Accounting Information Systems Adoption: Understanding the Factors Driving the Employee Perceptions

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ABSTRACT

Effective utilization of Accounting Information Systems (AIS) would ensure the organization's survival in today's fast-driven digital platform. The awareness of employee perception towards AIS usage would crucially impact safeguarding the organizational stake's expectations. Hence the study aims to identify and analyze the prominent factors behind the employee perception of AIS within the business context. Accordingly, the user's level of accounting knowledge, level of computer and information technology skills, and experience level of using accounting information systems have been tested in this study. It is intended to investigate the nature and gravity of the association between each of these variables against the employee perception towards AIS.

The study follows an experimental approach that pertains to analyzing cross-sectional primary data gathered from 161 employees from distinct organizations. The findings of the research demonstrate the significant applicability of user technology skills and user experience on the employee perception of AIS whereas it withdraws the significance of user accounting knowledge towards the dependent variable. Further, the study illustrates how the dynamics of internal resources can extend an impact on the success of AIS while enabling businesses to enhance and optimize the AIS implementation resulting in improved financial reporting and management.

Keywords - Accounting Information Systems, User accounting knowledge, User experience

1. INTRODUCTION

In an era defined by the persistent advancement of technology and the seamless integration of digital techniques into every aspect of business operation, the role of Accounting Information Systems (AIS) stands as a beacon of transformation. AIS would not just extend a platform to integrate business tasks, it will be crucial for organizational excellence and improved decision-making. Empirical evidence suggests that distinct factors would decide the effectiveness of AIS such as incentives,

employee's level of education, experience, and skills (Ernawatiningsih & Kepramareni, 2019).

Despite the potential advantages, managers often encounter challenges in ensuring continuous engagement in AIS as it is vital to understand the factors behind the employee perception of AIS and shape them in a way to maximize the effectiveness of these systems. The emergence of AIS not only transforms the way businesses manage their financial affairs but also introduces a dynamic interplay of factors that shape employees' perceptions of these systems (Dobroszek et.al, 2019). Consequently, to maximize the efficacy and capitalize on its transformative potential, it is imperative to unravel the intricacies of these factors and devise strategies that foster positive employee perceptions and active utilization of these systems.

The accomplishment of the key objectives behind the implementation of AIS would rely on the impact driven by numerous factors. Therefore, the research seeks to explore the dynamic relationships between some key factors and employee perceptions of organizational AIS usage. Thus, the researcher intends to investigate the significance of User accounting knowledge, User technology-related skills, and user experience with AIS towards the way employees perceive and interact with AIS.

Employee perception of Accounting Information Systems (AIS) refers to the employees' subjective beliefs, attitudes, opinions, and impressions about the nature, utility, ease of use, and overall impact of AIS on their work tasks, and decision-making processes within an organizational context. In accordance with the previous work, employee perception of AIS involves various dimensions that influence their acceptance and utilization of these systems. Hence literature suggests that employees' attitudes towards AIS are shaped by factors such as perceived usefulness, perceived ease of use, relevance to their job responsibilities, management communication, and overall fit with their workflow (Khairi & Baridwan, 2015).

User knowledge in accounting refers to the level of understanding, familiarity, and expertise that employees possess with regard to the functionalities, processes, and principles of the accounting domain. This knowledge plays a crucial role in how effectively users interact with AIS in their professional roles and how well they are able to leverage the system's capabilities for accurate financial reporting, data analysis, and decision-making (Haleem & Teng, 2018; Ernawatiningsih & Kepramareni, 2019).

In the context of Accounting Information Systems (AIS), user technology skills refer to ones' competency and capacities in employing technological tools and software to effectively administer, and exploit AIS for accounting and financial duties (Haleem & Teng, 2018). These abilities include the technical knowledge, capabilities, and practical abilities required to navigate, manipulate, and make educated decisions utilizing AIS.

User experience plays a critical role in the successful adoption and utilization of AIS. It refers to the overall quality of interactions, perceptions, and satisfaction

that individuals perceive while using these systems (Mashapa & Greunen, 2010). It holds a holistic view of how users engage with AIS, encompassing aspects such as ease of use, efficiency, effectiveness, accessibility, and emotional satisfaction.

