Accounting Information Systems and Sustainable Performance: The Moderating Effect of Organizational Culture

Kadek Goldina Puteri Dewi

[1] Universitas Warmadewa, Jl. Terompong No. 24, East Denpasar, Denpasar City, Bali 80239
[1] goldinaputeri@gmail.com

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ABSTRACT

Increasing social, economic and environmental uncertainty forces businesses to implement strategies and systems. On the same side, since the environment has become competitively sustainable, in current times, develop and increase internal resources is a condition for sustainability. This study serves to clarify the relationship between accounting information systems and sustainable performance and explain the role that organizational culture plays in this relationship. The population in this study are 238 tourist villages in Indonesia. The data analysis technique in this study uses a regression equation with Moderated Regression Analysis (MRA). Based on the results of this study, the Effectiveness of Accounting Information Systems has no effect on Sustainability Performance. However, the existence of a moderating variable (organizational culture) shows that the effectiveness of the accounting information system variable has a significant effect on sustainability performance.

1. Introduction

Challenges and competition encourage companies to be effective and efficient in achieving business performance. Awareness of achieving sustainable business operations and minimizing environmental impact is becoming an increasing issue in many countries. On the same hand, over the last decades, the level of globalization, competition, changing customer needs and wants has increased, opening up economic opportunities that have led to unbalanced growth which has led to more and more uncertainty over environmental changes. Challenges and competition encourage companies to be effective and efficient in achieving competitive advantage (Grossi, Kallio, Sargiacomo, & Skoog, 2020). In today's world, tourism villages have an important role in environmental tourism destinations and economic sustainability (Astawa, Triyuni, & Santosa, 2018). In the midst of the great interest of various parties to develop a tourism village, we can identify a number of crucial management issues that will affect the sustainable development of a tourism village. Tourism village managers need effective strategies and actions for the development of sustainable tourism villages (Purnamawati, Jie, & Hatane, 2022).

As a result, companies are motivated to change traditional business operations and choose to develop the best process systems to improve customer service and satisfaction. Public awareness about welfare has also awakened organizations to change decision-making processes to take advantage of opportunities so as to be able to deliver sustainable values and benefits.

For this purpose, companies must adopt and implement an accounting information system (Vásquez, 2020) that has proven effective for many years (Jawabreh & Alrabei, 2012). Research on Accounting Information Systems has been carried out with the result that the use of Accounting Information Systems supports asset growth and profitability (Cardinaels, 2008). Utilization of accounting information systems can improve sustainable company performance (Le, Nguyen, & Phan, 2019). Adoption of information technology strengthens the intensity of knowledge sharing and social interaction (Kareem et al., 2021).

Unfortunately, the practice of accounting systems has many cognitive limitations related to sustainable performance (Le et al., 2019). The results of other studies have found that the application of accounting information systems has no effect on performance (Nuriadini & Hadiprajitno, 2022). In other words, there is still inconsistency from the results of previous studies regarding the relationship between accounting information systems and performance. Furthermore, previous research introduced organizational culture as a means of sustainable competitive advantage and a significant driver of best performance (Islam). Organizational culture and accounting information systems are interrelated (Agbejule, 2011). The construction of organizational culture greatly influences the effectiveness of implementing a technology.

However, most studies of AIS, organizational culture and focus on sustainable profits in developed countries such as the United States (Cheng, Lin, Hsiao, & Lin, 2010), Italy (Busco & Scapens, 2011), United Kingdom (Combs, Samy, & Myachina, 2013), Japan (Sugahara, Hiramatsu, & Boland, 2009). There are still few studies available on AIS, organizational culture in developing countries like Indonesia (Sihombing, Nasirwan, & Situmeang, 2020). Based on the premises presented, it is logical to say that there is still room for expansion of the theoretical and empirical literature on AIS, organizational culture and sustainable performance. Consequently, the specific aim of this paper is to leverage the research community's conceptual framework that links AIS, organizational culture and sustainable organizational performance and contributes to a body of knowledge. Recent research has also focused on how organizations manage AIS and identify organizational culture as a moderating variable for successful sustainable performance.

