

THE MEDIATING ROLE OF ACCOUNTING DISCLOSURE IN THE INFLUENCE OF AIS ON DECISION-MAKING: A STRUCTURAL EQUATION MODEL

Adel Qatawneh^{*}, Ayman Bader^{**}

^{*} Corresponding author, Al-Zaytoonah University of Jordan, Amman, Jordan
Contact details: Al-Zaytoonah University of Jordan, P.O. Box 130, 11733 Amman, Jordan
^{**} Al-Zaytoonah University of Jordan, Amman, Jordan



Abstract

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The current study aims to investigate the influence of accounting information system (AIS) elements, including human resources, physical resources, and financial data, in delivering the organization to a suitable decision-making process through the mediating role of well-built accounting disclosure. The study applies its model to the commercial banks listed in the Jordanian market at the end of 2019. A quantitative approach was adopted and a questionnaire was applied on 171 financial managers and accounting department heads within 21 commercial banks in Jordan. Based on the results of a structural equation model, the main hypothesis was accepted referring to the positive influence of AIS elements of human resource, physical resource, and financial data on organizational decision-making that is attributed to accounting disclosure within commercial banks in Jordan. These results show the importance of AIS in decision-making and encourage companies to adopt modern AIS in order to help them improve the quality of accounting information. The study recommended focusing on increasing skills and knowledge of accounting and financial managers within banks on the multiple ways of benefiting from AIS applications, this can include holding conferences, seminars, and workshops.

Keywords: Accounting Information System, Disclosure, Credibility, Relevance

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1. INTRODUCTION

The accounting information under the environmental uncertainty that recently affects the business environment became a more important issue (Cahyaningsih Kristilestari, 2019; Alikhani, Ahmadi, & Mehravar, 2013), where accounting information aims to achieve two basic functions, namely measurement in order to evaluate the actual conditions and to assist users in making decisions (Meiryani, Susanto, &

Warganegara, 2019). Therefore, accounting rules and policies must be followed to lead to the disclosure of economic or accounting information presented about the facts and basic relationships related to the facility (Rainer, Prince, Spletstoeser-Hogeterp, Sanchez-Rodriguez, & Ebrahimi, 2020).

In view of the scientific progress that has invaded every field of human activity, reliance on correct and accurate information has become the duty of every researcher, planner or, official in

any administrative location (Turner, Weickgenannt, & Copeland, 2020; Iyamu & Shaanika, 2019). Accordingly, modern systems and laws have become focused on the importance of disclosure of information, especially financial ones, and evidence and standards have formulated international deals with the issue of financial disclosure and its role, in addition to the presentation of financial information and data that must be disclosed and presented (Al-Dalaïen & Dalayeen, 2018; Hall, 2012).

The accounting information stemming from the accounting system, and as it is known, must enjoy high quality in accordance with the specific characteristics of the accounting information so that stakeholders can adopt it for the sake of making various decisions according to the needs of each one of them (Ganyam & Ivungu, 2019; Adebayo, Idowu, Yusuf, & Bolarinwa, 2013). On the other hand, Vokshi Nexhmie and Krasniqi (2017) noted that adopting a good accounting system leads to provide high-quality accounting information, hence, the users can use it to make true decisions.

From here, it is possible to refer to the concept of accounting information systems (AIS) and its great impact in accessing accurate information and data that would help the organization in achieving excellence by clarifying important accounting and financial information, on the one hand (Osmyatchenko et al., 2019), and on the other hand, by focusing on the nature of the entered data and ensuring its authenticity in order to access accurate accounting information that is capable of assisting the organization in making an accounting decision that is in its interest (Sori, 2009; Moqbel, 2014). In contrast, some prior studies (e.g., Al-Dmour, 2018; Al-Dmour, Al-Dmour, & Masa'deh, 2016; Icerman & Hillison, 1990; Saira, Zariyawati, & Annuar, 2010) discussed that the influence of AIS on the accounting reporting quality has not received much attention, where there is concern from prior researchers about the AIS adoption and its applications in the institutions.

Therefore, the current study aims to investigate the influence of AIS elements in delivering the organization to a suitable decision-making process through the mediating effect of accounting disclosure.

The idea of mediation (accounting disclosure) was employed in order to investigate how elements of AIS (human resource, physical resource, and financial data) can facilitate management's reach to solid bases that allow them to make the best decision and the appropriate time and manner. In addition to that, the study provides empirical pieces of evidence about it, especially from an emerging market. The study applies its model to the commercial banks listed in the Jordanian market at the end of 2019, where the banking sector is one of the most important sectors in the Jordanian market. On the other hand, the Jordanian economy is based on the banking sector, which is the largest sector in Jordan, and it is the main financier of the development process in the Kingdom, as banks constitute more than 95% of the financing sources in Jordan.

