The Challenges Faced by the Information System in the Era of Industry 4.0 and Their Impact on Information Quality

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Keywords: Internal Control System, Personality Characteristics, Organizational Structure, Business Process Quality.

Abstract: The importance of business process quality is widely recognized, it is a complex concept with significant weight. When the quality of this process is poor, it has the potential to cause the information system to fail and, as a result, contribute to a decline in the quality of information. The purpose of this research is to investigate and assess the impact of internal control systems, personality characteristics, organizational structure, and business process quality on the quality of the accounting information system, as well as the impact of accounting information system quality on the overall quality of accounting information. The survey questionnaire was filled out by 80 participants using purposeful sampling, a non-random sampling technique. A variance-based structural equation model (SEM) was used to analyze the collected data. SEM is a statistical method that is commonly used to analyze variable relationships and test hypotheses in complex models. The research's primary finding contends that the effectiveness of internal control system, personality characteristics, organizational structure, and business processes significantly and favorably influences the effectiveness of the quality of accounting information system. The study's second key finding suggests that the quality of the organization's information system has a significant influence on its overall information quality.

1 INTRODUCTION

The banking sector must undergo a digital transformation because the banking world is undergoing multiple changes, particularly as we reach the 4.0 era, when banks must now keep up with technological improvements to remain competitive (Maulidya, 2021). The digital era is closely linked to changes in the lifestyle of the Indonesian population, with technology increasingly facilitating banking. The absence of real cash in today's world is a notable difference, as all payments are made using virtual money (Rapina, 2021).

As indicated by the new Financial Services Authority Regulation (POJK) No. 12/POJK.03/2021 on the Implementation of Digital Banking Services, banking services can be improved through digital banking and capitalizing on opportunities in the industrial revolution period. The Financial Services Authority (OJK) has published the regulatory framework for digital banks, with the head office functioning as the physical branch and the rest, referred to as smart branches, operating online. The move to digital banking is a vital transformation for all banking institutions since it requires them to adapt to changes in human lifestyle, consequently boosting the quality of banking performance (Maulidya, 2021).

The state-owned banks that are undergoing a digital banking transformation, such as Mandiri, BNI, BRI, and BTN, are still striving to enhance their information systems to enhance integration. This allows for the creation of clearly understandable information for management objectives (Kurniawan, 2017).

The problems in Indonesia are characterized by phenomena related to accounting, particularly the implementation of accounting information systems. Occurrence in state-owned banking occurred in 2021 at Bank Mandiri's Mampang Prapatan Branch, where a frontline embezzled 120 billion (Simanjuntak, 2021). Lax internal controls at the Area level (one level above the Branch), where there was little personnel rotation or movement of supervisors and frontline staff who had worked in the same unit for four years, were the root cause of this occurrence,

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Suhenda, F., Candra, A. and Rapina, R.
The Challenges Faced by the Information System in the Era of Industry 4.0 and Their Impact on Information Quality.
DOI: 10.5220/0012697300003798

In *Proceedings of the 2nd Maritime, Economics and Business International Conference (MEBIC 2023) - Sustainable Recovery: Green Economy Based Action*, pages 195-205
ISBN: 978-989-758-704-7

according to an internal audit. The organizational culture still tolerated certain individuals sharing passwords without focusing on security, especially in the Branch Delivery System (BDS) software. As a result, staff abused the Accounting Information System (AIS), lowering its quality. Because the incident was hushed up, the data at the Branch did not match what was reported to the Area.

The dominance of BDS (Branch Delivery System) in the banking sector, especially among state-owned banks, will be in 2023. However, because of the enormous data access, each task performed by BDS takes a long time. For example, updating the status of delinquent customers from "current" to "written-off" at the end of each month takes 5 minutes per client (if there are 50 customers x 5 minutes = 4.5 hours to execute this process). This takes a significant amount of time and has an impact on the quality of business processes because it is only done at the end of the month. Furthermore, BDS contains a flaw in the input procedure that necessitates double entry, increasing the danger of human mistake. This leads to poor information system quality and inconsistencies between physical records and BDS software entries.

The phenomenon mentioned above indicates that a number of factors, such as internal controls (the inability of the banking institution to implement internal controls, which results in illicit behaviors like the sharing of BDS passwords), can affect the quality of the AIS (Accounting Information System). Moreover, organizational structure (the organization already has an adequate organizational structure, but in the context of the phenomenon above, organizations in branch offices or in the regions are still not fully informed in detail regarding the authority possessed by the board of directors at the head office); personality characteristics (both subordinate and superior employees do not yet have the principle that sharing passwords is a prohibited activity so that it violates the principle of conscientiousness or prudence); and the quality of business.

