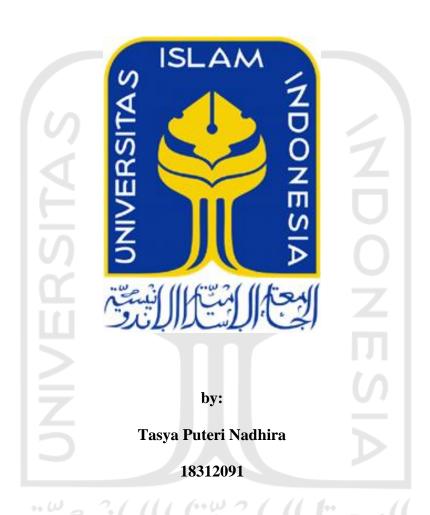
# THE EFFECT OF ACCOUNTING INFORMATION SYSTEMS, INTERNAL CONTROL SYSTEMS, AND HUMAN RESOURCE COMPETENCE ON FRAUD PREVENTION AT PDAM BANDARMASIH



DEPARTMENT OF ACCOUNTING
INTERNATIONAL PROGRAM
FACULTY OF BUSINESS AND ECONOMICS
UNIVERSITAS ISLAM INDONESIA

2021/2022

# THE EFFECT OF ACCOUNTING INFORMATION SYSTEMS, INTERNAL CONTROL SYSTEMS, AND HUMAN RESOURCE COMPETENCE ON FRAUD PREVENTION AT PDAM BANDARMASIH

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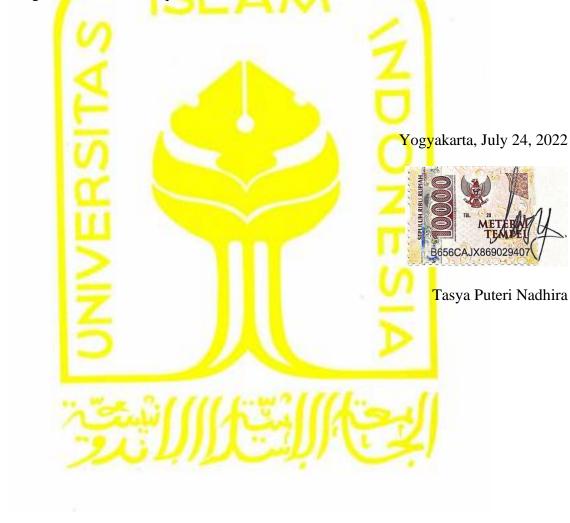
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Herein I declare the originality of the thesis, I have not presented anyone someone's work to obtain my university degree, nor have I presented anyone else's words, ideas, or expression without acknowledgment. All quotations are cited and listed in the bibliography of the thesis. If in the future this statement is proven to be false, I am willing to accept any sanction complying with the determined regulation or its consequence.





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# THE EFFECT OF ACCOUNTING INFORMATION SYSTEMS, INTERNAL CONTROL SYSTEMS, AND HUMAN RESOURCE COMPETENCE ON FRAUD PREVENTION AT

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# THE EFFECT OF ACCOUNTING INFORMATION SYSTEMS, INTERNAL CONTROL SYSTEMS, AND HUMAN RESOURCE COMPETENCE ON FRAUD PREVENTION AT PDAM BANDARMASIH

#### A THESIS

Presented as Partial Fulfilment of Requirements to Obtain the Undergraduate Degree in Department of Accounting

Written by:

Tasya Puteri Nadhira

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DEPARTMENT OF ACCOUNTING

INTERNATIONAL PROGRAM

FACULTY OF BUSINESS AND ECONOMICS

UNIVERSITAS ISLAM INDONESIA

2021/2022

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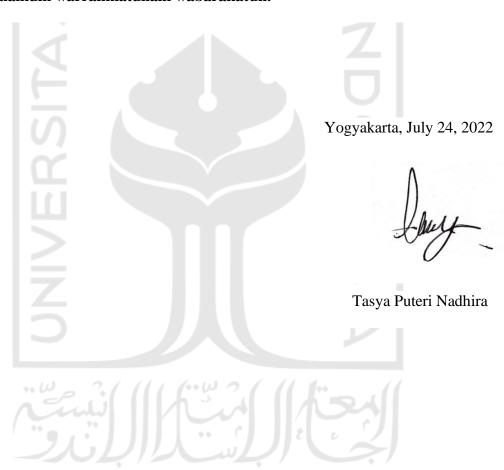
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#### **ABSTRACT**

This research aims to identify the effect of accounting information systems, internal control systems, and human research competence on fraud prevention at PDAM Bandarmasih. This Study uses a quantitative approach. Data was collected through questionnaires that given to all employees at PDAM Bandarmasih. The sampling technique used was purposive sampling with a sample size of 100 respondents. The Likert scale used is 1 to 6. Instrument of this research were tested by using SPSS software to know the validity and reliability, and then the performed classic assumption test was done. To test the hypothesis, this research used multiple linear regression test, determination coefficient test and T-test. The research results proved the variables of the accounting information systems, and internal control systems have a significant effect towards fraud prevention at PDAM Bandarmasih. While human resource competence had no considerable effect towards fraud prevention.

**Keywords: Accounting Information Systems, Internal Control Systems, Human Resource Competence, Fraud Prevention** 



#### **ABSTRAK**

Penelitian ini bertujuan untuk mengidentifikasi pengaruh sistem informasi akuntansi, sistem pengendalian internal, dan kompetensi sumber daya manusia terhadap pencegahan kecurangan pada PDAM Bandarmasih. Penelitian ini menggunakan pendekatan kuantitatif. Pengumpulan data dilakukan melalui kuesioner yang diberikan kepada seluruh pegawai di PDAM Bandarmasih. Teknik pengambilan sampel yang digunakan adalah purposive sampling dengan jumlah sampel sebanyak 100 responden. Skala Likert yang digunakan adalah 1 sampai 6. Instrumen penelitian ini diuji dengan software SPSS. Instrumen diuji validitas dan reliabilitas nya, kemudian dilakukan uji asumsi klasik. Untuk menguji hipotesis, penelitian ini menggunakan uji regresi linier berganda, uji koefisien determinasi dan uji T. Hasil penelitian membuktikan bahwa variabel sistem informasi akuntansi, dan sistem pengendalian intern berpengaruh signifikan terhadap pencegahan kecurangan pada PDAM Bandarmasih. Sedangkan kompetensi sumber daya manusia tidak berpengaruh signifikan terhadap pencegahan kecurangan.

Kata Kunci : Akuntansi Informasi Sistem, Sistem Pengendalian Internal, Kompetensi Sumber Daya Manusia, Pencegahan Kecurangan



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#### **CHAPTER 1**

#### INTRODUCTION

#### 1.1 Study Background

There are many factors that can influence the occurrence of fraud. Factors that influence the occurrence of fraud, including: pressure, opportunity, and rationalization, are then known as the element of fraud or the fraud triangle (Arens, Elder, and Beasley, 2008). In various countries, including Indonesia, fraud generally occurs due to misuse of assets, whether it occurs in local governments or companies. From the recapitulation that in 2019 as of September 30, the total acts of fraud that occurred in 2019 reached 239 cases consisting of 167 cases of corruption, 50 cases of misuse of state assets/wealth and companies and local governments reached 20 cases, therefore the level of supervision must be improved in preventing the occurrence of fraud which continues to increase every year (ACFE, 2019). Fraud usually occurs as a result of pressure to commit fraud or encouragement to take advantage of existing opportunities (Rahmawati and Idjang, 2012). The trend of accounting fraud has attracted a lot of media attention and has become a prominent and important issue in the eyes of world business players. Accounting fraud is a misrepresentation that causes fraud in financial reporting by causing negative transactions or deliberately removing the presentation and disclosures in financial statements such as misuse or embezzlement with the intent to mislead external users of financial statements (Wilopo, 2006). In this case, the embezzlement of company assets results in financial statements not being presented in accordance with generally accepted accounting principles in Indonesia.

Research conducted by Adelin (2013) stated that the effectiveness of internal control has a negative and significant effect on accounting fraud tendencies, it means that the more effective a

company's internal control, the lower the trend of a company's accounting fraud will occur. When internal control in a the company has been effective, then it can provide protection for the entity against human weakness and to reduce possible errors and inappropriate actions (Wilopo, 2006). Fraud is an act against or violates the law carried out by people from within or from outside the organization, with the intention of obtaining personal or group benefits directly or indirectly harming other parties (Pusdiklatwas BPKP, 2002). Additionally, Fraud is a deliberate act by one or more individuals in management or those responsible for governance, employees, and third parties that involve the use of deception to gain an unfair advantage or violate the law (IAPI, 2013). Fraud is an act or fraudulent activity carried out deliberately to gain an advantage for the perpetrators of fraud and result in loss to an entity or other party (Hall 2009).

This research will be conducted at an institute, namely PDAM Bandarmasih. PDAM Bandarmasih is a company owned by the Regional Government of Banjarmasin City which provides services to the community in the form of distribution of drinking water to improve the welfare and health of the community. One of the frauds that occurred was corruption committed by the former president director of PDAM Bandarmasih Muslih; PDAM Bandarmasih Finance Manager, Transits; chairman of the Banjarmasin Regional House of Representatives (DPRD), Iwan Rusmali; and deputy chair of the Banjarmasin DPRD, Andi Effendi. It harmed the state in the amount of Rp. 50,500,000,000. The source of the project funds comes from the City Government Capital Participation (PMPK) budget of Rp. 50.5 billion, from the 2016 Banjarmasin APBD (Mardiastuti, 2017). As a company that controls a very wide area with a large number of customers, it is important for PDAM Bandarmasih to have an effective internal control.