This study can uncover elements that impact employee perception of accounting information systems usage. Employee productivity can be enhanced by detecting these drivers and their impact on employees. Employee efficiency may also be increased, and if it is poor, the essential measures to develop it can be implemented.

Simultaneously, findings from this study can be utilized in notifying the strengths and weaknesses of the employees. It is also critical to design accounting information systems that are user-friendly for employees and to gather ideas for creating systems that they wish to use and understand.

One notable limitation of this study pertains to the diverse sample of employees drawn from various organizations. Data collection was conducted without specific consideration for the inherent cultural, structural, and contextual distinctions among these organizations. While the study aimed to examine the broader relationships between user accounting knowledge, IT skills, user experience, and employee perceptions of Accounting Information Systems (AIS), it did not fully account for the potential influence of organizational factors on these perceptions

2. LITERATURE REVIEW

Accounting information systems (AIS) can be considered to be the backbone of effective financial management in today's dynamic corporate world, assisting firms in making informed decisions and maintaining regulatory compliance. These digital systems have advanced dramatically, incorporating sophisticated features and revolutionizing the way financial data is processed, analyzed, and reported. As businesses attempt to improve their operations, one crucial factor that frequently determines the success of AIS adoption extends beyond the technology itself — it is in the effort and perception of the individuals who engage with these systems.

This review intends to deconstruct the elements that influence employee perceptions of AIS by drawing insights on recognized theoretical frameworks such as the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT). TAM which was originally developed by Davis (1989) is a theoretical explanation on the basis for learning and understanding user behavior in obtaining and using information systems. The TAM concept's expansion is supposed to help predict one's attitudes and adoption of technology, as well as provide fundamental information about the factors that determine the individual's attitude. Nevertheless, the UTAUT model has been recognized as one of the most highly-cited Information technology (IT) adoption models which elaborates how IT is adopted by end-users while incorporating additional factors to TAM for better explanation (Alamin et al., 2015).

Rapina et al. (2020) seek to investigate the impact of personality traits and organizational structure on AIS whereas it

has been proven the existence of a significant impact of organization structure yet no effect from personality traits on AIS. Furthermore, as a result of an attempt to explore the critical factors for ensuring AIS adoption by accountants, Wongsim (2016) found top management support, user training and education, and steering committees affect substantially in successful AIS adoption and related AIS performance. Apparently, it is also figured out that effort expectancy, perceived technology fit, facilitating conditions, self-efficacy, and coercive pressure play persuasive roles in the AIS adoption by accountants (Alamin et al., 2015).

According to Gupta and Kohli (2006), competency describes successful performance. Furthermore, user competency is derived through user knowledge and skills which enable the user in reaching to successful ending in the task (Boockholdt, 1999). Hence user competence is regarded to be of prime importance in describing the employee perception of information systems (IS). User skills have been categorized into technical skills, human skills, and conceptual skills in IS applications (Nour & Mouakket, 2014). User knowledge can be further deconstructed into user know-how in accounting and user experience (Komala, 2012). However, Haleem and Kevin (2018) support the significant impact of both User skills and user knowledge on AIS success. Furthermore, a positive impact has been revealed between accounting knowledge and the effectiveness of accounting information systems (Utomo, 2019). A comparative study done on the perception of accounting and non-accounting students suggests the successful delivery of AIS reinforces positive perceptions of accounting students whereas it enhances the interest of non-accounting students (Petros et al., 2017).

Having identified the explorations by (Sutantyo, 2017) which relies on the insignificance of task technology fit on the employee performance in using AIS it is encountered that the literature unties mixed signals on user tech skills – employee perception on AIS usage.

2.1 Conceptual Model

Researcher has developed the conceptual model for the study based on the findings of prior research studies consisting of three main variables as user tech skills, experience and knowledge. These variables were validated through empirical study to investigate the future direction of the research. The conceptual model is shown in Figure 1.