The quality of decision-making processes can be improved by accounting information as processed data (Bodhar, 2014; Romney, 2018). Accounting information is provided to organizational decision-makers (Considine, 2012). The definition of high-quality accounting information is that it has features that make it more useful (O'Brien, 2014). Timeliness, accuracy, and completeness are characteristics of high-quality accounting information (Baltzan, 2014; Romney, 2018).

Internal controls have an impact on the quality of AIS (Kurniawan, 2017; Rashedi, 2019). Organizational structure influences the quality of AIS (Kuraesin, 2016; Wisna, 2015). The quality of business processes influences the quality of AIS (Sari, 2015). AIS quality is influenced by AIS quality (Al-Hiyari, 2013; Darma, 2020; Sajady, 2008). The referenced study's extra variable is "internal controls," and the population used comprises of all state-owned banking companies in West Java. The previous study serves as the main reference journal, and the unique feature is that an additional variable of the internal control system serves as an independent variable (Rapina, 2021). Furthermore, the researchers concentrate their investigation on the AIS of state-owned banks, notably the BDS or Branch Delivery System.

The researcher determines the following research limits based on the reasoning above. The AIS in question is the BDS software version 11.00.00, which was upgraded on March 15, 2023. The BDS hardware cannot be updated because of the limitations in the big data migration process, which could result in company losses if the data migration process is unsuccessful. OTIs (Operational Technical Instructions) are in effect until December 20, 2022. Employees who run the BDS are the topic of personality traits. Customers or borrowers are not included in this study because it is only for personnel who operate the BDS. The purpose of this study was to determine how much the internal control system, personality traits, organizational structure, and business process quality on the quality of the accounting information system and its impact on the quality of accounting information. This study contributes to factors that can affect the implementation of accounting information systems, resulting in quality accounting information. Furthermore, this research is expected to help solve problems that occur in the field of accounting for organizations in Indonesia.

2 THEORETICAL REVIEW

2.1 Accounting Information Systems

The Industry 4.0 revolution, also known as the "cyber-physical system," is a phenomenon that arises when cyber technology and automation technology collaborate. This revolution causes major changes in a variety of industries. Many things have changed as a result of the birth of this revolution in numerous areas. What used to require a large personnel for operations is now replaced by the use of technological machines (Rashedi, 2019). The internet of things, big data, augmented reality, cybersecurity, and artificial

intelligence are examples of technology used in the Industry 4.0 revolution. AIS is a component of the Industry 4.0 revolution, and it includes big data and cybersecurity (Rashedi, 2019).

AIS plays a critical role in providing information that assists management in developing organizational strategies to meet an organization's goals. The quality of an organization's information system can be used as a indicator of how well it meets its goals, according to many studies.

The accounting system employed by state-owned banks, notably the Branch Delivery System (BDS), is the subject of the investigation. BDS is a computer-based accounting system that allows banks to execute financial and non-financial operations online. BDS is the fundamental operational banking service, consisting of menus based on transaction codes. Banking transactions are completed using BDS with diverse transaction types in major cities.

However, BDS utilization optimization is less typical in smaller locations due to fewer transactions. The BDS system is utilized by bank employees for their daily work activities. Given that BDS is a critically important system for banking operations, the manner of utilizing BDS follows specific procedures or protocols aligned with the policies of each bank. BDS has the ability to generate accurate information that can be used by top management for decision-making to achieve organizational goals.

The researcher will investigate variables that can boost the performance of BDS, which will result in high-quality information for decision-makers according to the above description.

The BDS workflow is comprised of three (3)processes: (1) the morning process known as "branch opening," in which the system is activated by the branch manager or authorized user to allow normal operations; (2) the daily transaction process, in which frontliners provide services to customers under various conditions; and (3) the end-of-day process, also known as "branch closing," in which the branch manager is required to physically reconcile the cash in the vault with the n The branch closing process can begin after the physical and non-physical monies are in sync (Cahyaning, 2016).

2.2 Internal Control System in AIS Quality

ICS is a collection of guidelines and practices intended to prevent misappropriation of the company's resources, guarantee the availability of correct corporate accounting data, and guarantee that all staff members have followed or implemented management policies and laws in a proper manner. (Tresyani, 2019). ICS is a process driven by the board of directors, management, and employees that aims to ensure that organizational goals are met (Rashedi, 2019).

The control environment, risk assessment, information and communication, and monitoring are the four fundamental components of policies and procedures designed and implemented by management to provide reasonable assurance that control objectives can be met (Tresyani, 2019).

When an organization maintains a system that generates high-quality information, its goals can be achieved. The application system must have control over transaction processing to ensure that internal control components are implemented. The internal control system is designed to guarantee the system's completeness, including detecting input errors and rejecting requests. It also guarantees that data processing is in accordance with the desired criteria or requirements and that the output is suitable for distribution to senior management (Kurniawan, 2017).