Theory of Planned Behavior (TPB) is a theory that explains that attitude towards behavior is an important point that can predict an action, however it is necessary to consider a person's

attitude in testing subjective norms and measuring the person's perceived behavioral control. If there is a positive attitude, support from people around and a perception of ease because there are no barriers to behavior, the person's intention to behave will be higher (Ajzen, 1991 in Machrus & Urip, 2010). Theory of Planned Behavior is a human action that is guided by three kinds of factors, namely the act of belief in the results of behavior, evaluation of the results of behavior (behavior belief), and motivation to comply from the existence of these expectations (normative belief) (Ajzen, 1991). Human's intention to do something determines whether or not the behavior will be carried out (Setiawan et al., 2020). based on the assumption that subjective norms and perceived behavioral control determines people's behavioral interest in determining something. The Theory of Planned Behavior (TPB) is a further development theory of The Theory of Reasoned Action (TRA). The use of the Theory of Planned Behavior (TPB) as one of the theoretical foundations in this study is to analyze the effect of Accounting Information Systems, Internal Control, and Human Research Competence on fraud prevention at PDAM Bandarmasih.

Accounting Information System is a system that collects, records, stores, and processes data to produce information for decision-making (Romney and Steinbart, 2006). An accounting information system is a system that collects data and converts that data into financial information to be used as financial reports given to management and users who need it. The accounting information system for the company is very crucial since it along with other information systems provide the information that management needs as a basis for decision-making. Not only does it act as a data processor, but it also runs some projects from collecting data, processing data, managing data, controlling data, securing data, and providing information. In accounting, fraud is one of the errors that is usually done intentionally through actions taken in such a way. Fraud is not only financially detrimental but also damages the company's reputation. Various facts

surrounding fraud indicate that it is likely that the accounting information system applied has not yet reached its effectiveness. Therefore, an effective accounting information system is needed to detect and prevent accounting fraud that occurs in the company. Research from Santoso, D. (2015) states that Accounting Information Systems have an effect on Fraud Prevention. Good use of accounting information systems free from fraud encourages the improvement of organizational corporate governance (Uyar et al, 2017). Similar research revealed the effect of implementing an accounting information system on the prevention of fraudulent financial reporting which shows that AIS can prevent and detect fraud in the accounting process (Irma & Amolal, 2017).

Internal control systems is a series of procedures and processes carried out by the company to protect their assets from fraud, are able to manage information accurately and comply with applicable laws and regulations apply (Handayani, & Hidayat, 2017). Internal control is a system and procedure used by the company to achieve the desired goals and objectives, compile accurate financial reports and encourage compliance with established policies and regulations. In its implementation, management must conduct a re-examination of internal control to correct any errors and irregularities that may occur and may take corrective action if there are deviations that indicate weaknesses in the company's internal control system. Internal control is an important factor in fraud prevention. Research conducted by Susanti (2015), shows the results that "in a company internal control is very important to maintain the company's assets". The same results were found in the study by Aminus (2018). The results of the research are showing that internal control has a positive and significant effect on fraud. Internal control is part of the system that is used as operational procedures and guidelines for a particular company or organization. Companies generally use the Internal Control System to direct the company's operations and prevent fraud or misuse of the system. The main objective of internal inventory control is to ensure

that inventories are in a safe condition and presented in the financial statements correctly and accurately (Tamodia, 2013).

Human resource competence includes its capacity, which is the ability of a person, an organization (institutional), or a system that carries out functions and authorities to achieve individual or organizational goals effectively and efficiently (Aditya & Diastuti, 2017). At this time the quality and ability of human resources in an organization are very influential on the success of an organization in achieving its goals. A policy can be implemented with adequate human resources. Employee competence has a major influence on performance, both individual performance and organizational performance (Osei and Ackah, 2015). Achieving effectiveness and efficiency within an organization requires quality human resources in order to achieve optimal organizational performance. Competence as one of the factors that affect performance is also considered in government agencies, namely with the issuance of accountable regulations (Suryanto, Subroto and Andayani, 2017). Research that supports by Widyawati et al (2019) states that Human Resource competence has a significant effect towards fraud prevention. The quality of human resources procurement is a factor that affect the success of a system of procurement of goods/services in achieving goals established (Thai, 2001). So that with good quality human resources will be very influential in preventing the occurrence of fraud.

Based on the background above, a company should have an effective accounting information system for internal control and company management in preventing fraud. However, research related to fraud prevention still shows inconsistencies. Research on the effect of accounting information systems and internal control on fraud prevention has been carried out by several previous researchers, one of which is research conducted by Santoso (2015) that states, accounting information systems have a positive effect on fraud prevention, Inversely, the results

of Muhammad and Ridwan's research (2017) state that accounting information system has a negative effect on fraud prevention. The results of research conducted by Widyawati et al (2019) state that internal control has a positive effect on fraud prevention, but in the results of research by Lailiyah (2016) states that internal control has no effect on fraud prevention. In addition, financial management companies are required to carry out tasks in an accountable and transparent manner so that there is no misappropriation of funds (Oktaviani et al., 2018). Therefore, this research will combine the variables of Accounting Information Systems, Internal Control Systems, Human Resource Competence, and Fraud Prevention taken from previous research. This study will analyse the factors that influence fraud prevention. This study adds a new variable, namely Human Resource Competence. In previous research conducted by Santoso (2015) suggested adding a new variable for further research, hereby I add a new variable, namely Human Resource Competence. The competence of qualified human resources is very much needed to carry out the duties and obligations in managing the company. Research conducted on issues of a general nature related to the competence of human resources is still rarely conducted in a similar way. This research can assist in decision-making and problem-solving toward more effective fraud prevention. However, it is still rare for researchers to use government agencies (BUMN) as research objects. In this study the object of research is PDAM Bandarmasih. PDAM Bandarmasih is a company owned by the Regional Government of Banjarmasin City which provides services to the community in the form of distribution of clean drinking water. The funds in PDAM are very large in the procurement of services. Optimal fund management is needed to improve water quality in Indonesia, but its implementation is often not optimal. For this reason, it is very important and interesting for the researcher to examine "The Effect of Accounting Information Systems, Internal Control Systems and Human Resource Competency on Fraud Prevention at PDAM Bandarmasih".

#### 1.2 Problem Formulation

Based on the background that has been described, the problem in this research are:

- 1. is there any effect of accounting information systems on fraud prevention in PDAM Bandarmasih?
- 2. is there any effect of of internal control systems on fraud prevention in PDAM Bandarmasih?
- 3. is there any effect of of human resource competence on fraud prevention in PDAM Bandarmasih?

#### 1.3 Research Objectives

Based on the background that has been described, the objectives of the research are as follows:

- to determine the effect of the accounting information systems on fraud prevention in PDAM Bandarmasih.
- 2. to determine the effect of internal control systems on fraud prevention in PDAM Bandarmasih.
- to determine the effect of human resource competence on fraud prevention in PDAM Bandarmasih.

#### 1.4 Problem Limitations

This study discusses various factors that effect fraud prevention at PDAM Bandarmasih. To avoid misunderstandings regarding the meaning and interpretation, it is necessary to have problem limitations in this study. The focus of this study discusses factors that effect the prevention of fraud at PDAM Bandarmasih, i.e. accounting information systems, internal control systems, and human resource competence for PDAM Bandarmasih.

#### 1.5 Research Benefits

This research has benefits for various parties, including:

#### 1) Theoretical Benefits

This research contributes to the theoretical discourse related to the factors that can influence fraud prevention at PDAM Bandarmasih.

#### 2) Practical Benefits

#### a. Companies

This research is expected to provide benefits for the company in preventing fraud that will occur in company as well as knowing the factors that cause the occurrence of fraud. So that the company can minimize the risks that will occur.

#### b. The Government

Through this research, it is hoped that the government as the driving force the state economy is able to reduce fraud that occurs in government circles, be it BUMD or state projects that for the progress of Indonesia in the future. And by decreasing fraud in the form of corruption losses borne by the government can also be reduced.

#### c. Academics

This research is expected to provide benefits for academics in providing references for further research to conduct regarding fraud prevention.

#### 1.6 Systematic of Writing

This research is divided into five chapters which are arranged systematically as follows:

#### **CHAPTER I** Introduction

This chapter describes the research background, problem formulations, problem limitations, research objectives, research benefits, and systematic writing.

#### **CHAPTER II** Literature Review

This chapter discusses the theoretical basis, literature review, description of the hypotheses to be tested, and the research model framework.

#### **CHAPTER III** Research Methods

This chapter describes the research methods, population and samples, data collection methods, operational definitions of variables and variable measurement, and methods of analysis.

# **CHAPTER IV** Research Findings and Discussion

This chapter discusses the result of research based on the data that has been collected, as well as testing and research discussion.

#### **CHAPTER V** Conclusions and Recommendations

This chapter discusses the conclusions obtained from the result of the analysis in the previous chapters, the contributions and implications of the research, the limitations of the research felt by the researcher, and suggestions for future researchers.

#### **CHAPTER II**

#### THEORETICAL REVIEW

#### 2.1 Theory of Planned Behaviour (TPB)

According to the Theory of Planned Behavior (TPB) that individual behavior influenced by the individual's intention to behave. Theory of Planned Behavior (TPB) is one of the advanced theories of Theory Reaction of Action (TRA) (Ajzen, 1991). TPB is designed to test and predict Human Intention and Actual Behavior, The Theory of Planned Behavior is an extension of the Theory of Reasoned Action (TRA) which was developed by (Fishbein & Ajzen, 1975). Fishbein & Ajzen (1975) developed the TPB theory by adding a construct that did not yet exist in TRA, namely perceived behavioral control. TPB aims to predict and understand the impact of behavioral intentions, identify strategies to change behavior and explain real human behavior. TPB is assumed that rational humans will use the available information systematically and then understand the impact of their behavior before deciding to take action to manifest this behavior. The theory of planned behavior (TPB) explicitly recognizes the possibility that many behaviors are not all under the complete control of the individual. The behavior displayed by the individual arises because of the intention to behave. The individual's intention to display behavior is a combination of the attitude to display the behavior and subjective norms. Individual attitudes towards behavior include beliefs about a behavior, evaluation of behavioral outcomes, subjective norms, normative beliefs and motivation to comply. Furthermore, TPB explains that an individual's intention to behave is influenced by three factors, namely:

#### a. Attitude Toward The Behavior

Attitude is a tendency to approach or avoid, respond positively or negatively to various social situations. Individuals will act in accordance with their attitude that is in them toward a behavior. Attitudes towards behavior that are considered positive will later be used as individual choices to guide them in behaving in their lives.

