Factors Influencing the Performance of Accounting Information Systems
University Public Services Agency

A.A. Ngurah Mayun Narindra¹, Komang Adi Kurniawan Saputra²*, A.A.N.B. Dwirandra³
¹,² Faculty of Economics and Business, Warmadewa University
³ Faculty of Economics and Business, Udayana University

ABSTRACT
In particular, this study aimed to determine the ability of organizational commitment and top management support to moderate the influence of factors such as: user capabilities, user workshops, formalization of IS development, IS controlling committee. Qualitative and quantitative data types from primary sources were collected by distributing questionnaires (which had met the validity and reliability tests) to 125 respondents throughout the Udayana University Public Service Board who were directly and actively involved in the implementation of SIAKU. Then the response data that has been collected is tabulated and then tested for compliance with the classical assumption test. Next, the model feasibility test and termination coefficient analysis were carried out, the research hypothesis was tested using the MRA technique. Based on the results of the MRA analysis that has been done, it can be concluded that personal capabilities and workshops / user training have a negative but not significant effect on AIS performance; organizational commitment and IS controlling committee have a positive and significant effect on AIS performance; IS development formalization and top management support has a positive but not significant effect on AIS performance; organizational commitment is able to moderate the influence of the IS controlling committee on AIS performance; organizational commitment is unable to moderate the influence of personal capabilities, workshops /training, formalization of IS development on AIS performance; top management support was not able to moderate the influence of personal capabilities, workshops /training, IS development formalization, and IS control committee on AIS performance.

KEYWORDS: Accounting information system, Management control system, Personal capability, User training.

INTRODUCTION
The Public Service Board of Udayana University has realized the development of an accounting and financial information system (SIAKU) at the end of 2013 and has obtained verbal approval from the Dikti team at the end of 2014. The existence of SIAKU is one of the absolute prerequisites for BLU Unud to remain as a Full BLU. And, learning from the various obstacles encountered in the process of developing and trialling the implementation of SIAKU, it is necessary to evaluate it to determine the level of success and at the same time map the inhibiting factors (Al-Hattami & Kabra, 2022). It is undeniable that various obstacles were encountered during the development process (Sujana et al., 2020) and the SIAKU trials are related to technical aspects, behavior, organization, character and personal commitment, as well as top management support (Govindarajan, 2019). So it is necessary to carry out a scientific evaluation of the success rate of SIAKU and at the same time map out what factors influence it, so that empirical evidence is obtained which will be an important input for the success of its implementation (Saputra et al., 2020) in 2015 and its continuation.

The application of a system is faced with two things, namely achieving success or failure of the system in its application (Merchant & Otley, 2007). The use of the system as a benchmark for the success of the system. Other researchers such as Ma & Liu (2011) states that user information satisfaction (User Information Satisfaction/UIS)
is used as a measure of the success of the system. Thus it can be concluded that system use and user information satisfaction (UIS) are benchmarks for the success of information systems (Möller & Schaltegger, 2005; Susanto & Meiryani, 2019).

The two constructs (System Use Intensity and User Satisfaction) have been used in information systems research as a surrogate to measure the performance of accounting information systems / AIS. Research Gu et al. (2020) found the result that the only significant positive relationship was between User Engagement and System Use. The other variables show no relationship with AIS performance. In addition, there is a significant negative relationship between organizational size and AIS performance, and a significant negative relationship between information system/IS development formalization and system use (Hadji & Degoulet, 2016; Karimi et al., 2015).

Based on the explanation above, it can be seen that various research related to the context of this research results are still contradictory, so empirical studies are still needed to reconfim the results of previous research, expand the study to see the intensity of influence, and see the moderation ability of top management and organizational commitment in increase user satisfaction and intensity of system use.

LITERATURE REVIEW
Theory Technology Acceptance Model (TAM) and D&M IS Success Model

Theory of Technology Acceptance Model (TAM) adopted from Theory of Reasoned Action (TRA), which was first introduced by Davis in 1989, offers a basis for gaining a better understanding of user behavior in accepting and using information systems (Gunawan et al., 2019; Turan et al., 2015). According to Turan et al., (2015) the TAM model comes from psychological theory to explain the behavior of using information technology based on beliefs, attitudes, interests and the relationship between user behavior Behavior Relations). This model will illustrate that the use of information systems will be influenced by the usefulness variable and the ease of use variable, both of which have high determinants and empirically tested validity (Isaac et al., 2019).