Hence, the contributions of this study could be presented through the following:

Firstly, identify the role of AIS in the decision-making process through providing more empirical evidence about it, and therefore increase the body of the knowledge in this field.

Secondly, the current study provides a new insight into the literature using the role of accounting disclosure as a mediator factor in the relationship between AIS elements and the decision-making process, and thus provides more explanations, especially from a developing country, where there are limited attempts, which are searched in the same field in the developing countries.

Thirdly, prior studies like Bachmid (2016) and Trabulsi (2018), in addition to Jawabreh and Alrabei (2012) and Adenike (2017), examined the relationship between AIS and the decision-making process. Their results indicated an influence of AIS on decision making that is attributed to many factors, those factors are generated by AIS applications like the preciseness of data, reliability of outcomes, the ability to get real-time information when necessary, and the capability of AIS to present up-to-date information that exposes the current financial and accounting situation of the organization, but the knowledge of how the relationship between AIS and decision-making process remains a gap due to many exclamation marks like the influence on disclosure. Adaptability of AIS to the organizational field of interest, the human element also play a role in this area and the level of development and enhancement that AIS devices and applications enjoy. Hence, this study provides more explanations about the importance of AIS, and how the decision-makers can use it to take true decisions.

Fourthly, more of the previous studies searched in the relationship between AIS and decision-making process using empirical evidence from different sectors, where this study focused on investigating this relationship in the banking sector, especially in commercial banks.

Finally, more of the previous studies focused on measuring AIS elements from one side, whether the human resource or physical resource, or financial data (e.g., Ortiz de Guinea, Kelley, & Hunter, 2005; Ismail & King, 2009; Moqbel, 2014). Hence, the current study measures AIS elements using all sides, namely human resources, physical resources, and financial data. It is worth mentioning here that the current paper launches its aim as a continuum of what was examined before by Diaz and Villamizar (2017), it presents itself in application on commercial banks in Jordan, and how AIS is employed within the internal operations of banks to lead support of the decision-making process into a space of enlightenment, certainty, and solid bases.

Reaching the aim of the current study is based on achieving the following set of objectives:

- identify the importance of AIS within the banking sector;
- highlight major benefits granted from employing AIS within banks;
- investigate the process of decision-making in the banking sector;
- manifest the idea of accounting disclosure in connection with AIS applications;
- highlight the influence of AIS on the process of decision-making through the mediating role of accounting disclosure.

The current paper was able to highlight the undeniable role of AIS applications in presenting a well-built environment for decision-makers and

interested parties to make an informed decision that stems from data and information retrieved from well-built applications. The nature of financial data that AIS can present in addition to the physical and human resources that it employs can help in defining a more vital environment for the organization to process its finances and present content that can be tackled and studied by interested parties, hence present consent decisions.

The remainder of this paper is structured as follows. Section 2 presents the related literature and hypotheses design. Section 3 presents the population and sample selection, variables measurements, and methodology. Section 4 reviews the analysis of findings. Section 5 presents the discussion. Finally, Section 6 details the conclusion.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Accounting information systems

From the perspective of Hall (2012), Belfo and Trigo (2013), Odero (2014), Romney (2018), and O'Donnell (2019), accounting information systems are an interconnected group of material and human elements that interact together to inventory, collect, operate. Manage and control financial data related to internal and external economic events according to specific rules and procedures for the production and delivery of useful financial information to its users with a view to enabling them to make appropriate decisions, planning and oversight.

It is natural to have influencers that play a role in AIS applications and functions. Many scholars (e.g., Granlund, 2011; Moffitt, Richardson, Snow, Weisner, & Wood, 2016; Omar, Ismail, Ying, & Yau, 2016; Sottolare, Knowles, & Goodell, 2020) have noted that too many drivers or elements of AIS that may change how end results of AIS may appear and, on the other hand, it may play a role in defining the aspects of decision making in the light of AIS applications' results. Sottolare et al. (2020), Van den Bergh (2016), and Kouser, Rana, and Shahzad (2011) documented that the human resources, physical resources, and financial data are the main drivers or elements of AIS from those. Shuhidan, Mastuki, and Nori (2015) mentioned that human resources in an AIS setting refers to the accounting and professional competencies that are able to understand the nature of the financial operations that take place in the facility and have the ability to deal with them in a proper scientific and professional manner, and they also have the ability to understand the nature and needs of administrative levels of accounting information and to provide them in a timely manner. Diaz and Villamizar (2017) also mentioned that physical resources are represented in computers and their accessories, such as input and output devices, storage media, and the programs and databases it contains (Almaliki, Rapani, Khalid, & Sahaib, 2019). The efficiency of the AIS depends not only on the efficiency of individuals based on the system but also on the efficiency of devices and programs used in operation in terms of operating speed, storage capacity and good development of programs' systems and application programs and the extent to which these resources can be adapted and made

maximum use of to serve the goals of the facility (Almaliki et al., 2019; Zhai & Wang, 2016; Teru & Hla, 2015; Hla & Teru, 2015; Taber, Alaryan, & Haija, 2014).

