments requires access to high-quality information, which is timely, reliable, relevant, and comprehensive (Wixom & Todd, 2005). The ease with which project managers may acquire and evaluate information from the systems is referred to as usability. The skills, knowledge, and experience project managers have with these systems determine how well they can use IS (Obeidat & Aldulaimi, 2016). To ensure that project managers can fully utilize IS, training and ongoing assistance are essential to the project staff for better utilization of IS for getting real-time insights for making informed decisions (Caniëls & Bakens¸ 2012). The use of IS in project management is more likely to be advantageous for companies that encourage innovation, allocate sufficient resources, and cultivate a culture of continuous improvement (Svejvig & Andersen, 2015).

Research Hypotheses are provided below:

H_1: IS positively influenced by the decision quality made in project management.

H_2: IS positively influenced the speed of the decision-making process**.**

H_3: IS positively influenced by proactive risk management in project management.

Although Trello, Jira, ERP, and CRM systems are commonly used for task tracking and project management, however, their contributions to the fundamental aspects of decision-making differ. For example, ERP systems provide integrated data flows that improve decision quality by lowering redundancy and increasing data accuracy (Hoch & Dulebohn, 2013). On the other hand, CRM solutions facilitate risk management by forecasting possible delivery problems and facilitating prompt replies to customer feedback. Agile solutions like Jira and Trello enhance increase decision speed by facilitating quick team discussion and offering real-time task updates (Fernandez & Fernandez, 2008). However, they might not have the same level of analytical depth for risk assessment as reliable methods.

This study is conceptually based on the DeLone and McLean IS Success Model (1992) that identified six interrelated dimensions including system quality, information quality, service quality, use, user satisfaction and net benefits. It will facilitate to unify the discussion of IS tools and their influence on project decision-making. The model offered a thorough framework for assessing how IS affects three important study variables i.e. risk management, decision speed, and decision quality. For example, timely and correct information improve responsiveness and risk reduction, while excellent system and service quality from ERP or CRM platforms increases user happiness/satisfaction and decision reliability. By using this model, the study develops a theoretical framework that links quantifiable project management results and metrics to the performance and acceptance of different IS technologies.

Although various research literature highlighted how information systems improve project decision-making but other studies offer conflicting results and limits that call for further research. While Petter et al. (2008) reported that IS integrated increase decision accuracy and user satisfaction and inadequate data quality frequently compromises the efficacy of these systems resulting in poorly informed rather than improved decisions. In terms of methodology, various previous research relied on generalized survey data or single-case studies, lacking comparative cross-sector analyses that could reveal indirect insights into the efficacy of IS. These gaps support the necessity for the research study that uses a validated methodology to examine three dimensions i.e. decision quality, speed, and risk management within a focused project management context.

Conceptual Framework

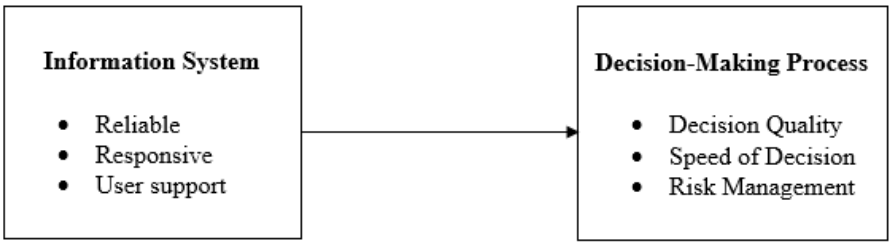

Figure 1: Conceptual Framework

METHODOLOGY

The main objective of the research is to assess and analyze the relationship between the main variables, i.e., information system (independent variables) and decision-making (dependent variable) in project management. For this purpose, the methodology section outlines the entire research structure or research design comprising a selection of research methods, data collection methods, analysis techniques, and ethical considerations for the collection and analysis of data from respondents.

Research Method

The research is intended to examine and analyze the impact of information systems (IS) on the decision-making process in project management, and the research design is explanatory as secondary data is available for the variable's construct involved in the existing literature. Therefore, the most suitable technique to collect data from respondents is "Quantitative Research" as it facilitates research to collect numeric data for assessing the relationship between the effectiveness of information systems and the decision-making process, specifically in the project management domain. To test theories, measure variables methodically, and extrapolate results to a broader population, quantitative research is preferred.

Data Sample & Instrument

Using structured survey questionnaires, the quantitative research method enables gathering numerical data that can be statistically analyzed to look at correlations between variables involved in the research. Therefore, a structured survey questionnaire was employed as a data instrument

for the collection of data. The survey questionnaire is divided into three sections: demographics, Likert 5-point scale sections about research constructs, and an open-ended question section.