Based on the above description, it can be concluded that the internal control system has an impact on the quality of AIS, similar to previous research (Anuruddha, 2021; Kurniawan, 2017; Rashedi, 2019).

H1: Internal Control System (ICS) influences the Quality of AIS.

2.3 Personality Traits in AIS Quality

The behaviors of individuals in their daily activities are characterized by personality traits that are formed by various interconnected factors. Every employee who works in an organization should possess these traits as they can enhance their abilities in performing their tasks. One of the tasks carried out in the Industry 4.0 era is the utilization of technology.

The use of technology must be comprehended as it holds significant importance in the field of information systems, accomplished by exploring the role of personality: the Five Factor Model of Personality (Openness, Agreeableness, Conscientiousness, Extraversion, and Neuroticism). The formation of a working team that aligns the information system with personality types, as outlined by Lea et al. research, is essential to achieve optimal performance. (2019), where the Five Factor Model of Personality can influence information systems (Rapina, 2021).

Individuals with creativity can identify the system's current strengths and faults (Simanullang, 2021). When a case needs to be escalated to the next level of leadership, the system should simply align

itself (Pramasella, 2019). Making exact decisions requires exercising caution while operating the system (Ernawati, 2019). The system is easy to socialize for new users who are using it for the first time. The system's operation should be based on emotional experiences, developing an anticipating mindset (Najm, 2019). Individuals must possess the Five Factor Model of Personality as employees of any business, particularly in this research environment of state-owned banking, in order to operate the system and create quality information. The researcher restricted the personality traits explored in this study to those that are necessary for personnel in the banking industry.

The study conducted by Rapina (2021) explores the influence of personality traits on the quality of accounting information systems. Furthermore, research examining the Five Factor Model of Personality has been previously investigated by (Ernawati, 2019; Pramasella, 2019; Simanullang, 2021). According to the second hypothesis of this study, the quality of AIS is influenced by personality traits, as described above.

H2: Personality Traits influence the Quality of AIS.

2.4 Organizational Structure in AIS Quality

The formal arrangement of duties, responsibilities, and authority within an organization is called organizational structure (McShane, 2015). The roles and responsibilities of persons and groups associated with the execution and supervision of interrelated activities aimed at accomplishing organizational goals are referred to as organizational structure (Kuraesin, 2016). Organizational structure as having three dimensions: span of control, centralization, and formalization (McShane, 2015).

In organizational structure, the number of employees can influence the system being used, but managers in the organization must be able to control these employees so that the system can operate as intended (Kuraesin, 2016). The center of authority related to the organizational system belongs to managers (Kuraesin, 2016). The system's procedures and rules must be consistent from the head office to the smallest branches (Ghozali, 2018). With a well-established organizational structure, it will result in quality AIS (Kuraesin, 2016).

The creation of information systems requires consideration of organizational structure as it affects the implementation of AIS (Kuraesin, 2016). The organization's structure can improve information availability by spreading information to multiple levels, giving employees at the lowest level the opportunity to contribute to decision-making (Bodhar, 2014).

According to the preceding definition, the third hypothesis of this study is that organizational structure influences the quality of AIS. (Rapina, 2021) did previous research with a random sample of 46 organizations, while (Kuraesin, 2016; McShane, 2015) conducted research revealing the influence of organizational structure on AIS quality.

H3: Organizational Structure influences the Quality of AIS.

2.5 Business Process Quality in AIS Quality

Quality of business processes is the interrelated business activities that result in products or services for consumers. These processes can be repeated to achieve optimal outcomes, or they can focus on maximizing a specific process that is currently occurring (Kuraesin, 2016). The importance of business process quality is in providing services that are convenient for employees and don't take up customers' time. The produced products should align with management's objectives (Romney, 2018). Business process quality is reflected in the waiting time for each transaction within the organization's system. Each task has a different waiting time based on the complexity of the performed work (Rapina, 2021).

The information system can be influenced by the business processes of the organization (Rapina, 2021). The quality of AIS can be enhanced through existing business processes; a good business process should be well-structured, and organizational procedures should be observed based on real-life occurrences, enabling the business process to be of high quality.

A successful business process should have defined objectives, inputs, outputs (within the system being used), and resource utilization. It includes multiple operations at various levels and can affect more than one unit within the firm, compromising the quality of both the business process and the AIS (Kuraesin, 2016).

Based on the description above, the fourth hypothesis of this study is that the quality of business processes affects the quality of AIS, in line with previous research (Kuraesin, 2016; Rapina, 2021).

H4: The quality of business processes has an impact on the quality of AIS.