Additionally, previous literature (e.g., Meiryani, Suzan, Tsudrajat, & Daud, 2020; Turner et al., 2020; McCallig, Robb, & Rohde, 2019) noted that the financial statements represent the inputs of the AIS, and these data are based on a documented cycle for listing and recording them, and control procedures to verify their authenticity before entering the AIS. Therefore, the current study uses the human resources, physical resources, and financial data together as drivers or elements of AIS in the companies. This is in order to provide a deep picture of the importance of AIS in the decision-making process (Mancini & Vaassen, 2013).

2.2. Accounting disclosure

Accounting disclosure is an important criterion for the statement of financial position along with other criteria that are used in preparing it, and disclosure is a statement of the company's funds information in order to meet the needs of investors and other entities (Salehi, Dashtbayaz, Bahrami, & Teymoori, 2015; Azmi & Sri, 2020). According to Shamki and Rahman (2013), disclosure is generally intended to be of complete publicity. In accounting, it is intended that the financial statements show all the main information that is important to the users of the information and that helps them to make decisions in a proper way. Lambert, Leuz, and Verrecchia (2007) stated that the size of the information that must be disclosed depends on the user's experience, requirements, and the required accounting measurement which led to the emergence of three concepts of disclosure, namely full disclosure, fair disclosure, and approaches to disclosure.

Full disclosure requires the disclosure of all information and details, whether or not they are needed (Bakar & Saleh, 2011; Zhang & Zhang, 2014). This type of disclosure may not benefit the user of the information, even if it is achieved as the large number of details that are not important, may confuse the user of the information and not help him in making the right decision in the appropriate time (Bakar & Saleh, 2011; Wang, Che, Fan, & Gu, 2014). Besides, the concept of fair disclosure focuses on ethical goals related to fairness and equality among users of financial statements in presenting facts related to the activities of the enterprise to help them to make the right decisions (García & García-García, 2010). However, this concept was criticized as the concept of justice is a relative, unspecified concept (Alfaraih & Alanezi, 2011). Fair disclosure, as according to Drake, Guest, and Twedt (2014) and Bello (2010), it is the most used by professional organizations and most writers and researchers, hence appropriate information is presented and provided that is consistent with the needs of the information user and that helps them to make sound decisions in a timely manner.

Continuously and about the concept of approaches to disclosure, Boudreau and Lakhani (2015) noted that there are many methods of financial accounting disclosure that can help

information users understand it and make the right decision. The trade-off between one method and another depends on the nature of the information required and its relative importance (Minnis & Shroff, 2017). Those approaches include disclosure through the financial statements where the basic information appears in the main body of the financial statements in a way that helps in disclosing the form and arrangement of these statements including financial position statement, income statement, cash flows statement, changes in owner equity statement, as well as notes.

According to Drake et al. (2014) and Ganyam and Ivungu (2019), there are other complementary means of disclosure such as the use of comparisons of financial statements, as well as comparative information on previous years (e.g., sales figures, expenses, or distributed profits, or other), to determine trends and understand the conditions that affect the business environment.

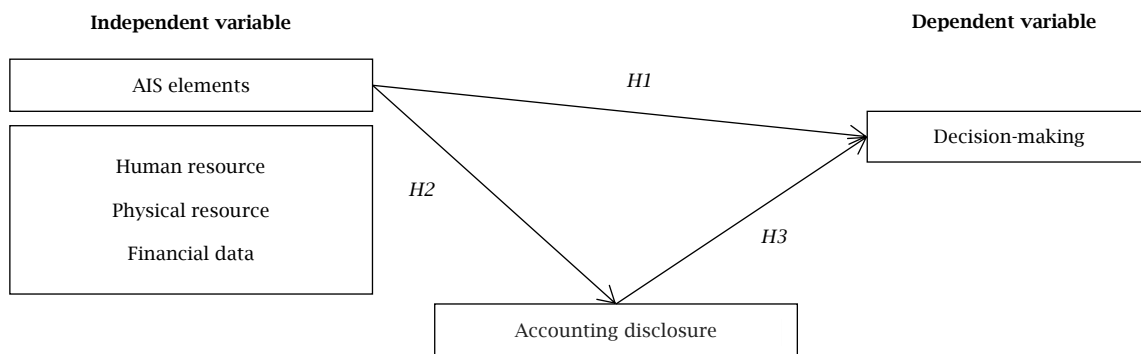
As far as the researchers are aware, the relationship between variables taken into account (AIS elements, decision-making, and

accounting disclosure) was not taken before by a previous study, and the approach of structural equation modeling was not used to tackle such variables in a way that processes the relationship between them and serve the main idea of supporting decision-making. From that point, the current study's importance stems from the needs to highlight the relationship that gathers between AIS elements of human, physical, and financial resources, and its influence on decision-making through the fact that AIS application can aid the process of disclosure and deliver it to the organization's management in the best approach possible.

