

Moderation of Internal Control System and Effectiveness of IT on the Effect of Uses IT on AIS Performance

Putu Pradnyani¹, A.A.N.B Dwirandra², I Gst Ayu Eka Damayanthi³,
Ida Bagus Putra Astika⁴

^{1,2,3,4} Udayana University

^{1,2,3,4} Faculty of Economics and Business, Bali, Indonesia

Abstract: The usefulness of IT has a positive effect on the AIS performance, but it's not always linear that suspected contingency approach, two of them are internal control system and effectiveness of IT. The purpose of this study was to determine the role of moderating internal control system and effectiveness of IT on the influence of use IT on the AIS performance. This research was conducted at a tour & travel company called TMS Tours. The sample collection technique in this study is the saturation sample technique, so the number of respondents are 35 people who use AIS. Data collection method by questionnaire and interview. The data analysis technique is Moderated Regression Analysis (MRA). The results of the study that the use of IT affects the AIS performance, internal control system and the effectiveness of IT moderates the effect uses IT on the AIS performance.

Keywords: Uses IT; Internal Control System; the Effectiveness of IT; AIS performance.

I. INTRODUCTION

In this globalization era, many things require companies to have an information system to process data, and then process it into information that is useful for the company's progress. The world of transportation is also not spared from technological advances, this is marked by the increasing number of types of transportation that help humans to save travel time in reaching their destination. The higher the public interest related to transportation, information system is also very important in various types of business fields, one of them is a tour and travel company.

The use of IT can improve the competitiveness of companies so as not excluded in their environment. The effectiveness of AIS can measure the competitive advantage created by companies. In some situations in every company especially in the digital era, the application of AIS performance in a company is inseparable from a problem or constraint in each of its performance. Performance constraints in AIS are confronted in two ways, the company gets the success of the system or the company gets a failure (Putra et al., 2014).

The phenomenon that often occurs is the users of information systems who aren't satisfied with the AIS performance that have been implemented by the company. Based on interviews, the application of AIS in the company usually has problems in experience of the sales / ticketing section, where there is a dual function in the sales department, causing the sales department's financial reports not to be paid on time and causing performance of the company to be decreased. Another obstacle in applying the AIS is the company's website which experiences an error during the long holiday season caused by many of customers accessing the website to make the hotel booking system and tour packages. Therefore, improving the AIS performance requires more serious attention in supporting the implementation and development of AIS, one of which is the use of appropriate IT in carrying out the sales and cash receipt functions. The usefulness of IT is one of the factors that influence system performance (Thompson and Higgins, 1991). According to Goodhue (1995) the application of IT in companies that are not used maximally by users causes the lack of usefulness of IT in improving the performance of AIS. The success of a company's information system depends on how the system run, the ease of the system for users, and the technology used.

The results of previous studies show varied / inconsistent results which are suspected due to the presence of other factors that affect the relationship between the independent variable and the dependent variable. Govindarajan (1986) states that the possibility of the lack unity of research results depends a contingency factors. Conceptually and empirical research results, there are several variables that allegedly play a role in moderating the influence of uses IT on the AIS performance, two of them should be considered, namely the internal control system and the effectiveness of IT, where the internal control system and the effectiveness of IT can strengthen or weaken the use of IT on AIS performance.

The management can monitor the activities that occur within the company with a good internal control system. AICPA (2007) explains that internal control is important, which can be used in providing protection for entities against human weaknesses, as well as to reduce the possibility of mistakes and actions that are not in accordance with the rules. An internal control can be successful if it can provide information to management about the actual condition of the company, whether there is progress or vice versa in achieving their goals (Vijayakumar and Nagaraja, 2012). Therefore, good management and application of internal control makes it easier for a company to achieving goals.

In addition to internal control systems, the performance of AIS can be improved by the effectiveness of IT. An information system can be effective if it can represent various sources such as people and equipment, especially in AIS, where the system has been designed to collect financial data to obtain information needed in making different decisions (Bodnar and Hopwood, 2010). Rivaningrum (2015) states that IT that runs effectively will have an impact on the quality of the AIS that can be seen from the level of user satisfaction through data collection and processing, and reporting information relating to financial transactions.

The usefulness of IT in supporting information systems has an influence on almost all aspects of business management. Information systems can be said to be successful if the system is easily run by its users and the use of the technology used. TAM theory provides an understanding that one's intention to use technology is determined by two factors, one of them is the perceived usefulness which is defined as the level at someone believes that the use of technology will improve performance. TAM believes that uses of IT will improve organizational performance (Gupta et al., 2007). There are inconsistencies in the results of research on the effect uses IT on the AIS performance. Research conducted by Raditya and Widhiyani (2018), Putra et al., (2014), Rukhviyanti (2018), and Fitriani (2018) found that the use of IT had a positive effect on AIS performance. While the research of Nasir and Oktari (2013), Wijaya (2013), and Wimartono et al., (2016) which shows that the use of IT has no significant effect on the AIS performance. Based on the description, the hypothesis can be formulated as follows:

H₁: Uses IT has a positive effect on AIS Performance.