2.6 Quality of AIS in Accounting Information Quality

AIS uses a procedure to collect and turn data into accounting information. Financial information is data that has been processed to generate the financial AIS process. (Darma, 2020) defines this process as the processing of financial accounting information. For first-time users, the system should be simple to use (Ahmed, 2019). It should have freedom within its constraints; a system with constraints that is escalated to senior management due to exceptions shows flexibility (Ahmed, 2019). The system's records should include data that will be subject to audits, and inputting data once should provide efficient information, reducing human errors (Tresyani, 2019).

The output should be efficient in terms of time and user-friendliness. To guarantee confidentiality, the information should be maintained in a single location (database), and it should be presented in the form of diagrams. High-quality accounting information can be produced by AIS that adheres to the concepts of usability, adaptability, auditability, and security (Darma, 2020).

The fifth hypothesis of this study is that the quality of AIS influences the quality of accounting information, according to (Ahmed, R., 2019, McShane, S. G. M. Von., 2015, Rapina, 2021, Sugiyono., 2014).

H5: The Quality of AIS Affects the Quality of Accounting Information.

Accounting information that is timely and up to date is available when needed (Cahyaning, E. K., 2016). On the other hand, accurate accounting information is free of inaccuracies and accurately reflects current conditions (Anuruddha, S., 2021). The quality of accounting information is a feature that accounting information must have in order to suit the needs of users McShane, (S. G. M. Von., 2015). Accuracy, completeness, and timeliness are all aspects of information quality. Accuracy, completeness, and timeliness are all hallmarks of high-quality information (Considine, 2012). The quality of information is measured by its timeliness, accuracy, and completeness (Cahyaning, E. K., 2016). Quality information as having properties such as correctness, timeliness, and completeness. The quality of the information produced by the information system determines the success of the information system in SIA. SIA acts as a middleman or instrument to actualize information, allowing project managers and staff working at the company's organizational level to make educated decisions.

The model or framework of thought is presented in the following diagram based on the hypotheses above. This is also a novelty of the research conducted, because researchers have not found all variables to be studied together.

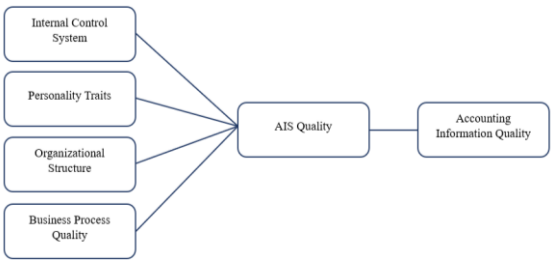

Figure 1: Research Model or Framework.

3 RESEARCH METHOD

A data gathering strategy is to provide written statements to respondents and ask them to answer truthfully. Online media such as Google Forms or physical questionnaires given directly to respondents are utilized to distribute questionnaires. Respondents in this survey are workers of state-owned banks, specifically BMRI, BBNI, BBRI, and BBTN.

Because the questionnaire takes the form of multiple-choice answers that vary (not equidistant values from 1 to 5), the scale employed for this research is an interval scale. The respondents were given statements with numerical values that corresponded to their levels (Sugiyono, 2014).

Control environment, risk assessment, information and communication, and monitoring are the components of the SPI variable. These criteria were selected because a good control system needs to have standard operating procedures and procedural policies in order for a bank-made system to function. Then, the dimensions of personality traits, namely openness, agreeableness, conscientiousness, extraversion, and neuroticism, were selected because these five personalities are related to one another, making it very appropriate for employees who operate the system to form these five personality traits. Then the dimensions of the organizational structure are span of control, centralization and formalization, the reason for choosing these dimensions is because banking is a company that has clear responsibilities and authorities so that clear tasks will result from the company's organizational structure. Then the dimension of the business process quality variable is the length of time waiting, the reason for choosing this dimension is because a

system that runs work programs properly is a system that minimizes waiting time. Then the reason the researcher chose the flexibility dimension in the SIA quality variable is because the BDS system can be escalated to the leadership to determine policies, and timeliness, data accuracy and data completeness as one of the principles of information to facilitate decision makers.

Table 1: Operationalization of Variables.