#### b. Subjective Norm

Subjective norm is an individual's perception of whether the people who are important to him will support or not to perform a certain behavior in his life. (Fishbein & Ajzen ,1975) Furthermore, subjective norms are also defined by Feldman (1995) as perceptions of social pressure in carrying out certain behaviors. So that awareness arises for individuals to be able to overcome the social pressures received for their behavior.

#### c. Perceived Behavioral Control

Behavioral control refers to an individual's perceptions of his or her ability to perform certain behaviors. Behavioral control is a very important determinant of intention when a person has had previous experience of the behavior to be displayed is a behavior that is foreign or new to a person, it will provide low predictive control for the intention to behave in the TPB model. TPB considers that the previous theory of behavior that cannot be controlled previously by the individual but it is also influenced by factors regarding non-motivational factors which are considered as opportunities or resources needed for behavior to be carried out. So that in his theory, Ajzen adds one more determinant, namely the control of behavioral perceptions regarding the ease or difficulty of the behavior being carried out. Therefore, according to TPB, intentions are influenced by three things, namely: attitudes, subjective norms, and behavioral control (Fishbein & Ajzen, 1975)

#### 2.2 PDAM Bandarmasih

Local Water Supply Utility or known as Perusahaan Daerah Air Minum (PDAM) is a Regional Owned Enterprised (BUMD) company. PDAM is one of the regionally owned business units involved in the distribution of clean water, in order to improve public welfare which includes social, health and general aspects. PDAMs are located in every province, district, and city throughout Indonesia. With the water quality parameters, the role of the Government especially PDAM is needed in managing raw water into drinking water as the protection of water quality measured in water quality parameters. The availability of clean water has a very important role in improving the health and welfare of the Indonesian people. In realizing clean water services, PDAM carries out its function to meet all the basic needs of the community in terms of natural resources in the form of water which are limited in nature with the rate of population development increasing rapidly every year. Furthermore, PDAM is a regionally owned company engaged in the distribution and sale of drinking water. PDAM also plays a role in increasing revenue for administrative costs, maintenance, and expansion of the water distribution infrastructure system, as well as contributing to local government coffers in terms of profit sharing. The purpose of this company in general is to get maximum profit. Internal cash control is a detailed procedure used by PDAM management leaders to oversee or control collective efforts.

#### 2.3 Fraud

Fraud is a deliberate or false statement of a truth or condition that is hidden from a material fact that can influence other people to carry out actions that harm them, usually a mistake but in some cases (especially intentional) may constitute a crime (Tunggal, 2013). Fraud is an deliberately deceptive motion designed to supply the culprit with an illegal benefit, or to disclaim

a right to a sufferer. Moreover, it can arise in finance, actual estate, investment and insurance. (Chen, 2015).

Fraud perpetrators are classified into two groups, namely management and employees (Tunggal, 2013). The management commits fraud usually for the benefit of the company and employees commit fraud for individual gain. The factors that encourage fraud according to the fraud triangle theory are:

- Perceived pressure, namely the existence of incentives, pressure and the need to commit fraud. Pressure can cover almost anything including lifestyle, economic demands, etc.
- Perceived opportunity, namely situations that open up opportunities to allow fraud to
  occur, such as working without adequate procedures, not being able to assess the
  quality of work, lack or absence of access to information and failing to discipline or
  sanction the perpetrators of fraud.
- 3. Rationalization, namely the existence of an attitude, character, or set of ethical values that allow certain parties to commit fraud, or people who are in a sufficiently stressful situation that makes them rationalize their fraudulent actions.

Siti and Ely (2010) classify fraud into two main groups, namely:

a. Fraudulent financial reporting is a misstatement or intentional omission of amounts or disclosures in financial statements, to deceive users of financial statements, which causes the financial statements to be materially misleading. This fraud includes actions such as:

- Manipulation, falsification and embezzlement of accounting data and supporting documents which are the source of data for the presentation of financial statements.
- Misrepresentation or loss of significant events, transactions or information.
- Intentional misapplication of accounting principles, relating to the amount, classification, presentation or disclosure.
- b. Misappropriation of assets is a misstatement arising from the theft of an entity's assets which results in the financial statements not being presented in accordance with generally accepted accounting principles. This fraud includes the following actions:
  - Embezzlement of receipt of goods/money.
  - Asset theft.
  - Actions that cause the entity to pay the price for goods not received.

#### 2.4 Fraud Prevention

Fraud is a problem within the company and must be prevented as early as possible, with the prevention efforts implemented by the company, it can minimize the opportunity for fraud to occur because every act of fraud can be detected quickly and anticipated by the company. Every employee does not feel pressured anymore and justify fraudulent actions that can harm many parties.

Fraud prevention is an integrated effort that can suppress the occurrence of factors causing fraud (Pusdiklatwas BPKP, 2008), namely:

- 1. Minimizing the opportunity for fraud to occur.
- 2. Reducing pressure on employees so that they are able to meet their needs.
- 3. Minimizing the reasons for justifying or rationalizing the fraudulent acts committed.

Fraud is a problem that exists within the company environment, and must be prevented as early as possible. Effective fraud prevention has five objectives, according to Priantara (2013) as follows:

- 1. Prevention, prevent fraud from occurring in all lines of the organization
- 2. Deterrence, ward off potential perpetrators and even trial-and-error actions because potential perpetrators see that the fraud risk control system is effective and effective has given strict and complete sanctions so as to help deter (fear) potential perpetrators.
- 3. Disruption, making it difficult for the fraud perpetrators to move as far as possible
- 4. Identification, identifying high-risk activities and control weaknesses.
- 5. Civil action prosecution, making demands and imposing appropriate sanctions or fraudulent acts against the perpetrators.

The explanation of the fraud prevention management is as follows:

- Create a cultural climate of honesty, openness, and mutual assistance
   Research shows that the most effective way to prevent and deter fraud is to implement anti-fraud programs and controls, which are based on the company's values.
- 2. Honest recruitment process

In an effort to build a positive control environment, recruitment is the beginning of the entry of people who are selected through a rigorous and effective selection to reduce the possibility of hiring and promoting people with low levels of honesty. A background check verifies the education, employment history, and personal references of potential employees, including references to character and integrity.

3. Fraud awareness training

All employees should be trained in the company's expectations regarding employee ethical behavior. Employees must be informed of their duties to report actual or suspected fraud and the proper way to report it. In addition, fraud awareness training must also be adapted to the specific job responsibilities of the employee. The training is intended to help improve employees in carrying out their assigned tasks so that there are no intentional or unintentional mistakes.

#### 4. Positive scope of work

Several studies have shown that violations are less common when employees have positive feelings about their superiors than when they feel used, threatened, or ignored. A positive workplace can boost employee morale, which can reduce the likelihood of employees committing fraudulent acts against the company.

#### 5. A clear code of ethics, easy to understand and adhere to

The code of ethics in general is always in line with human morals and is an extension of certain moral principles to be applied in an activity. Building a culture of honesty, openness and providing assistance programs cannot be created without enforcing rules of behavior and a code of ethics in the employee environment.

#### 2.5 Factor Influencing Fraud Prevention

#### 2.5.1 Accounting Information Systems

Accounting information system is a collection of activities of organizations that are responsible for providing financial information and information obtained from transaction data for internal reporting purposes to managers for use in controlling and planning current and future operations. forward and external reporting to shareholders, government and other outside parties (Jogiyanto, 2005). Accounting information system is a data processing system with the application

of computer technology to both 'hardware' and 'software'. The concept of system development in an organization or company, must be carried out to replace the old inefficient system to become more efficient. A good accounting information system in its implementation is expected to provide or produce quality information and will provide benefits for management, especially other users of information in decision making. Many previous researchers revealed that accounting information systems have a positive effect on fraud prevention. As research conducted by Santoso, D. (2015) which revealed that accounting information systems have an effect on fraud prevention. This shows that with a good accounting information system, management in the company's organization can evaluate the results of an operation or an activity whether it runs effectively and efficiently and can prevent fraud and misstatements.

#### 2.5.2 Internal Control Systems

Internal control is all organizational plans, methods, and measurements chosen by a business activity to secure its assets, check the accuracy and reliability of the business's accounting data, improve operational efficiency and support the compliance of established managerial policies. In general, internal control is part of each system that is used as operational procedures and guidelines for a particular company or organization (Boynton, Johnson and Kell, 2006). Companies generally use an internal control system to direct the company's operations and prevent misuse of the system. Research conducted by Mahendra and Rini (2021) shows that internal control has an effect on fraud prevention. This shows that strong internal control will be able to reduce the tendency of accounting fraud, if the internal control is weak, the tendency of accounting fraud will be even greater. With the implementation of internal control in every operational activity of the company, it is hoped that there will be no fraudulent actions that can harm the company

#### 2.5.3 Human Resource Competence

Human resource competence is the ability of individuals as the basis for improving organizational performance which is reflected in the results of performance carried out through their abilities, which include knowledge, skills, behavior, and attitudes (Saputra, 2019). Research conducted by Widyawati et al (2019) shows that human resource competence has an effect on fraud prevention. Someone who has adequate skills, knowledge, and abilities is usually easy to detect fraud that occurs because he has knowledge that exceeds that of the fraud perpetrator. Human Resource Competence is a contributing factor affect the success of a system of procurement of goods/services in achieving goals established (Thai, 2001). So that with good quality human resources will be very influential in preventing the occurrence of fraud in organizations.

