



The impact of quality dimensions of accounting information system success on the effectiveness of during-financial crisis management: The mediating role of system usage in a government sector context



 Mahmoud Hany M. Dalloul¹

 Zuraeda binti Ibrahim^{2*}

 Sharina Tajul Urus³

^{1,2,3} Faculty of Accountancy, Universiti Teknologi MARA, Malaysia.

¹Email: mahmooud21@gmail.com

²Email: zurae229@uitm.edu.my

³Email: sharina675@uitm.edu.my



(+ Corresponding author)

ABSTRACT

Article History

Received: 13 September 2022

Revised: 27 October 2022

Accepted: 16 November 2022

Published: 2 December 2022

Keywords

Accounting information system
Crisis management
Financial crisis
During-financial crisis
Information systems quality
System usage
Government sector.

JEL Classification:

H12; M41; G01; L86; D80; H10.

The primary purpose of this research is to explore the value of quality dimensions of accounting information systems (AIS) success, as represented by system quality (SQ), information quality (IQ) and service quality (SVQ), on the effectiveness of management during financial crises. This paper highlights the mediation role of system usage (SU) in those associations in the context of a government ministry. Descriptive analytical and quantitative approaches were adopted, using a questionnaire as the data collection instrument and selecting employees of the Palestinian Ministry of Finance as a population sample for the research. A total of 141 questionnaires were distributed, of which 105 were valid for statistical analysis. In the data analysis, the partial least squares (PLS) and structural equation modelling (SEM) techniques were adopted using SmartPLS software. The results indicate a direct significant effect between SQ, IQ, SVQ, and managing during financial crises in the research context. The mediation of SU in the influence between IQ, SQ, and managing during financial crises in the governmental context is clear. Conversely, this mediation was not demonstrated in the effect of SVQ. The research emphasizes the necessity of adopting high-quality AIS in terms of SQ, IQ and SVQ because of their critical role in enhancing management effectiveness during a financial crisis. The advancement and wider employment of AIS that have high-quality characteristics can improve management tasks during a financial crisis, increasing the ability to contain the crisis and reduce its broader repercussions.

Contribution/Originality: This research provides an extensive literature review on features of successful accounting information systems and financial crisis management. It contributes empirical evidence from a government administrative context about the influence of the quality of accounting information systems on management during a financial crisis, in which the mediating role of system use is also examined.

1. INTRODUCTION

Former US Secretary of State, Henry Kissinger, described a crisis as a symptom of a problem that has reached a stage immediately preceding an explosion, which drives the need to initiate its solution before the consequences escalate (Arab, 2018; Pedersen, Ritter, & Di Benedetto, 2020; Vasickova & Repa, 2021). The world today is engulfed in crises of many kinds, such as administrative, financial, economic, political, security, environmental, and health crises, and management entities, such as organizations in various business sectors, experience unexpected events

that bring uncertainty and threaten goals, values, and priorities. Crises represent external or internal threats that can spiral out of control, causing damage to the organization or an entire sector of work, leading to a decline in the workflow to an unusual degree, or even bringing it to a complete halt if the threat is not dealt with in a scientific and practical way immediately to ensure that it is overcome before it is too late (Abdul-Aal, 2017; Al-Banna, 2017; Al-Jarjari, 2018; Chabane, 2019; Walida & Karima, 2019). Information systems constitute a crucial element in an organization's ability to deal with a crisis and are a key determinant of its success or failure in managing the crisis. Information systems give organization a real opportunity to survive and confront threats with insight (Alabaddi et al., 2020).

The International Monetary Fund (IMF) (2010) has highlighted the importance of organizations taking care of the administrative and accounting systems that they adopt, because weaknesses in these systems can lead to the occurrence of crises, especially financial crises. At the organizational level, accounting information systems perform important roles in ensuring the organization's survival in the market, maintaining its competitive position and ensuring its continuity. These systems support the operations of the organization in making good decisions and reducing the level of uncertainty in formulating the organization's response to a financial crisis (Al-Okaily, Al-Okaily, Shiyab, & Masadah, 2020). Hence, the role of accounting information systems is not limited to assisting and supporting decision makers, but also assisting management in monitoring, forecasting and reporting events and changes that could cause damage to the company's financial position. In addition to assessing financial risks, accounting information systems facilitate prior strategic financial planning, development of scenarios for different types of financial crisis, allocation of financial resources and the drawing up of financial policies that would enable the organization to manage during a financial crisis to ensure its containment and the limitation of possible repercussions (Chabani & Chabani, 2014; Dahham, Atu, & Abdullah, 2020; Nour Al-Daem, 2015; Zwyalif, 2015). Accounting information systems represent a group of interlocking elements that collect, sort, classify, operate, analyze, preserve, protect, and transform data into information. The information provided by these systems at the time of a financial crisis is considered the most valuable and critical resource. Its availability is up-to-date and timely, and it appropriately constitutes a fundamental basis for the success of every decision that is taken. It is difficult, if not impossible, to effectively manage a financial crisis without the availability of information. Management during a financial crisis depends on the speed of decision making and providing the decision maker with accurate information as well as maintaining information security (Ali & Ahlam, 2016; Fatiha, 2022; Qaddoriy & Mahameed, 2020). Thus, there is an increasing demand for the adoption of advanced accounting information systems with the highest quality standards that can meet the needs of users and decision makers while managing a financial crisis.

The government sector, and its institutions, is one of the most prominent sectors that is vulnerable to crises arising from the diversity of threats and successive challenges, whether internal or external. The Palestinian government sector is exposed to overwhelming financial crises due to its subjection to Israeli occupation, which controls all its economic and financial resources, including the labor market, foreign trade, the banking sector, and others. The withholding and obstruction by the Israeli occupation of the transfer of funds from various tax revenues to the Palestinian government has had a severe negative impact not only on government revenues and spending, but also on the Palestinian economy as a whole (AMAN, 2021; Helles, 2021; World Bank, 2021). This financial crisis was exacerbated by the Covid-19 pandemic, which led to a further decline in public revenues and an increase in public expenditures, especially with regard to the healthcare and security sectors. In addition, the Palestinian economy was affected by the suspension of imports and exports, the turbulence of the investment climate, the decline in the value of foreign investments, the fluctuations in exchange rates, the damage to many economic sectors such as the tourism sector, the increase in unemployment, and increased poverty rates (AMAN, 2021; Helles, 2020; World Bank, 2021). This exacerbated the public budget deficit and government debt. In light of the limited financing options and the decline in support and foreign aid, the Palestinian government resorted to

external and domestic borrowing. The debts owed by the government to creditors, including the Palestinian Pension Authority Fund, accumulated, posing a threat to its continuity. In addition, the Palestinian government was unable to pay the salaries of its employees in various sectors (AMAN, 2021; International Monetary Fund (IMF), 2022; Samhuri, 2019). The Palestinian Prime Minister's Advisor for Planning Affairs, Stephan Salameh, described the Palestinian government's financial crisis as "the most difficult" due to the Israeli occupation's seizure of Palestinian tax funds, the cessation of external support for the public budget, and the increase in spending on the health sector related to the Covid-19 pandemic. As a consequence, Palestinian public debt has increased in an unprecedented manner, whether at the formal level, which includes external debt and borrowing from banks, or informally, which includes late obligations to repay on the part of the government to the private sector and the Palestinian Pension Authority (International Monetary Fund (IMF), 2022; Qassem, 2021). Furthermore, the actions of the Israeli occupation against the Palestinian people impede development work and stifle the Palestinian economy, as represented in the imposition of the severe siege of the Gaza Strip and the repeated military attacks on the Gaza Strip, as well as the occupation's control over large parts of Palestinian land in the areas of the West Bank and East Jerusalem, the construction of the apartheid wall, the continuation of building settlements and the confiscation of land and attempts to isolate and Judaize Jerusalem. These actions restrict the capabilities of the Palestinian people from accessing borders, agricultural lands, natural resources, airspace, and seas, in addition to severing geographical ties between regions and restricting the movement of goods and people. All of these have restricted the economic development of Palestine, and at the same time have linked the Palestinian economy to a coercive and unfair relationship with the Israeli occupation and made it dependent on it (Al-Naami, 2021; Helles, 2021). Accordingly, the Palestinian government sector in the Gaza Strip is not isolated from the general Palestinian situation, as it has been suffering for a decade and a half from the consequences of stifling economic and financial crises that have been exacerbated by many factors and circumstances. This includes, as previously mentioned, the tight siege imposed by the Israeli occupation of the Gaza Strip and the recurrent wars. The World Bank (2021) confirmed that the current economic situation is tainted by a state of uncertainty regarding future prospects in light of the limited sources of sustainable development. The Palestinian economy of the Gaza Strip is considered a closed economy, suffering from stagnation and shackled by restrictions that have weakened its production and investment base and paralyzed its movement and progress. With the alarmingly high rates of unemployment and poverty, this has led to a deterioration in living conditions, which has, in turn, led to associated social challenges and political repercussions. Taking into account the previous discussion and the challenges faced by the Palestinian government, an investigation into the effects of the quality dimensions of AIS on achieving effectiveness of during-financial crisis management (D-FCM) in the Palestinian governmental context clearly requires more attention, as well as determining the role of system usage (SU) in those effects. Thus, the following questions are formulated: *To what extent do the quality dimensions of AIS success affect the effectiveness of D-FCM in a governmental context? Does SU perform a mediating role?*

This research investigates the abovementioned issue by exploring the direct effect of the quality dimensions of AIS success, namely SVQ, SQ, and IQ in D-FCM, and determining any indirect effects through the mediation of SU in realizing the level of quality dimensions of AIS, as well as the effectiveness level of D-FCM in the context of the Palestinian government. To this end, the subsequent parts of this research are as follows: literary review, hypothesis development and study model, research methodology, data analysis and results, discussion, and the conclusion.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Review of Information Systems Success and Crisis Management (CM)

DeLone and McLean (1992) made a major contribution to the literature on measuring the success of information systems through their model of information systems success, which has been widely recognized among

the information systems community as a framework in which theories of evaluating the effectiveness and success of information systems can be applied. Their work was considered a qualitative leap that provides a complete illustration of the dimensions of the success of information systems in organizations, taking into account the directions of all the beneficiaries of the system, and also explaining the associations between those dimensions of systems success. Furthermore, the necessary definitions and metrics were provided to ensure the appropriate application of the model, as a set of proposed measures could be used to measure the dimensions of the model while allowing for the modification of these metrics when required. This made the model sufficiently flexible to enable the successful measurement of various information systems in a variety of contexts. A comprehensive review of the previous literature regarding the success of information systems identifies three basic levels within which six dimensions of success occur. The first level, quality of information systems, includes three dimensions – system quality, information quality, and service quality; the second level, effect on the user, includes the dimensions of system use and user satisfaction; and the third level, overall impact level, incorporates the sixth dimension, the net impact dimension. Table 1 presents an explanation of the dimensions of the success of information systems with their descriptions and measures.

Table 1. Review of the success of information systems.

Level of information system quality	
Dimension	System quality (SQ)
Description	The set of structures that defines the quality of the information system that produces and outputs information. Thus, the quality of the system expresses the characteristics and features that the information system incorporates (Al-Mamary, Shamsuddin, & Aziati, 2015; Al-Okaily et al., 2020; Al Jaberi & Qawasmeh, 2020; Alabaddi et al., 2020; Aldegis, 2018; DeLone & McLean, 2002). It represents a level of quality that ensures the information system has a high degree of ease in learning, understanding and use, is flexible, integrated, responsive, reliable, available, accessible, and secure, among others. These features have an important impact on the use of the system and user satisfaction with the system to achieve the desired benefits from its adoption (DeLone & McLean, 1992; DeLone & McLean, 2003; Fatiha, 2022; Gopinathan & Raman, 2020; Yassien, Masa'deh, Mufleh, Alrowwad, & Masa'deh, 2017; Zwyalif, 2015).
Measures	Reliability, system accuracy, user friendliness, currency (Jaafreh, 2017; Kanakriyah, 2016; Ladewi, Susanto, Mulyani, & Suharman, 2017); ease of use, efficiency, adaptability (AL-Ja'afreh, 2011; Nurhayati, Iss, & Sk, 2017; Rahi & Abd Ghani, 2019; Shagari, 2018; Sorongan & Hidayati, 2020a; Sorongan, & Hidayati, 2020b; Tam & Oliveira, 2016); differentiation, response time, alignment (Aldegis, 2018; Putra & Setiawan, 2020; Wu & Wang, 2006); maintainability, system flexibility, ease of learning, user requirements, system features (Mansour, Mohammad, Missi, & Hamdan, 2009; Sedera & Gable, 2004; Susilawati & Jerry, 2018); personalizable, sophistication, ease of access, formal, accessibility, availability, system interactivity, security (Bushra, 2017; Dalloul, 2019; DeLone & McLean, 2016; Gorla, Somers, & Wong, 2010; Urbach, Smolnik, & Riemp, 2010); understandable, system integration, correctness, user pre-emptive (Aldholay, Isaac, Abdullah, & Ramayah, 2018; Aldholay, Isaac, Abdullah, Abdulsalam, & Al-Shibami, 2018; Ali & Younes, 2013; Nurhayati & Susanto, 2017; Romi, 2013); customization, functionality, relevance, timeliness, system productivity, usability (Alkshali & Al-Qutob, 2007; Alorfi, 2018; Alsoudani & Altaany, 2014; Alzoubi, 2020; Bani, Anbari, & Money, 2008), portability, convenience, intuitiveness, system errors, user interface consistency, documentation quality, program code quality, and maintainability (Abdul Razzaq, 2011; Abu Omar, 2009; Adwan, 2019; Ahmed & Jabbar, 2021; Dahham et al., 2020).
Dimension	Information quality (IQ)
Description	Information quality expresses the characteristics and features that are expected to be evident in the outputs of information systems, resulting from the processes of data entry and processing. It represents the level of quality that meets the needs, aspirations, and desires of the user from the information provided by the system (Dalloul, Binti Ibrahim, & Tajul Urus, 2022; DeLone & McLean, 1992; Yassien et al., 2017; Zwyalif, 2015). A high quality of information represents a situation that increases the certainty and integrity of decisions. Thus, it constitutes the level at which information achieves the required benefits, including the availability of accurate, complete, up-to-date, timely, consistent, predictive, comparable, and verifiable information, which would have a significant impact on the users' satisfaction with the information system (AL-Ja'afreh, 2011; Al-Mamary et al., 2015; Bushra, 2017; Dahham et al., 2020; DeLone & McLean, 2003).