Variable	Dimension	Indicator
Internal Control System Meilani (2017)	Control Environment	Management Control
		Division of taks
		Authority
		Responsibility
	Risk Assesment	Procedure Policy
	Information & Communication	Standard Operating Procediure
	Monitoring	Review
Personality Traits Barnet et al. (2015)	Openness	Openness to New Experience
	Agreeableness	Avoid Conflict
	Conscientiousness	Caution in carrying out an action
	Extraversion	Interaction with others
	Neuroticism	Negative Emotional Expérience
Organizational Structure Mc Shane, et al. (2015)	Control Range	Controllable
	Centralization	Centralized Organizational Activities
	Formalization	Development Process Notice
Business Process Quality Romney & Steinbart (2018)	Long Waiting Time	No long waits
		Just one time input
		Work just got easier
		Minimizing human error
AIS Quality Romney & Steinbart (2018)	Utility	Processing Information
		Output
		Optimizing Resouces
		Improve the Performance
	Ease of Use	It is useful
	Flexsibility	Flexsibility
	Auditability	Auditability
	Security	Hardware
Accounting Information Quality Baltzan (2014)	On Time	Real Time
	Accurate	Tested
	Complete	Output

SEM PLS is a data analysis method that the author uses to analyze the relationship between variables (Sugiyono, 2014). The outer model consists of a validity test using convergent validity > 0.7, it is said to be high, as well as the average variance extracted (AVE) value and communality value > 0.5 (Ghozali, 2018), then discriminant validity can be seen from the measurement of the cross loading factor with the construct and comparison of average variance extracted (AVE) roots with latent variable correlations (Ghozali, 2018). After that, the reliability test used Cronbach's alpha > 0.6 (Ghozali, 2018). The relationship between the independent and dependent variables is examined using a t test (hypothesis testing) that is carried out both partially by Suiyono (2014).

4 RESEARCH FINDINGS

There are 30 manifest variables with 6 latent variables including Internal Control Systems, Personality Characteristics, Organizational Structure, and Business Process Quality (X); AIS Quality (Y) and Accounting Information Quality (Z), with the help of smartPLS 3 with the following model.

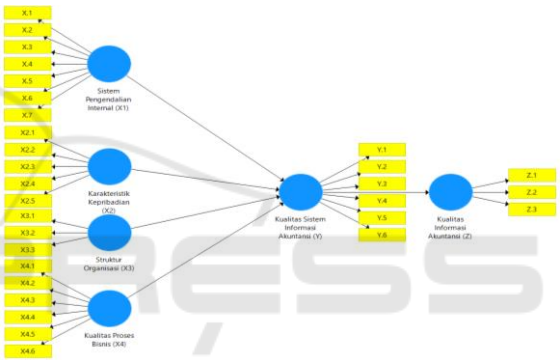

Figure 2: Research Model.

The PLS Algorithm menu in the image below is then used to provide the calculation results for the whole bootstrapped model.

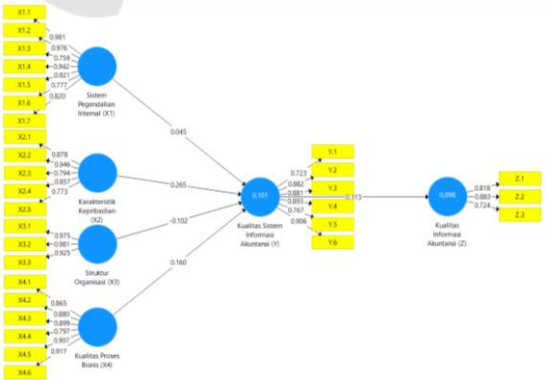

Figure 3: Complete PLS Algorithm Research Model.

Additionally, two validity tests must be performed: convergent validity and discriminant validity.

4.1 Convergent Validity

Table 2: Loading Factor.

Manifest Variable	*Loading Factor*	Standard Value	Conclusion
SPI_1	0.981	0.700	Valid
SPI_2	0.976	0.700	Valid
SPI_.3	0.759	0.700	Valid
SPI_4	0.942	0.700	Valid
SPI_.5	0.921	0.700	Valid
SPI_6	0.777	0.700	Valid
SPI_.7	0.820	0.700	Valid
KK_1	0.878	0.700	Valid
KK_2	0.946	0.700	Valid
KK_3	0.794	0.700	Valid
KK_4	0.857	0.700	Valid
KK_5	0.773	0.700	Valid
SO_1	0.975	0.700	Valid
SO_2	0.981	0.700	Valid
SO_3	0.925	0.700	Valid
KPB_1	0.865	0.700	Valid
KPB_2	0.880	0.700	Valid
KPB_3	0.899	0.700	Valid
KPB_4	0.797	0.700	Valid
KPB_5	0.907	0.700	Valid
KPB_6	0.917	0.700	Valid
KSIA_1	0.723	0.700	Valid
KSIA_2	0.882	0.700	Valid
KSIA_3	0.881	0.700	Valid
KSIA_4	0.893	0.700	Valid
KSIA_5	0.767	0.700	Valid
KSIA_6	0.906	0.700	Valid
KSI_1	0.818	0.700	Valid
KSI_2	0.883	0.700	Valid
KSI_3	0.721	0.700	Valid

According to the chart above, all 30 manifest variables are determined to have good validity because the loading factor value is higher than the standard value (Sugiyono, 2014).