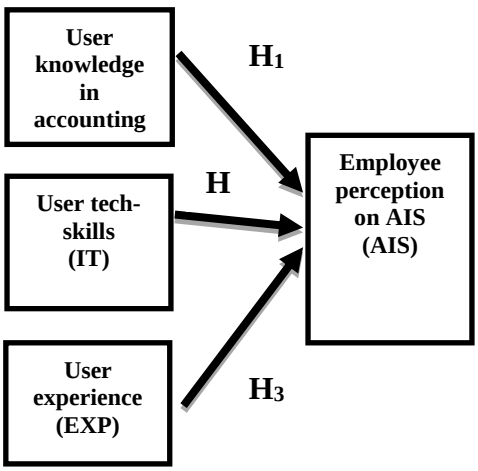

Figure 1. Conceptual model

2.2 Research Hypothesis

H1: User accounting knowledge significantly influences the employee perception of AIS.

H2: User tech-skills have a significant relationship with employee perception of AIS.

H3: User experience has a significant relationship on employee perception of AIS.

3. RESEARCH DESIGN

This study employs a cross-sectional research design to investigate the factors affecting employee perception of accounting information systems (AIS). The study's target population consists of employees from various organizations across different industries who regularly interact with AIS. A non-probability convenience sampling technique has been utilized to select participants due to its practicality and ease of access to potential respondents. A structured questionnaire was developed based on the insights taken from the technology acceptance model and prior research (Komala, 2012; Ismail, 2009; Tamoradi, 2014). A five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used in this study. 161 responses have been considered for the study and this sample size is considered adequate for cross-sectional studies and has provided a sufficient dataset for analysis and generalizability within the scope of the study. Thus, the cross-sectional design confines the establishment of causal relationships between constructs. Additionally, the convenience sampling technique may introduce a potential for selection bias, impacting the generalizability of the findings to a broader population.

4. ANALYSIS AND DISCUSSION

Statistical Packages for Social Sciences (SPSS) has been used for the analysis in this study. Descriptive analysis, Reliability and Validity, Multiple Linear Regression, and Correlation tests have been conducted and the findings are discussed in this chapter.

4.1 Descriptive Analysis

Descriptive analysis for 161 respondents who are employed in different jobs both in the private and government sectors and have been assessed in this study against their knowledge, experience and technical skills with the perception on Accounting Information Systems (refer to Table 1).

Accordingly, over 50% of respondents are representing the female category. The highest proportion of the sample graduated with a bachelor's degree (37%) and 70% of the respondents are engaged in private-sector jobs whereas 52% represent the finance sector.

4.2 Reliability and Validity

4.2.1 Testing the reliability of the scale

As we frequently use the term "reliability" in the vocabulary to denote honesty, consistency, and stability in the context of research reliability signifies the same attributes relating to the research data. The reliability analysis, it shows that the Know, IT, Exp, and AIS are all reliable with the initial observed variables. (Cronbach's Alpha coefficients are greater than 0.7)

Table 2. Reliability Analysis Findings

Variable	Cronbach's Alpha	No. of items
Know	0.795	05
IT	0.764	05
Exp	0.861	03
AIS	0.928	07

4.2.2 Testing the validity of the scale

Obtaining high validity stresses that research could provide results that correspond to actual properties, variations, and characteristics in reality. The researcher has incorporated Kaizer-Mayer-Olkin (KMO) and Bartlett's Test (has to be greater than 0.5) and Total variance to test the validity.

4.3 Correlation Analysis

Results from the correlation test indicate that multicollinearity does not exist among the independent variables as the highest correlation coefficient among independent variables (0.445) is in between KNOW & EXP signifies a weak relationship. (refer to Table 4)

Table 3. Validity Test Findings

Variable	**KMO and Bartlett's value**	**Sig. value**	**Total Variance**
Know	0.746	0.001	0.5498
IT	0.760	0.001	0.5205
Exp	0.732	0.001	0.7819
AIS	0.885	0.001	0.7039