Measures	Assurance, punctuality, accuracy (Dalloul, 2019; Putra & Setiawan, 2020; Shagari, 2018; Susilawati & Jerry, 2018); appropriateness, availability, precision, input/output format, accessibility, interpretability (Jaafreh, 2017; Romi, 2013; Sedera & Gable, 2004); relevance, transaction processing, suitability (Aldholay et al., 2018; Bani et al., 2008; Mkonya, Jintian, & Kyando, 2017); completeness (AL-Ja'afreh, 2011; Puasa, 2017; Sari & Purwanegara, 2016); currency, conciseness, timeliness, usefulness (Ali & Younes, 2013; DeLone & McLean, 2016; Sorongan & Hidayati, 2020a); understandability, reliability, usability, neutrality (Kanakriyah, 2016; Rahi & Abd Ghani, 2019; Tam & Oliveira, 2016); concise representation, up-to-date, context and linkage quality, comparability, content (Gorla et al., 2010; Sorongan & Hidayati, 2020b; Wu & Wang, 2006); organized, comprehensive (Aldholay et al., 2018; Fatiha, 2022; Gopinathan & Raman, 2020); convenience, sincerity, believability, ease of manipulation, error free, security, objectivity, reputation (Alkshali & Al-Qutob, 2007; Alorfi, 2018; Alsoudani & Altaany, 2014; Alzoubi, 2020).
Dimension	Service quality (SVQ)
Description	This dimension reflects the value that users of the information system receives (Adwan, 2019; AL-Ja'afreh, 2011; Dalloul et al., 2022; DeLone & McLean, 2016; Gopinathan & Raman, 2020). The high quality of the service represents the harmonic state between the level of service provided and meeting the users' expectations of the service. Thus, it is a measure of the real level of service that reaches the user, including the provision of a fast, appropriate, timely, and reliable service which would affect the use and user satisfaction with the information system (DeLone & McLean, 2002; DeLone & McLean, 2003; Putra & Setiawan, 2020; Tam & Oliveira, 2016). In addition, it may be represented by the characteristics of the services provided by the information system to the user as support and assistance. This could include, for example, interfaces to answer queries, addressing problems that the user may encounter while using the system, or symbols and windows which offer guidance on the proper way to use the system or some of its aspects. Software and physical updates provided by the information systems support team, written and interactive instructions related to information systems, etc. (Al-Mamary et al., 2015; Aldholay et al., 2018; Shagari, 2018).
Measures	Assurance, reliability (Gorla et al., 2010; Rahi & Abd Ghani, 2019); follow-up service, responsiveness (Jaafreh, 2017; Putra & Setiawan, 2020; Tam & Oliveira, 2016); security, accuracy, tangibles, empathy (AL-Ja'afreh, 2011; DeLone & McLean, 2016; Romi, 2013); interactivity, functionality, competence, timeliness (Adwan, 2019; Aldholay et al., 2018; Aldholay et al., 2018).
Level of influence on user	
Dimension	System use (SU)
Description	This indicates the level the user has reached in using the capabilities of the information system. Usage expresses the actual action taken by the user to operate the information system and the extent to which its outputs are utilized (Al Jaberi & Qawasmeh, 2020; Alsoudani & Altaany, 2014; DeLone & McLean, 1992; Nour Al-Daem, 2015; Zwyalif, 2015). The use of the information system represents the state of the user's real activity towards achieving the maximum possible benefit from the information system and reflects its characteristics and quality in performing the tasks involved, including frequency of use, the number of requests for reports, and the period of use. The extent to which the system is used contributes to determining whether the work is accomplished (Al Jaberi & Qawasmeh, 2020; DeLone & McLean, 2002; DeLone & McLean, 2003; Putra & Setiawan, 2020).
Measures	Amount of use, reports requested, frequency of use (AL-Ja'afreh, 2011; Aldholay et al., 2018; Jaafreh, 2017; Ramli, 2013); intention to reuse, nature of use, appropriateness of use, extent of use, thoroughness of use, attitude toward use, duration of use (Aldholay et al., 2018; DeLone & McLean, 2016); usage level, motivation of use, knowledge, security (Al Jaberi & Qawasmeh, 2020; Shagari, 2018); purpose of use, effectiveness, degree of system use, responsiveness, adaptability (Alsoudani & Altaany, 2014; Putra & Setiawan, 2020; Romi, 2013; Zwyalif, 2015).
Dimension	User satisfaction (US)
Description	Describes the nature of the user's attitude toward information systems, as it determines the extent to which the user feels satisfied with the quality and performance of information systems and the extent to which the systems meet the user's needs. It represents the user's holistic perception of information systems, including training on how to use them and participating in their development, which would create an emotional state of satisfaction. This makes the user more aware and able to determine the level of satisfaction (Al-Gharbawi, 2016; DeLone & McLean, 1992; DeLone & McLean, 2003; Putra & Setiawan, 2020; Wang, Li, Li, & Wang, 2014; Zwyalif, 2015). Satisfaction here represents a user's feelings linked to performance, quality, needs, training, and participation related to information systems. Thus, measuring user satisfaction is related to general satisfaction with information systems as one component. In addition, there may be a multi-component measure in which attitudes and satisfaction with information systems are described (Al-Jabri, 2015; Alorfi, 2018; DeLone & McLean, 2002; DeLone & McLean, 2016; Rouibah & Hamdy, 2009).

Measures	Overall satisfaction, performance, needs, training, participation (Abdul Razzaq, 2011; Abu Omar, 2009; AL-Ja'afreh, 2011; Alkshali & Al-Qutob, 2007; Alorfi, 2018; Dahham et al., 2020; Jaafreh, 2017; Nour Al-Daem, 2015; Zwyalif, 2015); availability, robustness, task achievement, productivity, efficiency, user satisfaction (Bushra, 2017; Dalloul, 2019; Putra & Setiawan, 2020; Romi, 2013; Tam & Oliveira, 2016).
Level of general/Final influence	
Dimension	Net impacts (NI)
Description	Net effects represent the end of the chain of measurement for the success of information systems. They are the outcome of the cumulative effects and the product of the interrelationships between the dimensions of the success of information systems, which are represented by the dimensions of quality for information systems (system quality, information quality, quality of services) and the dimensions of impact on the user (system use, user satisfaction). Thus, it constitutes the degree to which information systems contribute and support (or fail to contribute and support) the achievement of success for the individual, organization, department, industry, sector, country, group, community, and others (Al-Okaily et al., 2020; Alorfi, 2018; DeLone & McLean, 2016; Ke & Su, 2018). The net effect measures the results of the system in comparison to the goal and purpose of its adoption. Therefore, building measures for this dimension depend largely on the context, as this dimension is the most diverse compared to the other dimensions of the success model due to the diversity of information systems and the contexts of their implementation and purposes (Al-Mamary et al., 2015; Ali & Younes, 2013; DeLone & McLean, 2003; Ramli, 2013; Riandi, Respati, & Hidayatullah, 2021; Sedera, Eden, & McLean, 2013).
Measures	Decision making, productivity, time saving, increased sales, cost saving, profitability, market expansion, consumer welfare, job creation, economic development, achieving public and social value, task innovation, task productivity, administrative control, customer satisfaction, competitive advantage, alignment, customer relationship benefits, access to information, information quality, information flexibility, communication efficiency, systems development efficiency, business efficiency, organizational performance, user performance, individual impact (Al-Mamary et al., 2015; Al-Okaily et al., 2020; Ali & Younes, 2013; Alorfi, 2018; DeLone & McLean, 2003; Ke & Su, 2018; Ramli, 2013; Riandi et al., 2021; Sedera et al., 2013).

Crisis management is an integrated systematic process through which an organization tries to predict and identify potential crises that it may face and take the necessary precautions to prevent them or reduce their effects. It includes preparing for crises before they occur and responding immediately when they occur, as well as restoring the normal activity of the organization and drawing lessons after passing the crisis. Thus, crisis management expresses a modern management method that enables an organization to adopt a tightly designed strategy that helps contain and control the effects of the crisis using a range of available means to reduce damage and enable the organization to continue its work while the crisis is managed successfully. Accordingly, it can be concluded that the management of crises and financial crises is an administrative approach using appropriate scientific methodologies that include planning, organizing, directing, controlling, follow-up, evaluation, leadership, teamwork, communication systems, and information systems. Although crises may arise from inexplicable events that hinder the regular flow of work and activities of an organization, it is sometimes possible to detect signals of an impending crisis, which are usually unexpected and present an actual threat to organizations. In the context of this study, public sector organizations, such as academia, local authorities, and government ministries can be sufficiently prepared to deal with these kinds of conditions by developing contingency plans, as well as having trained and experienced crisis management units qualified to respond to any eventuality (Abu El-aish, 2016; Abu Nqeirah, 2014; Bergeron & Cooren, 2012; Chabane, 2019; Ferwanah, 2019; Zehir & Yavuz, 2014). Various models and frameworks have been developed to explain the path taken by crises and the methods and stages of crisis management. Mitroff, Shrivastava, and Udwardia (1987), Pearson and Mitroff (1993) and Mitroff (1994) have presented a model that is one of the most widespread models and frameworks in the literature and science of crisis management. This model contributes to identifying and interpreting the stages that crisis management passes through, explaining the appropriate measures for each stage in order to ensure the appropriate evaluation to manage the crisis effectively, while allowing the creation of measurements for each stage commensurate with the nature of the crisis. A comprehensive review of the crisis management literature identifies three basic levels within which the five tasks

related to crisis management are defined. The level of pre-crisis management includes the tasks of detecting early warning signals and the tasks of preparedness and prevention; the during-crisis management level includes containment and damage limitation tasks, while the post-crisis management level includes recovery and learning. Table 2 describes and explains the tasks of crisis management levels and lists the measures that have been identified by previous researchers as appropriate for each task.

Table 2. Review of crisis management research literature.

Level of pre-crisis management	
Task	Signal detection
Description	<p>These tasks refer to the period before the actual onset of the crisis where the early warning signs that predict the possibility or the imminence of a crisis appear frequently and in enough time before the crisis occurs. Consequently, it is concerned with observing and responding to these signals and being aware of the early symptoms of a crisis. It represents the situation in which activities related to monitoring, identification, collection, classification, and analysis of information, signs, or symptoms that warn of the possibility of a crisis are undertaken (Ababneh & Ashour, 2018; Abdul Rahman, 2018; Barghothe, 2013; Fearn-Banks, 2017; Makid & Sitiy, 2016; Sulaymani, Souad, & Barbawi, 2017). In addition, it involves monitoring the internal and external work environments and creating a supportive culture and organizational environment for detecting early warning signals and making use of the analysis and forecasting capabilities of information systems. The objective of this task is to take actions and decisions that will avoid or delay the actual occurrence of the crisis. This task is important because ignoring early warning signals and lacking interest in detecting them will almost inevitably lead to the crisis materializing (Abouzadeh, Shoshtari, & Hashemnia, 2014; Abu Aziz, 2010; Campiranon & Scott, 2014; Chabani & Chabani, 2014; Wang, 2009). Early warning signs include a decrease in sales, a decrease in production, stockpiling, irregular activities, frequent failure of machines, sabotage of assets, increased failure of systems, increased defects of finished products, increased defects of materials in progress, high indebtedness, low collection, low profitability, low revenue, loan defaults, budget deficit, embezzlement, corruption, and mismanagement. However, these signals vary depending on the nature of the crisis (Abdul Qader, 2016; Ershadi & Shemirani, 2021; Eslim, 2007; Ferwanah, 2019; Ghanem, 2011; Hamdouna, 2006; Jad Al-Rub, 2010; Le & Phi, 2021).</p>
Measures	<p>Monitoring, identifying, collecting and classifying warning signals (Alzoubi, 2020; Dahham et al., 2020; Qaddoriy & Mahameed, 2020); analyzing warning signals, monitoring internal work environment, monitoring external work environment (Al Jaber & Qawasmeh, 2020; lshammari, Alhazimeh, & Alzoubi, 2020); flexibility of organizational structure, organizational culture, organizational support, control and monitoring (Abdul Razzaq, 2011; Adwan, 2019; Hanna, Abdul Aziz, & Najib, 2018); reward and motivation, forecasting, information systems, instructions and regulations (Abu Omar, 2009; Alkshali & Al-Qutob, 2007; Nour Al-Daem, 2015); crisis management reports, monitoring and follow-up teams, a receiving center for warning signals (Almashaqba, 2017; Alsoudani & Altaany, 2014; Zwyalif, 2015).</p>
Task	Preparation/Prevention
Description	<p>These tasks express the state of unifying capabilities and exerting efforts, including procedures and decisions that will enable the avoidance and prevention of a crisis. In addition, it involves harnessing all capabilities and components that would ensure adequate preparedness to confront the crisis if it cannot be avoided. The objective of this task is to face the signs of weakness, defects, problems, and risk factors in an attempt to treat them in order to prevent the occurrence of the crisis while also preparing for its occurrence. Thus, it constitutes the set of activities that primarily work on controlling, monitoring, and analyzing the practices and events that create the crisis (Abu Taha, 2016; Ahmed & Jabbar, 2021; Al-Ajmi, 2011; Dalloul et al., 2022; Pan & Meng, 2016; Pearson & Mitroff, 1993). In addition, it deals with two specific areas related to planning: preventing the occurrence of the crisis by developing a preventive plan to be activated to treat the various deficiencies before the situation escalates into a crisis and preparing in advance to confront the crisis when it occurs by developing a treatment plan that is prepared for activation if the crisis occurs. This includes the setting up of a unit, team, or center concerned with crisis management, and effective coordination between departments and sections to ensure exchange and access to resources and capabilities, whether human, material, technical, informational, or information systems, that are necessary to deal with the crisis. It also covers training, the holding of meetings, workshops, and simulation experiments related to dealing with potential crises (Al-Ashqar, 2010; Al-Banna, 2017; Al-Hila & Abu Ajwa, 2017; Al-</p>