All variables are deemed to be legitimate because the AVE value and composite reliability of the 6 (six) latent variables are both > 0.5 (Ghozali, 2018).

Table 3: Average Variance Extracted and Composite Reliability.

Latent Variable	AVE	CR	Standard Value	Conclusion
Internal Control System	0.786	0.962	.500	Valid
Personality Characteristics	0.726	0.929	.500	Valid
Struktur Organisasi	0.923	0.973	.500	Valid
Business Process Quality	0.772	0.953	.500	Valid
AIS Quality	0.714	0.937	.500	Valid
Accounting Information Quality	0.658	0.852	.500	Valid

4.2 Discriminant Validity

Table 4: Croos Loading Factor.

Items	**SPI**	**KK**	**SO**	**KPB**	**KSIA**	**KIA**
SPI_1	0.981	0.040	0.016	0.123	0.061	-0.087
SPI_2	0.976	0.058	0.052	0.149	0.099	-0.058
SPI_3	0.759	0.011	-0.015	0.079	-0.026	-0.103
SPI_4	0.942	0.121	0.070	0.165	0.056	-0.133
SPI_5	0.921	-0.014	0.038	0.060	0.029	-0.203
SPI_6	0.777	-0.027	-0.001	0.122	0.004	-0.067
SPI_7	0.820	-0.013	0.016	0.093	0.017	-0.025
KK_1	-0.087	0.878	0.363	0.062	0.155	0.323
KK_2	-0.058	0.946	0.264	0.060	0.313	0.181
KK_3	-0.103	0.794	0.182	-0.023	0.197	0.089
KK_4	-0.133	0.857	0.394	0.029	0.115	0.285
KK_5	-0.203	0.773	0.231	0.036	0.123	0.208
SO_1	-0.067	0.061	0.975	-0.118	-0.034	0.080
SO_2	-0.025	0.099	0.981	-0.065	-0.034	0.047
SO_3	0.323	-0.026	0.925	-0.125	-0.014	0.064
KPB_1	0.181	0.056	0.123	0.865	0.061	0.084
KPB_2	0.089	0.029	0.149	0.880	0.116	0.074
KPB_3	0.285	0.004	0.079	0.899	0.073	0.084
KPB_4	0.208	0.017	0.165	0.797	0.214	0.074
KPB_5	0.080	0.155	0.060	0.907	0.184	0.148
KPB_6	0.047	0.313	0.122	0.917	0.184	0.084
KSIA_1	0.064	0.197	0.093	0.016	0.723	0.043
KSIA_2	0.084	0.115	0.062	0.052	0.882	0.264
KSIA_3	0.074	0.123	0.060	-0.015	0.881	0.148
KSIA_4	0.084	-0.034	-0.023	0.070	0.893	0.084
KSIA_5	0.074	-0.034	0.029	0.038	0.767	0.043
KSIA_6	0.148	-0.014	0.036	-0.001	0.906	0.264
KSI_1	0.084	0.061	-0.118	0.016	0.214	0.818
KSI_2	0.043	0.116	-0.065	0.363	0.184	0.883
KSI_3	0.264	0.073	-0.125	0.264	0.184	0.724

It may be deduced that the indicators used to measure latent variables have complied with the requirements since the CLF value of the manifest variable is higher than the CLF values of the other manifest variables, or in other words, the numbers in the yellow shading are greater than the numbers in the blue shading. Additionally, the test that needs to be run is a reliability test called Cronbach's alpha.

The Cronbach's alpha value of the 6 (six) variables is greater than 0.7, meaning that all latent variables are reliable. Since the ke-6 (six) variation's nilai cronbach's alpha is more than 0.7, all previous variations are now reliable.

Criterion I:

H_0: SPI / KK / SO / KPB does not affect AISQ or AISQ does not affect AIQ

H_1: SPI / KK / SO / KPB affect AISQ or AISQ affects AIQ

Criterion II:

Reject H_0: P Values are smaller than the significance level of 0.05 (5%).

Criterion III:

Reject H_0: t stat. greater than t table.