DeLone and McLean's Information Systems Success Model / D&M IS Success Model (DeLone & McLean, 1992) explained that the successful implementation of the use of information technology at the organizational level can be seen from the influence of the behavior of using information technology systems on organizational impact. The behavior of using information technology has an impact on organizational performance which is called organizational impact. Organizational impact is the effect of information on organizational performance (Lee et al., 2003). Organizational performance is the impact of the behavior of using information systems by individuals in the organization. The DeLone and McLean model maps the six elements or factors or components or measurements of the model, namely: 1) System quality, 2) Information quality, 3) Use, 4) User satisfaction, 5) Individual impact, 6) Organizational impact.

Theory Technology-to-Performance Chain

Technology-to-Performance Chain (TPC) theory is a comprehensive model built from two complementary research streams, namely user attitude as a predictor of utilization and task-technology fit as a predictor from performance (Saputra et al., 2022). The essence of this model is that in order for an information technology to have a positive impact on individual performance, the technology must be utilized and the technology must be appropriate to the type of work being performed (Acar & Uzunlar, 2014; Magutu et al., 2015).

Technology-to-Performance Chain model is built by combining the utilization model with the fit model (Manurung et al., 2022). The TPC chain model is a model in which technology will result in performance impacts if used by individuals (Saputra et al., 2023). Recognizing that technology must be used (utilized) first and fit with the tasks supported by the technology to get a performance impact, this model provides a more accurate picture of technology, user tasks and usage (utilization) are interconnected to achieve performance (Connor et al., 2020).

![Figure 1. Theory Technology-to-Performance Chain](www.ijssers.org)
Information Technology/IT, Accounting Information Systems / AIS, and Individual Performance

Mclean & William (2015) said that information technology is any form of technology that is applied to process and transmit information in electronic form. Otley (1980) defines information technology as a general form that describes any technology that helps produce, manipulate, store, communicate and or convey information. DeLone & McLean (1992) more simply, explaining that information technology is a technology that utilizes computers as the main tool to process data into useful information (Ghasemi et al., 2016; Möller & Schaltegger, 2005).

The accounting information system processes various financial and non-financial transactions that directly affect the processing of financial transactions. SIA consists of three subsystems, namely: (1) transaction processing system which supports daily business operations through various documents and messages to users in the organization; (2) A general ledger/financial reporting system that produces financial reports, such as income statements, balance sheets, cash flows, tax returns, and various other matters based on rules; (3) The management reporting system provides internal management with various financial reports and information needed in making decisions such as budgets, performance reports, and accountability reports (Karimi et al., 2015).

Organizations or companies make large investments to improve individual or organizational performance related to the implementation of technology in an information system. Employee performance is a measure that can be used for establish a comparison of the results of the implementation of tasks, responsibilities that provided by the organization at a certain period, and relatively can be used for measure work performance or organizational performance. Performance appraisal is basically an assessment of human behavior in carrying out the role it plays to achieve organizational goals. Hadji & Degoulet (2016) revealed that the organization or company invested heavily to improve individual or organizational performance related to the implementation of technology in an information system.

HYPOTHESIS
Behavioral use of AIS and influence on individual performance

Ajzen & Fishbein (1980) states that behavior is the actions or reactions of an object or organism in the form of conscious or unconscious actions. Human behavior as a whole can be influenced by the social environment, culture, and the collection of each individual’s life experiences. In the context of using information technology systems, behavior is the actual use of technology. Use of information (information use) is the use of the output of an information system by use. The behavior of using information systems is an action that is actually carried out by individuals in interacting with technological systems.

Several researchers have conducted related studies and found this to be in line with the thinking (DeLone & McLean, 1992) namely the influence of IS usage behavior on individual and organizational performance, such as; Agustiani, (2010) who found the influence of IS usage behavior on individual performance. Meanwhile, research conducted by Harash (2015) found that the behaviors of using accounting information systems affect organizational performance by increasing employee/individual performance.

Based on the conception and empirical research that has been described, it can be seen that the behavior of massive use of SIA will be able to improve individual performance. So, thus the research hypothesis can be developed as follows:

H₁: The behavior of using SIA has a positive effect on individual performance.

Individual performance

Environmental uncertainty is one of the main contingencies faced by companies. Environmental uncertainty is defined as the uncertainty of environmental conditions, the inability to predict the impact of environmental changes, and the inability to predict the consequences of response choices. According to Harash (2015) To achieve company performance, SMEs need to be responsive to environmental changes, especially in dealing with developments in information system technology. Gordon & Narayanan (1984) found that decision makers Those who feel a greater level of environmental uncertainty will tend to seek external information, non-financial information and supporting information to add other types of information. Harash (2015) in his research found that environmental uncertainty is able to moderate the relationship between the use of accounting information systems on company performance.