	<p>Jarjari, 2018; Kao, Wang, & Farquhar, 2020). Furthermore, channels of communication must be open and cooperation must exist within organizations and among experts and specialists to deal with and prepare for the potential crisis, utilizing the capabilities of successful information systems, including providing comprehensive databases, storage, processing, retrieval, and backup copies of information that will support preparedness and crisis prevention processes. Additionally, the tasks of planning, assessing risks, and preparing scenarios and simulations to deal with the potential crisis must be facilitated. Consequently, the necessary preparations for the prevention of the crisis can be achieved, as well as comprehensive planning to deal with any potential crisis and situations that cannot be avoided (Abdul-Aal, 2017; Al-Hariri, 2010; Jafar & Yunus, 2017; Ricke, 2020). Preparedness reflects an organizational situation resulting from the integration of planning processes and developing scenarios for the crisis; thus, the importance of this task stems from the level of readiness to respond to the crisis. It is worth noting that this task is closely related to the task of discovering warning signs, as preparation and prevention are possible during the build-up to the crisis and also when the crisis is under control (Abdalbaqi, 2021; Hussein, 2012; Leta & Chan, 2021; MacNeil & Topping, 2007; Moe & Pathranarakul, 2006).</p>
Measures	<p>Crisis management team and center, training, workshops, meetings, experiments and simulation (Adwan, 2019; Almashaqba, 2017; Nour Al-Daem, 2015; Zwyalif, 2015); control, monitoring, analysis, planning, review plans, scenario development, coordination (Abu Omar, 2009; Alkshali & Al-Qutob, 2007; Alsaqqa & Soufi, 2021; Qaddoriy & Mahameed, 2020); communication and cooperation channels, participation, expert use, information systems and databases (Al Jaberi & Qawasmeh, 2020; Alsoudani & Altaany, 2014; Hanna et al., 2018); risk assessment, financial planning, financial analysis, exchange of information and experiences, and resource accessibility (Abdul Razzaq, 2011; Alzoubi, 2020; Ishammari et al., 2020; Zwyalif, 2015).</p>
Level of during-crisis management	
Task	Containment/Damage limitation
Description	<p>These tasks indicate the way in which a crisis will be responded to if and when it occurs. The purpose of this task is to try to stop the crisis, work to isolate it, prevent its expansion, reduce its effects, and dealing with it quickly. This is feasible mainly with an understanding, awareness and real review of the causes, factors and practices that led to the crisis. Thus, it constitutes a set of activities through which the pre-prepared plans are activated and implemented to confront the crisis and translate preparations into real action to contain the crisis and reduce its damages, including the use of all efforts, resources and means possible to achieve this (Aljuhmani & Emeagwali, 2017; Aloun & Attieh, 2018; Alpaslan & Mitroff, 2021; Alradie, 2011; King III, 2007). The perception and effective management of time is a decisive factor in this task, as the more severe the crisis, the longer the time required to deal with it and its consequences. In addition, it is necessary to identify and distribute tasks and powers to ensure smooth management of the crisis, as well as hold immediate and periodic meetings to speed up the achievement of full control of the crisis to prevent its exacerbation and ensure the follow-up of the implementation of plans and scenarios to manage the crisis. Additionally, communication channels and joint cooperation with relevant organizations must be activated to support efforts to contain the crisis (Al Eid & Arnout, 2020; Al Shobaki, Abu Amuna, & Badah, 2016; Aldao, Blasco, Espallargas, & Rubio, 2021; Odeh, 2008; Tokakis, Polychroniou, & Boustras, 2019; Ziadah, 2012). Achieving effective coordination and participation of the various departments and units responsible for implementing the crisis management plans and facilitating access to the necessary resources to contain the crisis and reduce its effects is also necessary. Similarly, the media channels that can spread awareness and reduce rumors during a crisis, which facilitates the process of addressing and dealing with the crisis as required, must be brought on board, as well as the effective employment of information systems to exploit their full capabilities in providing updated, immediate, and accurate information. These activities require speed in decision making, maintaining security, confidentiality, integrity, and availability of information, as well as allocating and rationalizing the available resources to assure the effective management of the crisis to facilitate its containment and reduce the damage caused (Abu Salout, 2015; Abu Samra, Altiti, & Ashour, 2012; Ali & Ahlam, 2016; Moerschell & Novak, 2020; Netten & van Someren, 2011; Penrose, 2000; Wimelius & Engberg, 2015; Yahya, 2016).</p>
Measures	<p>Crisis management units, responsiveness, holding meetings, distributing tasks, responsibilities and powers, realizing and managing time, leadership, follow-up, participation and cooperation (Adwan, 2019; Al Jaberi & Qawasmeh, 2020; Alsaqqa & Soufi, 2021; Ishammari et al., 2020); implementing plans and scenarios, preventing exacerbations and sub-crises, crisis control, awareness and media, communication channels, motivation and reward, information and communication security (Abdul Razzaq, 2011; Abu Omar, 2009; Hanna et al., 2018; Qaddoriy & Mahameed, 2020); reconciling interests and security necessities, utilizing information systems,</p>

	availability, access, accuracy, speed and updating of information, decision making support, resource allocation (Alkshali & Al-Qutob, 2007; Bushra, 2017; Dahham et al., 2020; Nour Al-Daem, 2015; Zwyalif, 2015); optimal utilization of available resources, rationalization of expenditures, emergency financial allocations, crisis information, financial position (Almashaqba, 2017; Alsoudani & Altaany, 2014; Alzoubi, 2020).
Level of post-crisis management	
Task	Recovery
Description	These tasks refer to the trend towards restoring balance and normal conditions, the practice of normal activities and work, taking into account the gradual decline of the crisis and the loss of its momentum, where the factors and causes of the crisis have been identified, which requires the implementation of plans aimed at repair, recovery, and restoration of the usual normal state that was before the crisis. Consequently, they constitute a set of activities through which recovery and recuperation plans from the crisis are activated and implemented. This includes taking actions and decisions that promote the effective restoration of normal activity (Alteneiji, Ahmed, & Saboor, 2020; Ateer & Faniy, 2016; Atta-Allah, 2017; Ayyad, 2015; Nizamidou & Vouzas, 2020; Sausmarez, 2003; Twomey, 2009). Additional tasks include identifying and determining the extent of the effects and damage caused by the crisis, identifying the actual requirements to address the repercussions and effects of the crisis, activating channels of communication and raising awareness about the depth of the crisis and the treatment plans, as well as initiating channels of cooperation and joint coordination to aid in dealing with the effects of the crisis, restoring activity, and arranging priorities and identifying the most essential and urgent activities to resume normal operations (Berbekova, Uysal, & Assaf, 2021; Bergeron & Cooren, 2012; Braun, 2015; Dayour, Adongo, Amuquandoh, & Adam, 2021; Ha, 2013; Sutherland, 2013). Other researchers have cited the need for providing the necessary motivation and rewards in the context of rapid support to restore activity and recover from the crisis, along with the efficient utilization of information systems in support of the recovery and resuscitation processes, including preparing the necessary reports to recognize and specify damages, estimating what is needed to address them, allocating the necessary resources to restore activity, supporting the decision making process, sharing information, and carrying out activities that reduce the damage caused by the crisis (Ashour, 2010; Misk, 2011; Ozcan, 2014; Sweis & Abdeen, 2017; Thielsch, 2020; Wut, Xu, & Wong, 2021).
Measures	Recovery and recuperation plans, instructions and procedures, inventory of effects and damage, identification of needs, prioritization, channels of communication and awareness, restoration of trust and loyalty (Abdul Razzaq, 2011; Abu Omar, 2009; Alkshali & Al-Qutob, 2007; Nour Al-Daem, 2015; Zwyalif, 2015); channels of cooperation and coordination, information sharing, decision making, motivation and reward, identification of urgent and vital activities, rapid recovery of activity, information systems (Al Jaberi & Qawasmeh, 2020; Alsaqqa & Soufi, 2021; Alsoudani & Altaany, 2014; Ishammari et al., 2020; Qaddoriy & Mahameed, 2020); preparing reports, allocating resources, rationalizing financial resources, selecting higher-revenue activities, avoiding high-spending activities, estimating the financial deficit, rationalizing expenditures (Almashaqba, 2017; Alzoubi, 2020; Dahham et al., 2020; Hanna et al., 2018).
Task	Learning
Description	These are the last tasks in crisis management and signify the end of the crisis. The purpose is to make a comprehensive evaluation of the crisis management process on two levels: strategic evaluation, in which the crisis management plans are evaluated; and the tactical and technical evaluation, in which the methods, means, and executive and administrative procedures used in crisis management are evaluated. Thus, it constitutes a set of activities through which the crisis and previous events are reviewed and the positive and negative aspects, strengths and weaknesses in crisis management are determined (Abu El-aish, 2016; Abu Nqeirah, 2014; Al-Misri, 2017; Boin & 't Hart, 2010; Chabane, 2019; Vallaster, 2017; West, 2020). This also includes creating a complete and comprehensive vision of the causes and practices that led to the crisis in order to set controls and take actions to prevent its occurrence in the future and identify appropriate proactive treatment methods; investigating, studying and analyzing previous events with the aim of evaluating performance and bridging gaps and remedying them; extracting lessons and meaning from the previous crisis; building expertise, refining skills, and learning from past experiences to ensure that they are used in developing the most advanced and professional plans and strategies to confront future crises with enhanced capabilities (Corbaley, 2010; Dawud, 2018; Eabadi & Ibrahim, 2019; Elmougher, Alattar, & Elpasha, 2019; van Laere & Lindblom, 2019). This includes benefiting from the methods and experiences of others in dealing with the crisis; collecting and recording all procedures, decisions, recommendations, directives, techniques and practices that were implemented in the crisis conditions for the purpose of analyzing and benefiting from them; making comparisons between

	plans, practices, decisions and procedures that have been applied in reality and what was planned; supporting periodic research and studies on crisis management; utilizing the capabilities of information systems to record and preserve information related to the crisis; ascertaining the availability of and accessibility to crisis information; analyzing crisis information; and evaluating and developing plans and scenarios for crisis management. (Abu Hajar, 2016; Albelbasee, 2016; Chahed & Zergoune, 2017; Chan & Chan, 2009; Sofyan et al., 2021; Tripp, 2013; Walida & Karima, 2019).
Measures	Evaluating crisis management, plans, procedures, decisions and working methods; collecting and recording crisis information; preventing re-crisis; proactive methods; drawing lessons and learning (Adwan, 2019; Alkshali & Al-Qutob, 2007; Almashaqba, 2017; lshammari et al., 2020; Zwyalif, 2015); benefiting from experiences, forming experiences and refining skills, research and studies, information systems, crisis information retention, crisis information analysis, availability, accessibility, sharing crisis information (Abdul Razzaq, 2011; Alsaqqa & Soufi, 2021; Alsoudani & Altaany, 2014; Dahham et al., 2020; Nour Al-Daem, 2015); developing plans, scenarios and strategies, comparing the plan to reality, revealing weaknesses and strengths, crisis management methods for others, encouragement and motivation (Abu Omar, 2009; Al Jaber & Qawasmeh, 2020; Alzoubi, 2020; Hanna et al., 2018; Qaddoriy & Mahameed, 2020).

2.2. System Quality (SQ) and During-Financial Crisis Management (D-FCM)

As is apparent from the above, system quality is one of the vital dimensions of various information systems. In this context, a study by Zwyalif (2015) was performed to determine the role of accounting information systems in managing crises faced by the commercial banking sector. It concluded that system quality has an essential role in crisis management and it can be considered one of the most influential quality indicators in the preparedness and prevention phase and the damage containment phase. Nour Al-Daem (2015) conducted a study to understand the relationship between management information systems and crisis management in the industrial sector. He confirmed the findings of Zwyalif (2015) and highlighted the importance of information systems with a high degree of system quality as significant factors in the ability to manage a crisis. Al-Hayaly (2011) focused on determining the impact of the quality of banking information systems on crisis management and demonstrated that the quality of the system components perform a vital role in the ability of managers to manage crises in banks. Abu Omar (2009) also focused on the banking sector and examined the relationship between the effectiveness of management information systems and crisis management. He emphasized that the suitability of the system to the administrative levels and the response of those systems to the emerging changes were related to the success of banks in managing crises. In a different context, Bushra (2017) indicated that the characteristics of management information systems in terms of equipment and software, the appropriateness of the systems for administrative levels, the response of the systems to emerging changes and their ability to modernize, have a significant impact on crisis management practices in economic institutions. In the context of the industrial sector, Alkshali and Al-Qutob (2007) presented empirical evidence from industrial companies that the effectiveness of management information systems has a crucial role in the phases of the crises they are experiencing, as the suitability of the system to the administrative levels has an effect on discovering early warning signs of a crisis, and that effect goes further in containing the crisis and limiting damages, in addition to learning from the crisis. Furthermore, the response of systems to emerging changes affects the tasks of detecting early warning signals, preparing and preventing, limiting damage, and restoring activity. Abdul Razzaq (2011) found that the various information systems in the tourism sector, including administrative and accounting information systems, have an important role in facing crises, whether before, during or after their occurrence. The characteristics associated with the systems in terms of their suitability to administrative levels and responses to emerging changes in the work environment improve the ability of tourism companies to deal with crises. More recently, Adwan (2019) presented a study that investigated the impact of the effectiveness of management information systems on crisis management in the context of the government sector. He revealed the vital role that system quality plays in enhancing crisis management with its tasks and processes. Also in the context of the government sector, Ahmed and Jabbar (2021) conducted a study to determine the nature

of the impact of electronic management on crisis management and found that there is a relationship between technical resources and crisis management. Alabaddi et al. (2020) emphasized the strong impact of system quality on crisis management in the telecommunications sector. In their analysis of the impact of the effectiveness of management information systems on crisis management in the banking sector, Dahham et al. (2020) declared that the compatibility of the system with administrative levels and the response of systems to emerging changes have a critical impact on the ability of banks to engage in crisis management, including the discovery of warning signs, preparedness and prevention, damage containment, recovery and learning. Alzoubi (2020) concurred with these results and emphasized that the characteristics of management information systems in terms of system reliability, availability of devices, and degree of system flexibility perform an important role in improving banks' ability to deal with crises and manage them effectively. On the other hand, Gopinathan and Raman (2020) disagreed with these findings and suggested that system quality does not have a significant impact on the emergency management process. However, this may be due to differences in the systems and the crises being studied, as well as the different economic sectors in which those studies were carried out.

In the discussion above, it was determined that the quality of the system plays a critical role in crisis management. Therefore, the following hypothesis is proposed:

Ho.1: There is an association between system quality (SQ) as a quality dimension of accounting information system (AIS) success and during-financial crisis management (D-FCM) in a governmental context.