The value of the t table is 1.989, and the t statistics and P values can be used to assess if the factors under research have an influence or have the opposite effect. As a result, the hypothesis testing's conclusion is as follows.

a. Internal Control System's t Statistics value for AIS Quality is 6.532 > 1.989, and the p value is 0.000 < 0.05 (5%). The conclusion that the Internal Control System can affect AIS Quality follows from the rejection of H_0.
b. Personality Characteristics' t Statistics value in relation to AIS Quality is 2.717 > 1.989, and the p-value is 0.007 < 0.05. H_0 is therefore rejected, proving that personality traits can affect AIS quality.
c. The organizational structure's t statistics value for AIS quality is 6.605 > 1.989, and the p value is 0.000 < 0.05. Inferring that Organizational Structure can affect AIS Quality, H_0 is therefore rejected.
d. The Business Process Quality t Statistics value for SIA Quality is 6.873 > 1.989, and the p values are 0.000 < 0.05. Thus, H_0 is refuted, confirming the conclusion that Business Process Quality can affect AIS Quality.
e. The p value is 0.002 < 0.05 and the t Statistics value of the AIS Quality towards Information System Quality is 3.043 > 1.989. In light of H_0's rejection, it may be concluded that AIS Quality can affect Information System Quality.

Table 5: CA.

Latent Variable	*CA*	Standard Value	Conclusion
Internal Control System	0.969	Must be greater than 0.700	Reliable
Personality Characteristics	0.907		Reliable
Organizational Structure	0.961		Reliable
Business Process Quality	0.945		Reliable
AIS Quality	0.921		Reliable
Accounting Information Quality	0.756		Reliable

Table 6: t-Test.

Information	*t Statistics*	*t Tabel*	Results	*P Values*	Results
SPI → KSIA	6.532	1.989	H_0 is rejected	0.000 < 0.05	Sig.
KK → KSIA	2.717	1.989	H_0 is rejected	0.007 < 0.05	Sig.
SO → KSIA	6.605	1.989	H_0 is rejected	0.000 < 0.05	Sig.
KPB → SIA	6.873	1.989	H_0 is rejected	0.000 < 0.05	Sig.
KSIA → KIA	3.043	1.989	H_0 is rejected	0.002 < 0.05	Sig.

5 DISCUSSION

5.1 Internal Control System Towards AID Quality

Based on the data processing results above, H_0 is rejected because the obtained p values are greater than the calculated t value (6.532 > 1.989), indicating that the Internal Control System (ICS) influences AIS quality, which is consistent with previous research by (Anuruddha, 2021; Kurniawan, 2017; Rashedi, 2019; Tresyani, 2019). The goals of the organization can be achieved when high-quality information is produced by upholding a system that was put in place by the organization to make sure that internal control components are integrated into the application system. As a result, control over transaction processing is required. Internal control systems are designed to guarantee the system's completeness by preventing or detecting input errors, which can result in the system rejecting such requests. Furthermore, they ensure that data processing was carried out in accordance with the desired criteria or requirements, and that the outputs are suitable for distribution to top management (Kurniawan, 2017).

5.2 Personality Characteristics Towards AID Quality

Based on the data processing results above, H_0 is rejected since the acquired p values are more than the calculated t value (2.717 > 1.989), showing that AIS Quality influences Personality Characteristics. This is consistent with prior studies which found that personality traits measured using the Five-Factor Model of personality (OACEN) can influence AIS quality (Ernawati, 2019; Najm, 2019; Pramasella, 2019; Simanullang, 2021). The Five-Factor Model of personality can be utilized to create a quality accounting information system. The task of reviewing all aspects of employment is not fully accommodated by the banking company's accounting information system (AIS) application. The reason for this situation is that only the person responsible for examining input results from other departments is conducting the re-examination. The work outcomes are only authorized by a supervisor when a customer, for example, opens a new account through customer service or transfers money through a teller. Individuals in positions higher than the supervisor, such as branch managers, do not participate in approving the operations of customer service or teller, despite the fact that they all perform the same duty as users of the accounting information system. Furthermore, the installed accounting information system (AIS) does not adequately accommodate to the strong and diligent desire to understand the accounting information system. Customer service and tellers, for example, should have a strong and conscientious motivation to master the application of accounting information systems. It has been found that the accounting information system used by the vast majority of commercial banks is frequently updated in other areas, like the consumer card division, necessitating constant adjustment on the part of users. The workflow is hampered by these updates, which frequently make users tired of learning. Based on the description given, it can be inferred that the higher the quality of the accounting information system is, the more personality traits it can accommodate.

5.3 Organizational Structure Towards AID Quality

Based on the data processing results above, H_0 is rejected since the acquired p values are more than the calculated t value (6.605 > 1.989), showing that Organizational Structure impacts AIS Quality. This is congruent with the findings that organizational structure is an important factor to consider when creating information systems (Sari, 2015; Yanti, 2022). The adoption of AIS is influenced by organizational structure because it improves information availability by dispersing it across multiple levels within an organization. This allows employees at lower levels to participate in decision-making. The accounting information system (AIS) has not been able to fully incorporate job specialization into the organizational framework. Using an accounting information system requires breaking down procedures into a list of necessary actions. The bulk of commercial banks clearly divide work across separate departments. The functions of a customer support agent and a teller are distinct, and they cannot switch roles. There is a physical barrier between the customer service area and the teller area, and the programs they use have different passwords depending on whether they are a teller or a customer care representative. Furthermore, it is well recognized that the accounting information system (AIS) application has not accommodated employees' relevant responsibilities based on their specializations. The reason for this is that most commercial banks still use distinct programs for branch offices, retail risk divisions, commercial divisions, and consumer card divisions. As a result, the accounting information system has been unable to provide the essential data automatically when generating reports. Manually combining data from several accounting information system programs used across various divisions is still necessary for some reports to be created.

