

# Accounting Information System Quality and Organizational Performance: Mediating Role of Decision Aid

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**Abstract: Background and Aim:** The aim of this study was to explore the relationships between accounting information system quality and organizational performance with considering the mediating role of decision aid.

**Methods:** In this research, we describe and study what is, that is why the method used in this research is descriptive. In terms of the method of collecting information, it is descriptive-correlation. In this type of research, the studied community can be investigated and tested through a survey. Standard questionnaires were used to collect data. Pearson correlation test and the structural equation modeling were used for data analysis.

**Results:** Results revealed that accounting information system quality significantly affected organizational performance. Moreover, accounting information system quality significantly affected decision aid. Furthermore, decision aid affected organizational performance. Finally, decision aid has significantly mediated the relationship between accounting information system quality and organizational performance. Results of model fit indicated that the research model has good fit.

**Conclusion:** It can be inferred from the earlier description that the adoption of a high-quality accounting information system will enhance the operational efficiency of rural banks in Bali, Indonesia. The introduction of a high-quality accounting information system yields valuable data, which in turn can enhance organizational performance.

**Keywords:** Accounting Information, Quality, Organizational Performance, Decision Aid

## Introduction

Accounting information system is a system that collects and stores financial data during accounting processes and produces information used by organizational decision makers after processing these data (Balkaran, 2008). Finally, the accounting information system can help the decision makers and managers of the organization in their strategic plans by providing smart financial reports (Popova, 2013; Glover & Prawitt, 2014; Jaya, Irene, & Choirul, 2016). Making a decision requires the use of correct, timely, reliable information, etc., which requires the use of complex financial and non-financial systems, one of the most important systems that is effective in decisions is the accounting information system, such as Estimating the production site of a specific part in a manufacturing company, buying shares of a company, producing a new product, all of these issues are examined from a financial and operational point of view, receiving financial information in order to make a profit for a commercial unit, has a significant impact on making decisions (Apriliana & Agustina, 2017; Rezaei Pitenoeei, Safari Gerayli & Abdollahi, 2021; Nolder, & Kadous, 2018). It is correct. In the companies active in

the industries, the decision-making of senior and high-level managers (decision-making managers) based on the management information of the Management Information System (MIS) has been taken into consideration, and efficient managers usually make their decisions based on the basic information of all effective units. In decision-making (Agustina et al. 2021; Braun, 2000; Humpherys et al. 2011). This research refers to the impact of the above-mentioned factors on the accounting information system, which is one of the main branches of the management information system (being and aggregation and integrity) of information in the conditions of the analysis of the task on the satisfaction of the managers with the performance of the accounting systems. The analysis of the task refers to the quality of the information provided for the use of the accounting information system (Atmaja & Sukartha, 2021; Hogan, et al. 2008; Said, & Munandar, 2018).

In the contingent approach, it is assumed that the fit between the organization's strategies and the content variables of the organizational structure leads to achieving optimal performance, in this, the role of accounting information systems that can create a dynamic relationship between the organization's strategies and common accounting criteria (Ghani, et al. 2019; Marzuki et al. 2017). It becomes more important to measure the performance from a comprehensive angle, because the traditional accounting criteria cannot provide a comprehensive evaluation of the performance due to the limitation of measuring different variables (Alzeban, 2019; Ghozali, 2001; Pawitra, & Suhartini, 2019; Rezaei Pitenoeei, & Abdollahi, 2019). In the theoretical development of the basics of strategic accounting, the contingent approach has gradually become the paradigm of this scientific field. Considering the central role of strategic accounting in performance evaluation and contingent approach in this branch of accounting science, the performance of the company will be a function of the fit between structural variables and strategies (Dimitrova & Sorova, 2016; Harber, & Marx, 2020; Jan, 2018; Mubako & O'Donnell, 2018). Various researches have pointed out the most important contingent variables affecting the structure, including task uncertainty, lack of concentration and characteristics of accounting information systems (Fitrawati & Maryani, 2017; Ikbali et al. 2020).

During the past few decades, the world has witnessed extensive technological developments, including the field of accounting. As a result, many organizations tend to use information technology (Masten, 2001; Kusumawati, & Syamsuddin, 2018). Competition between companies has increased and most of those companies adopt computerized information systems to maintain competitive advantages. The financial result of a company always depends on how much they invest and how to improve accounting information systems. The most influential and oldest business system is the management information system. While the accounting information system is one of the subsystems of the management information system (Noviyanti, 2008; Kiymaz, 2020; Rezaee, 2010). Accounting information system can be used to record and process transactions and transfer financial and accounting information that can be necessary for decision making (Fabiianska, et al. 2021; Lee et al. 2016). In addition, accounting information systems depend on data and information to strengthen international accounting information systems or to transform such a company into a more successful business. This information leads to better planning, control and correct decision making (Dzikrullah, et al. 2020). Therefore, the accounting information system is vital all over the world, one of the indicators that may affect the accounting information system is human resources, so in this research we seek to investigate the impact of human resources management and accounting information systems. Hence, the aim of this study was to explore the relationships between accounting information system quality and organizational performance with considering the mediating role of decision aid.