These studies show inconsistent results, so a contingency approach is needed to identify other variables that act as moderators. The contingency approach emphasizes the importance of situational influences on the application of accounting information systems and company performance. Individuals will experience high environmental uncertainty if they feel the environment is unpredictable so they cannot understand how environmental components will change. The contingency approach assumes that the effectiveness of an organization in dealing with environmental uncertainty is the elements of various subsystems designed to meet interrelated environmental demands.

Several researchers have conducted studies and found that the use of SIA will be increasingly massive and require information if they perceive high environmental uncertainty (Aik et al., 2020; Hadji & Degoulet, 2016; Karimi et al.,
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2015). Based on the conception and empirical research that has been described, it can be seen that perceptions of high environmental uncertainty will increase the behavioral influence of using AIS on individual performance. So, thus the research hypothesis can be developed as follows:

H2: Environmental uncertainty increase influence positive behavior use of AIS on individual performance.

IT trust and its ability to moderate the behavioral influence of using AIS on individual performance

IT trust is someone's willingness to rely on information technology where we have confidence in it. Trust is a mental condition based on a person's situation and social context. When someone makes a decision, he will prefer a decision based on the use of information technology that he can trust more than one he can trust less (Jardali et al., 2015; Kassim et al., 2012; Nag et al., 2020). Trust in the new IT in evaluating individual performance is needed by management to ensure that the new computer-based system can be used to control the performance of subordinates. The success of an enterprise's information system depends on how the system is run, the ease of the system for users, and the utilization of the technology used (Agustiani, 2010; Nugraha, 2014; Salihu et al., 2019).

Several researchers have tested and found the influence of IT trust on individual performance, such as: (Davis, 2013; Goodhue, 1995; Nugraha, 2014; Venkatesh & Zhang, 2010) Based on the conception and empirical research that has been described, it can be seen that IT trust has a positive effect on individual performance. Thus, it is reasonable to suspect that the massive use of AIS accompanied by high IT trust will be more able to improve individual performance. Thus, the research hypothesis can be developed as follows:

H3: Trust in IT increases the positive influence of AIS usage behavior on individual performance.

Ease of IT / Ease of Use and its ability to moderate the behavioral influence of using AIS on individual performance

Davis (2013) in his research managed to reveal that the perceived ease of use has a positive influence on the auditor's performance in carrying out audit examinations. Karimi et al., (2015) defines ease (perceived ease of use) as the level of one's confidence audit has a positive influence on performance, so that it has ease in producing maximum performance. This is supported by Kassim et al., (2012) states in his research perceived ease of use has a positive influence on auditor performance. Jardali et al., (2015) have conducted related studies and found that this is in line with Delone and Mclean's thinking, namely the influence of IT convenience on individual performance.

Based on the conception and empirical research that has been described, it can be seen that high IT trust will encourage behavior to use more massive AIS to improve individual performance. Thus the research hypothesis can be developed as follows:

H4: Ease of IT increases the positive influence of AIS usage behavior on individual performance.

Based on the research hypothesis described above, graphically the research design can be presented as follows.

**Figure 2. Research Design**

**RESEARCH METHODS**

This research was conducted in Denpasar City for the reason that the Denpasar City government is promoting a smart city program in the use of information technology which also involves SMEs to be able to develop and improve the performance of SMEs. Denpasar City is the Capital City.
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of Bali Province which is a barometer of the level of economic growth in Bali so that Denpasar City is a strategic position for the development of small and medium enterprises. So that the results of this study can be an overview of SIA for SMEs in other districts in the Province of Bali. The independent variable in this study is the behavior of using the AIS (X₁) and the dependent variable in this study is individual performance (Y). While the moderating variable in this study is environmental uncertainty (X₂), IT trust (X₃), Ease of IT (X₄).

The population in this study are SMEs registered in E-commerce in Denpasar City. UKM actors in this case are UKM owners as well as directors. The total population in this study is 816 SMEs. SMEs registered in E-commerce used as a population because SMEs in E-commerce are SMEs assisted by the Denpasar City government which have implemented technology-based information systems in developing their businesses, one of which is using a technology-based accounting information system. Sampling was used by non-probability sampling method with incidental sampling technique. Incidental sampling technique is a technique of determining a sample based on coincidence, that is, anyone who incidentally meets a researcher can be used as a sample, if the person who happens to be found is suitable as a data source. The method used to determine the number of samples in this study uses the Slovin formula, so that the minimum sample size to be used in this study is 100 SMEs in Denpasar City.

The analytical technique used in analyzing the data is simple linear regression analysis and to test the regression with moderating variables using Moderated Regression Analysis.