2.3. Information Quality (IQ) and During-Financial Crisis Management (D-FCM)

Information quality is one of the fundamental quality dimensions of various information systems, including accounting information systems. In the context of the industrial sector, Alkshali and Al-Qutob (2007) referred to the role that management information systems perform in crisis management, where information security has a significant relationship with the tasks of preparing and preventing a crisis, in addition to the tasks of limiting damage and restoring activity. In the same context, in discussing the association of information systems with crisis management, Nour Al-Daem (2015) presented evidence showing that the quality of information is one of the most significant elements in the early detection of warning signs, recovery of activity, and learning. Meanwhile, Bushra (2017) described the role that management information systems (MIS) can play in managing crises in the industrial sector and explained that the quality and confidentiality of information are important in achieving best practices for crisis management, as well as in terms of problem identification, analysis and follow-up to the crisis. This was confirmed by Abu Omar (2009) in the context of the banking sector, where computerized management information systems contribute to the ability of banks to deal with crises. Moreover, information security, speed of access to information, and speed of decision making are factors that can ensure the effectiveness of these systems, thus improving crisis management through various tasks and stages. In a related context, Al-Hayaly (2011) investigated the quality of banking information systems in crisis management and emphasized the importance of the quality of information and its provision to the decision maker to manage the crisis. Accordingly, Zwyalif (2015) emphasized that the quality of information as an output for accounting information systems is a vital element in the ability of banks to manage crises in their multiple stages. This constituted an influential element in the stages of detecting alarm signals, restoring normal activity, and learning. Likewise, Abdul Razzaq (2011) believed that the effectiveness of management information systems has an impact on the practical steps in crisis management, and the quality of information is considered to be one of the main factors that enters into the decision-making process regarding crises faced by tourism companies. Additionally, Al-Amyan (2016) highlighted that information that is characterized by quality in terms of accuracy, clarity, comprehensiveness, and speed has an actual effect on the work and operations of disaster management. In recent studies, Al Jabeti and Qawasmeh (2020) investigated the impact of the use of social media in crisis management in the government sector. They revealed that social media in terms of dissemination of information, access to information, communication with others, and privacy and security have a

very meaningful association in crisis management, whether before, during or after the crisis. Also, in the governmental context, Adwan (2019) presented empirical evidence to emphasize that the quality of the information provided by management information systems has an important role in enhancing crisis management, whether before, during or after the crisis. Furthermore, in the same context, Ahmed and Jabbar (2021) found considerable support for electronic management in crisis management due to the strong association between them, especially with regard to the electronic management of knowledge and information that contributes to managing crises faced by public sector companies. Relating to the telecommunications sector, Alabaddi et al. (2020) determined that the information quality of information systems in telecommunications companies is a critical factor in the ability to manage crises effectively. Gopinathan and Raman (2020) agreed with these findings and accentuated the important impact of information quality on emergency management operations and the success of crisis management. In an analysis of the influence of the effectiveness of management information systems on crisis management, Dahham et al. (2020) stressed that information security and the speed of decision making have a vital role in managing crises in banks, whether in terms of pre-crisis management, during, or after the crisis. Qaddoriy and Mahameed (2020) explored the impact of the quality of the outputs of management information systems on crisis management strategies, and they explicitly pointed out the critical relationship between the quality of the outputs of these systems in terms of modernity, accuracy, relevance, comprehensiveness, appropriate timeliness, and crisis management strategies. They emphasized that as companies adopt more high-quality information systems, their ability to face and manage crises with high efficiency is greater. On the other hand, Fatiha (2022) concluded that information quality has little impact on crisis management in the telecommunications sector. The difference in the results of her study from others may be due to the sector, country, or population on which the study was carried out.

Based on the previous discussion of the role of information quality in crisis management, the following hypothesis is proposed:

Ho.2: There is an association between information quality (IQ) as a quality dimension of accounting information system (AIS) success and during-financial crisis management (D-FCM) in a governmental context.

2.4. Service Quality (SVQ) and During-Financial Crisis Management (D-FCM)

The quality of services is the third essential component of the quality dimensions of information systems and an important element in the quality of accounting information systems. Al-Hayaly (2011) stated that the quality of banking information systems plays a role in crisis management. He also highlighted that the quality of services, including the personal characteristics of the system management and its employees, is vital in crisis management. Adwan (2019) confirmed these results in his study, which revealed the nature of the relationship between the effectiveness of management information systems and crisis management in the government sector. He stressed the importance of the impact of the quality of services for information systems in improving crisis management in its stages of pre-crisis management, management during the crisis, and post-crisis management. In contrast, Gopinathan and Raman (2020) investigated the role of information system quality, including information quality, system quality, service quality, and communication systems with emergency operations management, on improving crisis management and found that the quality of services did not have a significant impact on the emergency management process.

From the discussion regarding the role of service quality in crisis management, the following hypothesis is proposed:

Ho.3: There is an association between service quality (SQ) as a quality dimension of accounting information system (AIS) success and during-financial crisis management (D-FCM) in a governmental context.

2.5. The Mediating Role of System Use (SU)

Studies have investigated the use of the system as a mediator in many application contexts, such as enterprise resource planning (ERP) systems, AIS, MIS, e-government, e-commerce, e-purchase, mobile healthcare, mobile learning, and mobile banking, as well as in a variety of industries, including hotels, businesses, governments, universities, banks, telecommunications, and public and private sector organizations. The discussion below summarizes those studies. In a study conducted by Rouibah and Hamdy (2009) in the context of universities, it was pointed out that perceived ease of use directly affected the use as well as indirectly affected user satisfaction with instant messaging technology. In the same context, Wang. et al. (2014) emphasized that the quality attributes of blog-based learning systems influenced user satisfaction, which, in turn, affected learning performance directly or indirectly through the mediation of system use. In line with this, and according to Alorfi (2018), the mediating effect of system use explains the effect of user satisfaction on the net benefits of using mobile learning in universities. In addition, Ke and Su (2018) found that users' experience of mobile library application usability had a significant mediating effect on the relationship between the dimensions of information system success, which are system quality, information quality, service quality and net benefits. In the corporate context, Ali. and Younes (2013) presented empirical evidence that task technology fit, system quality and information quality indirectly affect user performance of ERP systems through their perceived usefulness and ease of use. In the same context, Mahama and Cheng (2013) emphasized that perception regarding costing systems has an indirect impact through the intensity of the use of those systems on the psychological empowerment of managers. Al-Okaily et al. (2020) were in agreement with the above studies when they said that system quality is indirectly related to organizational benefits through factors such as user satisfaction and the use of accounting information systems. Additionally, Quyen and Nguyen (2020) emphasized that system use mediates the relationship between perceived accounting benefits and the success of ERP systems. Al-Mamary et al. (2015) carried out a conceptual study in which perceived usefulness was presented as a variable that can perform a mediating role in the relationship among multiple variables, such as the quality dimensions of management information systems and organizational performance in telecommunications companies. Furthermore, Kosasi, Kasma, Vedyanto, and Susilo (2019) claimed that intent of use has acted as an important mediator in the relationships among technology, organization, environment, and individuals with the adoption of e-commerce in enterprises. Moreover, Al-Jabri (2015) showed that ease of use mediates the relationship between training, communication, and both benefits of and user satisfaction with ERP systems. Moslehpour, Pham, Wong, and Bilgiçli (2018) reported that perceived usefulness, perceived ease of use, and openness to experience collectively mediate the relationship between consciousness and intent to e-purchase. In the context of mobile banking, Tam and Oliveira (2016) stated that usage mediates the relationship between system quality, information quality and user satisfaction, while they found no mediating effect in the relationship between service quality and user satisfaction. Likewise, in the context of a mobile healthcare system, Keikhosrokiani, Mustafa, Zakaria, and Abdullah, (2020) indicated that use mediates the relationship between system quality, trust, and mobile health literacy on the success of human interaction. On the other hand, this mediating role is not achieved in the relationship between the quality of information and the success of human interaction. In governmental and public sector contexts, Rouibah, Hamdy, and Al-Enezi (2009) revealed that administrative support, availability of training, and user participation have an indirect impact on user satisfaction through the mediation of perceived ease of use and the use of information systems and technology. Sedera et al. (2013) confirmed these findings as they demonstrated that the use of information systems is an important mediator between information quality and individual influence. In the same governmental context, Mustapha and Obid (2015) provided empirical evidence that perceived ease of use has a mediating effect on the relationship between tax service quality and the online tax system, while Santhanamery and Ramayah (2018) stressed that perceived usefulness has a mediating effect on the relationship between system trust in terms of correctness, response time, and security, with intent to continue use of the electronic filing system they studied. Furthermore, Chen and Aklikokou (2020)

highlighted that perceived usefulness and perceived ease of use act in a mediating role among social influence, trustworthiness, facilitation conditions, and behavioral intention to use e-government services. Likewise, [Türkmen dağ and Tuna \(2022\)](#) demonstrated that the acceptance and use of a hotel management system mediated the influence of leadership empowerment on knowledge management practices.

In light of the foregoing discussion, the vital role of using the system as a mediator in many different relationships and contexts becomes clear, and thus the following hypotheses were formulated:

Ho.m.1: System usage (SU) mediates the association between System Quality (SQ) as a quality dimension of AIS success and D-FCM in a governmental context.

Ho.m.2: System usage (SU) mediates the association between Information Quality (IQ) as a quality dimension of AIS success and D-FCM in a governmental context.

Ho.m.3: System usage (SU) mediates the association between Service Quality (SVQ) as a quality dimension of AIS success and D-FCM in a governmental context.

This research focuses on investigating the direct and indirect impacts of the quality dimensions of AIS success on the effectiveness of D-FCM and the mediating role of using the system in that relationship in the context of the government sector. [Figure 1](#) illustrates the research model generated from the discussion of previous studies. The framework shows that the accounting information systems quality (AISQ) dimensions, namely IQ, SVQ, and SQ, have a direct impact on management during a financial crisis. Likewise, it demonstrates the indirect impact of these dimensions on management during a financial crisis through the mediation of use of the system.

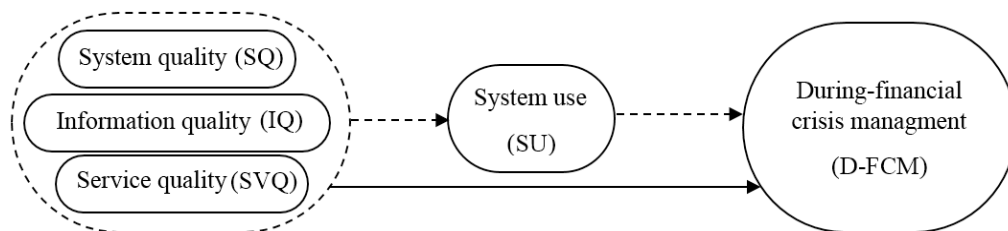


Figure 1. The research framework (AISQ-DFCM).

3. RESEARCH METHOD AND METHODOLOGY

The current research is set in the governmental context and explores the effects of quality dimensions as critical elements of the AIS success model in achieving effective management during financial crises, and at the same time taking cognizance of the mediation of system usage in those effects. Consequently, the research provides further information regarding a problem that has been recognized and investigated through the formulation of appropriate research objectives and questions. Additionally, a comprehensive literature review was conducted through which a relevant and applicable research model has been reached and hypotheses have been developed. The study investigates the relationships and correlations between variables and their interpretation, in addition to developing hypotheses that are tested and either confirmed or refuted, thereby following the positivism paradigm that is often associated with a quantitative/deductive research approach, which focuses on theories and variables that already exist in the literature. The research can also be classified as descriptive, analytical, and objective in nature as it concentrates on estimating phenomena and involves the collection and analysis of numerical data which are then subjected to statistical examinations. Accordingly, the strategy for collecting the quantitative primary data of this research is a survey questionnaire, for which the Palestinian Ministry of Finance (southern governorates) provided the population for the research. The research sample and the units of analysis are drawn from employees in the ministry's departments and offices who have direct usage and interactions with accounting information systems in the performance of their duties. The survey questionnaires were distributed to 141 respondents, of whom 105 provided valid responses for data analysis purposes, resulting in a 74.4% rate of return. The survey

questionnaire was designed into three sections in line with the research variables and objectives. Question responses adopted the five-point Likert scale. The first section included quality dimensions of AIS success and the variable of SU; the second section covered the effectiveness of D-FCM; and the last section requested demographic information. With regard to the data analysis, the research adopted algorithms and analysis techniques related to version 3.3.3 of the SmartPLS software. Where appropriate, statistical tests were performed for the measurement model and the structural model. A descriptive analysis of variables and respondents' demographic data was conducted.

4. FINDINGS AND ANALYSIS

4.1. Demographic Information

Table 3 illustrates the characteristics of the respondents in terms of educational qualification; most of them are holders of bachelor's and master's degrees, while, in terms of educational/career specialization, most of them specialize in accounting.

Table 3. Sample characteristics.

Qualification	Frequency	%	Specialization	Frequency	%
Diploma	2	1.90	Accounting	88	83.8
Bachelor's degree	86	81.9	Finance	4	3.80
Master's degree	17	16.2	Management	8	7.60
PhD	0	0.0	Economics	2	1.90
Experience	Frequency	%	Finance & banking	3	2.90
Less than 5 years	18	17.1	Training courses in AIS	Frequency	%
5 years & less than 10 years	36	34.3	None	29	27.6
10 years & less than 15 years	39	37.1	1–3 courses	42	40.0
15 years & over	12	11.4	4–5 courses	25	23.8
Training courses in CM	Frequency	%	More than 5 courses	9	8.60
None	46	43.8			
1–3 courses	39	37.1			
4–5 courses	12	11.4			
More than 5 courses	8	7.60			

Note: CM = Crisis management, AIS = Accounting information systems.

In terms of practical experience, the majority of them have more than five years of work experience in their area of specialization. With regard to crisis management in particular, many have undergone one or more training courses in the fields of crisis management and AIS. Therefore, the respondents are suitable for inclusion in this research, as they have adequate awareness and understanding of the subject of the research, which increases the reliability and objectivity of their responses.

4.2. Descriptive Statistics and Analysis

Table 4 sets out the findings of the descriptive statistical analysis of the variables, showing the standard deviations and arithmetic averages. SU came first, followed by IQ, SQ, SVQ, and D-FCM. This demonstrates the respondents' high level of acceptance of the importance of the variables, elucidating the significance of quality dimensions of AIS success and D-FCM.

Table 4. Variables descriptive analysis.

Variable	Mean	Standard deviation
System quality (SQ)	3.70	0.491
Information quality (IQ)	3.80	0.536
Service quality (SVQ)	3.61	0.641
System use (SU)	3.93	0.532
During-financial crisis management (D-FCM)	3.46	0.552

4.3. Normality Test

According to Hair, Hult, Ringle, and Sarstedt (2017), the state of data is considered normal when the skewness and kurtosis values are between ± 1 . George and Mallery (2020) consider skewness and kurtosis between ± 1 to be excellent, while values between ± 2 are acceptable. Moreover, based on the basic rule that skewness is less than 3 and kurtosis is less than 10, this describes a very normal condition of the data distribution (Abdi, Vinzi, Russolillo, Saporta, & Trinchera, 2016). Consequently, the data collected for this research exhibit a normal distribution with kurtosis and skewness values that are within the acceptable range, as demonstrated in Table 5.