Data Collection & Analysis:

The unit of analysis for the research is all government organizations from different sectors, i.e., IT, healthcare, construction, etc. Project managers, coordinators, team leads, and other professionals actively involved in project management across various sectors were the potential target audience for the research to collect responses. To ensure participation from various industries and sectors, a stratified random sample technique was employed to select the sample respondents randomly. A survey questionnaire was prepared, and an online survey platform was used to gather data effectively from a geographically diversified sample targeted at all states of the UAE only. To ensure voluntary and confidential participation, invitations were sent by email and through professional networks to potential participants.

To analyze collected data, statistical techniques like descriptive statistics techniques, i.e., mean, median, mode, and standard deviation, inferential statistics, including correlation analysis, regression analysis, etc., and structural equation modeling were used to examine and analyze the gathered data from the respondents. The study hypotheses depicting the relationship between information systems and the decision-making process were analyzed and assessed by these analysis techniques. The research procedure adheres to strong ethical criteria, including voluntary involvement, informed consent, and confidentiality of the responses by the respondents. The goal of the study, the participants' rights, and the fact that their responses were used for research are required to be confirmed and communicated to the respondents. The goal of the research methodology is to offer thorough insights into how information systems affect project management decision-making. Through the use of a quantitative methodology and data analysis, the study aims to support the research hypotheses and further knowledge of the effects of IS in project management environments.

RESULTS AND DISCUSSION

The survey questionnaire was administered online to the targeted sample, and 152 responses were collected from professionals actively involved in project management operations from various UAE government and private sector organizations. There were 43.3% female and 56.6% male respondents among the participants, out of which 50.3% of respondents were project managers, 21.9% were team leads, and 19.9% were project coordinators. The wide range of participation ensured a thorough understanding of how information systems and technologies influence project management decision-making in various organizational contexts. The data revealed from responses in the context of the capabilities of the information system (IS) is provided below:

Table 1: Information System Capabilities Data

Information System Capabilities	% Agreement (Strongly Agree/Agree)
Accurate Data	94.2%
Timeliness	94.5%
Usefulness and Relevance	90.9%
Information Quality	92.7%
Responsiveness	95.4%
Support & Assistance	89%

The findings revealed that a significant majority of respondents agree that their workplace information systems provide timely, relevant, and high-quality data for project decision-making. These findings are aligned with the positive perception assumed in hypothesis H1 that IS facilitates decision-making in project management. Accurate data (94.2%) and timeliness (94.5%) highlighted the importance of the quality of information, which is aligned with Wixom & Todd's (2005) investigation that timely and correct information improves decision accuracy in dynamic project environments. Relevance & Usefulness (90.9%) support Laudon & Laudon's (2022) argument that project managers could evaluate alternatives and maximize resource utilization with the use of relevant and context-rich information and data.

Furthermore, DeLone & McLean (2003) presented an IS Success Model explaining how responsiveness (95.4%) and support & assistance (89%) relate to the idea of service quality that connects these factors to user satisfaction and system success. These findings strongly support Hypothesis 1: “Information Systems positively influence decision quality in project management”. The results confirm the crucial role of IS in facilitating high-quality project decisions, as evidenced by the persistent agreement rates of respondents above 90% on various quality and service measures. Likewise, the data revealed from responses about decision-making aspects in the context of IS is provided below.

Table 2: Decision-Making Aspects in the Context of IS Data

Decision-Making Aspects	% Agreement (Strongly Agree/Agree)
Informed Decision Making	92.7%
Accuracy of Decisions	83.8%
Speed of Access to Info	90.1%
Issue Identification	83.3%
Risk Assessment & Mitigation	91.6%

These results revealed how information systems played a crucial role in facilitating quicker, more precise, and risk-aware decisions at different stages of project management. A significant majority of participants agreed that information systems play a major role in facilitating project managers to make well-informed and data-driven decisions (92.7%). This supports the research of Caniëls & Bakens (2012) and Kerzner (2017) that IS enhances decision quality by ensuring

fast, relevant, and structured information availability by lowering subjective judgment and ambiguity. This directly supports Research Objective 1 and validates Hypothesis 1 (H1): “IS positively influences decision quality made in project management”.

Likewise, the majority of participants agree that IS enhances operational responsiveness and information accessibility (90.1%), which ultimately expedites the decision-making process. Project dashboards, cloud-based databases, and automated reporting are a few examples of tools that enable project team members to detect problems before they become more serious and cause delays. The data support the findings of Svejvig & Andersen (2015), who argued that in dynamic project environments, having access to real-time data improves agility and speeds up problem-solving. This provides strong evidence for Research objective 2 and Hypothesis 2 (H2): "IS positively influences the speed of the decision-making process."