#### 2.6 Previous Research

This study is almost similar to previous studies that examined the effect of accounting information systems and internal controls on fraud prevention. Some of the previous studies similar to this research are:

Table 2. 1 Previous Research

No	Researcher	Researcher Variable		Method, Sample, Analysis	Result	
			Independent	Dependent	Tool, and Theory	
1.	Wilopo (2006)	<ul> <li>Effectiveness of internal control (EIC)</li> <li>Compensation suitability (CS)</li> <li>Compliance with accounting rules (CAR)</li> <li>Information asymmetry (IA)</li> <li>Management Morale (MM)</li> </ul>	Accounting fraud tendencies (AFT)	<ul> <li>Quantitative</li> <li>153 companies that consist director of BUMN</li> <li>SPSS</li> <li>Accountability Theory</li> </ul>	<ol> <li>EIC→AFT (not supported)</li> <li>CS→ AFT (not supported)</li> <li>CAR → AFT (not supported)</li> <li>IA → AFT (supported)</li> <li>MM → AFT (not supported)</li> </ol>	
2.	Wulandari Dan Nuryanto (2018)	<ul> <li>Internal Control (IC)</li> <li>Anti-Fraud Awareness (AFA)</li> <li>Integrity (IY)</li> <li>Independence (IE)</li> <li>Profesionalism (PM)</li> </ul>		<ul> <li>Quantitative</li> <li>149 respondents of auditors of the Republic of Indonesia Supreme Audit Agency</li> <li>SPSS</li> <li>Accountability theory</li> </ul>	<ol> <li>IC → FP (supported)</li> <li>AFA → FP (not supported)</li> <li>AIS → FP (supported)</li> <li>IY → FP (supported)</li> <li>IE → FP (supported)</li> <li>PM → FP (supported)</li> </ol>	
3.	Yuniarti (2017)	<ul> <li>Internal Control         (IC)</li> <li>Antri Fraud         Awareness (AFA)</li> </ul>	Fraud Prevention (FP)	<ul> <li>Quantitative</li> <li>58 respondents of Indonesian Staffs who had participated</li> </ul>	<ol> <li>IC → FP (supported)</li> <li>AFA → FP (supported)</li> </ol>	

			ISI	in the procurement process - SPSS - Accountability theory	
4.	Mahendra, K. Y., Dewi, A. E. T., & Rini, G. A. I. S. (2021)	<ul><li>Internal Audit (IA)</li><li>Internal Control (IC)</li></ul>	Fraud Prevention (FP)	<ul> <li>Quantitative</li> <li>80 respondents of State-owned banks in Denpasar</li> <li>SPSS</li> <li>Accountability theory</li> </ul>	<ol> <li>IA → FP (supported)</li> <li>IC → FP (supported)</li> </ol>
5.	Sanuari (2014)	<ul> <li>Internal control system (ICS)</li> <li>Compensation suitability (CS)</li> <li>Management morality (MM)</li> </ul>	Accounting fraud tendencies (AFT)	<ul> <li>Quantitative</li> <li>Saturated sample in Padang's BUMN company</li> <li>SPSS</li> <li>Accountability theory</li> </ul>	<ol> <li>ICS → AFT (not supported)</li> <li>CS → AFT (not supported)</li> <li>MM → AFT (not supported)</li> </ol>
6.	Santoso, D. A. (2015)	<ul> <li>Quality of accounting information systems (QOAIS)</li> <li>internal control COSO based (ICCB)</li> </ul>	Fraud Prevention (FP)	<ul> <li>Quantitative</li> <li>76 respondents of PT Kereta Api Indonesia Bandung employees</li> <li>SPSS</li> <li>Accountability theory</li> </ul>	<ol> <li>QOAIS → FP (supported)</li> <li>ICCB → FP (supported)</li> </ol>
7.	Muhammad dan Ridwan (2017)	<ul> <li>Compensation         Suitability (CS)</li> <li>Application of         Accounting         Information         System( AAIS)</li> </ul>	Fraud Accounting (FA)	<ul> <li>Quantitative</li> <li>32 sample of head of branch, finance, accounting, and internal audit in Bank BPR Banda Aceh</li> </ul>	<ol> <li>CS → FA (not supported)</li> <li>AAIS → FA (not supported)</li> <li>EIC → FA (not supported)</li> </ol>

		- Effectiveness of Internal Control (EIC)	- SPSS - Accountability theory	
8.	Mufidah (2017)	<ul> <li>Inventory internal control (IIC)</li> <li>Accounting information system (AIS)</li> </ul>	evention  - Quantitative - 32 sample of employee in PT. Mitra Jambi Pratama - PLS - Accountability theory	<ul> <li>7. IIC → FP (supported)</li> <li>8. AIS → FP (supported)</li> </ul>
9.	Afidatul Lailiyah (2016)	<ul> <li>Compensation suitability (CS)</li> <li>Procedural Justice Law Enforcement (PJLE)</li> <li>Effectiveness on internal control (EIC)</li> <li>Management ethical culture (MEC)</li> <li>Organization commitment (OC)</li> </ul>	- Quantitative - 26 samples of SKPD Situbondo - SPSS - Accountability theory	<ol> <li>CS → F (not supported)</li> <li>PJLE → F (not supported)</li> <li>EIC → F (not supported)</li> <li>PJ → F (supported)</li> <li>MEC → F (supported)</li> <li>OC → F (supported)</li> </ol>
10.	Widyawati et al (2019)	<ul> <li>Human resources competence (HRC)</li> <li>Internal control system (ICS)</li> <li>Whistleblowing system (WS)</li> </ul>	financial - 112 sample of	<ol> <li>HRC → FP (supported)</li> <li>ICS → FP (supported)</li> <li>WS → FP (supported)</li> </ol>

11.	Loliyani, R. (2020)	- Inventory Internal Control (IIC) - Accounting Information Systems (AIS)	Quantitative Saturated sample in PT. Perkebunan Nusantara VII Lampung SPSS Accountability theory	<ol> <li>IIC → POF (supported)</li> <li>AIS → POF (supported)</li> </ol>
12.	Astini, N. K. D. A. (2021)	- Human Rescource Competence (FP) - Awig Awig (AA) - Compliance with Financial Report (CWFR)	Quantitative 104 respondents consisting of the head and members of PTPKD Accountability theory	<ol> <li>HRC → FP (not supported)</li> <li>AA → FP (supported)</li> <li>CWFR → FP (supported)</li> </ol>
13.	Dewi, Lawita, Puspitasari (2021)	- Inventory Internal Control (IIC) - Accounting Information Systems (AIS) - Professionalism Internal Auditor (PIA)	Quantitative 42 respondents consisting of PT. Jawa Mitra Abadi Employees Accountability theory	<ol> <li>IIC → FP (not supported)</li> <li>AIS → FP (supported)</li> <li>PIA → FP (supported)</li> </ol>

# 2.7 Hypothesis of the Research

# 2.7.1 Effect of Accounting Information Systems on Fraud Prevention

Accounting information systems (AIS) is a collection (integration) of sub-systems or components both physical and non-physical that are interconnected and work with each other in harmony to process transaction data related to financial matters into financial information (Azhar, 2013). Research conducted by Mufidah (2017) states that accounting information systems have a positive and significant effect on fraud prevention, The results of this study provide empirical evidence that a better accounting information system will increase fraud prevention. Other studies such as Loliyani R. (2020) show that accounting information systems have an effect on fraud prevention. On the other hand, Muhamad and Ridwan (2017) found that Accounting Information systems had no effect on Fraud Prevention. This happens because of the weakness of the system contained in a company which makes it difficult to detect fraud. A well-designed and effectively operating information system must provide reliable accounting data, while a poorly designed system will give the opposite result.

Therefore, as a result of the discussion above, the following hypothesis is proposed:

**H1**: The accounting information systems have a positive effect on fraud prevention at PDAM Bandarmasih.

## 2.7.2 Effect of Internal Control Systems on Fraud Prevention

Internal control is an organizational plan and all coordinated measures and methods applied in a company to protect assets, maintain the accuracy and reliability of accounting data, increase efficiency, and improve compliance with management policies (Winarno, 2006).

Internal control is the most important part for a company organization. Research conducted by Mufidah (2017) states that internal control has a positive and significant effect on fraud prevention.

This research provides evidence empirical that the better internal control will improve prevention of fraud. While Lailiyah (2016) found that internal control had no effect towards fraud prevention. This is because the internal control in the organization has not been carried out properly, such as the division of authority and responsibility. The occurrence of fraud can be detected and prevented early with good internal control. On the other hand, weak internal control will provide opportunities for employees and management to act fraudulently.

Therefore, as a result of the discussion above, the following hypothesis is proposed:

**H2**: Internal control systems have a positive effect on fraud prevention at PDAM Bandarmasih.

## 2.7.3 Effect of Human Resource Competence on Fraud Prevention

Human Resource in the form of humans is someone who employed in an organization as a driver to achieve organizational goals (Sedarmayanti, 2009). In this case, the quality of human resources for the procurement of goods/services is a team that has appointed to carry out the selection of providers of goods/services has met the criteria which has been required. The process of procuring goods/services in its application sometimes it still contains the interests of the subject of the procurement of goods/services. In the research of Widiyarta et al. (2017), Saputra et al. (2017), and Laksmi and Sujana (2019), it is stated that human resource competence has a positive effect on preventing fraud. This means that the more competent human resources, the more it will prevent the occurrence of fraud.

Therefore, as a result of the discussion above, the following hypothesis is proposed:

**H3**: Human resource competences have a positive effect on fraud prevention at PDAM Bandarmasih.

# 2.8 Conceptual Framework

The conceptual framework or what is referred to as the theoretical framework according to Erlina (2011) is a model explaining how the relationship between a theory and important factors are known for a particular problem. The theoretical framework will connect theoretically between the research variables, namely between the independent variable and the dependent variable.