5.4 Business Process Quality Towards AIS Quality

Based on the data processing results above, H_0 is rejected since the acquired p values are more than the calculated t value (6.873 > 1.989), showing that process quality can influence AIS quality. The findings that business procedures can influence information systems (Rapina, 2021) are similar to this one. The quality of AIS can be enhanced by the existing business processes, which should be well-structured and monitored based on real-world events to ensure the quality of business processes. The appropriate processing time is reflected in the AIS application. This is due to data retrieval delays from the AIS application, as they compete for processing time with the Central and Eastern Indonesia regions. Longer processing durations result from the increasing amount of data extracted. The processing timeframes of the accounting information system

application support other actions, like inter-branch fund transfers. There are two transfer options: LLG (Lalu Lintas Giro) and RTGS (Real Time Gross Settlement), and both forms of transfers arrive at the target bank on the same day, though at a different charge. Waiting times also fluctuate between commercial banks, depending on their rules. For example, the needed waiting time in the accounting information system application for opening new client accounts ranges from 5 minutes to up to 20 minutes. This is dependent on how the accounting information system application handles client data entry, especially when consumers are asked confirmation questions ranging from simple to sophisticated queries.

5.5 AIS Quality Towards Accounting Information Quality

Based on the data processing results above, H_0 is rejected since the acquired p values are more than the calculated t value (3.043 > 1.989), indicating that accounting information quality is influenced by AIS quality. This is consistent with previous study who found a link between AIS quality and accounting information quality (Abidin, 2021; Darma, 2020; Rapina, 2021; Sari, 2015; Tresyani, 2019). An AIS that adheres to criteria such as usability, adaptability, auditability, and security can generate high-quality accounting data. In other words, AIS quality can influence accounting information quality based on these characteristics.

The accounting information system (AIS) application has not been fully developed due to the challenges in commercial banks in obtaining information from multiple functional areas. Integration, for example, has not been realized in the credit card and loan divisions. For example, if a customer has a business loan for billions of rupiah and then wishes to apply for a credit card, they must do so as a new customer because their identity cannot be traced inside the credit card section. In other words, the accounting information system applications that are now in use in banking have not been integrated nicely with other departments.

6 CONCLUSION

Based on the theory that has been described, the research hypothesis, and the results of the study, it is known that:

1. The effectiveness of accounting information systems is significantly impacted by internal control systems. The phenomenon that exemplifies this has been reported by (Simanjuntak, 2021), involving the misappropriation of 120 million dollars in client funds by frontline. A high-quality AIS can be attained when the internal control system is built to ensure the completeness that is inherent in the system itself, for example, by protecting against or identifying input errors and refusing such requests. Additionally, it guarantees that data processing adheres to the necessary standards or criteria and that the output is appropriate for presenting to upper management.
2. Personality characteristics have a big impact on how well accounting information systems work. (Simanjuntak, 2021) describes a phenomenon in which some people continue to share passwords without thinking about security, particularly when it comes to the Branch Delivery System (BDS) software. Employee misuse of the Accounting Information System (AIS) therefore reduced the system's quality. The information at the Branch did not match what was reported to the Area since the incident was kept quiet. The Five-element Model of Personality (OACEN), which each element has a distinct function that can enhance the quality of AIS, is something that banks should teach their employees in.
3. Although the company already has a suitable organizational structure, branch offices and regional organizations are still mostly unaware of the exact authority that the head office's board of directors possesses in light of the aforementioned situation. Additionally, the establishment of a distinct organizational structure in banking will lead to identical policies and guidelines throughout the entire system, from the main office to the tiniest branches.
4. The quality of during business operations has a big influence on the caliber of accounting information systems. on the quality of business processes (the lengthy write-off procedure, which can only be finished at the end of the month, suggesting that BDS is already overworked) (this proves that business processes in banking are inadequate). This study also demonstrates that process quality is one factor affecting AIS quality. A system that completes tasks as soon as it is practical is considered efficient, based on process quality metrics such as waiting time for the system.
5. The quality of accounting information is significantly impacted by the quality of the

accounting information system. Accordingly, this data must meet the AI quality standards for accuracy, timeliness, and completeness.

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