### Methods

In this research, we describe and study what is, that is why the method used in this research is descriptive. In terms of the method of collecting information, it is descriptive-correlation. In this type of research, the studied community can be investigated and tested through a survey. Also, considering the main goal of the research, which is to investigate the mediating role of employee participation and accounting information systems on human resources and organization performance, it is correlational in terms of communication. Since this research provides solutions to Alborz insurance managers, it is practical.

A structured survey containing closed-ended inquiries was employed (Popova, 2013; Glover & Prawitt, 2014; Jaya, Irene, & Choirul, 2016). This particular type of survey is well-suited for gathering quantitative data, simplifying analysis, minimizing measurement errors and respondent biases, and expediting response and quantification processes. Moreover, it ensures uniformity in responses to guarantee that all participants are presented with the same set of questions. A non-probability technique was utilized via purposive sampling. The purposive sampling method was chosen to ensure that the selected sample utilized AIS, as many Iraqi SMEs do not employ AIS. Consequently, only those with AIS in their businesses were considered for the sample. The study sample consisted of owners and managers, as they possessed an understanding of SMEs' challenges and requirements, and were accountable for AIS reports, utilization, and decisions. Hence, the structured survey was tailored to include SME owners and managers. Convergent validity refers to the extent to which different items used in the study measure the same concepts. In this investigation, the convergent validity of the measures can

be assessed by examining the average variance extracted (AVE). According to Hair et al. (2010), an AVE value of 0.5 or higher is necessary to demonstrate that the latent variable accounts for more than 50% of its indicators' variance. The composite reliability (CR) in this study exceeds 0.7 (Nunnally, 1978). The study's findings show that the composite reliability ranges from 0.860 to 0.952, which is considered to be significant. Therefore, this study meets all the criteria for convergent validity.

The statistical population of the research includes the director of the company (branch) and all managers and employees in the financial and accounting department in different branches of Alborz Insurance in different branches of Alborz Insurance in Tehran (22 branches) and Alborz (2 branches) in 2091. Considering that All employees have a high school diploma and above, so they have the authority to complete the questionnaire and they are all counted in the statistical population There are 211 people in Alborz Insurance in Tehran (22 branches) and Alborz (2 branches) and the sampling method is the full statistical method.

### Results

Descriptive data are presented in Table 1. Descriptive results show that in general the level of accounting information system quality is higher than the average. However, organizational performance and decision aid were at medium level. The results of Kolmogorov-Smirnov tests revealed that all variables were normally distributed (all  $P > 0.05$ ). Results of Independent t tests showed that there were no significant differences between men and women in all variables of the study.

**Table 1.** Descriptive Data

	accounting information system quality	organizational performance	decision aid
Mean	2.98	25.75	41.08
SD	1.06	6.99	11.71

Bivariate relationships between accounting information system quality with organizational performance and decision aid are demonstrated in Table 2. Results revealed significant direct relationship between accounting information system quality and organizational performance ( $P < 0.001$ ). Moreover, accounting information system quality was directly and significantly associated with decision aid ( $P < 0.001$ ). Finally, decision aid climate was directly and significantly associated with organizational performance ( $P < 0.001$ ).

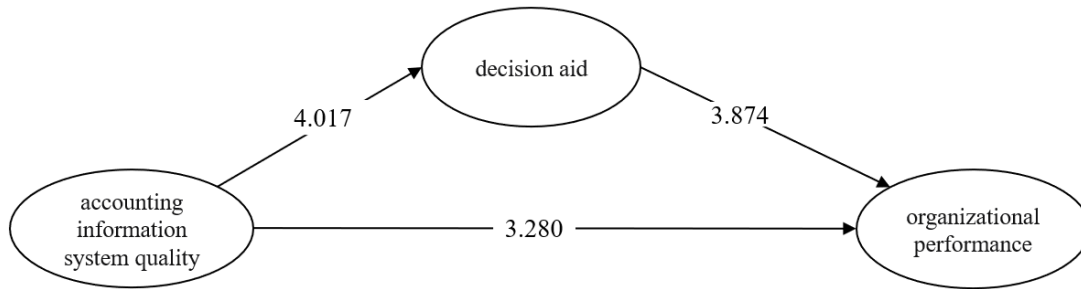
**Table 2.** Results of Bivariate Relationships between Variables

	1	2	3
1. accounting information system quality	-		
2. organizational performance	r=0.320 P<0.001	-	
3. decision aid	r=0.401 P<0.001	r=0.367 P<0.001	-

Table 3 and Figure 1 show the results of structural equation modelling. Results revealed that accounting information system quality significantly affected organizational performance ( $T=3.280$ ). Moreover, accounting information system quality significantly affected decision aid ( $T=4.017$ ). Furthermore, decision aid affected organizational performance ( $T=3.874$ ). Finally, decision aid has significantly mediated the relationship between accounting information system quality and organizational performance ( $P < 0.001$ ). Results of model fit are presented in Table 4 and indicated that the research model has good fit.