2.3. Hypotheses development

The current study aims to investigate the influence of AIS elements in delivering the organization to a suitable decision-making process through the mediating effect of accounting disclosure. The following model appeared to highlight the relationship between variables of this study:

Figure 1. Study model



Source: Authors elaboration.

According to the above figure, it can be seen that there is a logical relationship that gathers between variables of study leading to the development of the following hypotheses:

H1: There is a positive influence of AIS elements on organizational decision-making within commercial banks in Jordan.

According to Diaz and Villamizar (2017), the human resource in AIS is one of the major factors that have the ability to change the end results of such applications. They also noted that when individuals within the organization are totally aware of AIS applications, their outcomes, role, and main aim, more probably that results would be more suitable to the goals of the organization. Therefore, organizations need to pay attention to raising the level of awareness among individuals about the importance of using accounting-related software in a correct and proper way in order to ensure information and its accuracy (Shuhidan et al., 2015). Human awareness of the importance of accounting information systems and its role in accounting work is one of the organizational first priorities; organizations with much complex software and accounting hardware, with members that do not have the required awareness of the importance of these systems, is something that can't help achieve

the aimed goals and it won't end up with the best accounting results (Hutahayan, 2020; Smith & Binti Puasa, 2016).

From another perspective, Grande, Estébanez, and Colomina (2011) refer to the fact that there must be awareness regarding the physical resources of an organization depending on AIS applications. Organizations must exploit modern information technology and benefit from them in developing accounting information systems, which helps in obtaining information quickly, accurately, and in a timely manner for decision-makers and those with ties to these organizations, both from within and outside the organization. It was indicated by Dangayach and Deshmukh (2005) and Xu and Al-Hakim (2005) that the use of information technology in developing accounting information systems has improved the quality of the information and financial reports submitted and that the computerized AIS in organizations needs to be updateable in order to keep pace with the rapid technological developments.

H2: There is a positive influence of AIS elements on organizational accounting disclosure within commercial banks in Jordan.

Accounting information systems provide, in the event that there is an accurate data entry, accurate outputs that will guide decision-makers

towards taking the necessary measures related to disclosure in all its forms (Lambert et al., 2007). Bakar and Saleh (2011) confirmed that the accuracy of the financial statements produced by the AIS is one of the most important things that would ensure correct and consistent disclosure of reality without the need to re-audit and examine the details that consume a lot of time.

On the other hand, Shamki and Rahman (2013) and Swalhah (2014) noted that banks face difficulty in losing data and inaccuracy in entering information due to insufficient awareness of employees in addition to increasing banks' dependence on the accounting system for their transactions. Therefore, data loss affects financial statements, just as the ineffectiveness of the accounting system and weak electronic control affects the validity and reliability of the financial statements. Sarker and Talukder (2018) showed that there is a difference in the impact of the risks of accounting information systems in banks with different awareness and skills in using the system.

H3: There is a positive influence of AIS elements on organizational decision-making that is attributed to accounting disclosure within commercial banks in Jordan.

Accounting information systems in general have a significant impact on the nature of the information that the organization derives from accounting information (Aggarwal, 2018). Therefore, the certified AIS needs to be at a high level of accuracy, professionalism, and high technology, as this information derived from accounting information systems contributes effectively to directing the decision-making process within the organization in a way that supports its interest and the interests of the individuals working in it (Aggarwal, 2018; Roška & Bubić, 2008).

On the same idea, Granlund and Teittinen (2017) indicated that interest in technology information systems is a kind of attention to the data needed for the decision-making process by providing information based on high accuracy that will guide the disclosure in an appropriate way, and at the same time support the organizational decision-making process.

3. METHODOLOGY

Carrying out the current study was based on adopting the quantitative approach, even though a qualitative approach would have been more suitable — from the researchers' perspective — but the COVID-19 health precautions prevented researchers from applying a qualitative method based on interview questions to financial and accounting managers. In addition to that, the study was conducted during the partial closure in Jordan due to the COVID-19 pandemic which limited the ability of the researchers to meet with managers and apply interview questions on them as most of them worked from distance and weren't available at banks' premises. In that sense, the researchers depended on a questionnaire, which was built by the researchers using previous literature, and it consisted of two main sections. The first took into perspective demographics of the study sample (gender, age, qualifications, position, and experience), while the other section consisted of

statements that are related to study variables (disclosure, AIS elements, and decision-making) using a five-point Likert scale — 1) Strongly disagree; 2) Disagree; 3) Neither agree nor disagree; 4) Agree; 5) Strongly agree.