Table 1. Descriptive Analysis Findings

Variable	N	%
Gender		
Male	85	52.80%
Female	76	47.20%
Age		
16-25	69	42.86%
26-35	56	34.78%
36-45	25	15.53%
over 46	11	6.83%
Education Level		
GCE Advanced Level	13	8.07%
Diploma	25	15.53%
Undergraduate	44	27.33%
Graduate	60	37.27%
Postgraduate	19	11.80%
Working Organization		
Government Sector	47	29.20%
Private Sector	114	70.80%
Working Department		
Administration	22	13.66%
Customer Service	1	0.62%
Finance	85	52.80%
HR	22	13.66%
IT	4	2.48%
Logistics & Supply Chain	19	11.80%
Sales & Marketing	5	3.11%
Technical	2	1.24%
Other	1	0.62%

Table 4. Correlation Analysis Findings

		Know	IT	Exp	AIS
Know	Pearson Correlation	1	0.290**	0.445**	0.409**
	Sig. (2-tailed)		0.001	0.001	0.001
IT	Pearson Correlation		1	0.274**	0.329**
	Sig. (2-tailed)			0.001	0.001
Exp	Pearson Correlation			1	0.768**
	Sig. (2-tailed)				0.001
AIS	Pearson Correlation				1
	Sig. (2-tailed)				

**. Correlation is significant at the 0.01 level (2-tailed)
*. Correlation is significant at the 0.05 level (2-tailed)

4.4 Residual Analysis

The researcher intended to analyze the residuals to ensure they meet the assumptions of linear regression. Hence Normality, Homoscedasticity, and Independence of residual tests have been conducted.As per the graphical illustration, the scatters are distributed in a manner that shows there is no significant indication of the heteroscedasticity problem in the regression model. This suggests that the assumption of constant variance of errors is likely met, and the linear regression model is valid for the dataset.

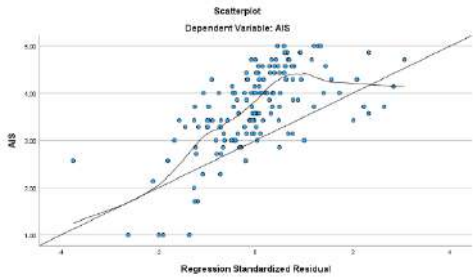

Figure 2. Homoscedasticity Test - Scatter Plot

4.5 Anova Test

ANOVA test has been conducted to examine the model adequacy in predicting the dependent variable.

Table 5. R-squared result

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.779	0.607	0.600	0.5284

Table 6. ANOVA test results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	67.813	3	22.604	80.954	<0.001
Residual	43.839	157	0.279		
Total	111.652	160			

Based on the findings, the model appears to be robust, achieving an R2 of 0.607, which translates to explaining 60.7% of the total variability in AIS through the model.

The F-statistic for the model is 80.954, and the associated significance level is 0.001. This indicates that there is strong evidence to suggest that at least one of the independent variables in the regression model has a statistically significant impact on the dependent variable. In other words, model is likely a good fit for the data, and the relationship between the predictors and the dependent variable is not purely due to chance. The low significance level (0.001) typically means that the model's overall explanatory power is statistically significant.

4.6 Multiple Regression Analysis

In statistical analysis, multiple regression is emerging as a powerful and versatile tool for exploring complex relationships between various predictor variables and dependent variables. The researcher intended to investigate the association between the predictors (KNOW, IT, EXP) and predicted variable (AIS) via the multiple regression analysis.

Table 7. Multiple regression coefficients

Variable	Regression Coefficient	t	Sig.
Constant	0.721	2.331	0.021
KNOW	0.059	1.045	0.298
IT	0.118	2.218	0.028
EXP	0.709	12.514	0.001

According to the statistics shown in figure 3 it is clear that all three predictors (KNOW, IT, EXP) are extending a positive effect on AIS while two of them (IT & EXP) are having a significant impact on the Employee Perception on AIS.