A clear depiction of respondents' perceptions about the contribution of information systems (IS) to enhance decision-making (DM) can be seen in the descriptive results of Likert-scale responses. Both of these mean values (> 4.5) show a significant positive agreement, indicating that IS is perceived to be quite helpful when making decisions in project management. The data revealed that significant responses supported risk assessment and mitigation (91.6%), which is facilitated by the information system. Project managers can perform risk identification, scenario analysis, and mitigation strategy planning with the help of tools included in project management information software. Nguyen et al. (2016) and Urbański et al. (2019) both emphasize that ERP and analytics-based information systems facilitate identifying early warning indicators and enhancing project resilience. Furthermore, Pearson correlation analysis was utilized to analyze the direction and degree of the association between IS and decision-making. The Pearson correlation value ($r=0.256$ and $p=0.001$) indicated a moderate and statistically significant association between information systems and decision-making, which implies that the observed association/relationship among variables is not the result of chance. This outcome validated Hypothesis 3 that information systems positively influence decision making in a project. It also supports the findings of Caniëls & Bakens (2012) and Hevner et al. (2004), who argued that IS enhances the decision environment by providing improved operational visibility and organized data.

Regression analysis revealed ($R^2 = 0.065$) that the information system variable accounts for 6.5% of the variation in decision-making. Although this seems low, because human variables are so complicated in the social sciences that R2 is frequently less than 0.10, especially in organizational behavior and management studies. However, the statistical significance of the model is confirmed by the F-statistic (10.488) and $p = 0.001$. Therefore, this strongly supports Research Objective 3 and Hypothesis 3 (H3): "IS positively influences proactive risk management in project management”.

CONCLUSION

The objective of the study was to examine how information systems impact project management decision-making procedures with particular attention to decision speed, decision quality,

and risk management. The impact of information systems was assessed on the decision-making process in the form of speed of decision-making and decision delivery, quality and reliability of decision, and how information systems contribute toward enhanced risk management. This research aimed to offer significant perspectives on the usefulness of information systems, particularly in the organization from a project management point of view, and how an effective information system expedites the decision-making process, considering theories for project managers and organizations.

It is crucial to acknowledge the limitation of study in terms of generalizability even though the results revealed that information systems (IS) have a positive influence on project management decision-making. Despite being representative within its parameters, the sample size might not accurately represent the wider range of organizational scales or industries in the UAE or in global context. Future studies are needed that use mixed methodologies, multi-industry comparisons, and larger sampling addressing context-specific variations and offer a more thorough validation of these results.

Study Contribution

The research study has the following findings.

- **Impact of quality of decision**: It is revealed that improved decision quality in project management is positively impacted by information systems within the organization, and it also positively influences the information quality available for making informed decisions.
- **Effect on quick delivery of decision**: It is also revealed that using effective information systems within an organization significantly reduces the amount of time needed for the project decision-making process by providing real-time insights and data for making informed decisions. Decision-making is also accelerated by efficient data availability and analysis using these technologies.
- **Impact on service quality:** It is revealed that responsiveness, reliability of data and information, dependability, and user assistance provided by the information system to project management professionals have a favourable influence on the results of decision-making within organizations.
- **Role in risk management:** It is found that information systems are essential to risk management in project decision-making. Information systems provide quick risk or issue alerts, facilitating proactive risk management within the organization. Therefore, proactive risk management practices are found to be improved by the efficient risk detection, assessment, and mitigation tools offered by these systems available within government entities in the UAE.

- **The combined effect of IS on decision-making:** The research hypothesis is that better project management decision-making will result from the interaction of information quality and service quality provided by information systems. Therefore, it is found that an effective information system has a positive influence on the overall decision-making process in project management.

Practical Implications

The undertaken research study has the following practical implications.

- **Strategic Investment:** The research provides useful insights into how crucial it is to spend money on reliable information systems to enhance the decision-making abilities of an organization. It will facilitate organizations to make strategic investment decisions for the implementation of information systems within the organizational setup.
- **Operational Efficiency:** The research also advises organizations on how to use information systems to improve responsiveness and expedite project operations, thereby enhancing operational efficiency.
- **Risk Management:** The research findings provided suggestions for successfully reducing project risks through the integration of information systems into risk management techniques. It provides guidelines for having an effective information system with tools for risk assessment and mitigation for proactive risk management.

Future Directions

Some of the future directions for the undertaken research are provided below:

- Further, research the long-term effects of information systems on the results of projects.
- Investigating the use of the latest technology, such as AI, blockchain, etc., to improve decision-making processes.
- Evaluating the performance of information systems in various sectors and sizes of organizations, i.e., small, medium, large, etc.