Based on the hypothesis that has been developed in the previous section, to find out the factors that influence fraud prevention, an illustration is made as shown in Figure 2.1 below:

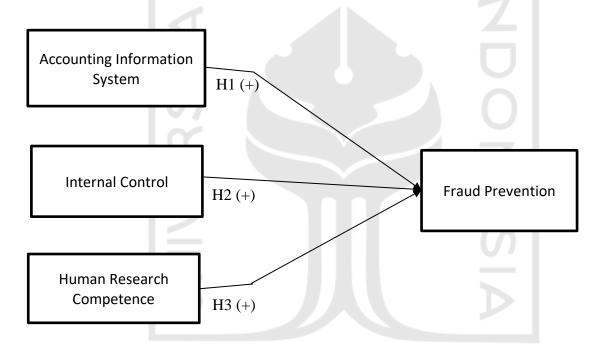


Figure 2. 1 Conceptual Framework

## **CHAPTER III**

## RESEARCH METHOD

# 3.1 Research Methodology

The research method uses causal associative research with a quantitative approach and information collected using a questionnaire. By using this research, it will be known that there is a significant relationship between the variables.

The purpose of associative research is to see whether there is an effect of causality or the independent variable with the dependent variable of the study. Sugiyono (2014) stated that "quantitative research is useful for seeing the relationship of variables to the object under study and is more causal, so that in this research there are independent and dependent variables."

## 3.2 Research Population and Sample

The population is a generalization area consisting of objects or subjects that have certain characteristic qualities determined by researchers to be studied and then drawn conclusions (Sugiyono, 2014). In this study, the population will be PDAM Bandarmasih employees.

The research sample is part of the number and characteristics possessed by the population (Sugiyono, 2014). The sample of this research is PDAM Bandarmasih employees. The sampling technique is purposive sampling technique in other terms is the census method, namely where the sampling of the population based on certain criteria. In this study, the sample is PDAM Bandarmasih employees who use accounting information systems and management. The following are some of the criteria used:

All to leaders, division managers, and employees at PDAM Bandarmasih based on the type
of department and position.

2. All heads of leadership, division managers, and employees at PDAM Bandarmasih are still based on their education period, namely D3 to S3.

#### 3.3 Data Collection Method

## 1. Primary Data

Primary data is data obtained directly from respondents (without going through intermediary media). In this study the data obtained directly from the results of distributing questionnaires to respondents about the variables studied in accordance with research needs. The primary data used in this study is questionnaire. Questionnaire is a data collection technique that is done by giving a set of questions or written statements to respondents to answer (Sugiyono, 2014). Primary data obtained by distributing questionnaires to employees of PDAM Bandarmasih. The measurement scale used in this questionnaire uses likert. The Likert scale is the scale used to measure attitudes, opinions, and perceptions of a person or group of people about a social phenomenon that occurs (Sugiyono, 2014). There are six measurements that will be carried out in this study, which are:

- 1. Strongly Disagree
- 2. Disagree
- 3. Somewhat Disagree
- 4. Somewhat Agree
- 5. Agree
- 6. Strongly Agree

## 2. Secondary data

Secondary data is data obtained in finished form and has been processed by other parties, usually in the form of publications. Secondary data in this study were obtained from research journals, theses, articles and books related to the research topic.

## 3.4 Operational Definition and Measurement Variables

Operationalization of variables is needed to determine the types, indicators, and scale of the variables involved in the research, so that hypothesis testing with statistical tools can be carried out correctly according to the research title. The related variables in this study are as follows:

## 3.4.1 Independent variable

Independent variables or independent variables are variables that are not affected by other variables. According to Uma Sekaran (2011). The independent variable is a variable that takes the dependent variable, either positively or negatively. If there is an independent variable, the dependent variable will also be present, and with each unit increase in the independent variable, there is also an increase or decrease in the dependent variable. The independent variable (X) in the study consisted of three variables, namely Accounting Information Systems, Internal Control Systems, and Human Research Competencies.

## 3.4.1.1 Accounting Information Systems

Accounting information is a set of human resources and capital in organization, which is obligated to present financial information and also information obtained from collecting and processing data. Information System components can be classified as hardware, software, brainware, procedure, database and communication network (Azhar, 2013).

Table 3. 1 AIS Indicators

Research Variable	Indicator	Source
Accounting Information System	Hardware, Software, Brainware, Procedure, Database and Communication network	Susanto, 2013

# **3.4.1.2 Internal Control Systems**

Internal Control Systems covers the environment control, risk assessment, control activities, information and communication and monitoring (COSO,1992). If the internal control environment is good then automatically will limit the movement of perpetrators who try to commit fraud.

Table 3. 2 ICS Indicators

Research Variable	Indicator	Source
Internal Control Systems	Control Environment, Risk Assessment, Control Activities, Information and Communication, Monitoring	COSO, 1992

# 3.4.1.3 Human Resource Competence

Competence is a combination of knowledge, skills, attitudes, and other personal characteristics needed to achieve success in a job, which can be measured using agreed standards, and which can be improved through training and development. The quality of human resources require integrity, competence, objectivity and Good independence in a goods/service procurement organization (Nurhanjanti, 2017).

Table 3. 3 HRC Indicators

Research Variable	Indicator	Source	
Human Resource Competence	Integrity, Competence, Objectivity and Independence	Nurhanjanti, 2017	

## 3.4.2 Dependent variable – Fraud Prevention

The dependent variable is often referred to as the output variable, criteria, and consequent.

Meanwhile, in Indonesian it is often referred to as the dependent variable. The dependent variable

is the variable that is influenced or that becomes the result, because of the independent variable. The dependent variable in this study is fraud prevention, which is symbolized by (Y). Fraud prevention is an integrated efforts that can reduce the occurrence of factors causing fraud. some prevention methods commonly set by management is, determination of anti-fraud policy, standard preventive procedures, organization, control technique, sensitivity to fraud (BPKP Pusdiklatwas, 2008).

Table 3. 4 FP Indicators

Research Variable	Indicator	Source
Fraud Prevention	Anti-fraud policy, Standard preventive procedures, Organization, Control technique, Sensitivity to fraud	BPKP Pusdiklatwas, 2008

## 3.5 Data Analysis

# 3.5.1 Data Analysis Techniques

According to Sugiyono (2014) what is meant by data analysis is as follows: "Data analysis is the process of systematically searching and compiling data obtained from interviews, field notes, and documentation, by organizing data into categories, breaking down into units- units, synthesize, arrange into patterns, choose the names that are important and what will be studied, and make conclusions so that they are easily understood by themselves and others. The data analysis method used is multiple linear regression because it involves three independent variables and one dependent variable. To support the results and accuracy of the research, the research data obtained will be analyzed using statistical tools through the help of SPSS.

#### 3.5.2 Measurement Model

## 3.5.2.1 Data Quality Test

There are two types of data quality tests, namely validity tests and reliability tests. Validity and reliability tests were conducted to test whether the constructs that have been formulated are reliable and valid.

## **3.5.2.1.1** Validity Test

The validity test is to determine whether or not the questionnaire instrument used in data collection is valid. This validity test is carried out to find out that the instrument, technique, or process used to measure a concept actually measures the intended concept (Sekaran, 2011).

Validity test is done by correlating each question with the total score for each variable. Valid or not an instrument can be known by using the *Pearson Product-Moment Coefficient of Correlation*. If r-count > r-table, then the data is said to be valid, where the r-table of all research instruments is declared valid. To find the r-table with df = n-2, a 5% significance level can be used by using a statistical table.

## 3.5.2.1.2 Reliability Test

Reliability test is used to prove the consistency and stability of the measurement instrument (Sekaran, 2011). If the respondent is consistent in answering the questions on the questionnaire, then the data is reliable, whereas if the answer is a random respondent, it can be said that the data is not reliable. To determine the level of reliability is the value of Cronbach Alpha (a), if the higher it is approaching the number 1, the higher the value of internal consistency of reliability. If the *Cronbach Alpha* value is above  $\geq 0.6$  then the reliability is accepted.

# 3.5.2.2 Classical Assumption Test

To ensure that the regression line equation obtained is linear and can be used (valid) to find forecasts, a classical assumption test will be carried out consisting of normality test, multicollinearity test, and heteroscedasticity test.

## 3.5.2.2.1 Multicollinearity Test

The multicollinearity test is to test whether there is a correlation between the independent variables in the regression model. If there is a correlation, it is called multicollinearity (Ghozali, 2016). A good regression model should not have a correlation between the independent variables. To determine the presence or absence of multicollinearity symptoms, it can be seen from the value of *Tolerance* and VIF (*Variance Inflation Factor*) through the SPSS program. *Tolerance* measures the variability of the selected variable that is not explained by other independent variables. The general value commonly used is the *Tolerance* value > 0.1 or the VIF value < 10, so there is no multicollinearity.

## **3.5.2.2.2 Normality Test**

Ghozali (2016) suggests that the Normality Test aims to test whether in the regression model, the dependent variable and the independent variable have a normal distribution or not. A good regression model has a normal or close to normal data distribution. To test whether the data distribution is normal or not, the *Kolmogorof Smirnov test* is used. If the *Kolmogorof Smirnov Z* value is close to 1 with an asymmetric significance greater than 0.05, it means that the data is normally distributed and vice versa if the *Kolmogorof Smirnov Z* value is close to 0 with an asymmetric significance less than 0.05, it means that the data distribution is not normal.

## 3.5.2.2.3 Heteroscedasticity Test

The heteroscedasticity test is to test whether in the regression model there is an inequality of variance from the residual of one observation to another observation. If the residual variance from one observation to another observation remains, it is called homoscedasticity and if the variance is different it is called heteroscedasticity. A good regression model is one with homoscedasticity or no heteroscedasticity (Ghozali, 2016).