An internal control is used by an organization to ensure that organizational resources are used effectively and efficiently towards the achievement of organizational goals (Ramandei, 2009). Achieving high performance due to the effective application of internal control. Organizational failure in achieving the stated goals can occur due to a weakness at one or several stages in the internal control process. TAM focuses on how good technology utilization will be used by technology users and can provide good benefits for its users. This technology acceptance activity will begin with a perception of the ease of use of technology, as well as benefits, and ultimately will have an impact on beneficial goals (Davis, 1986). To strengthen the TAM theory, the understanding of internal control systems in an organization needs to be improved to achieve the desired level of performance for the survival of the organization (Ramandei, 2009). The more effective internal control, it will cause an increase in employee and organizational performance, so the managers can make decisions and control financial activities to the maximum. Several previous studies have shown inconsistent results regarding the effect of uses IT on AIS performance. Raditya and Widhiyani (2018), Rukhviyanti (2018), and Fitriani (2018) show the results that uses IT has a positive effect on AIS performance. While the research of Nasir and Oktari (2013), Wijaya (2013), and Wimartono et al., (2016) show that the uses IT has no significant effect on the AIS performance. The inconsistency results of the study is thought to be influenced by other factors that can strengthen or weaken the effect of the user's ability on the AIS performance. Nena (2015) research shows that AIS have a positive effect on improving internal control systems. The statement shows that the more adequate the AIS, the control system will run more effectively and efficiently. Sembiring (2013) research shows that the internal control system has a positive effect on the reliability and timeliness of financial reporting. The statement proves that the internal control process financial and non-financial data is part of a system related to information, especially AIS that have qualitative characteristics that are relevant, reliable, easily understood, and comparable. Therefore, improving the quality of internal control must be a priority in implementing changes and management updates. Based on the description, the hypothesis can be formulated as follows:

H₂: Internal Control System Moderates the Effect of IT Use on AIS Performance.

Effectiveness of IT, especially in improving the AIS performance are essential to be able to generate information that can be received and be able to meet expectations of timely information, accurate, and reliable. TAM theory believes that the use of IT will improve organizational performance. The better of AIS performance implemented in an organization, it can increase the level of user satisfaction (Gupta et.al., 2007). Several previous studies have shown inconsistent results regarding the effect uses of IT on AIS performance. Raditya and Widhiyani (2018), Rukhviyanti (2018), and Fitriani (2018) show the results that the use of IT has a positive effect on SIA performance. While the research of Nasir and Oktari (2013), Wijaya (2013), and Wimartono et al., (2016) which shows that the use of IT has no significant effect on the performance of the AIS. The inconsistency of the results of the study is thought to be influenced by other factors that can strengthen or weaken the effect of the user's ability on the AIS performance. Based on the results of research by Widiyanti and Mertha (2018) shows that IT affects the AIS performance. The statement proves that the more effective the IT is used, the resulting AIS performance will also increase. Antasari and Yaniartha's (2015) shows that the effectiveness of the system and the use of IT have a positive and significant effect on individual performance. The statement shows that determining whether a system is effective or not depends on how much the system is needed by the user and how easily the technology can be used. Based on the description, the hypothesis can be formulated as follows:

H₃: Effectiveness of IT Moderates the Effect of Use IT on AIS Performance.