Table 5. Variable normality test results.

Variable	Skewness		Kurtosis	
	Statistic	Std. error	Statistic	Std. error
System quality (SQ)	0.414	0.236	-0.742	0.467
Information quality (IQ)	0.495	0.236	-0.647	0.467
Service quality (SVQ)	0.312	0.236	-0.449	0.467
System use (SU)	-0.416	0.236	0.383	0.467
During-financial crisis management (D-FCM)	0.442	0.236	0.621	0.467

4.4. Reliability and Validity Analysis

Table 6 explains the following: The partial least squares structural equation modelling (PLS-SEM) technique was employed in the research to evaluate the reliability of the elements based on the outcomes of factor loading. Hair et al. (2017) and George and Mallery (2020) indicate that factor loading weights of ≥ 0.50 reveal a viable and reliable model, and this reliability can be enhanced by eliminating some of the loading elements that have low weights. In this research, it is clear that almost all of the elements' weights exceed 0.6. Regarding the reliability of internal consistency evaluation, composite reliability and Cronbach's alpha coefficient weights of less than 0.6 are deemed weak.

Although weights between 0.6 and 0.8 are regarded as satisfactory, weights over 0.8 are deemed to be reliable and good, according to statisticians (Pallant (2016); Sekaran and Bougie (2016); Hair, Black, Babin, and Anderson (2014); Hair et al. (2017)). The reliability weights in this study are larger than 0.6. As stated by Abdi et al. (2016); Weiber and Mühlhaus (2014); Hair et al. (2017); and Hair et al. (2014), the average variance extracted (AVE), which measures convergent validity, should have a weight of 0.5 or higher (2017). The AVE weights in this study are more than 0.5.

A variable's discriminant validity describes how unique it is from other variables. This is computed by examining the correlations between the latent structures and the square root of the AVE (Abdi et al., 2016; Hair et al., 2017; Hair et al., 2014; Sekaran & Bougie, 2016). Since all AVE values throughout this study are higher than the associations between the latent constructs, it can be concluded that the discriminant validity is sufficient.

Table 6. Variables' factor loading, reliability and validity.

Variable	Factor loading	Cronbach's alpha	Composite reliability	AVE
System quality (SQ)		0.777	0.848	0.531
SQ1	0.684			
SQ2	0.846			
SQ3	0.748			
SQ4	0.707			
SQ5	0.641			
Information quality (IQ)		0.831	0.879	0.596
IQ10	0.579			
IQ11	0.820			
IQ12	0.823			
IQ13	0.789			

Variable	Factor loading	Cronbach's alpha	Composite reliability	AVE
IQ14	0.821			
Service quality (SVQ)		0.796	0.859	0.550
SVQ15	0.682			
SVQ16	0.732			
SVQ17	0.696			
SVQ18	0.805			
SVQ19	0.786			
System use (SU)		0.796	0.858	0.552
SU21	0.850			
SU22	0.835			
SU23	0.554			
SU24	0.688			
SU25	0.750			
During-financial crisis management (D-FCM)		0.942	0.947	0.581
Dur26	0.797			
Dur27	0.795			
Dur28	0.843			
Dur29	0.834			
Dur30	0.819			
Dur31	0.758			
Dur33	0.749			
Dur34	0.744			
Dur35	0.749			
Dur36	0.628			
Dur37	0.766			
Dur39	0.795			
Dur40	0.585			

Discriminant validity by Fornell–Larcker criterion

Variable	D-FCM	IQ	SQ	SU	SVQ
During-financial crisis management (D-FCM)	0.762				
Information quality (IQ)	0.532	0.772			
System quality (SQ)	0.628	0.556	0.728		
System use (SU)	0.468	0.603	0.658	0.743	
Service quality (SVQ)	0.640	0.553	0.641	0.553	0.742

4.5. Results of Hypothesis Testing

The study employed the path analytical approach as well as the bootstrapping method to describe the type of interaction among the exogenous and endogenous variables. The findings from the hypothesis tests are set out in Table 7, where the outcome for Ho.1 demonstrates a substantial and positive correlation between SQ and D-FCM ($t = 4.077$, $p = 0.000$). Furthermore, there is a significant and positive association between IQ and D-FCM ($t = 1.975$, $p = 0.021$) for Ho.2. Ho.3 revealed a substantial positive association between SVQ and D-FCM ($t = 3.690$, $p = 0.000$).

Table 7. Hypothesis testing results.

Hypothesis	Path	Std. beta	Std. error	t-value	p-value	Decision
Ho.1	SQ -> D-FCM	0.334	0.082	4.077	0.000*	Supported
Ho.2	IQ -> D-FCM	0.215	0.109	1.975	0.021*	Supported
Ho.3	SVQ -> D-FCM	0.321	0.087	3.690	0.000*	Supported

Note: * Significant at 0.05 (2-tailed).

D-FCM = During-financial crisis management; IQ = Information quality; SVQ = Service quality; SQ = System quality.

The mediation influence can be explained as a condition where a particular variable has an impact through the association of exogenous and endogenous variables, where the mediating variable has the ability to transfer power and influence between those variables, either completely or in part (Baron & Kenny, 1986). Therefore, the present

study employed a bootstrapping technique utilizing the PLS-SEM technique to demonstrate the mediating influence between the variables. Table 8 provides the outcomes of the mediating hypothesis examination. With regard to Ho.m.1, the outcome reveals that SU performs an essential mediating role in the correlation between SQ and D-FCM ($t = 3.160$, $p = 0.000$). In addition, with reference to Ho.m.2, SU plays a meaningful mediating role in the correlation between IQ and D-FCM ($t = 3.608$, $p = 0.000$). However, for Ho.m.3, SU did not play any mediating role in the association between SVQ and D-FCM ($t = 1.152$, $p = 0.131$).

Table 8. Mediation hypothesis testing results.

Hypothesis	Path	Std. beta	Std. error	T - value	P - value	Lower bound	Upper bound	Decision
Ho.m.1	SQ->SU-> D-FCM	0.191	0.061	3.160	0.000*	0.086	0.312	Supported
Ho.m.2	IQ->SU-> D-FCM	0.145	0.040	3.608	0.000*	0.081	0.237	Supported
Ho.m.3	SVQ->SU-> D-FCM	0.056	0.048	1.152	0.131*	-0.021	0.162	Not supported

Note: *Significant at 0.05 (2-tailed).

D-FCM = During-financial crisis management; IQ = Information quality; SQ = System quality; SU = System usage; SVQ = Service quality.

To confirm this result, a bootstrap confidence interval was utilized, which provides evidence regarding the stability of the estimation of parameters. It expresses the range in which the parameter will fall at a certain confidence level, which is usually 95%. The PLS-SEM was employed to carry out this examination, where the significance of the parameter is verified if the confidence area did not include the value of zero, which signifies that zero is not between the lower and upper bounds. Table 8 indicates that the value of the parameter (Beta) for the indirect influence of system quality on managing during a financial crisis through the use of the system reached 0.191, which is in the range of 0.086–0.312, with a confidence interval of 95%. Additionally, the value of the parameter for the indirect impact of information quality on managing during a financial crisis through the use of the system was 0.145, which is in the range of 0.081–0.237, with a confidence interval of 95%. Consequently, since zero was not marked in the confidence interval range, the results confirm that the effects of SQ and IQ on D-FCM are indirectly and partially due to SU. In contrast, the value of the parameter for the indirect effect of service quality on managing during a financial crisis through the use of the system was 0.056, which is in the range of -0.021–0.162, with a 95% confidence interval. Hence, since zero was marked in the confidence interval range, the results confirm that the effects of SVQ on D-FCM are only direct and not due to the mediation of SU.

As an additional measure concerning the confirmation of the nature of mediation, the variance accounted for (VAF) was utilized; its value expresses the ratio of the indirect effect on the association between the exogenous and endogenous variables across the mediating variable and the total influence of the relationship. Where the value of the VAF is larger than 80%, this implies complete mediation, whereas a value ranging from 20%–80% implies partial mediation, and a value lower than 20% implies no mediation. The values of the direct effect parameters of SQ, IQ and SVQ on D-FCM were 0.334, 0.215 and 0.321, respectively, while the values of the indirect influence parameters through the mediation of SU were 0.191, 0.145 and 0.056, respectively, thus the total influence values equal 0.525, 0.360 and 0.377, respectively. Since the value of VAF is obtained by dividing the value of the indirect influence by the value of the total influence, the results are equal to 0.572, 0.403 and 0.175, respectively. This indicates that 57.2% and 40.3% of the influence of SQ and IQ on D-FCM, respectively, are explained by the mediation of SU. Based on these results, it is clear that the mediation is partial since the values of the VAFs ranged between 20%–80%. On the other hand, there is no effect of mediation via SU in the relationship between SVQ on D-FCM, as the value of VAF was 17.5%, which is less than 20%.

5. DISCUSSION

In this research, and in the context of Palestinian governmental operations, the following hypotheses related to the quality dimensions of accounting information systems' success and during-financial crisis management were tested. Hypothesis Ho.1 assumes an association between SQ and D-FCM in the governmental context. This assumption was tested and supported by the findings, which revealed the presence of an association between SQ and D-FCM, and this result conformed to those of several previous studies, including Dahham et al. (2020); Alzoubi (2020); Ahmed and Jabbar (2021); Alabaddi et al. (2020); Adwan (2019); and Zwyalif (2015), but did not support the findings of Gopinathan and Raman (2020). Hypothesis Ho.2 assumes an association between IQ and D-FCM in the governmental context. The findings of the examination were accepted for this assumption, indicating an association between IQ and D-FCM. This result concurred with the results of several previous studies, such as Ahmed and Jabbar (2021); Qaddoriy and Mahameed (2020); Al Jaberi and Qawasmeh (2020); Gopinathan and Raman (2020); Al-Amyan (2016); Adwan (2019); Zwyalif (2015); and Bushra (2017), although it contradicted the results of Fatiha (2022). Hypothesis Ho.3 assumes an association between SVQ and D-FCM in the governmental context. The findings of the examination, which revealed the presence of an association, were accepted for this assumption, in line with results from several previous studies, such as Adwan (2019) and Al-Hayaly (2011). However, the finding was in disagreement with that of Gopinathan and Raman (2020). Thus, the quality dimensions of AIS success (IQ, SVQ and SQ) were found to have a positive impact on management during a financial crisis in the governmental context. This result indicates that the adoption by the Palestinian Finance Ministry of AIS that achieves sufficient quality dimensions of the system, information and service can positively improve the effectiveness of the management of its tasks during a financial crisis.

Additionally, this research tested the following hypotheses related to the mediation of SU in relationships between the quality dimensions of AIS success and D-FCM. Hypothesis Ho.m.1 assumes that SU mediates the relationship between SQ and D-FCM in the governmental context. The examination result indicated that the assumption was accepted, thereby revealing that system use acts a mediating role in the association and the indirect effect between SQ and D-FCM. This finding is in line with those of many previous studies, for example, Al-Okaily et al. (2020); Keikhosrokiani et al. (2020); Ke and Su (2018); Tam and Oliveira (2016); Al-Mamary et al. (2015); and Ali. and Younes (2013). Hypothesis (Ho.m.2) assumes that SU mediates the association between IQ and D-FCM in the governmental context. The examination indicated that the assumption was accepted, revealing that system use plays a mediating role in the association and the indirect effect between IQ and D-FCM. Similarly, this finding is also supported by many previous studies, for example, Ke and Su (2018); Tam and Oliveira (2016); Al-Mamary et al. (2015); Ali. and Younes (2013); and Sedera et al. (2013), although it differs from the finding of Keikhosrokiani et al. (2020). The third hypothesis concerning the mediating effect (Ho.m.3) assumes that SU mediates the relationship between SVQ and D-FCM in the governmental context. The result of the examination did not support the assumption, thereby revealing that the system use did not act in a mediating role in the association and indirect effect between SVQ and D-FCM. While this result conformed to those of several previous studies, for example, Keikhosrokiani et al. (2020); Tam and Oliveira (2016); and Al-Mamary et al. (2015), it diverged from those of Ke and Su (2018); and Mustapha and Obid (2015). These results demonstrate the importance of SQ and IQ in achieving quality for AIS success which, in turn, contributes to achieving high effectiveness of during-financial crisis management in the Palestinian Ministry of Finance, directly and indirectly, via the mediating role of the system usage. The use of the system can be a link and a mediator through which system quality and information quality are translated into effectiveness in managing during a financial crisis in the sense that the use of AIS and user experience with AIS, which is characterized by system quality and information quality, will lead to increased effectiveness in managing during the crisis. Thus, it can be said that the SQ and the IQ provide strong motivation for the use of the system, and through this use, organizations can ensure an advanced position when managing during financial crises. For the effectiveness of financial crisis management, information quality, system quality, and

system use are critical contributing factors. Regarding the quality of services, in general, the results illustrate the importance of this dimension in achieving quality for the success of the accounting information system, and this, in turn, contributes to achieving high effectiveness in management during financial crises in the Palestinian Ministry of Finance directly, but without the mediating role of system use. This signifies that quality of service does not constitute a strong motivation for using the system, thus improving the effectiveness of management during a financial crisis. This may be because the users of the system were unaware of the quality of services provided by the information systems department or IT support team. The user may have limited experience in dealing with or communicating with the service employee and this creates an insufficient understanding of the nature of the services provided. However, it could also be due to the poor quality of services provided, which would discourage the user from dealing with another employee or the IT department. However, it is worth noting the direct association between the quality of services and the effectiveness of managing during a financial crisis, which would emphasize the importance of achieving quality in services.

6. CONCLUSION

This research dealt with a research gap identified in a thorough review of the existing literature by providing empirical evidence about the association between the quality dimensions of AIS success and during-financial crisis management in a governmental context, in addition to highlighting the mediating role of system use. The research was carried out within a positivist paradigm using quantitative methods with data collected via a questionnaire. The Palestinian Ministry of Finance provided the population for the study, with a sample derived from employees who use and interact with accounting information systems directly to perform their tasks. A total of 141 questionnaires were distributed, and 105 usable questionnaires (representing a response rate of 74.4%) were obtained for statistical analysis. The findings contained a descriptive analysis of the demographic characteristics of the research sample, which demonstrated that most of the sample members are graduates with bachelor's or master's degrees. The majority stated that they specialize in the field of accounting, have extensive practical experience, and have attended courses in CM and AIS.