In order to test the validity of the study tool, the questionnaire was presented before a group of specialized academics in the field; they have gone through all its variables and statements (face validity). Their comments were taken into perspective and each statement was modified according to their justification and point of view. Statements that gained 80% or more of the arbitrators' approval were kept in the questionnaire; statements that gained 50–75% of arbitrators' approval were modified according to their point of view while statements that gained less than 50% of arbitrators' approval were omitted.

The population of the study consisted of all financial and accounting managers within banks in Jordan bearing in mind that Jordan follows IFRS rules in the preparation and presentation of financial statements. The researchers contacted the HR department in each bank and presented the aim and objectives of the study, in addition to highlighting the process of application which to be applied to participants. With the help from the HR department, researchers were able to reach financial and accounting managers by contacting them through email and via the phone. They were all aware of the study's main aim, participating process, and their participating rights, which included their freedom to take part in the application, their freedom to withdraw whenever they wanted, and the fact that any information they give will be kept confidential.

The reason for choosing the banking sector is attributed to the suitability of the environment of banks as it represents the highest and most condensed financial institutions and the most ones that employ AIS applications in their internal processes. This idea managed to highlight the fact that controlling finances in an organization isn't as simple as recording and saving files, it is more of a complex operation that gathers between human factors as employees, along with their expertise and their ability to deal with AIS application in order to complete their tasks and come up with data that serves the required goal. As for choosing the banking sector in Jordan, it is mainly the place of residence of the researchers and it appeared to be much easier and more attainable to take Jordan as the source of the study sample.

Questionnaire was distributed during the second quarter of the year 2020, where distribution process was applied online for COVID-19 necessities. Besides, 210 questionnaires were distributed on financial managers and accounting department heads within all commercial banks in Jordan (21 commercial banks) with 10 questionnaires for each bank, where the unit of analysis was individuals in order to achieve the objectives of this study. For the current study, the financial managers and accounting department heads have been chosen because they have suitability knowledge in the field of this study. After the application process, researchers were able to retrieve 171 properly filled questionnaires that made the response ratio 81.4% to be statistically accepted.

This study used Cronbach's alpha in order to verify the study's reliability. The alpha value was 0.944, which is an excellent indicator, being higher than the acceptable percentage of 0.70 (Sekaran & Bougie, 2016). Software used — SPSS Statistics V26.

4. RESULTS

The following section presented a statistical analysis of study data according to individuals' responses.

4.1. Demographics of the study sample

In Table 1, it can be seen that the majority of the sample was males forming 66.1% of the total sample compared to females who appeared to form

33.9% of the total sample. As for the age range of participants, it indicated that the majority of the sample was individuals within the age range of 31-36 years old forming 42.1% of the total sample, compared to the least participating age range that goes for those who were above 43 years old forming 12.3% of the total sample. In examining qualifications of sample individuals, it appeared that the majority held BA degree forming 77.2% of the sample compared to those who held an MA degree forming 16.4%, and PhD holders formed 6.4% of the sample. Finally, positions of participating individuals appeared to be in the majority for financial managers who formed 63.7% of the total sample followed by accounting department heads — 36.3% of the total sample.

Table 1. Demographics of the study sample

<i>Demographics items</i>		<i>Frequency</i>	<i>Percent</i>
Gender	Male	113	66.1
	Female	58	33.9
	Total	171	100.0
Age	25-30	32	18.7
	31-36	72	42.1
	37-42	46	26.9
	+43	21	12.3
	Total	171	100.0
Qualifications	BA	132	77.2
	MA	28	16.4
	PhD	11	6.4
	Total	171	100.0
Position	Accounting department head	62	36.3
	Financial manager	109	63.7
	Total	171	100.0

Source: Authors elaboration.

4.2. Descriptive analysis for the variables

The findings of descriptive statements analysis that are related to study variables are shown in the following tables (Tables 2, 3, 4), where these tables presented mean and standard deviation of questionnaire statements as according to respondents' answers. Findings indicate that all respondents had a positive attitude towards

the statements of the questionnaire considering that all statements scored higher than the mean of scale 3.00 (Neither agree nor disagree). Additionally, as in the following tables (Tables 2, 3, 4), respondents' attitude towards variables of the study appeared to be also positive given that all variables chosen in the current study scored higher than the mean of scale 3.00 (Neither agree nor disagree) which is statistically a positive result.