The way to find out whether there is heteroscedasticity is to look at the plot graph. The basis of the analysis is:

- a. If there is a certain pattern, such as the dots that form a certain pattern (wavy, widened then narrowed), it indicates that heteroscedasticity has occurred.
- b. If there is no clear pattern, and the points spread above and below zero on the Y axis, then there is no heteroscedasticity.

# **3.5.2.3** Coefficient of Determination Test (*Adjusted R*<sup>2</sup>)

The coefficient of determinant is used to measure how far the ability of the model to explain the variation of the dependent variable. The value ranges from 0 to 1. If the value of *Adjusted R*<sup>2</sup> is small (close to zero), it means that the ability of the independent variables to explain the variation of the dependent variable is very limited, and vice versa if the *Adjusted R*<sup>2</sup> is large, it means that the ability of the independent variables to explain the variation of the dependent variable is large.

# 3.5.3 Research Hypothesis Test

To test whether the proposed hypothesis can be accepted or rejected, a test is carried out using the Coefficient of Determination Test, F statistical test and t statistical test.

## 3.5.3.1 Multiple Linear Regression Analysis

This analysis was used to determine how much influence the independent variables have, namely: accounting information system  $(X_1)$ , internal control  $(X_2)$ , HR competence  $(X_3)$ , style on the dependent variable, namely fraud prevention (Y) which were solved by using SPSS software (Ghozali, 2016). Then the multiple linear regression equation with the following equation model:

## $Y = a + b_1X_1 + b_2X_2 + b_2X_2 + e$

Y = Fraud Prevention

a = Constant

b<sub>1</sub>, b<sub>2</sub>, b<sub>3</sub>, b<sub>4</sub> = Regression Coefficient Value X<sub>1</sub> = Accounting Information Systems

 $X_2$  = Internal Control

X<sub>3</sub> = Human Resource Competence

e = Error

## 3.5.3.2 T Test

This test is basically done to find out how far the influence of an independent variable is partially (individually) on the variation of the dependent variable. The hypotheses used in this test are:

H<sub>0</sub>: The independent variables do not have a significant effect on the dependent variable.

H<sub>a</sub>: The independent variables have a significant effect on the dependent variable.

The basis for making decisions is to use t calculated and t tables of significance probability numbers, namely:

- 1. If t calculated < t table and significance probability > 0.05, then  $H_0$  is accepted and  $H_a$  is rejected.
- 2. If t calculated > t table and significance probability < 0.05, then H $_{0}$  is rejected and H $_{a}$  is accepted.

To find a t table with df = n-k (n is the number of observations, while k is the number of variables) with a 5% significance level, it can use a statistical table. The value of t table can be seen by using the t table.



## **CHAPTER IV**

#### FINDINGS AND DISCUSSION

#### 4.1 Data Collection Results

In this chapter, the results of research on the effect of Accounting Information Systems, Internal Control Systems, and Human Research competence on fraud prevention at PDAM Bandarmasih are discussed based on the results of research questionnaires through Google Form and direct survey distribution at PDAM Bandarmasih. Respondents in this study came from several divisions. The research results described in this chapter include 1) descriptions of the respondents through the collected questionnaire data; 2) data quality test results (validity and reliability); 3) results of variable testing through T-test, F-test, coefficient determinant (r-square) test, and classical assumption test using multicollinearity test, heteroscedasticity test and normality test. The questionnaire results can be seen in Table 4.1.

Table 4. 1 Questionnaire Data Collection Results

Information	Total	Percent
Number of questionnaires answered	107	100%
Questionnaire that does not meet the criteria	7	6.54%
Questionnaire that meet the criteria	100	93.46%

Data Source: process Data, 2022

Based on the table above, it shows that the total of questionnaire is 107 questionnaires, however only 100 questionnaires that meet the criteria so that they can be processed while 7 the questionnaires do not meet the criteria because some of respondents did not fill the questionnaire

completely. Based on this, it can be concluded that the respondents in this study are 100 respondents.

# **4.2 Respondents Description**

# 4.2.1 Description of Respondent Data by Gender

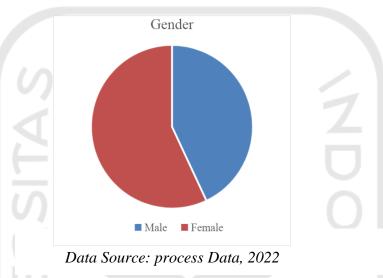


Figure 4. 1 Respondent data by gender

In Figure above, it can be seen that the respondent's data from gender is dominated by females with a percentage of 57% or 57 respondents, while the percentage of male is only 43% or as many as 43 respondents.

# 4.2.2 Description of Respondent Data by Age

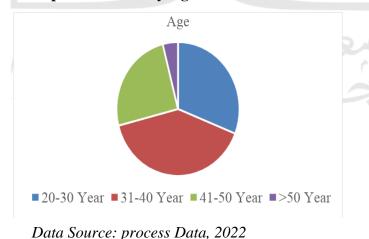
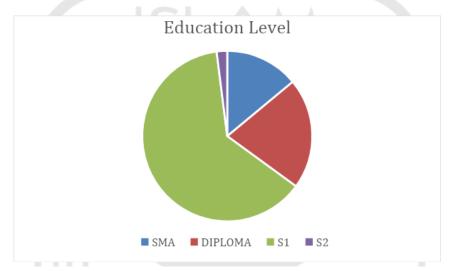


Figure 4. 2 Respondent data by age

Based on the data above, the age of the research respondents was dominated by the age range of 30-40 years as many as 40 people (40%). The age of the second largest respondent is the age of 20-30 years as many as 31 respondents (31%), age 41-50 respondents as many as 25 respondents (25%). While the age of respondents> 51 years as many as 4 respondents (4%).

## 4.2.3 Description of Respondent Data by Education Level

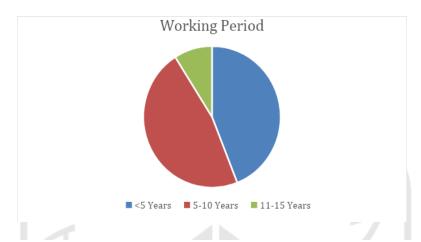


Data Source: process Data, 2022

Figure 4. 3 Respondent data by Education level

Based on the data above, the most recent education was Bachelor Degree (S1) with 63 respondents (63%). Then the respondents who took their last education up to Diploma were 21 (21%) while high school education (SMA) were 14 respondents (63%) and respondents who took Master Degree (S2) were only 2 respondents (2%).

# 4.2.4 Description of Respondent Data by Working Period



Data Source: process Data, 2022

Figure 4. 4 Respondent data by working period

Based on the picture above, it can be seen that the range of working period of most respondents is 5-10 years with a percentage of 47% (47 respondents), then respondents with a working period of <5 years are 44% (44 respondents), respondents with a working period of 11-15 year as much as 9% (9 respondents).

# 4.2.5 Description of Respondent Data by Job Position



Data Source: process Data, 2022

Figure 4. 5 Respondent by job position

Based on Figure 4.5 above, it can be seen that most respondents' job positions are staff with a percentage of 91 respondents (91%), then respondents with supervisor positions are 7 respondents (7%), respondents with Manager positions are 2 respondents (2%).

## **4.3 Data Quality Test**

## **4.3.1 Validity Test**

Validity test is used to measure whether or not a questionnaire is valid. A questionnaire is said to be valid if the questionnaire is able to reveal something that will be measured by the questionnaire. A statement is said to be valid if its significance level is below 0.05 (Ghozali, 2016).

# a. Accounting Information Systems Validity Test

Table 4. 2 AIS Validity Test

Item	r-count	r- table	Sig	Results
AIS 1	0,493	0,195	0,000	Valid
AIS 2	0,446	0,195	0,000	Valid
AIS 3	0,652	0,195	0,000	Valid
AIS 4	0,588	0,195	0,000	Valid
AIS 5	0,596	0,195	0,000	Valid
AIS 6	0,555	0,195	0,000	Valid
AIS 7	0,483	0,195	0,000	Valid
AIS 8	0,294	0,195	0,003	Valid

Data Source: process Data, 2022

Based on the table above, it can be seen that each statement in the Accounting Information Systems (AIS) variable produces valid results because the significance value < 0.05 and the results of r-count > r-table, then the question is said to be valid.

# b. Internal Control Systems Validity Test

Table 4. 3 ICS Validity Test

Item	r-count	r- table	Sig	Results
ICS 1	0,507	0,195	0,000	Valid
ICS 2	0,561	0,195	0,000	Valid
ICS 3	0,509	0,195	0,000	Valid
ICS 4	0,523	0,195	0,000	Valid
ICS 5	0,555	0,195	0,000	Valid
ICS 6	0,545	0,195	0,000	Valid
ICS 7	0,543	0,195	0,000	Valid
ICS 8	0,452	0,195	0,000	Valid

Data Source: process Data, 2022

Based on the table above, it can be seen that each statement in the Internal Control System Variable (ICS) produces valid results because the significance value is < 0.05 and the results of r-count > r-table then the question is said to be valid.

# c. Human Resource Competence Validity Test

Table 4. 4 HRC Validity Test

Item	r-count	r- table	Sig	Results
HRC 1	0,530	0,195	0,000	Valid
HRC 2	0,607	0,195	0,000	Valid
HRC 3	0,567	0,195	0,000	Valid
HRC 4	0,491	0,195	0,000	Valid
HRC 5	0,540	0,195	0,000	Valid
HRC 6	0,531	0,195	0,000	Valid
HRC 7	0,428	0,195	0,000	Valid

HRC 8	0,489	0,195	0,000	Valid
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Data Source: process Data, 2022

Based on the table above, it can be seen that each statement in Human Resource Competency (HRC) produces valid results because the significance value is 0.000 < 0.05 and the results of r-count > r-table, then the question is said to be valid.