A descriptive analysis of the research variables revealed a high level of AIS use, which indicates the importance of these systems for the government sector and especially for a ministry such as the Ministry of Finance. Moreover, a high level of information quality was evaluated, indicating the ability of AIS to support users and decision makers in management during financial crises. The system quality and the quality of services were also evaluated at a high level, but at a lower ranking, respectively, indicating the need for more attention from the Ministry of Finance to be paid to these two dimensions of quality. Furthermore, evaluation of management during a financial crisis achieved a high level, but at a lower value compared to the values assigned to the other variables, which signifies the extent to which the Ministry of Finance was able to manage effectively during the financial crisis. However, there is a need for more effort and capabilities to enhance the effectiveness of AIS by improving their quality and promoting their use.

The quantitative analysis in this research centered on the testing of six hypotheses related to direct and indirect relationships. Through this, the significant direct impact of the quality dimensions of AIS success, which are represented by SQ, IQ, and SVQ, on during-financial crisis management in the governmental context, was revealed. The analysis also revealed the significant indirect influence, via the mediating role of system use, in the association between SQ and IQ, and during-financial crisis management in the governmental context. However, SU did not act in a mediating role in the association between SVQ and management during a financial crisis in the governmental context. Thus, it can be concluded that the higher the quality of the AIS adopted, the greater its effectiveness in managing during financial crises.

The current research has developed a model that links and clarifies the association between the quality dimensions of an accounting information systems' success, represented in SQ, IQ and SVQ, with effective D-FCM.

Empirical evidence for the theoretical associations developed in the framework is presented. Therefore, the combination of AISQ (SQ, IQ and SVQ) and D-FCM in a unified model is a theoretical and practical contribution that has received only limited attention in previous research. The present research contributes to the literature concerning the importance of quality dimensions of AIS success as critical precedents for effective management during financial crises. The research decreases the gap in the literature by addressing the quality dimensions of AIS success and management during financial crises. This research also tested the mediation role of SU in the association between SQ, IQ, SVQ and D-FCM effectiveness, which could reduce the gap in theory and practice in the literature, as there is only limited examination of such mediation relationships. Based on the foregoing, it is necessary to conduct more studies on the quality of AIS in particular, which could improve and support the development of measurement scales for variables that take into account the characteristics and specifications of accounting information systems. Furthermore, it is necessary to conduct more studies on the effectiveness of managing during financial crises, which could improve and support the development of measurement scales for variables that consider the specificity and characteristics of financial crises and ways of managing them. It is essential that the AISQ–DFCM model is examined in further studies to test its validity in different contexts. In addition, there is a need to conduct more studies and provide more support to show the extent of the impact of the quality of accounting information systems on the effectiveness of management during financial crises and in different contexts, especially in light of the scarcity of studies related to these matters.

Based on the results, this research recommends the need to enhance the quality of AIS. It is necessary to improve system quality that can be achieved in terms of ease of learning, understanding and use, integration, flexibility, response time, reliability and availability of information systems. It is also necessary to improve the quality of information in terms of accuracy, relevance, comparability, timeliness, understandability, format, completeness, verifiability, and predictability. Furthermore, the quality of service requires improvement in terms of responsiveness, empathy, reliability, assurance, and tangibility, while use of the system in terms of frequency, requested reports, duration, increased usage, expected use, and importance/versatility should be enhanced. These characteristics are vital in any accounting information system adopted by an organization so that it is characterized by high quality, whether in terms of system quality, quality of information, quality of services, or even use of the system, because a more effective system will contribute to improving the organization's ability to manage during financial crises more effectively and at a very advanced level. There is also a need to enhance during-financial crisis management tasks in terms of realizing and managing time, distributing tasks, responsibilities and powers, crisis management units, response and holding meetings, crisis control, preventing exacerbations and sub-crises, awareness and media, participation and cooperation, motivation and reward, resource allocation, rationalization of expenditures, and utilization of information systems.

With regard to the limitations and paths of future studies, this research is the first of its kind to examine the association between the quality dimensions of AIS success and the effectiveness of management during financial crises in the context of the Palestinian Ministry of Finance, employees of which constituted the research population and sample for the study. More studies in this field in other ministries and government sector organizations are needed to investigate those relationships. Further studies in other business sectors, in other countries, and with samples comprising different professional groups, for example, external auditors, are needed. Such studies would make comparisons possible between different countries, sectors, or professions. The present study directed attention to the mediating role of system use, but more studies are needed to further investigate this mediating role and to identify other factors that may also play a mediating role. Finally, the research reported here used a questionnaire as the main instrument to collect data for a quantitative investigation. However, future studies could adopt other approaches, such as qualitative methods and interviews, to obtain more finely grained data.

Funding: This study received no specific financial support.

Competing Interests: The authors declare that they have no competing interests.

Authors' Contributions: All authors contributed equally to the conception and design of the study.

REFERENCES

- Ababneh, S., & Ashour, M. (2018). The status of crisis management at public Jordanian universities in North Jordan. *IUG Journal of Educational and Psychology Sciences*, 26(3), 715-742.
- Abdalbaqi, A. M. (2021). *A qualitative study for crisis management strategies used by small business leaders*. Doctoral Thesis. Chicago, United States: Concordia University Chicago.
- Abdi, H., Vinzi, V. E., Russolillo, G., Saporta, G., & Trinchera, L. (2016). *The multiple facets of partial least squares and related methods*. Paris: Springer International Publishing.
- Abdul-Aal, M. H. (2017). *The crisis management and its impact on the quality of the administrative decisions in the ministries of labour and social development in the Southern Provinces*. Master Thesis. Gaza, Palestine: Al-Aqsa University & Management and Politics Academy for Postgraduate Studies.
- Abdul Qader, H. (2016). The reality of crisis management in public administration requirements Status: Staff independence University study. *Journal of Human Sciences*, 3(1), 199-228.
- Abdul Rahman, E. (2018). The status of crisis management in Jordanian higher education institutions - A field study on Al-Balqa applied university. *An-Najah University Journal for Research - B (Humanities)*, 33(7), 1097 - 1122.
- Abdul Razzaq, M. S. (2011). Crisis management and information systems to the extent of impact and effectiveness An applied study in a number of tourism companies listed in the Iraqi capital market. *Journal of Baghdad College of Economic sciences University*, 28, 143-165.
- Aboudzadeh, N., Shoshtari, A., & Hashemnia, S. (2014). Crisis management: Planning for the inevitable. *Management Science Letters*, 4(6), 1191-1196. <https://doi.org/10.5267/j.msl.2014.5.008>
- Abu Aziz, S. A. (2010). *Obstacles to crisis management in the Palestinian ministry of health under the siege of Gaza: A case study of the Gaza Strip*. Master Thesis. Palestine: The Islamic University of Gaza.
- Abu El-aish, H. N. (2016). *Managing crises resulting after wars (Case Study: Managing housing crisis After Wars in Gaza Strip)* Master Thesis. Palestine: The Islamic University of Gaza.
- Abu Hajar, N. F. (2016). *The degree of UNRWA school principals practicing crisis management in Gaza Governorates and its relation to their prevailed organizational Culture*. Master Thesis. Palestine: The Islamic University of Gaza.
- Abu Nqeirah, F. N. (2014). *Using a simulation model for crisis and emergency management (A Case Study on Coastal Municipalities Water Utility "CMWU")*. Master Thesis. Palestine: Islamic University of Gaza.
- Abu Omar, H. A. (2009). *The effectiveness of computer based management information systems and its impact in crisis management empirical study in the banking sector in Palestine*. Master Thesis. Palestine: The Islamic University of Gaza.
- Abu Salout, W. A. (2015). *The role of intellectual capital in health crisis management at ministry of health in the Gaza Strip*. Master Thesis. Palestine: Academy of Management and policy for Graduate Studies & Al-Aqsa University, Gaza.
- Abu Samra, M. A., Altit, M. A., & Ashour, F. (2012). Crises management at the physical education departments in the higher education institutions from the perspective of students. *Journal of Al-Azhar University of Gaza, Humanities Series*, 14(1), 35-72.
- Abu Taha, S. S. (2016). The relationship between knowledge management and crisis management in governmental hospitals. *Al-Azhar University Journal - Gaza, Human Sciences Series*, 18(2), 95-118.
- Adwan, M. S. (2019). *The effectiveness of management information systems and its role in improving crisis management. Empirical study in ministries of social development and labor in Gaza Strip*. Master Thesis. Palestine: Al-Azhar University - Gaza.
- Ahmed, S. F., & Jabbar, O. A. (2021). Electronic management is a strategic approach to crisis management Applied research in the general company of electricity power transmission the Northern Region/ministry of electricity. *Journal of Administration and Economics*, 131, 116-135.

- Al-Ajmi, N. M. (2011). *The level of crisis management implementation in Kuwaiti gulf oil company - an applied study from top & middle management perspective*. Master Thesis. Jordan: Middle East University.
- Al-Amyan, M. M. (2016). The role of information in disaster management “case study on disaster management in the general directorate of civil defense of Jordan”. *Management Science and Engineering*, 10(2), 40-50.
- Al-Ashqar, M. A. (2010). *The degree of practicing the management of technical and vocational colleges in the governorates of Gaza to manage crises and ways to develop them*. Master Thesis. Palestine: The Islamic University of Gaza.
- Al-Banna, E. A. (2017). *The important factors in crisis management for INGOs in the Gaza Strip from employees' perspective*. Master Thesis. Gaza, Palestine: The Islamic University of Gaza.
- Al-Gharbawi, K. B. (2016). *Task-technology fit of MIS and its impact on MIS user acceptance and satisfaction at UNRWA-Gaza*. Master Thesis. Palestine: The Islamic University of Gaza.
- Al-Hariri, M. S. (2010). *Crisis management: Economic, financial and administrative problems*. Amman: Dar Al Bidaya Publishers and Distributors.
- Al-Hayaly, A. (2011). The quality of banking information systems and their role in crisis management: A field study in a sample of Iraqi banks/Nineveh. *The Journal of Tanmiyat Al-Rafidain (TANRA)*, 104(33), 133-151.
- Al-Hila, A. A.-M., & Abu Ajwa, H. K. (2017). The effect of crisis management in reducing job stress in the electricity distribution company in Gaza governorates. *Journal of Palestine University for Research and Studies*, 7(2), 1-37.
- Al-Ja'afreh, A. B. (2011). *Quality management for information systems effectiveness: An empirical study of Jordanian industrial firms*. PhD Thesis. Amman, Jordan: University of Banking and Financial Sciences.
- Al-Jabri, I. M. (2015). Antecedents of user satisfaction with ERP systems: Mediation analyses. *Kybernetes*, 44(1), 107-123. <https://doi.org/10.1108/k-05-2014-0101>
- Al-Jarjari, K. K. (2018). Dimensions of strategic planning and their impact on crisis management: A survey of the opinions of the managers of a sample of industrial companies in Dohuk governorate. *Polytechnic Journal*, 8(3), 342-366.
- Al-Mamary, Y. H., Shamsuddin, A., & Aziati, N. (2015). Investigating the key factors influencing on management information systems adoption among telecommunication companies in Yemen: The conceptual framework development. *International Journal of Energy, Information and Communications*, 6(1), 59-68.
- Al-Misri, N. H. (2017). A proposed framework for the development of emotional capital to manage the crisis in the municipalities which are located in the Southern Gaza Strip. *Journal of al-Quds Open University: For Administrative and Economic Research and Studies*, 2(7), 37-54.
- Al-Naami, S. (2021). *The economic crisis in the Gaza strip and its political repercussions*. Doha, Qatar: Al Jazeera Centre for Studies.
- Al-Okaily, A., Al-Okaily, M., Shiyab, F., & Masadah, W. (2020). Accounting information system effectiveness from an organizational perspective. *Management Science Letters*, 10(16), 3991-4000.
- Al Eid, N. A., & Arnout, B. A. (2020). Crisis and disaster management in the light of the Islamic approach: COVID-19 pandemic crisis as a model (a qualitative study using the grounded theory). *Journal of Public Affairs*, 20(4), e2217. <https://doi.org/10.1002/pa.2217>
- Al Jaber, A. M., & Qawasmeh, F. (2020). The impact of using social media in crisis management according to employees perspectives. *International Journal of Academic Research in Business and Social Sciences*, 10(11), 628-644. <https://doi.org/10.6007/ijarbss/v10-i11/8130>
- Al Shobaki, M. J., Abu Amuna, Y. M., & Badah, W. (2016). *The Impact of the strategic orientations on crisis management agency, international relief in Gaza*. Paper presented at the First Scientific Conference for Community Development.
- Alabaddi, Z. A., Rahahleh, A. H., Muflih, M. A., Farajat, J. M., Al-Nsour, S. N., & Almahameed, M. A. (2020). Effect of system quality and information quality on crisis management—an empirical study on Jordanian mobile telecommunications companies. *European Journal of Business and Management*, 12(1), 73-83. <https://doi.org/10.7176/ejbm/12-1-07>
- Albelbasee, M. A. (2016). *Ways to develop methods of decision-making in managing security crises in Palestine*. Master Thesis. Palestine: Management and Politics Academy for Postgraduate Studies & Al-Aqsa University-Gaza.