REFERENCES

Ali, M., Zhou, L., Miller, L., & Ieromonachou, P. (2016). User resistance in IT: A literature review. *International Journal of Information Management*, *36*(1), 35-43. Retrieved from https://www.sciencedirect.com/science/article/pii/S0268401215000948

Al-Jabri, I. M., & Roztocki, N. (2015). Adoption of ERP systems: Does information transparency matter? Telematics and Informatics, 32(2), 300–310. Retrieved from https://doi.org/10.1016/j.tele.2014.09.005

Buttle, F., & Maklan, S. (2019). *Customer relationship management: concepts and technologies*. Routledge. Retrieved from https://www.taylorfrancis.com/books/mono/10.4324/9781351016551/customer-relationship-management-francis-buttle-stan-maklan

Caniëls, M. C., & Bakens, R. J. (2012). The effects of Project Management Information Systems on decision making in a multi-project environment. *International journal of project management*, *30*(2), 162-175. Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S0263786311000688

DeLone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. *Information Systems Research*, 3(1), 60–95. Retrieved from https://doi.org/10.1287/isre.3.1.60

Fernandez, D. J., & Fernandez, J. D. (2008). Agile project management: Agilism versus traditional approaches. *Journal of Computer Information Systems*, 49(2), 10–17.

Hoch, J. E., & Dulebohn, J. H. (2013). Shared leadership in enterprise resource planning and human resource management system implementation. Human Resource Management Review, 23(1), 114–125. Retrieved from https://doi.org/10.1016/j.hrmr.2012.06.007

Kerzner, H. (2017). Project Management: A Systems Approach to. Retrieved from http://faculty.tamuc.edu/jdavis/tmgt/514/208/TMGT514-208-Syllabus

Laudon, K. C., & Laudon, J. P. (2022). *Management information systems: Managing the digital firm*. Pearson Educación. Retrieved from https://www.pearson.com/en-us/subject-catalog/p/management-information-systems-managing-the-digital-firm/P200000001392/9780136971542

Livsey, J. R. (2019). *Economic Diversification Through A Knowledge-Based Economy In the United Arab Emirates: A Study of Progress Toward Vision 2021* (Doctoral dissertation, Monterey, CA; Naval Postgraduate School). Retrieved from https://www.fnac.com/livre-numerique/a13614217/Progressive-Management-Economic-Diversification-Through-a-Knowledge-Based-Economy-in-the-United-Arab-Emirates-UAE-A-Study-of-Progress-Toward-Vision-2021-Movement-Away-from-Oil-Exports-Emiratization-and-Innovation

Müller, R., & Turner, R. (2010). Leadership competency profiles of successful project managers. *International Journal of Project Management*, *28*(5), 437-448. Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S0263786309000970

Nguyen, T. H., Newby, M., & Macaulay, M. J. (2015). Information technology adoption in small businesses: Confirmation of a proposed framework. *Journal of Small Business Management*, *53*(1), 207-227. Retrieved from https://www.tandfonline.com/doi/abs/10.1111/jsbm.12058

Nguyen, T. D., Nguyen, D. T., & Nguyen, T. M. (2016). Information systems success: The project management information system for ERP projects. In *Context-Aware Systems and Applications: 4th International Conference, ICCASA 2015, Vung Tau, Vietnam, November 26-27, 2015, Revised Selected Papers 4* (pp. 198-211). Springer International Publishing. Retrieved from https://link.springer.com/chapter/10.1007/978-3-319-29236-6_20

Obeidat, M. A. Q., & Aldulaimi, S. H. (2016). The role of project management information systems towards the project performance in the case of construction projects in the United Arab Emirates. *International Review of Management and Marketing*, *6*(3), 559-568. Retrieved from https://dergipark.org.tr/en/pub/irmm/issue/32093/355384

Petter, S., DeLone, W., & McLean, E. R. (2008). Measuring information systems success: Models, dimensions, measures, and interrelationships. European Journal of Information Systems, 17(3), 236–263. Retrieved from https://doi.org/10.1057/ejis.2008.15

PwC Middle East. (2022). Digital transformation in the Middle East: The state of ERP and CRM adoption. PricewaterhouseCoopers. Retrieved from https://www.pwc.com/m1/en/publications.html

Svejvig, P., & Andersen, P. (2015). Rethinking project management: A structured literature review with a critical look at the brave new world. *International journal of project management*, *33*(2), 278-290. Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S0263786314001008

Takagi, N., & Varajão, J. (2020). Success management and the project management body of knowledge (PMBOK): An integrated perspective. Retrieved from https://aisel.aisnet.org/irwitpm2020/6/

Urbański, M., Haque, A. U., & Oino, I. (2019). The moderating role of risk management in project planning and project success: Evidence from construction businesses of Pakistan and the UK. *Engineering Management in Production and Services*, *11*(1), 23-35. Retrieved from https://sciendo.com/article/10.2478/emj-2019-0002

Wixom, B. H., & Todd, P. A. (2005). A theoretical integration of user satisfaction and technology acceptance. *Information systems research*, *16*(1), 85-102. Retrieved from https://pubsonline.informs.org/doi/abs/10.1287/isre.1050.0042