# d. Fraud Validity Test

Table 4. 5 Fraud Validity Test

Item	r-count	r- table	Sig	Results
FR 1	0,405	0,195	0,000	Valid
FR 2	0,483	0,195	0,000	Valid
FR 3	0,612	0,195	0,000	Valid
FR 4	0,624	0,195	0,000	Valid
FR 5	0,539	0,195	0,000	Valid
FR 6	0,617	0,195	0,000	Valid
FR 7	0,325	0,195	0,000	Valid
FR 8	0,503	0,195	0,000	Valid

Data Source: process Data, 2022

Based on the table above, it can be seen that each statement in the Fraud Variable produces valid results because the significance value is 0.000 < 0.05 and the results of r-count > r-table, then the question is said to be valid.

# 4.3.2 Reliability Test

Reliability test characterizes the level of consistency. Reliability tests were carried out on statement items in the questionnaire that had been declared valid. The reliability value is expressed

by the Cronbach Alpha coefficient based on the criteria for the lowest limit of reliability is 0.6. If the test criteria are met, the questionnaire is declared reliable.

Table 4. 6 Reliability Test

Variables	Cronbach Alpha	Criteria Value	Notes
AIS	0,612	0,60	Reliable
ICS	0,620	0,60	Reliable
HRC	0,615	0,60	Reliable
Fraud	0,618	0,60	Reliable

Data Source: process Data, 2022

Based on the data above, it is known that the Cronbach's Alpha value for the AIS variable is 0.612, ICS is 0.620, HRC is 0.615 and Fraud is 0.618. From the results of these data, it can be seen that the Cronbach's Alpha value of each variable is more than 0.60 so it can be said to be reliable and can be used as research data.

## **4.4 Classical Assumption Test**

The classical assumption test was carried out to ensure that in this study there was no multicollinearity, and heteroscedasticity, and the resulting data had a normal distribution. If there is no multicollinearity and heteroscedasticity found, then the classical assumption has been fulfilled.

## **4.4.1** Multicollinearity Test

To test whether or not there is a multicollinearity problem, it can be seen from the tolerance value and VIF (variant inflation factor) in the regression results. If the tolerance value has a value greater than 0.10 and the VIF value is less than 10, it can be said to be free from multicollinearity.

Table 4. 7 Multicollinearity Test

Model	Collinearity Statistics		
	Tolerance	VIF	
AIS	0,168	5,951	
ICS	0,115	8,682	
HRC	0,173	5,778	

Data Source: process Data, 2022

- 1. Based on the results, the VIF value for the AIS variable is 5.951 < 10 and the tolerance value is 0.168 > 0.10 so that the AIS variable is declared to have no multicollinearity symptoms.
- 2. Based on the results of collinearity statistics, the VIF value for the ICS variable is 8.682 < 10 and the tolerance value is 0.115 > 0.10 so that the Human Resources Variable is declared to have no symptoms of multicollinearity.
- 3. Based on the results of collinearity statistics, the VIF value for the HRC Variable is 5.778 < 10 and the tolerance value is 0.173 > 0.10 so that the HRC Variable is declared to have no multicollinearity symptoms.

Thus, it can be concluded that in this regression model there is no contains symptoms of multicollinearity between each variable.

# **4.4.2 Normality Test**

It is a test to find out whether the model is normally distributed or not. Normality test is usually carried out using the Kolmogorov Smirnov statistical test. If the test alpha value of Kolmogorov Smirnov is greater than the alpha value of 0.05, it can be said to be normally distributed.

Table 4. 8 Normality Test

## **Kolmogorov Smirnov Test**

Significance Value	Notes		
0.124	Test Distribution is Normal		

Data Source: process Data, 2022

Based on the table above, it can be seen that the results of the Kolmogorov Smirnov test have a significance level of residual (2-tailed) of 0.124 which is greater than 0.05 so that it can be concluded that the model in this study has a normal distribution.

# 4.4.3 Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residuals of one observation to another observation. If the variance of the residual from one observation to another observation remains, it is called homoscedasticity and if it is different it is called heteroscedasticity. A good regression model is a model that does not occur heteroscedasticity (Ghozali, 2016). To determine heteroskedasticity can use the Scatterplot test. The basis for decision-making in this test is if there is no clear pattern, and the points spread above and below zero on the Y axis, it can be concluded that there is no heteroscedasticity problem.

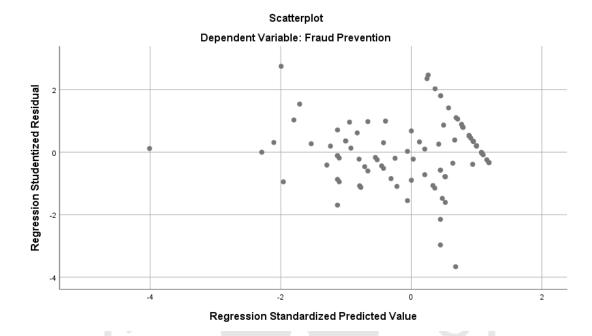


Figure 4. 6 Heteroscedasticity Test

Data Source: process Data, 2022

Based on the Scatterplot test above, there is no clear pattern, and the points spread above and below zero on the Y axis. So it can be concluded that there is no heteroscedasticity symptom.

# 4.5 Coefficient of Determination Test

Table 4. 9 Coefficient of Determination Test

Model Summary <sup>b</sup>							
Model	Std. Error of the Estimate						
1	0,943	0,889	0,886	0,15996			
a. Predic	a. Predictors: (Constant), HRC, AIS, ICS						
b. Dependent Variable: Fraud Prevention							

Data Source: process Data, 2022

Based on the table above, the results of the coefficient of determination test can be seen that the value of the coefficient of determination through R Square is 0.889. This value indicates that the AIS, ICS, and HRC variables have an effect of 88,9% on the Prevention of Fraud in PDAM Bandarmasih while the remaining 11,1% is explained by other variables outside the research model.

# 4.6 Research Hypothesis Test

# 4.6.1 Multiple Linear Regression Analysis

Multiple linear regression tests are used to answer the hypothesis in this study which states that the variables of AIS, ICS, and HRC have a positive effect on Fraud Prevention in PDAM Bandarmasih.

Table 4. 10 Multiple Linear Regression Analysis

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t []	Sig.
		В	Std. Error	Beta		
	(Constant)	-0,157	0,207		-0,760	0,449
1	AIS	0,428	0,089	0,401	4,833	0,000
1	ICS	0,706	0,109	0,651	6,505	0,000
	HRC	-0,099	0,085	-0,096	-1,169	0,245
a. Dependent Variable: Fraud Prevention						

Data Source: process Data, 2022

The equations that can be formed from the results of the regression test calculations are as follows:

$$Y = -0.157 + 0.428 X1 + 0.706 X2 - 0.099X3$$

Information:

Y = Fraud Prevention

X1 = AIS

X2 = ICS

X3 = HRC

## 4.6.2 T Test

To determine the significance level is using  $\alpha = 5\%$  t-table. It can be seen that df = n-k-1 = 100-3-1 = 96 significance level 0,05, which is 1,984.

H0:  $\mu = \mu 1$  there is no significant effect

Ha:  $\mu > \mu 1$  there is a significant effect

Table 4. 11 T Test

Hypothesis	Description	ВЕТА	T-count	T-table	P Values	Notes
H1	$AIS \rightarrow FP$	0,401	4,833	1,984	0,000	Supported
H2	ICS→FP	0,651	6,505	1,984	0,000	Supported
НЗ	HRC→FP	-0,096	-1,169	1,984	0,245	Not Supported

Data Source: process Data, 2022

Based on the table above, it is stated that the research hypothesis can be accepted if the t-count value is greater than the t-table value, and the p-values are less than 0.05 with a significance value of 5%. From the results of hypothesis testing, it is shown that hypothesis 1 and hypothesis 2 are supported, while hypothesis 3 is not supported.

#### 4.7 Discussion

# 4.7.1 Accounting Information Systems have effects on fraud prevention in PDAM Bandarmasih

Based on the results of the hypothesis test that has been carried out above, it can be seen that the AIS variable has an effect on Fraud Prevention in PDAM Bandarmasih, as evidenced by the t-count of 4,833 which is greater than t-table of 1,984 and a significance value of 0,000 less than 0,05. With the acquisition of these values, it can be concluded that AIS has an effect on fraud prevention in PDAM Bandarmasih is proven to be supported by the data.

The occurrence of fraud can be prevented early on by implementing Accounting Information Systems in PDAM Bandarmasih. This means that the better the application of AIS in PDAM Bandarmasih, the better it will be to prevent fraud. The results of this study are supported by research by Dewi, Lawita, and Puspitasari (2021) regarding the Effect of Internal Control, Accounting Information Systems, and Professionalism on Fraud Prevention. The results of their study explain that the AIS has a positive effect and can make it easier to detect fraud and encourage fraud prevention efforts. The better and more effective the Accounting Information System in an organization, the more possibility of fraud can be anticipated.

Implications for PDAM Bandarmasih, the strategy of using an accounting information system in PDAM has been very effective, especially when it has been combined with a good internal control system. This can be maintained by continuously improving the competence of human resources from PDAM Bandarmasih employees.

# 4.7.2 Internal Control Systems have effects on fraud prevention in PDAM Bandarmasih

Based on the results of the hypothesis test that has been carried out above, it can be seen that the ICS variable has an effect on Fraud Prevention at PDAM Bandarmasih, as evidenced by

the t-count of 6,505 or greater than t-table 1,984 and a significance value of 0,000 less than 0,05. With the acquisition of these values, it can be concluded that ICS has effect on the Prevention of Fraud in PDAM Bandarmasih is proven to be supported by the data.