Table 2. Descriptive analysis for AIS elements statements

<i>Statement</i>	<i>Mean</i>	<i>Std. Dev.</i>
<i>Human resources</i>		
Human elements that do not interact with accounting information systems are unable to interact with the new economic world	3.53	1.395
The Human Resources Department contains members who are empowered with their accounting and electronic capabilities	3.47	1.289
HR personnel are trained on any new development in accounting information systems	3.42	1.182
The information and skills values of human resources personnel are always renewed	3.43	1.203
There is sufficient awareness among individuals of the importance of accounting information systems in making the right decision	3.39	1.155
<i>Physical resources</i>		
All devices and tools are suitable and prepared to deal with accounting information systems	3.25	1.194
All equipment and equipment is regularly maintained to ensure accurate output	3.20	0.980
The outputs of accounting information systems are compared to manual outputs and matched periodically to ensure reliability	3.16	0.918
The bank has adequate and suitable storage space	3.28	0.928
The bank is developing well for systems software and application software	3.44	0.946
<i>Financial data</i>		
Accounting data is constantly audited	3.32	0.986
The bank works to ensure that the entered data is accurate in order to ensure correct output	3.36	0.999
All data entered are adjusted in proportion to the required decisions	3.39	0.966
The outputs of accounting information systems are often relied upon to make appropriate decisions	3.15	1.188
The financial statements are monitored periodically in order to control them and ensure their authenticity	3.15	1.206

Source: Authors elaboration.

Table 3. Descriptive analysis for decision-making statements

<i>Decision-making</i>	<i>Mean</i>	<i>Std. Dev.</i>
The bank aims to make decisions based on sound and accurate data	3.50	1.150
The bank tries to provide financial and non-financial information about historical, current, or future variables when making the decision	3.46	1.064
Accounting information systems are relied on in making the related decision inside or outside the facility	3.38	1.096
Information is communicated to decision-makers at the appropriate time and accuracy	3.35	1.025
The outputs of accounting information systems are important in the decision-making process	3.55	0.940

Source: Authors elaboration.

Table 4. Descriptive analysis for accounting disclosure statements

<i>Accounting disclosure statements</i>	<i>Mean</i>	<i>Std. Dev.</i>
All forms of disclosure support accounting information system outputs	3.33	0.926
Disclosure contributes to identifying risks in cooperation with accounting information systems and thus supports the organization's rational decision	3.27	1.173
Disclosure provides all data to accounting information systems, which in turn facilitates the process of reaching a rational decision	3.27	1.112
Disclosure of all forms is considered the first step in providing accurate accounting data	3.46	1.047
The disclosure monitors and prepares accounting business and prepares reports and transactions in accurate records of the handling of accounting information systems	3.22	0.993

Source: Authors elaboration.

4.3. Hypotheses testing

Before starting structural analysis, the proposed study model must be validated by a set of indicators to check the suitability of the model of this study, as follows in Table 5.

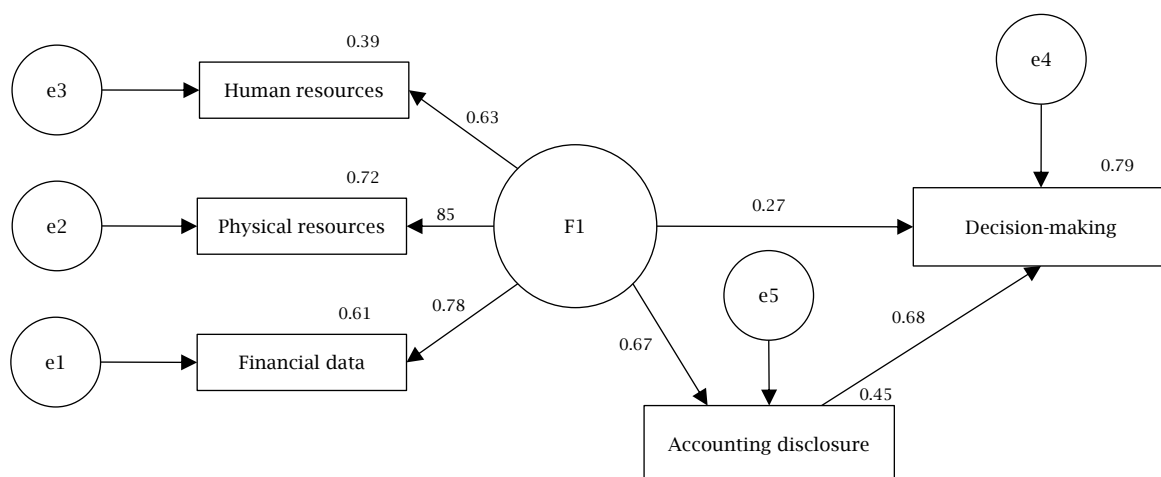
The results in Table 5 show that the above indicators have passed the values recommended by the relevant references; this leads to hypothesis testing, where structural equation analysis is used to test the study hypotheses. Besides, the hypothesis will be accepted if the *p-value* is less than 0.05.