- Aldao, C., Blasco, D., Espallargas, M. P., & Rubio, S. P. (2021). Modelling the crisis management and impacts of 21st century disruptive events in tourism: The case of the COVID-19 pandemic. *Tourism Review*, 76(4), 929-941. <https://doi.org/10.1108/tr-07-2020-0297>
- Aldegis, A. M. (2018). Impact of accounting information systems' quality on the relationship between organizational culture and accounting information in Jordanian industrial public shareholding companies. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 8(1), 70-80. <https://doi.org/10.6007/ijarafms/v8-i1/3829>
- Aldholay, A. H., Isaac, O., Abdullah, Z., & Ramayah, T. (2018). The role of transformational leadership as a mediating variable in DeLone and McLean information system success model: The context of online learning usage in Yemen. *Telematics and Informatics*, 35(5), 1421-1437. <https://doi.org/10.1016/j.tele.2018.03.012>
- Aldholay, A., Isaac, O., Abdullah, Z., Abdulsalam, R., & Al-Shibami, A. H. (2018). An extension of Delone and McLean IS success model with self-efficacy: Online learning usage in Yemen. *The International Journal of Information and Learning Technology*, 35(4), 285-304. <https://doi.org/10.1108/ijilt-11-2017-0116>
- Ali, M., & Ahlam, K. (2016). The role of financial management in facing crises in the economic institution "case study". *Algerian Journal of Economics and Finance*, 3(1), 7-32.
- Ali, B. M., & Younes, B. (2013). The impact of information systems on user performance: An exploratory study. *Journal of Knowledge Management, Economics and Information Technology*, 3(2), 128-154.
- Aljuhmani, H. Y., & Emeagwali, O. L. (2017). The roles of strategic planning in organizational crisis management: The case of Jordanian banking sector. *International Review of Management and Marketing*, 7(3), 50-60.
- Alkshali, S., & Al-Qutob, M. (2007). Effectiveness of management information systems and their impact on crisis management: Field study on Jordanian industrial companies. *Jordan Journal of Business Administration*, 3(1), 24-45.
- Almashaqba, Z. M. (2017). The impact of management information systems on the security crisis management "A study on the general directorate of passports in Riyadh-KSA. *International Journal of Business and Management Review*, 5(6), 26-47.
- Alorfi, A. S. (2018). *An extended information system success model for mobile learning usage in Saudi Arabia Universities*. PhD Thesis. Sintok, Malaysia: Universiti Utara Malaysia.
- Aloun, M. L., & Attieh, H. (2018). The effectiveness of management information system and its contribution to crises management "case study of (Caterpillar) and (Johnson & Johnson) companies. *Al-Afak Journal for Economic Studies*, 3(1), 99-115.
- Alpaslan, C. M., & Mitroff, I. I. (2021). Exploring the moral foundations of crisis management. *Technological Forecasting and Social Change*, 167, 120713.
- Alradie, K. W. (2011). *The extent of readiness for crisis and disaster management - a survey study on civil defense officers in the Gaza Strip*. Master Thesis. Palestine: The Islamic University of Gaza.
- Alsaqqa, A. I., & Soufi, A. S. (2021). The role of decision support systems in the success of crisis management of the Palestinian insurance sector: An empirical study on Al-Multazim insurance and investment company. *Journal of Financial, Accounting and Managerial Studies*, 8(3), 146-165.
- Alsoudani, K. A., & Altaany, F. H. (2014). Role of management information systems in crises charitable organizations in Jordan: Case study. *International Journal of Advances in Engineering and Management*, 1(4), 1-6.
- Alteneiji, R. H., Ahmed, V., & Saboor, S. (2020). A qualitative approach to investigate emergency preparedness state for the built environment in the UAE. *Engineering, Construction and Architectural Management*, 28(7), 2005-2022.
- Alzoubi, M. O. (2020). The impact of management information system's features on crisis management in Jordanian commercial banks (field study on Jordanian commercial banks in the northern sector). *Journal of Asian Scientific Research*, 10(3), 165-179.
- AMAN. (2021). *The general budget analysis report 2020*. Ramallah, Palestine: AMAN-Transparency Palestine.
- Arab, F. (2018). The media's treatment of economic crises: A study of the foundations and components. *Journal of Social Science Development*, 11(1), 27-44.

- Ashour, A. (2010). Early warning in financial institutions using financial statements - an applied study. *Journal of Law and Human Sciences - Economic Studies*, 24(1), 85-100.
- Ateer, R., & Faniy, A. (2016). The role of UNRWA in nablus educational area in crises management. *The Journal of al-Quds Open University for Educational and Psychological Research & Studies*, 4(13), 80-116.
- Atta-Allah, F. (2017). Industrial organization between strategic vigilance and crisis management. *Journal of Development and Human Resource Management*, 3(9), 67-78.
- Ayyad, L. S. (2015). *The effect of modern crises management strategies on marketing performance*. Master Thesis. Palestine: The Islamic University of Gaza.
- Bani, A. A. S., Anbari, F. T., & Money, W. H. (2008). Impact of organizational and project factors on acceptance and usage of project management software and perceived project success. *Project Management Journal*, 39(2), 5-33.
- Barghothe, F. R. (2013). *Crisis management among administrators in sports federations and clubs in Palestine*. Master Thesis. Palestine: An-Najah National University.
- Berbekova, A., Uysal, M., & Assaf, A. G. (2021). A thematic analysis of crisis management in tourism: A theoretical perspective. *Tourism Management*, 86, 104342.
- Bergeron, C. D., & Cooren, F. (2012). The collective framing of crisis management: A ventriloquial analysis of emergency operations centres. *Journal of Contingencies and Crisis Management*, 20(3), 120-137.
- Boin, A., & 't Hart, P. (2010). Organising for effective emergency management: Lessons from research 1. *Australian Journal of Public Administration*, 69(4), 357-371.
- Braun, B. (2015). Preparedness, crisis management and policy change: The euro area at the critical juncture of 2008–2013. *The British Journal of Politics and International Relations*, 17(3), 419-441.
- Bushra, A.-W. (2017). *Effectiveness of management information systems (MIS) in crisis management (CM): Case study company Amor Ben Amor branch mills (MAB)*. Master Thesis. Algeria: University of Oum El Bouaghi.
- Campiranon, K., & Scott, N. (2014). Critical success factors for crisis recovery management: A case study of Phuket hotels. *Journal of Travel & Tourism Marketing*, 31(3), 313-326.
- Chabane, K. (2019). Impact of strategic planning on crisis management. *Algerian Journal of Communication*, 17(28), 15-33.
- Chabani, M., & Chabani, W. (2014). Managing financial crises according to accounting information systems. *Journal of Economics and Applied Statistics*, 11(1), 196-206.
- Chahed, A. H., & Zergoune, M. (2017). Effectiveness of information systems in crisis management. *The Journal of Economic and Financial Studies*, 10(3), 145-151.
- Chan, S., & Chan, Z. C. (2009). Food safety crisis management plan in Hong Kong. *Journal of Food Safety*, 29(3), 394-413.
- Chen, L., & Aklikokou, A. K. (2020). Determinants of E-government adoption: testing the mediating effects of perceived usefulness and perceived ease of use. *International Journal of Public Administration*, 43(10), 850-865.
- Corbaley, S. R. (2010). *A descriptive study to determine the level of crisis preparedness frontline leaders are trained to perform during an exploding crisis in Los Angeles county healthcare facilities, providing emergency services*. PhD Thesis. United States: University of La Verne.
- Dahham, D. L., Atu, T. T., & Abdullah, M. A. (2020). The effectiveness of management information systems and their impact on crisis management (An applied study in a sample of the Iraqi private banks). *Tikrit Journal of Administration and Economics Sciences*, 16(1), 577-594.
- Dalloul, M. H. (2019). The extent of it infrastructure development and its relation to the efficiency of accounting information systems - an applied study in Palestinian governmental higher education institutions in Gaza Strip. *Finance and Business Economics Review (JFBE)*, 3(3), 101-128.
- Dalloul, M. H., Binti Ibrahim, Z., & Tajul Urus, S. (2022). The role of the accounting information quality in pre-financial crisis management at Palestinian Government Universities. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 12(1), 64-78.

- Dalloul, M. H. (2019). The extent of it infrastructure development and its relation to the efficiency of accounting information systems - an applied study in Palestinian governmental higher education institutions in Gaza Strip. *Finance and Business Economics Review (JFBE)*, 3(3), 101-128.
- Dawud, A. W. (2018). *Analysis of the internal environment (Using McKinsey Model 7S) and its role in crisis management in the Gaza Strip case study: Directorate general of the Palestinian civil defense*. Master Thesis. Palestine: The Islamic University of Gaza.
- Dayour, F., Adongo, C. A., Amuquandoh, F. E., & Adam, I. (2021). Managing the COVID-19 crisis: Coping and post-recovery strategies for hospitality and tourism businesses in Ghana. *Journal of Hospitality and Tourism Insights*, 4(4), 373-392.
- DeLone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. *Information Systems Research*, 3(1), 60-95.
- DeLone, W. H., & McLean, E. R. (2002). *Information systems success revisited*. Paper presented at the Proceedings of the 35th Hawaii International Conference on System Sciences. Big Island, Hawaii.
- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9-30.
- DeLone, W. H., & McLean, E. R. (2016). Information systems success measurement. *Foundations and Trends® in Information Systems*, 2(1), 1-116.
- Eabadi, I., & Ibrahim, H. (2019). Strategic communication and its role in crisis management - An analytical descriptive approach. *Algerian Journal of Communication*, 17(28), 34-51.
- Elmougher, M. M., Alattar, M. A., & Elpasha, H. E. (2019). The reality of senior management of crises and disasters in Gaza Strip. *IUG Journal of Economics and Business*, 26(2), 67-80.
- Ershadi, M. M., & Shemirani, H. S. (2021). A multi-objective optimization model for logistic planning in the crisis response phase. *Journal of Humanitarian Logistics and Supply Chain Management*, 12(1), 30-53.
- Eslim, W. S. (2007). *Features of crisis management in palestinian governmental institutions: A field study on the ministry of Finance in Gaza*. Master Thesis. Palestine: The Islamic University of Gaza.
- Fatiha, A. (2022). The role of information quality in raising the efficiency of crisis management: An applied study of the Djezzy foundation in Djelfa. *Afak For Sciences Journal*, 7(1), 570-581.
- Fearn-Banks, K. (2017). *Crisis communications* (5th ed.). New York: Routledge.
- Ferwanah, H. A. (2019). The importance of crisis management in improving the quality of health services for patients in hospitals in the Gaza Strip. *Journal of Business and Finance Economy*, 3(2), 233-265.
- George, D., & Mallery, P. (2020). *IBM SPSS statistics 26 step by step a simple guide and reference* (16th ed.). New York: Routledge.
- Ghanem, M. M. (2011). *The role of information technology in crisis management belongs to the employee in the operation room of the Palestinian interior ministry*. Master Thesis. Hebron, Palestine: Hebron University.
- Gopinathan, S., & Raman, M. (2020). Role of information system management during emergencies: The COVID-19 crisis in Malaysia. *Journal of Humanities and Social Sciences Research*, 2(S), 159-172.
- Gorla, N., Somers, T. M., & Wong, B. (2010). Organizational impact of system quality, information quality, and service quality. *The Journal of Strategic Information Systems*, 19(3), 207-228.
- Ha, J. H. (2013). *The role of relationships in crisis communication: The impact of agency-client relationships and perception of crisis strategies on crisis-related task conflict, performance, and satisfaction*. PhD Thesis. United States: University of North Carolina.
- Hair, J. F., Hult, G. T., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). USA: SAGE Publications.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis*. Harlow: Pearson Education Limited.
- Hamdouna, H. H. (2006). *The high school principal's practice of crisis management skill in Gaza Governorate*. Master Thesis. Palestine: The Islamic University of Gaza.

- Hanna, R. D., Abdul Aziz, S. K., & Najib, S. H. (2018). The role of management information system in crisis management an empirical study in some faculties of the university of Mosul. *Journal of Kirkuk University for Administrative and Economic Sciences*, 8(2), 115-140.
- Helles, R. M. (2021). *The crisis of clearance revenues for the Palestinian Authority in its political context and its economic repercussions*. Beirut, Lebanon: Al-Zaytouna Centre for Studies and Consultations.
- Helles, R. M. (2020). *Estimating the situation: The impact of the virus (Covid 19) on the Palestinian economy*. Ramallah: Palestinian Research Center.
- Hussein, A. M. (2012). *The role of strategic planning in the effectiveness of crises management "Field study in the ministry of planning"*. Master Thesis. Iraq: Baghdad University.
- International Monetary Fund (IMF). (2010). The IMF-FSB early warning exercise - design and methodological toolkit. *Policy Papers*, 2010(78), 1-41.
- International Monetary Fund (IMF). (2022). *IMF staff concludes visit to West Bank and Gaza (PRESS RELEASE NO. 22/72)*. Washington, D.C.: United States: International Monetary Fund (IMF).
- Jaafreh, A. B. (2017). Evaluation information system success: Applied DeLone and McLean information system success model in context banking system in KSA. *International Review of Management and Business Research*, 6(2), 829-845.
- Jad Al-Rub, S. M. (2010). *Recent trends in risk management and organizational crises*. Cairo: Dar Alnahda Alarabia.
- Jafar, & Yunus, I. (2017). The impact of strategic planning in crisis management: An empirical study of public institutions in the area of Jerusalem suburbs *Al-Aqsa University Journal (Humanities Series)*, 21(1), 293-324.
- Kanakriyah, R. (2016). The effect of using accounting information systems on the quality of accounting information according to users perspective in Jordan. *European Journal of Accounting, Auditing and Finance Research*, 4(11), 58-75.
- Kao, G. H.-Y., Wang, S. W., & Farquhar, J. D. (2020). Modeling airline crisis management capability: Brand attitude, brand credibility and intention. *Journal of Air Transport Management*, 89, 101894.
- Ke, P., & Su, F. (2018). Mediating effects of user experience usability - An empirical study on mobile library application in China. *The Electronic Library*, 36(5), 892-909.
- Keikhosrokiani, P., Mustaffa, N., Zakaria, N., & Abdullah, R. (2020). Assessment of a medical information system: The mediating role of use and user satisfaction on the success of human interaction with the mobile healthcare system (iHeart). *Cognition, Technology & Work*, 22(2), 281-305.
- King III, G. (2007). Narcissism and effective crisis management: A review of potential problems and pitfalls. *Journal of Contingencies and Crisis Management*, 15(4), 183-193.
- Kosasi, S., Kasma, U., Vedyanto, & Susilo, B. (2019). *The mediating role of intention to use E-commerce adoption in MSMEs*. Paper presented at the 1st International Conference on Cybernetics and Intelligent Systems (ICORIS). Institute of Technology and Business (ITB) STIKOM Bali, Indonesia.
- Ladewi, Y., Susanto, A., Mulyani, S., & Suharman, H. (2017). Critical factors accounting information system success survey of state-owned enterprises (SOE) in Indonesia. *International Journal of System Signal Control and Engineering Application*, 10(1), 32-40.
- Le, D., & Phi, G. (2021). Strategic responses of the hotel sector to COVID-19: Toward a refined pandemic crisis management framework. *International Journal of Hospitality Management*, 94, 102808.
- Leta, S. D., & Chan, I. C. C. (2021). Learn from the past and prepare for the future: A critical assessment of crisis management research in hospitality. *International Journal of Hospitality Management*, 95, 1-11.
- Ishammari, W. S., Alhazaimah, A. S., & Alzoubi, M. O. (2020). The impact of human resources management practices as an entry point in crisis management. *Journal of Asian Scientific Research*, 10(4), 238-254.
- MacNeil, W., & Topping, K. (2007). Crisis management in schools: Evidence-based prevention. *Journal of Educational Enquiry*, 6(4), 64-94.
- Mahama, H., & Cheng, M. M. (2013). The effect of managers' enabling perceptions on costing system use, psychological empowerment, and task performance. *Behavioral Research in Accounting*, 25(1), 89-114.