RESULTS AND DISCUSSION

Descriptive Analysis

Descriptive statistics in this study were tested to provide information about the characteristics of the research variables. The minimum value indicates the smallest or lowest value in a data set. The maximum value indicates the largest or highest value in a data set. The average (mean) is the most commonly used way to measure the central value of a data distribution under study. The standard deviation is a measure that shows the standard deviation of the observed data from the average of the data.

Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>Means</th>
<th>std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIA Usage Behavior (PER)</td>
<td>1.00</td>
<td>5.00</td>
<td>3.68</td>
<td>1.10</td>
</tr>
<tr>
<td>Environmental Uncertainty (KEL)</td>
<td>1.00</td>
<td>5.00</td>
<td>3.71</td>
<td>0.83_</td>
</tr>
<tr>
<td>IT Trust (KEP)</td>
<td>1.00</td>
<td>5.00</td>
<td>4.01</td>
<td>0.70_</td>
</tr>
<tr>
<td>IT Ease (KEM)</td>
<td>1.00</td>
<td>5.00</td>
<td>3.60</td>
<td>0.65_</td>
</tr>
<tr>
<td>Individual Performance (KID)</td>
<td>1.00</td>
<td>5.00</td>
<td>4.08</td>
<td>0.71_</td>
</tr>
</tbody>
</table>

Hypothesis test

Tests used in this study were validity tests, reliability tests, normality tests, multicollinearity tests, and bag heteroscedasticity tests. The results of the validity test showed that the Pearson correlation value of each respondent's statement was greater than 0.30. This means that all of the respondents' statements in the questionnaire have met the validity requirements so that they are suitable for use in research. The results of the reliability test showed that all research instruments, namely the behavior of using AIS, Environmental Uncertainty, IT Trust, IT Ease, and Individual Performance had a Cronbach's Alpha coefficient greater than 0.70 so that it could be said to be reliable and feasible to use in measuring research variables. This means that if the measurement is carried out more than once for the same symptoms, the measurement will provide consistent results.

The results of the normality test show that the Asymp.Sig coefficient value (2-tailed) is 0.085 greater than the alpha value of 0.05. This shows that the variables PER, KEL, KEP, KEM, and KID are normally distributed. The multicollinearity test results show that all independent variables in this study, namely information technology utilization, information technology relevance, accounting information system satisfaction, accounting information system effectiveness show a tolerance value greater than 0.10 and VIF less than 10. This indicates that the model the regression equation has no symptoms (free) multicollinearity between independent variables. While the results of the heteroscedasticity test showed that all independent variables in this study, namely the use of information technology, the relevance of information technology, the satisfaction of accounting information systems, the effectiveness of accounting information systems showed sig. each of 0.121; 0.537; _0.175 ; _ and 0.659 > 0.05. This means that there is no influence between the independent variables on the absolute residual, so the regression model used does not contain symptoms of heteroscedasticity.

To reveal the effect of independent variables and moderating variables using the MRA technique, The results of the analysis can be seen in Table 2.
The results of the partial test of the influence of the behavior of using SIA (PER) on individual performance show a p-value of 0.00 6 which is smaller than alpha 0.05 and a constant value of 0.224 which means that PER positive and significant effect on KID. These results fail to reject the hypothesis which states that the behavior of using SIA (PER) has a positive effect on individual performance (KID).

The test results for the influence of environmental uncertainty (KEL) on individual performance (KID), based on Table 2, obtained a sig. of 0.057 which is greater than the alpha of 0.05 and a constant value of -0.110 which means that environmental uncertainty has a negative but not significant effect on individual performance. Or in other words, perceived environmental uncertainty will but not significantly reduce individual performance.

The test results for the partial effect of TI trust (KEP) on individual performance (KID), as presented in Table 2, show the sig. of 0.001 with a beta coefficient of 0.688 which means that IT trust has a positive and significant effect on individual performance. Or in other words, the more confidence in IT increases, the more massive individuals will use IT, which in the end will be able to support the quantity and quality of their performance. This finding is in accordance with the results of research conducted by Gunawan et al., (2019); Kassim et al., (2012); Nag et al., (2020)

The results of the test of the effect of IT convenience (KEM) on individual performance (KID), as presented in Table 2, show a sig. of 0.009 with a beta coefficient value of 0.002 which means that the benefits of IT have a positive and significant effect on individual performance. Or in other words, the greater the ease with which IT is felt the more enthusiasm and intent IT is used in completing tasks or work so that it will increase the quantity and quality of individual performance.