Table 5. Fit model

<i>Indicator</i>	<i>AGFI</i>	$\frac{\chi^2}{df}$	<i>GFI</i>	<i>RMSEA</i>	<i>CFI</i>	<i>NFI</i>
Value recommended	> 0.8	< 5	> 0.90	≤ 0.10	> 0.9	> 0.9
References	Shevlin and Miles (1998)	Tabachnick and Fidell (2007)	Shevlin and Miles (1998)	MacCallum, Browne, and Sugawara (1996)	Hu and Bentler (1999)	Hu and Bentler (1999)
Value of the model	0.865	3.917	0.964	0.077	0.918	0.907

Source: Authors elaboration.

Figure 2. A structural equation model



Source: Authors elaboration.

Based on the above structural equation model, it can be seen that AIS elements are as an independent variable, decision-making is

a dependent variable, as well as accounting disclosure is a mediator variable. Hence, the results of this model are presented in Table 6.

Table 6. Results of the model of the study

<i>Hypothesis</i>	<i>Directions</i>				<i>Path coefficients (β)</i>	<i>T-value</i>	<i>P</i>	
<i>H1</i>	Decision-making	←	AIS elements		0.27	3.121	0.002	
<i>H2</i>	Accounting disclosure	←	AIS elements		0.67	8.472	0.000	
<i>H3</i>	Decision-making	←	Accounting disclosure	←	AIS elements	0.683	7.701	0.000

Source: Authors elaboration.

According to the results in Table 5, AIS elements significantly affect decision-making where it shows that $\beta = 0.27$; $P < 0.05$; $t = 3.121$; $P = 0.002$. This means that there is a positive influence of AIS elements on organizational decision-making within commercial banks in Jordan. Hence, the first hypothesis (*H1*) is accepted. At the same time, AIS elements also significantly affect accounting disclosure, where the results related to the second hypothesis show that $\beta = 0.67$; $P < 0.05$; $t = 8.472$; $P = 0.000$. Therefore, the second hypothesis (*H2*) is accepted. This means that there is a positive influence of AIS elements on organizational accounting disclosure within commercial banks in Jordan.

In other meaning, the mediation influence appears through the influence that takes place on accounting disclosure through AIS which can be resembled in the correct and accurate financial data, the experience and expertise of the human resource who are responsible for the accounting and financial issues, in addition to the availability of up-to-date devices, computers, software and application that have the ability to support AIS processes and outcomes. Through the mediating relationship that disclosure and AIS, we can say that this may lead to a better-supported decision-making process that is based on well-built outputs that are precise, in real time, credible and reliable.

5. DISCUSSION

Results related to the mediating role of accounting disclosure in the association among AIS elements and decision-making indicate that it is highly significant, where $\beta = 0.683$; $P < 0.05$; $t = 7.701$; $P = 0.000$. In the other words, there is a positive influence of AIS elements on organizational decision-making that is attributed to accounting disclosure within commercial banks in Jordan. Hence, the third hypothesis (*H3*) is accepted.

When we say that there is an effect of the elements of accounting information systems on decision-making processes within the organization and are attributable to accounting disclosure, here we recognize that there is an impact of the elements of accounting information systems on decision-making with the organization through the impact of disclosure. This effect comes through the accurate information provided by technology information systems in the event that the organization wants to enter the stage of disclosure. Therefore, this information that has been disclosed is of high value and accuracy so that it helps decision-makers to make their decisions in a correct and accurate manner and far from mistakes and conform to the reality in the organization (Hutahayan, 2020).

The study confirmed that the quality of accounting information issued by accounting information systems and their level of accuracy improves the level of disclosure by referring to

the quality of information, its accuracy, and commitment to reality (Omar et al., 2016; Saira et al., 2010). Therefore, this is reflected in decision-makers and helps them to build their decisions in a manner consistent with the reality before them. These results agreed with Collier (2015) who argued that the quality of accounting information issued by accounting and information systems has a positive impact on investment decision-making in organizations. Also, Apergis, Artikis, Eleftheriou, and Sorros (2011) and Salehi, Rostami, and Mogadam (2010) came arguing that the AIS plays an important role in rationalizing user decisions through the financial statements that are the outputs of this system. Therefore, the optimal use of the AIS leads to achieving the qualitative characteristics of financial data and increasing the quality of that data in terms of data accuracy, relevance, reliability, and accessibility to it at the right time (Almaliki et al., 2019; O'Donnell, 2019; Zhai & Wang, 2016).