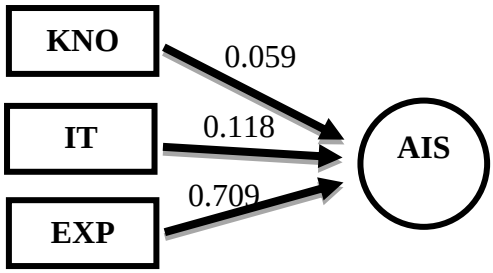

Figure 3. Regression Coefficients

Hypothesis Test

Hypothesis 1: User knowledge significantly influences on employee perception on AIS was not accepted.

Hypothesis 2: User tech-skills have a significant relationship with employee perception on AIS was accepted with 0.028

< 0.05 significance level. Accordingly, it is validated that the user tech skills are showing a significant positive association with employee perception on AIS.

Hypothesis 3: User experience has a significant relationship with employee perception on AIS was accepted with 0.001 < 0.05 significance level while demonstrating a positive significant relationship between EXP and perception on AIS.

4.7 Discussion

In this study, we sought to examine the impact of user knowledge, user tech-skills, and user experience on the perception on accounting information systems using 161 sample of employees who are engaged in different job roles. Several major conclusions have emerged from a thorough study of the data obtained, revealing insight into the link between these variables.

Firstly, the findings have suggested a statistically insignificant relationship between user knowledge and employee perception of accounting information systems which also aligns with Arif & Setyobakti, (2020) research findings yet revealing contradictory arguments (Nasrizal, 2015; Carolina, 2017; Christina, 2013). This unanticipated finding implies that knowledge and understanding of standard accounting principles and practices may not always translate into a more favorable impression of AIS. This conclusion refuses conventional accounting insight and emphasizes the importance of firms considering criteria other than accounting knowledge when evaluating the efficacy of their AIS. Thus, this argument raises doubts on the role of understanding and training in accounting topics would make any impact on one's proficiency in AIS. So there is a critical concern about the necessity of accounting education and training for AIS users. Hence further investigations should be made to analyze whether there is an impact from specific dimensions of accounting knowledge such as cost accounting, auditing, tax, forensic, and etc. on AIS perceptions.

Findings propose significant relationships between user tech-skills and experience towards the perception of AIS. Accordingly, these findings imply that employees with higher tech-skills and more extensive experience may make more informed decisions using AIS-generated information (Lingga, 2020), potentially enhancing the organization's decision-making processes. Hence organizations could invest more in training and development aimed at enhancing the tech-skills of employees who use AIS regularly which would ultimately result in increased efficiency and effectiveness in utilizing the system. This result holds implications for organizations in terms of the strategic investment in technology-related education and the promotion of a tech-savvy workforce.

Further to that, the user experience may tend to develop a deeper understanding, increased comfort, and a more favorable view of AIS functionality and utility within their organizational context (Choe, 1996). This is also complying with the findings of the study; the more employees interact with AIS and gain experience, the more likely they are to develop a deeper understanding

of its capabilities and limitations. Furthermore, this relationship highlights the potential for user experience to positively impact not only employee satisfaction but also organizational efficiency and effectiveness in leveraging AIS for financial and managerial purposes. It is also suggested to consider the user's prior experience when hiring new employees as it has been shown a positive association with the perception of AIS.

5. CONCLUSION

In this inclusive study of the factors influencing employee perceptions of Accounting Information Systems (AIS), it has shed light on the pivotal roles that user tech-skills and user experience play in shaping these perceptions. The findings of this study have not only confirmed the significance of these variables but have also offered valuable insights into their practical implications within organizational contexts.

The findings show that individuals with higher levels of technical skills have a more positive attitude toward AIS, which is likely owing to their improved ability to take advantage of the system's potential. Similarly, extensive AIS user experience was found to be associated with more positive perceptions, as people having a history of involvement and familiarity with the system tend to have a better comprehension and comfort level.

Future research should focus on the hidden features of tech-skills and user experience, taking into account the moderating impacts of organizational contexts and the developing nature of AIS technology.

In summary, the findings of this research provide organizations with realistic insights to enhance the acceptance and effectiveness of AIS among their employees. By investing in tech-skill development and promoting user experience, organizations can unlock the full potential of these systems, ultimately contributing to improved decision-making processes and increased competitiveness in today's dynamic business environment.

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