- Makid, A., & Sitiy, N. A. (2016). The importance of the financial planning to face the crises and their management - study a case of national firm of electricity and gas-SONELGEZ MEDEA. *Management and Development Journal for Research and Studies*, 5(2), 32-44.
- Mansour, E., Mohammad, A. A., Missi, F., & , & Hamdan, A. (2009). Examine the existence of (systrust) model and its impact on Jordanian commercial banks performance. *European and Mediterranean Conference on Information Systems*, 13(14), 1-9.
- Misk, Z. (2011). *Reality of crisis management in public sector hospitals operating in the West Bank and strategies dealt with from the perspective of workers*. Master Thesis. Palestine: Hebron University.
- Mitroff, I. I. (1994). The role of computers and decision aids in crisis management: A developer's report. *Journal of Contingencies and Crisis Management*, 2(2), 73-84.
- Mitroff, I. I., Shrivastava, P., & Udwadia, F. E. (1987). Effective crisis management. *Academy of Management Perspectives*, 1(4), 283-292.
- Mkonya, V. L., Jintian, Y., & Kyando, N. (2017). *Effect of using accounting information system on accounting information quality for projects*. Paper presented at the Proceedings of the 14th International Conference on Innovation & Management. Wuhan, China: Wuhan University of Technology Press.
- Moe, T. L., & Pathranarakul, P. (2006). An integrated approach to natural disaster management: Public project management and its critical success factors. *Disaster Prevention and Management: An International Journal*, 15(3), 396-413.
- Moerschell, L., & Novak, S. S. (2020). Managing crisis in a university setting: The challenge of alignment. *Journal of Contingencies and Crisis Management*, 28(1), 30-40.
- Moslehpour, M., Pham, V. K., Wong, W.-K., & Bilgiçli, İ. (2018). E-purchase intention of Taiwanese consumers: Sustainable mediation of perceived usefulness and perceived ease of use. *Sustainability*, 10(1), 1-17.
- Mustapha, B., & Obid, S. N. B. S. (2015). Tax service quality: The mediating effect of perceived ease of use of the online tax system. *Procedia-Social and Behavioral Sciences*, 172, 2-9.
- Netten, N., & van Someren, M. (2011). Improving communication in crisis management by evaluating the relevance of messages. *Journal of Contingencies and Crisis Management*, 19(2), 75-85.
- Nizamidou, C., & Vouzas, F. (2020). The contribution of preoccupation with failure to TQM, crisis management and HR aiming to overcome crises. *The TQM Journal*, 32(6), 1077-1098.
- Nour Al-Daem, A.-S. M.-G. (2015). The effect of management information systems on crises management by applying to Asalaya sugar factory. *White Nile Journal for Studies and Scientific Research*(6), 1-25.
- Nurhayati, N., Iss, A., & Sk, R. (2017). The influence of personal information capability and management commitment on the success of the implementation of accounting information system in Baznas of District-City Level in West Java Province. *International Journal of Advanced Engineering, Management and Science*, 3(7), 239893.
- Nurhayati, N., & Susanto, A. (2017). The influence of transformational leadership on the success of accounting information systems implementation (Survey on National Zakat Management Institution of West Java). *Journal of Engineering and Applied Sciences*, 12(17), 4534-4539.
- Odeh, R. R. (2008). *The reality of crisis management in higher education institutions in the Gaza Strip: An applied study on the Islamic University*. Master Thesis. Palestine: The Islamic University of Gaza.
- Ozcan, S. (2014). *Key factors affecting crisis management effectiveness in the public sector*. Doctoral Thesis. United Kingdom: University of Southampton.
- Pallant, J. (2016). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (6th ed.). Australia: Allen & Unwin.
- Pan, P.-L., & Meng, J. (2016). Media frames across stages of health crisis: A crisis management approach to news coverage of flu pandemic. *Journal of Contingencies and Crisis Management*, 24(2), 95-106.
- Pearson, C. M., & Mitroff, I. I. (1993). From crisis prone to crisis prepared: A framework for crisis management. *Academy of Management*, 7(1), 48-59.
- Pedersen, C. L., Ritter, T., & Di Benedetto, C. A. (2020). Managing through a crisis: Managerial implications for business-to-business firms. *Industrial Marketing Management*, 88, 314-322.

- Penrose, J. M. (2000). The role of perception in crisis planning. *Public Relations Review*, 26(2), 155-171.
- Puasa, S. (2017). *A phenomenon of the critical factors of accounting information system (AIS) effectiveness*. PhD Thesis. United Kingdom: University of Strathclyde.
- Putra, W. E., & Setiawan, D. (2020). The success analysis of implementation of the electronic system integrated final project of Jambi University students with Delone and Mclean model approach. *JEBI (Journal of Islamic Economics and Business)*, 4(2), 147-154.
- Qaddoriy, F. M., & Mahameed, K. A. (2020). Effect of the quality of output of management information systems on crisis management strategies (exploration study in general company for the manufacture of fertilizer northern region/Baiji). *Tikrit Journal of Administration and Economics Sciences*, 16(1), 399-422.
- Qassem, J. (2021). *Harvest 2021, the economy of Palestine on the impact of an unprecedented liquidity crisis*. Ramallah, Palestine: Anadolu Agency.
- Quyen, P. T., & Nguyen, N. P. (2020). The impact of perceived accounting benefits on the enterprise resource planning success: The mediating role of effective system use. *Journal of Intelligence Studies in Business*, 10(3), 63-79.
- Rahi, S., & Abd Ghani, M. (2019). Integration of DeLone and McLean and self-determination theory in internet banking continuance intention context. *International Journal of Accounting & Information Management*, 27(3), 512-528.
- Ramli, A. (2013). *Usage of and satisfaction with accounting information systems in the hotel industry: The case of Malaysia*. PhD Thesis. United Kingdom: The University of Hull.
- Riandi, M. H., Respati, H., & Hidayatullah, S. (2021). Conceptual model of user satisfaction as mediator of e-learning services and system quality on students' individual performance. *International Journal of Research in Engineering, Science and Management*, 4(1), 60-65.
- Ricke, M. L. (2020). *Did you take care of everybody? Insights on crisis management from senior student affairs professionals*. PhD Thesis. Greeley, Colorado, United States: University of Northern Colorado.
- Romi, I. M. (2013). Testing Delone and Mclean's model in financial institutions. *American Academic & Scholarly Research Journal*, 5(3), 121-129.
- Rouibah, K., & Hamdy, H. (2009). Factors affecting information communication technologies usage and satisfaction: Perspective from instant messaging in Kuwait. *Journal of Global Information Management*, 17(2), 1-29.
- Rouibah, K., Hamdy, H. I., & Al-Enezi, M. Z. (2009). Effect of management support, training, and user involvement on system usage and satisfaction in Kuwait. *Industrial Management & Data Systems*, 109(3), 338-356.
- Samhouri, M. (2019). *Decoding the current Palestinian financial crisis*. Washington, D.C.: United States: Carnegie Endowment for International Peace.
- Santhanamery, T., & Ramayah, T. (2018). Trust in the system: The mediating effect of perceived usefulness of the E-filing system. In S. Saeed, T. Ramayah, & Z. Mahmood, *User Centric E-Government*. In (pp. 89-103). Cham: Springer.
- Sari, N. M., & Purwanegara, D. (2016). The effect of quality accounting information system in Indonesian government (BUMD at Bandung Area). *Research Journal of Finance and Accounting*, 7(2), 188-196.
- Sausmarez, N. D. (2003). *Crisis management for the tourism sector: Malaysia's response to the Asian financial crisis*. PhD Thesis. United Kingdom: University of Strathclyde.
- Sedera, D., Eden, R., & McLean, E. R. (2013). *Are we there yet? A step closer to theorizing information systems success*. Paper presented at the International Conference on Information Systems (ICIS 2013): Reshaping Society Through Information Systems Design, Milan.
- Sedera, D., & Gable, G. (2004). *A factor and structural equation analysis of the enterprise systems success measurement model*. Paper presented at the Twenty-Fifth International Conference on Information Systems.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach* (7th ed.). Chichester: John Wiley & Sons Ltd.
- Shagari, S. L. (2018). *Determinants of accounting information technology usage in Nigerian banking sector*. PhD Thesis. Kedah, Malaysia: Universiti Utara Malaysia.

- Sofyan, A. S., Abror, A., Putra, T. W., Muslihata, M., Sofyan, S., Sirajuddin, S., & Darussalam, A. Z. (2021). Crisis and disaster management for halal tourism: A systematic review. *Tourism Review*, 77(1), 129-145.
- Sorongon, E., & Hidayati, Q. (2020a). Integration of eucs variables into delone and mclean models for e-government evaluation: Conceptual models. *Register: Scientific Journal of Information System Technology*, 6(1), 32-42.
- Sorongon, E., & Hidayati, Q. (2020b). Evaluation of implementation E-government with Delone and Mclean. *INTENSIVE: Scientific Journal of Research and Application of Information Systems Technology*, 4(1), 22-37.
- Sulaymani, E., Souad, D., & Barbawi, K. (2017). An Islamic vision of crisis management. *AL-MOASHEER Journal of Economic Studies*, 1(3), 140-151.
- Susilawati, C. D., & Jerry. (2018). Influence of implementation of quality of accounting information systems to generate quality of accounting information in higher education. *National Academy of Managerial Staff of Culture and Arts Herald*, 1, 791-795.
- Sutherland, T. (2013). *The management of the effects of a hurricane: A study of higher education crisis management processes as viewed through a performance management system*. Doctoral Dissertation. United States: Texas A & M University.
- Sweis, M. I., & Abdeen, I. A. (2017). The strategic role of development and training strategies in crisis management at Gaza electricity distribution corporation: A field study. *Journal of Al-Quds Open University for Administrative & Economic Research*, 2(8), 231-247.
- Tam, C., & Oliveira, T. (2016). Understanding the impact of m-banking on individual performance: DeLone & McLean and TTF perspective. *Computers in Human Behavior*, 61, 233-244.
- Thielsch, M. T. (2020). Managing pandemics—demands, resources, and effective behaviors within crisis management teams. *Applied Psychology: An International Review*, 70(1), 150-187.
- Tokakis, V., Polychroniou, P., & Boustras, G. (2019). Crisis management in public administration: The three phases model for safety incidents. *Safety Science*, 113, 37-43.
- Tripp, M. L. (2013). *Integrating Facebook into the initial response stage of corporate crisis communication*. PhD Thesis. United States: Walden University.
- Türkmenadağ, Z., & Tuna, M. (2022). Empowering leadership and knowledge management: The mediating role of followers' technology use. *Journal of Organizational Change Management*, 35(2), 330-347.
- Twomey, P. M. (2009). *Analysis of crisis management planning in Illinois public schools*. PhD Thesis. United States: Western Illinois University.
- Urbach, N., Smolnik, S., & Riempp, G. (2010). An empirical investigation of employee portal success. *The Journal of Strategic Information Systems*, 19(3), 184-206.
- Vallaster, C. (2017). Managing a company crisis through strategic corporate social responsibility: A practice-based analysis. *Corporate Social Responsibility and Environmental Management*, 24(6), 509-523.
- van Laere, J., & Lindblom, J. (2019). Cultivating a longitudinal learning process through recurring crisis management training exercises in twelve Swedish municipalities. *Journal of Contingencies and Crisis Management*, 27(1), 38-49.
- Vasickova, V., & Repa, V. (2021). *Organizations crisis framework: Classification crisis factors with using conceptual modelling*. Paper presented at the International Conference on Business Informatics Research. Springer, Cham.
- Walida, H., & Karima, S. (2019). Public relations specialist and crisis management: Roles and strategies. *Al-Resalah Journal for Media Studies*, 2(8), 37-49.
- Wang, W.-T. (2009). Knowledge management adoption in times of crisis. *Industrial Management & Data Systems*, 109(4), 445-462.
- Wang, Y. S., Li, H. T., Li, C. R., & Wang, C. (2014). A model for assessing blog-based learning systems success. *Online Information Review*, 38(7), 969-990.
- Weiber, R., & Mülhhaus, D. (2014). *Structural equation modeling: An application-oriented introduction to causal analysis using AMOS, SmartPLS and SPSS*. Germany: Springer Gabler.
- West, H. M. (2020). *Assessing school crisis plans: Development of the school crisis assessment and logistical evaluation*. PhD Thesis. Stillwater, Oklahoma, US: Oklahoma State University.

- Wimelius, M. E., & Engberg, J. (2015). Crisis management through network coordination: Experiences of Swedish civil defence directors. *Journal of Contingencies and Crisis Management*, 23(3), 129-137.
- World Bank. (2021). *Economic monitoring report to the Ad Hoc Liaison committee*. Washington, D.C., United States: World Bank.
- Wu, J.-H., & Wang, Y.-M. (2006). Measuring KMS success: A respecification of the DeLone and McLean's model. *Information & Management*, 43(6), 728-739.
- Wut, T. M., Xu, J. B., & Wong, S.-M. (2021). Crisis management research (1985–2020) in the hospitality and tourism industry: A review and research agenda. *Tourism Management*, 85, 1-28.
- Yahya, L. (2016). The role of communication in crises management. *Academy for Social and Human Studies*, 8(1), 3-10.
- Yassien, E., Masa'deh, R., Mufleh, M., Alrowwad, A., & Masa'deh, R. (2017). He impact of ERP system's usability on enterprise resource planning project implementation success via the mediating role of user satisfaction. *Journal of Management Research*, 9(3), 49-71.
- Zehir, C., & Yavuz, M. (2014). A field research on organizational learning, crisis management capability and firm performance. *International Journal of Research in Business and Social Science*, 3(3), 1-17.
- Ziadah, F. M. (2012). *The impact of training on the ability of international institutions operating in the Gaza Strip to manage crises*. Master Thesis. Palestine: The Islamic University of Gaza.
- Zwyalif, I. (2015). Success of accounting information systems and their impact on the stages of crises management. *Dirasat: Administrative Sciences*, 42(1), 248-266.

Views and opinions expressed in this article are the views and opinions of the author(s). The Asian Economic and Financial Review shall not be responsible or answerable for any loss, damage or liability, etc., caused in relation to/arising from the use of the content.