The contribution to this research is that the accounting information system is a component that can be streamlined to improve sustainability performance (Busco & Scapens, 2011). An accounting information system is a system used for the compilation, storage and analysis of financial reports and accounting data by decision makers. In general accounting information systems, computer-driven activity tracking methods are combined with information technology software (Arifin, 2022). Organizational efficiency fundamentals have advanced towards a focus on computerized accounting information systems. Many companies have started using Accounting Information Systems as a key strategy to increase their efficiency within the organization (Noori Hussain Al-Hashimay & Yusof, 2021). Information systems as an organizational component that manages relevant financial information for decision making to users (Tallon, Queiroz, Coltman, & Sharma, 2019).

2. Research Methods

This research was conducted in all tourist villages in Indonesia, especially Bali. The population in this study is 238 Tourism Villages obtained from data from the Bali Provincial Tourism Office for 2022. The sample size is determined by calculating using the Slovin Formula. This formula is used to determine the sample size of a known population. For the level of precision specified in the determination of the sample is 5%. Based on the Slovin Formula, the magnitude of the research sample withdrawal is:

n = N / (1+N x e2))
n = N / (1+238 x 5%2))
n = 238 / (1+ 238 x 0.0025)
n = 238 / (1+) 0.5875
n = 238 / 1.595
n = 149
Where:
n = sample size
N = population size
E = allowance for inaccuracy due to tolerable sampling error, then squared.

The number of samples is calculated using the Slovin formula namely

149. The number of proportional sample members is determined through the Taro Yaname Formula. Then the number of sample members based on the Taro Yaname formula is:

Grade I Tourism Village = 3/(238) .149=1,878 2
Grade II Tourism Village = 17/(238) .149=16,903 17
Grade III Tourism Village = 107/(238) .149=66,987 67
Grade IV Tourism Village = 101/(238) .149=63,231≈63

Table 1. Sample Proportional Calculation Table

Grade	Population	Proportional
I	3	2
II	27	17
III	107	67
IV	101	63
Amount	238	149

The sampling technique using the Simple Random Sampling method or commonly abbreviated as Random Sampling is a sampling method in which each member of the population is given the same opportunity to be selected as a sample. Respondents in this study were the Head of Managers and Accounting Staff in Tourism Villages. This type of research uses quantitative research methods. To obtain data and information to support this research, the data collection method used in this study was a questionnaire.

Based on the theoretical model that has been described, the measurement of variables develops a set of questionnaires focusing on the construct of accounting knowledge, accounting information systems, organizational culture and business performance. A Likert scale statement from 1=strongly disagree to 5=strongly agree. These variables have been used in previous research (Busco & Scapens, 2011; Boulianne, 2014; Al Dari et al., 2021). Accounting knowledge is measured by detailed recording attributes; accounting rules; extensive knowledge; competent staff. Accounting information systems are measured by items such as data usage/storage, reliability of data collection, timeliness of implementation, flexibility of data processing (Kwarteng, 2018); with dimensions a) service system with available information system items information system support..able to respond to customer problems; staff competency; system operation; and b) system quality with items such as ease of use; ease of access; access speed; availability of information; accurate information; information as needed; proper reports; easy to understand; clear instructions; new information. Organizational culture adopted from previous studies includes a mission of service to customers, consistency in fulfilling rules, involvement and creativity, adaptability in solving problems. Work motivation; procedural; evaluation and monitoring. The dependent variable in our study, operationalized business performance through assessing respondents' perceptions of performance measures with dimensions a) financial performance including sales, market share and net profit items. and b) operational performance with items such as the company being able to offer service products according to customer expectations; able to reach the target market share; able to meet customer needs. Respondents were asked to rate the average performance of their organization against the industry average for the last three years on a 5-point Likert scale from 1 = bad to 5 = very good (Kwarteng & Aveh, 2018).