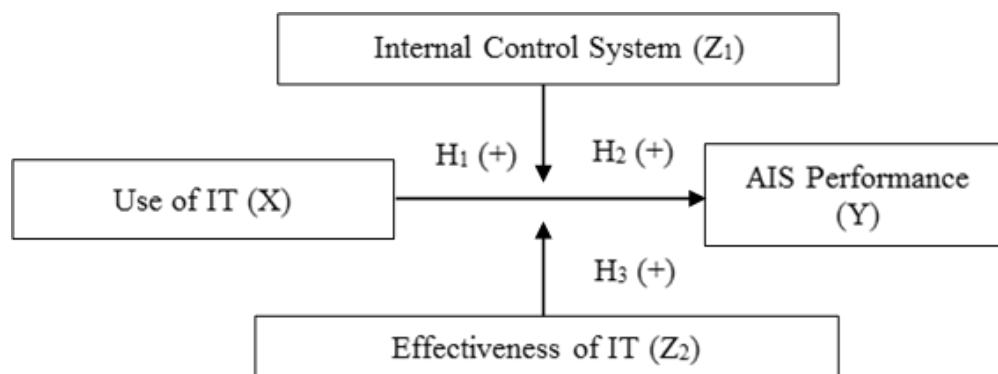


Figure 1: Conceptual Framework

II. LITERATURE REVIEW

A. Technology Acceptance Model (TAM)

TAM was built to explain how users can receive a technology in information systems. TAM also details the factors that can influence the acceptance of a technology in the information system. The goal of TAM is to provide an explanation of the common determinants of computer acceptance. TAM is designed only for computer usage behavior, therefore TAM is suitable as modeling computer acceptance (Davis, 1989). According to Sadiyoko et al (2009), TAM in the use of AIS can be divided into several dimensions, namely perceived usefulness, perceived ease of use, attitudes toward AIS, interest in the behavior of using AIS, and the actual use of AIS.

B. Contingency Approach

The contingency approach is often called a situational theory because it suggests that leadership depends on the situation. Based on the contingency approach, there are other situational factors that might interact with each other under certain conditions. In this study contingency factor is variable moderating used to determine the effect of IT on the usefulness of the AIS performance. Contingency factors used in this study are internal control systems and the effectiveness of IT.

C. Internal Control System

AICPA (2007) defines internal control including the organizational structure and tools that are coordinated and used within the company, with the aim of safeguarding company security and property, checking the accuracy and correctness of accounting data, increasing efficiency in operations, and helping to maintain compliance with policies predetermined management.

D. Effectiveness of IT

IT plays an important role in bringing about fundamental changes in the economy and the world community, one of which is to increase revenue, enable access to more integrated information systems, and make organizations competitive in the current global era (Saha and Majumder, 2017). IT can play a role in making decisions, presenting quality information, and improving work evaluation in completing work within a company.

E. Use of IT

The usefulness of IT is a form of output of the use an information system by the recipient, where the concept of use can be seen from several views, namely real use, use of perception or reported use (Jogiyanto, 2008: 19). The purpose of the use of IT is to make a company ready to engage in an environment that is increasingly advanced, dynamic, and intense competition.

F. AIS Performance

Jong Min Choe (1996) and Bailey (1983) measure AIS performance from the user, namely user AIS usage. The satisfaction of the user of the AIS shows how far the user feels happy and trusting the information system used to produce information that is relevant, accurate, and timelines.

III. RESEARCH METHOD

This study uses the quantitative approach that is associative in nature conducted at a travel company called Tjendana Mandra Sakti Tours & Travel which is located at Buluh Indah Street 99X, North Denpasar, Denpasar City, Bali. The population in this study were all employees or users of the company's AIS who worked at Tjendana Mandra Sakti Tours & Travel with the number based on a survey is 35 people. The sampling method in this study is Non Probability Sampling. Data collection methods used in this study are questionnaire and interview.

IV. RESULTS AND DISCUSSION

All employees who use AIS at TMS Tours are 35 people. The questionnaire was distributed to all AIS users who were on TMS Tours. The distribution of questionnaires in this study is explained in Table 1.

Table 1. Distribution of Questionnaires

Information	Amount
1 Questionnaire delivered directly	35
2 Questionnaire that is not returned	0
3 Missing questionnaire (incomplete)	0
Total questionnaires returned	35
Total research sample	35
Rate of return (response rate)	100%
The rate of return used (useable response rate)	100%

Source: Research Data, 2019

Table 1 shows that 35 questionnaires were distributed, 35 were returned, and 35 copies were used. This research is worth proceeding because based on the central limit theorem states the minimum number of samples to be a normal curve reaches at least 30 respondents. Descriptive statistical analysis is a description or explanation of a data on the research variable. The static descriptive results are explained in table 2.

Table 2. Descriptive Statistics Results

Variable	N	Min.	Max.	Mean	Std. Deviation
Use of IT (X_1)	35	3,09	3,14	3,1142	1,14642
Internal Control System (Z_1)	35	2,91	3,34	3,1178	2,10721
Effectiveness of IT (Z_2)	35	3,12	3,80	3,5959	1,57821
AIS Performance (Y)	35	2,89	3,69	3,1396	1,55947

Source: Research Data, 2019

Table 2 shows that the IT usability variable (X_1) has a mean based on answers from 35 respondents amounting to 3,1142 with minimum and maximum values of 3,09 and 3,14 and a standard deviation of 1,146 . This indicates that the use of IT can affect the ability of users to improve the AIS performance in the TMS Tours company, because it can be seen that the average value is almost close to the maximum value, which means some respondents tend to answer agree on 4 items in the statement of influence IT variables. The results of MRA calculation can shown in Table 3 below are obtained.