**Table 3.** Results of Structural Equation Modelling

Path	$\beta$	T-value
1 accounting information system quality => organizational performance	0.319	3.280
2 accounting information system quality => decision aid	0.424	4.017
3 decision aid => organizational performance	0.379	3.874
	Z	P-value
4 accounting information system quality => decision aid => organizational performance	5.017	P<0.001



**Figure 1.** Structural Equation Modelling in the form of T-Values

**Table 4.** Results of Model Fit

Index	Optimal Range	Obtained Value	Conclusion
RMSEA	< 0.08	0.07	Good fit
X <sup>2</sup> / df	< 3	2.96	Good fit
RMR	Closer to 0	0.02	Good fit
NFI	> 0.9	0.95	Good fit
CFI	> 0.9	0.94	Good fit

**Discussion**

The aim of this study was to explore the relationships between accounting information system quality and organizational performance with considering the mediating role of decision aid. Results revealed that accounting information system quality significantly affected organizational performance. Moreover, accounting information system quality significantly affected decision aid. Furthermore, decision aid affected organizational performance. Finally, decision aid has significantly mediated the relationship between accounting information system quality and organizational performance. The rural banks' use of a flexible and sophisticated accounting information system is evident in its ability to generate accurate information in both print and on screen (Apriliana & Agustina, 2017; Rezaei Pitenoei, Safari Gerayli & Abdollahi, 2021; Nolder, & Kadous, 2018). The resulting information is comprehensive and concise, making it easy to comprehend and highly useful for daily operations and decision-making. In addition to its content, the system also produces information that is well-presented, consistent, and easily understandable, ultimately enhancing the quality of accounting information. Knowledge plays a significant role in modern organizations, with a growing responsibility for companies to leverage it effectively (Dimitrova & Sorova, 2016; Harber, & Marx, 2020; Jan, 2018; Mubako & O'Donnell, 2018). Although research in this area is ongoing, most experts agree that knowledge should not be overlooked as a crucial aspect of the technical imperative. Many organizations consider the AIS to be indispensable, despite some disadvantages, due to the substantial benefits it offers. It is essential for executives to embrace this technological gift and utilize it to their advantage by optimizing capital usage, enhancing the operational environment, facilitating knowledge exchange, and meeting future organizational needs. This paper aims to establish a comprehensive framework for the forces influencing corporate success. The strategic positions of AIS can greatly impact the achievement of corporate goals, but it is ultimately up to managers and executives to determine how to effectively utilize the information provided by AIS (Dzikrullah, et al. 2020).

Based on the contingency theory, organizational performance is optimized through continuous adaptation to the external environment. Nevertheless, in line with the same theory, enhanced efficiency of cost information systems does not automatically translate to improved performance; rather, it hinges on the harmonization of cost/benefit factors and context-specific variables (Fitrawati & Maryani, 2017). Therefore, our research findings underscore the importance of increasing female representation in senior management roles, as their involvement enhances the quality of information and subsequent decision-making processes. The implementation of accounting information systems is crucial for entities to maintain control over financial activities and facilitate decision-making through effective summarization. An information system should possess power, compatibility, flexibility, and a favorable cost/benefit ratio. The primary aim of this study was to introduce a computerized system at the pottery factory. It was discovered that the company lacks proper inventory control due to infrequent physical verifications, leading to a lack of accurate stock knowledge. The manual accounting process at the Pottery Factory has resulted in this issue, exacerbated by the accounting staff's unfamiliarity with the upcoming system. Consequently, the sales department faces delays in obtaining real-time information on available merchandise, causing coordination challenges (Noviyanti, 2008; Kiymaz, 2020; Rezaee, 2010).

It can be inferred from the earlier description that the adoption of a high-quality accounting information system will enhance the operational efficiency of rural banks in Bali, Indonesia. The introduction of a high-quality accounting information system yields valuable data, which in turn can enhance organizational performance. Ultimately, the quality of accounting information can act as a mediator in the correlation between accounting information quality and organizational performance. This study has limitations due to its perceptual nature, as the results heavily rely on each respondent's understanding of the questions asked, which are influenced by the conditions in the workplace (Popova, 2013; Glover & Prawitt, 2014; Jaya, Irene, & Choirul, 2016). Additionally, the research samples are restricted to rural banks in the province of Bali, Indonesia, and the sample size is relatively small, affecting the generalizability of the findings. Based on the study's results, it is recommended that future researchers consider re-testing with the inclusion of additional mediating variables, such as knowledge about the system, information sharing, and knowledge sharing.

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