Based on the above, accounting information systems affect positively the process of disclosure in organizations, which leads to better decision-making and guidance (Al-Dmour, 2018; Hla & Teru, 2015). Through this study, it has been proven that the accounting information systems provide superior accuracy and speed in the processing and implementation of financial data in addition to providing the administration with the necessary information while it is needed, especially in the case of monitoring economic activities. This command can guide and support the disclosure process in a successful way.

However, achieving a high level of accuracy in disclosure supports the organization by providing dynamics and continuous movement in achieving the desired goals, in addition to extending a helping hand to the administration in implementing the planning of work related to the future of the facility regardless of its type, whether it is long, medium or short term (McCallig et al., 2019; Teru & Hla, 2015; Hla & Teru, 2015). Finally, it can be said here that the accounting information systems positively affect the disclosure of organizations in all its forms and this matter contributed actively to assist the administration in taking appropriate decisions from a set of available alternatives and by providing them with the necessary data in a timely manner. In addition to flexibility and the developmental ability of accounting information systems that make them able to keep pace with the needs and developments that are taking place in a timely manner.

Generally speaking, the idea of adopting the three elements (human, physical, and financial data) as elements of AIS application served as the source or stem of aid that AIS can present to the organization. In this aspect, the researchers launch the idea from the basics of the human resource — referring to individuals who are using

the applications — and the physical sources — referring to devices and software that are used to run AIS application, and finally, the financial data, referring to the preciseness of the financial content that are entered with the applications. The gathering of these three aspects is considered the basic idea which gathers them all as an approach to see how it can aid the decision-making process if it had the needed level of disclosure.

6. CONCLUSION

COVID-19 struck the world with a pandemic that was able to end the life of millions of people, and it is still doing so, seeking refuge to technological application and using the internet to monitor work from distance was the only option for organizations as many governments applied laws of quarantine and lockdowns during the pandemic spread.

This study came as an approach to highlight how AIS applications with all its tools and technological option appeared as a rescue for financial and accounting managers to make sure that their tasks are done according to organizational plans. In addition to that, this study confirmed that relying on the internet in such situations of high uncertainty can help to avoid losses that would have taken place in worse case scenarios.

This study aims to investigate the influence of AIS elements in delivering the organization to a suitable decision-making process through the mediating effect of accounting disclosure. It provides empirical evidence about it, especially from the Jordanian market as an emerging market. The study applies its model to the commercial banks listed in the Jordanian market at the end of 2019. The study used the quantitative approach in order to achieve its objectives. In that sense, the study depended on a questionnaire that was built by the researchers using previous literature. Based on the results of a structural equation model, AIS elements significantly affect decision-making, as well as AIS elements also significantly affect accounting disclosure, and at the same time, the results related to the mediating role of accounting disclosure in the association among AIS elements and decision-making indicated that it is highly significant. These results show the importance of AIS in decision-making through its role in accounting disclosure. A good AIS leads to

high information quality related to accounting disclosure, hence the decision-making process will improve. These results encourage companies to adopt modern AIS in order to help them in improving the quality of accounting information and therefore take true decisions. These systems process data related to financial transactions to provide the information that the relevant departments need when needed (in the case of disclosure).

The limitation of the study mainly was the inability of researchers to apply the qualitative approach due to COVID-19 health precautions, initially, researchers wanted to employ interview questions with the sample through face to face interviews and open questions, this would have helped in gaining more detailed and deep answers to the questions raised and would have helped more in presenting the deep discussion in answering study questions. However, with the spread of COVID-19 and the lockdown and quarantine that came along with it, researchers found no other solution but to shift to the quantitative approach as it is easier and more applicable in case of remote contacting.

Based on the previously presented conclusion, the current study suggests future research that examines the effect of accountant experience on the outcomes of AIS applications especially in case of uncertainty like a pandemic or financial distress. As practical implications, the current study suggested:

- Focus on increasing skills and knowledge of accounting and financial managers within banks on the multiple ways of benefitting from AIS applications; this can include holding conferences, seminars, and workshops.

- More attention within the banking sector in Jordan should be directed towards developing and enhancing the AIS applications in terms of updating, maintenance, and additional support.

Finally, this study recommended educating financial and accounting departments on the importance of accounting information systems. As it will have a positive impact on investment decision-makers, and clarifying the concept of benefit to them, and that the return as a result of computing will be higher than the cost in the medium term. On the grounds that computing makes investors accept the company significantly, and that it will reduce manpower in the short term, thereby reducing the cost.

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