Table 3. Results of Moderation Regression Analysis (MRA)

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	T	
1 (Constant)	9,936	3,349		2,966	0,006
Use of IT (β_1)	0,466	0,203	0,343	2,296	0,029
Internal Control System (β_2)	0,034	0,138	0,046	0,245	0,808
Effectiveness of IT (β_3)	0,048	0,120	0,049	0,405	0,689
X.Z1 (β_4)	0,294	0,136	0,375	2,156	0,039
X.Z2 (β_5)	0,108	0,048	0,296	2,232	0,033
Adjusted R Square (Coefficient Determination)	0,518		0,000		
Significance (Feasibility Model)					

Source: Research Data, 2019

Results Analysis of the usefulness of IT on the AIS performance showed a significance level of $0,029 < 0,05$ indicates that H_0 is rejected and H_1 accepted. The results of this study found that uses IT has a positive effect on the AIS performance. Effect of interaction between variables usefulness of the IT systems of internal control in the AIS performance showed a significance level of $0,039 < 0,050$ indicate that H_0 is rejected and H_2 is received. The results of this study found that the internal control system variable (Z_1) is a moderating variable that reinforces the influence of the uses IT on the AIS performance. The influence of the interaction between the usefulness of IT with the effectiveness of IT on the AIS performance showed a significance level of $0,033 < 0,050$ indicate that H_0 is rejected and H_3 is accepted. The results of this study found that the variable effectiveness of IT (Z_2) is moderating variables that strengthen the influence of the usefulness of IT on the AIS performance.

The first hypothesis (H_1) of the usefulness of IT has an influence on the AIS performance. Based on table 3, the uses IT on the AIS performance obtained a significance value of 0,029 with a positive regression coefficient 0,466. The significance value $0,029 < 0,05$ indicate that H_1 is accepted. These results mean that the uses IT has a positive and significant effect on the AIS performance on Tjendana Mandra Sakti Tours & Travel. The usefulness of IT plays an important role in the development of AIS performance. The higher use of IT used in completing work, the AIS performance can be increases, because the accounting information produced is considered relevant, accurate, and timely so that management can use it in terms of effective decision making in achieving their goals. The results of this study are in line with research conducted by Raditya and Widhiyani (2018), Putra et al., (2014), Rukhviyanti (2018), and Fitriani (2018) who found that the benefits of using IT had a positive effect on AIS performance. While the research of Nasir and Oktari (2013), Wijaya (2013), and Wimartono et al., (2016) which shows that the use of IT has no significant effect on the AIS performance.

The second hypothesis (H_2) about the use of IT has an influence on the AIS performance with the internal control system as a moderating variable. Based on table 3 the significance of 0,039 which is smaller than $\alpha = 0,05$. Because the significance level is smaller than $\alpha = 0,05$, the second hypothesis (H_2) is accepted. This shows that the use of IT is able to moderate the internal control system on AIS performance. The research objective of this second hypothesis is to find out which internal control systems can influence the use of IT in completing work and can improve the AIS performance. To find out the type of moderation in this study, it can be seen in Table 3 , the results of the analysis of the influence use IT on the AIS performance with an internal control system as a moderating variable, the significance value of the moderating variable (β_2) is 0,808 (non- significant) and the significant value of the variable interactions between the usefulness of IT systems of internal control (β_4) significantly at 0,039, it indicates that the variable is the type of pure moderator, since β_2 non- significant and β_4 significant .

The third hypothesis (H_3) about the use of IT has an influence on the AIS performance with the effectiveness of IT as a moderating variable. Based on table 3 the significance of 0,033 which is smaller than $\alpha = 0,05$. Because the significance level is smaller than $\alpha = 0,05$, the third hypothesis (H_3) is accepted. This shows that the use of IT is able to moderate the effectiveness of IT on AIS performance. The purpose of this third hypothesis research is to determine the effectiveness of IT capable of influencing the use of IT that is efficient in completing work and can improve the AIS performance. To determine the type of moderation in this study, it can be seen in Table 3 that the results of the analysis of the influence of the usefulness of IT on the AIS performance with the effectiveness of IT as a moderating variable significance value moderating variable (β_3) the effectiveness of IT for 0,689 (non-significant) and the significant value of the variable interactions between the effectiveness of IT with the AIS performance (β_5) significantly at 0,033, it indicates that the variable is the type of pure moderator, since β_3 non-significant and β_5 significant .

V. CONCLUSION

Based on the discussion of the research results that have been described, it can be concluded that the use of IT has a positive effect on the AIS performance in Tjendana Mandra Sakti Tours & Travel, the internal control system moderates the effect uses IT on AIS performance at Tjendana Mandra Sakti Tours & Travel, the effectiveness of IT moderate the effect of uses IT on the AIS performance at Tjendana Mandra Sakti Tours & Travel. Suggestions that can be given to further researchers are expected to expand the research area, not only one tours & travel company, but can expand the area of research in the tour & travel companies in Bali.

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