The results of data collection will be collected and processed using tools in the form of the SPSS application program. In this study, due to the presence of moderating variables, the data analysis technique used the regression equation through an interaction test or often called Moderated Regression Analysis (MRA). MRA is a special application of multiple linear regression where the regression equation contains an element of interaction (multiplication of two or more independent variables) as follows (Irwandi, Ghozali, Faisal, & Pamungkas, 2019)

Y = + b1X1 + b2X2 + (1)
Y = + b1X1 + b2X2 + b3 X1M + b4X2M + (2)
Information:
a = Constant
Y = Business Performance X1 = Accounting Knowledge
X2 = Effectiveness of Accounting Information System Implementation M = Organizational Culture
b = Slope e = Error

3. Results and Discussion

Table 2. F test results

Model 1	**Sum of Squares**	**F**	**Sig.**
Regression	15.230	79.706	.000[b]
Residual	27.707		
Total	42.937		

Model 2	**Sum of Squares**	**F**	**Sig.**
Regression	16.539	45.111	.000[b]
Residual	26.397		
Total	42.937		

The results of the hypothesis test are shown in Table 2, namely, based on the results of the ANOVA test, the Fcount value in model 1 is 79,706 with a significant level of 0.000a which is less than 0.05. This shows that model 1 is feasible to use as an analysis tool. Also, the results of the ANOVA test obtained an Fcount value in model 2 of 45,111 with a significant level of 0.000a which is less than 0.05. This shows that model 2 is feasible to use as an analysis tool.

Table 3. Test Results t

Model 1	**Unstandarized B**	**Sig.**
(Constant)	1.470	0.000
SIA (X_1)	.557	.000

Model 2	**Unstandarized B**	**Sig.**
(Constant)	1.764	.000
SIA (X_1)	.578	.394
SIA. M (X_1.M)	-.030	.000

The results of the hypothesis test are shown in Table 3, namely in Model 1 with the Accounting Information System variable, the significance value of 0.000 is less than 0.05. Means proving that the Accounting Information System variable has no effect on Sustainability Performance. The results of the hypothesis test are shown in Table 7, namely with the influence of the Accounting Information System variable on Sustainability Performance moderated by the Organizational Culture variable, a significance value of 0.394 is greater than 0.05. Means proving that the Organizational Culture variable is able to moderate the influence between the Accounting Information System does not affect Sustainability Performance.

Table 4. Coefficient of Determination (R2)

Model 1	R	R Square	Adjusted R Square
1.	.596[a]	.355	.350

Model 2	R	R Square	Adjusted R Square
1.	.621[a]	.385	.377

The results of the regression test shown in Table 4 in model 1 show that variations in changes in the Y or dependent variable can be explained by 35.5% by the independent variables used and the rest are explained by other variables not used in this research model. The results of the regression test shown in Table 8 in model 2 show that variations in changes in the Y or dependent variable can be explained by 38.5% by the independent variables used and the rest are explained by other variables not used in this research model.

4. Conclusion

This study has been able to provide a conceptual framework linking AIS and organizational culture with sustainable performance. Importantly, this research has contributed to a body of knowledge by providing a framework that provides an explanation of the effect of AIS and organizational culture on sustainable organizational performance. In addition, this study is unique in that it allows organizational culture to moderate the AIS sustainable performance relationship. Like other research, this research has limitations. Firstly, this research is a conceptual paper, future research provides an opportunity to further verify the claims of this research with empirical studies. Second, the focus of this research is in the context of a tourist village; there is a need to test the validity of the research model in different sector companies and in larger companies.

The theoretical implication of this research is that it is hoped that it can become an input and consideration for solving the problem of Accounting Information Systems on Sustainability Performance moderated by Organizational Culture and the results of this study are a contribution or addition to the literature and references for researchers who will conduct further research on related issues. . The practical implication of this research is that the results of this research can contribute to the management of the Tourism Village to better socialize the Accounting Information System and Organizational Culture properly so that the sustainable performance of the tourist village has clear directions.

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