The test results of the ability to moderate environmental uncertainty (KEL) on the influence of the behavior of using SIA (PER) on individual performance (KID), based on Table 2, obtained a sig value. 0.008 with a beta coefficient of 0.12 which means that environmental uncertainty has a positive and significant effect on the positive influence of the behavior of using AIS on individual performance. Or in other words, in situations of higher environmental uncertainty, it stimulates the use of a more massive SIA so that it will accelerate the quality of individual performance. These results fail to reject hypothesis H2 which states that environmental uncertainty increases the positive influence of AIS usage behavior on individual performance (Gu et al., 2020).

The results of the IT belief moderation ability test (KEP) on the influence of the behavior of using SIA (PER) on individual performance (KID), based on Table 2, obtained a sig value. of 0.007 with a beta coefficient value of 0.020 which means that IT trust has a positive and significant effect on the positive influence of the behavior of using AIS on individual performance. These results fail to reject hypothesis H3 which states that IT trust increases the positive influence of AIS usage behavior on individual performance (Gu et al., 2020).

The results of the IT convenience moderation ability test (KEM) on the influence of the behavior of using SIA (PER) on individual performance (KID), based on Table 2, obtained a sig. value. of 0.009 with a beta coefficient of 0.002 which means that the ease of IT has a positive and significant effect on the positive influence of the behavior of using SIA on individual performance. These results fail to reject hypothesis H4 which states that the convenience of IT increases the positive influence of AIS usage behavior on individual performance.

**DISCUSSION**

The behavior of using SIA has a positive effect on individual performance

As previously explained, the use of AIS has a positive effect on managerial performance. Or in other words, the increasing usage behavior towards SIA, the more individual performance will increase. This is very possible because by massively using SIA the work will be faster, more...
accurate, reduce repetition due to clerical errors, and of course the information will also be more varied.

The results of this research are in accordance with the findings of research conducted by Agustiani (2010); Milliken (1987); Nagra (2014); Otley (1980). However, different research results were revealed by Rauniar et al., (2014) who found that usage behavior on the quality of accounting information systems did not prove to have a positive and significant effect on company performance. Likewise with research conducted by Lin et al., (2011) which showed that the use of accounting information systems did not have a positive and significant effect on organizational performance.

Environmental uncertainty reinforces the behavioral positive influence of AIS usage on perceived organizational performance

The test results reveal that environmental uncertainty strengthens the positive effect of using AIS on individual performance. This means that SIA users will use SIA more intensively in situations of higher environmental uncertainty in order to improve their individual performance. The results of this study support Harash’s research (2015); Moorman et al., (1992); Venkatesh & Zhang (2010) which shows that environmental uncertainty is able to moderate the relationship between the use of accounting information systems and company performance. However, different from the results of the study Ayaz & Yanartas (2020) which shows that environmental uncertainty does not moderate the behavioral effect of using accounting information systems on performance.

Further analysis, based on the previous description, it can be seen that environmental uncertainty partially has a negative but not significant effect on individual performance but the results of the interaction test show that environmental uncertainty has a positive and significant effect on the positive influence of AIS usage behavior on individual performance. So that the environmental uncertainty variable, based on the classification of the moderating variable type, is a pure moderating variable.

IT trust strengthens the influence of behavioral use of AIS on individual performance

The test results show that trust in IT increases the positive influence of AIS usage behavior on individual performance (Acar & Uzunlar, 2014; Turan et al., 2015). Or in other words, the more trust users have in IT, the more they will have no doubts about using it, always trying to voluntarily upgrade their knowledge and mastery of IT so that in turn the more massive the use of SIA will be, so that of course it will increase their individual performance. (Ayaz & Yanartaş, 2020; Jardali et al., 2015; Nag et al., 2020; Salihu et al., 2019).

Further analysis can be seen that based on the previous description it is revealed that the benefits of IT partially have a positive and significant effect on individual performance and the results of the interaction test show that the benefits of IT have a positive and significant effect on the positive influence of the behavior of using AIS on individual performance. So, thus the IT benefit variable, based on the classification of the moderating variable types, is a quacy moderation variable.

CONCLUSION

Based on the discussion that has been done previously, it can be concluded that the behavior of using SIA which is increasingly intensive increases individual performance and perceived environmental uncertainty stimulates more intensive and massive use of SIA so that it encourages increased individual performance. Meanwhile, higher trust in IT eliminates resistance to the use of SIA and at the same time stimulates more progressive SIA usage behavior so that it will improve individual performance and the ease with which IT is increasingly felt by individuals will motivate them to behave positively in using SIA the higher the frequency of using SIA so that will improve individual performance.

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