The occurrence of fraud can be prevented early on by implementing ICS in PDAM Bandarmasih. This means that the better the application of ICS in PDAM Bandarmasih, the better the fraud prevention. The results of this study are supported by another research by Wulandari and Nuryatno (2018) regarding the Effect of Internal Control, Anti-Fraud Awareness Integrity, Independence and Professionalism on Fraud Prevention. The results of their study explain that internal control has a positive effect and can make it easier to detect fraud and encourage fraud prevention efforts. The better and more effective the Internal Control System in an organization, the more likely it is for fraud to occur. In addition, internal control has an important role to prevent fraud and can protect organizational resources, both tangible and intangible (Larasati, 2019).

The implication for PDAM Bandarmasih is that the Internal Control System (ICS) actually has the function of evaluating an accounting system and assessing a management policy. If the Internal Control System is implemented properly, it can reduce the abuse of authority and can reduce the gap for perpetrators of fraud in the procurement of goods and services so as not to carry out activities that can harm PDAM Bandarmasih. Internal Control System at PDAM Bandarmasih in general has achieved the objectives of regulatory compliance, efficiency and effectiveness of the risk control process. The achievement of the goal of PDAM Bandarmasih is due to a good Internal Control System that allows fraud to be prevented.

# 4.7.3 Human Resource Competence has no effects on fraud prevention in PDAM Bandarmasih

Based on the results of the hypothesis testing that has been carried out above, it can be seen that the Human Resources Variable has no effect on Fraud Prevention in PDAM Bandarmasih, as evidenced by the t-count of -1,169 which is less than the t-table of 1,984 and the significance value of 0,245 which is greater than 0.05. With the acquisition of these values, it can be concluded that Human Resources Competence has no effect on the prevention of fraud in PDAM Bandarmasih.

Human Resources is something fundamental that should be able to reduce acts of fraud. The results of this study are supported by Astini, N. K. D. A. (2021) who states that Human Resources does not have a positive effect on fraud prevention. This is because the Human Research Competence at PDAM Bandarmasih still has different educational backgrounds from the positions they have. These differences make preventing fraud at PDAM Bandarmasih difficult. Fraud prevention measures can be done if a person has the integrity of an educational background that is in accordance with the position their hold. Someone who has adequate skills, knowledge and abilities will usually easily detect fraud that has occurred. Therefore, in managerial management at PDAM Bandarmasih, they should have qualified Human Resource competencies and are supported by educational backgrounds, experience and training, and understand accounting and institutional financial management in accordance with generally accepted procedures.

The implication is that PDAM Bandarmasih does not yet have competent Human Resources to make financial arrangements to prevent fraud. PDAM Bandarmasih must make a strong commitment in order to carry out predetermined activity procedures, so that a good working environment can be applied. In addition, staff or employee training can improve competence,

ability, skills and commitment so that staff/employees are able to continue and carry out existing regulations well (Elbardawil, 2019).



#### **CHAPTER V**

#### CONCLUSIONS AND RECOMMENDATIONS

## **5.1 Conclusion**

This study aims to determine the effects of the accounting information system, internal sontrol system, and human resource competence on fraud prevention at PDAM Bandarmasih. Based on the results of the research described in the previous chapter, conclusions can be drawn as follow:

- 1. Accounting Information Systems has a significant effect on fraud prevention in PDAM Bandarmasih. The occurrence of fraud can be prevented early on by implementing Accounting Information Systems in PDAM Bandarmasih. This means that the better the application of AIS in PDAM Bandarmasih, the better it will be to prevent fraud. The better and more effective the Accounting Information System in an organization, the more possibility of fraud can be anticipated.
- 2. Internal Control Systems has a significant effect on fraud prevention in PDAM Bandarmasih. The occurrence of fraud can be prevented early on by implementing ICS in PDAM Bandarmasih. This means that the better the application of ICS in PDAM Bandarmasih, the better the fraud prevention.
- 3. The Human Research Competence variable has no significant effect on fraud prevention in PDAM Bandarmasih. This is because the Human Research Competence at PDAM Bandarmasih still has different educational backgrounds from the positions they have. These differences make preventing fraud at PDAM Bandarmasih difficult. Fraud prevention measures can be done

if a person has the integrity of an educational background that is in accordance with the position their hold.

## **5.2 Research Contributions and Implications**

## 5.2.1 Contribution

This research is expected to be used as a new reference or relevant addition for future academics who are interested in conducting research on fraud prevention in Regional Owned Enterprised (BUMD).

## **5.2.2 Practical Implications**

- 1. For the future PDAM Bandarmasih Institution, it will contribute ideas to formulate policies in order to prevent fraud in the PDAM Bandarmasih environment.
- 2. This research can be used as a reference in implementing financial policies at PDAM Bandarmasih with the hope that financial management at PDAM Bandarmasih can avoid fraud.

## 5.3 Research Limitations and Recommendation

#### 5.3.1 Limitations

This study has several limitations experienced by researchers during the research.

Limitations in the study include:

- 1. The data collection method in this study uses primary data in the form of a questionnaire, then there is a possibility that the respondent fills in a questionnaire based on the perception of each individual. So the respondents' answers might have not described the actual situation.
- 2. The number of samples is limited because not all employees fill out the questionnaire
- 3. The object used in this study is only PDAM Bandarmasih employees.

# **5.3.2 Recommendation**

Given the importance of the Accounting Information System, Internal Control System, and Human Resources for fraud prevention in PDAM Bandarmasih, it should give more attention to the new workforce recruitment so that it can run more effectively and efficiently. In addition, employees should have the ability in accordance with the field because if the employee who does the work has a major background that is not in accordance with the position taken, it will have a big effect on the quality of one's work.



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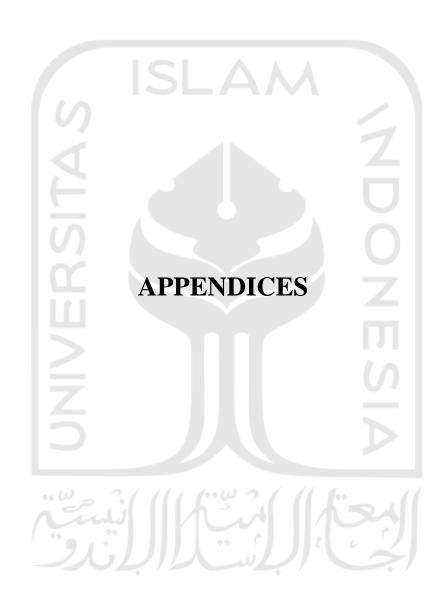
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### APPENDIX 1 RESEARCH PERMIT APPLICATION LETTER



FAKULTAS BISNIS DAN EKONOMIKA Gedung Prof. Dr. Ace Partadiredja Ringroad Utara, Condong Catur, Depok Sleman, Yogyakarta 55283 T. (0274) 881546, 883087, 885376; F. (0274) 882589 E. fe@dii.acid W. fecon.uii.ac.id

No. : 494/DEK/10/IP/III/2022

Perihal: Permohonan untuk mengambil data penelitian

Kepada Yth.
Pimpinan
PDAM Bandarmasih
Jl. A.Yani No.12, Kebun Bunga,
Kec. Banjarmasin Timur, Kota Banjarmasin.
Kalimantan Selatan 70234

Dengan hormat,

Hormat kami,

Dekan

Prof. Jaka Sriyana, S.E., M.Si., Ph.D.

Dengan ini kami sampaikan bahwa mahasiswa berikut ini:

Nama : Tasya Puteri Nadhira

Tampat/ tanggal lahir: Banjarmasin / October 26, 2000

Nomor mahasiswa : 18312091

Alamat : Jl Banjar Indah Raya Komp. Green Residence no.38

Banjarmasin, Kalimantan Selatan 70248

Program studi : Akuntansi Program Internasional

sedang menempuh skripsi dan perlu mengambil data pada institusi yang Bapak/Ibu pimpin. Penelitian mahasiswa tersebut berjudul "The effect of accounting information systems, internal control, and human research competency to prevent fraud at PDAM Banjarmasin" di bawah bimbingan Bapak Drs. Dekar Urumsah, S.Si.,M.Com.(SI)., Ph.D. sebagai salah satu dosen pada Program Internasional, Fakultas Ekonomi, Universitas Islam Indonesia. Untuk itu, mohon bantuan Bapak untuk mempermudah mahasiswa tersebut dalam memperoleh data.

Kami bisa menjamin bahwa perolehan data hanya untuk keperluan menambah wawasan di bidang bisnis dan ekonomi sebagai syarat untuk menyelesaikan studi pada Program Internasional, Fakultas Bisnis dan Ekonomika, Universitas Islam Indonesia.

Demikian permohonan kami, atas bantuan dan kerja samanya kami mengucapkan terima kasih.

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#### **APPENDIX 2**

#### **QUESTIONNAIRES SHEET**

Assalamualaikum Wr. Wb.

In connection with the research carried out as a support for the final project (Thesis) which was prepared as one of the requirements for graduation from the Accounting undergraduate program at the International Program of Business and Economics UII. I am Tasya Puteri Nadhira (18312091), Your willingness to fill out the attached questionnaire for my final project (Thesis) entitled "The Effect of Accounting Information Systems, Internal Control Systems and Human Resource Competency to Prevent Fraud at PDAM Bandarmasih". The contents of the attac"ed questionnaire are for scientific purposes only, and you're answers are confidential. Therefore, for all your help, participation and willingness to fill out the questionnaire in question.

Thank you for your willingness to fill out this research survey. May you always be given health, Aamiin.

Wassalamualaikum Wr. Wb.

Researcher.

Tasya Puteri Nadhira (18312091)

### **Data of Respondent**

1.	Name	:		
2.	Gender	: M/F	7	
3.	Age	:		
			a. <20 Years old	
			b. 21-30 Years old	
			c. 31-40 Years old	
			d. 41-50 Years old	
			e. >51 Years old	
4.	Education Level	:	a. SMA	
			b. Diploma	
			c. S1	
			d. S2	
			e. S3	
5.	Working Period	:	a. <5 Years	
			b. 5-10 Years	
	انسان		c. 11-15 Years	
	المارت		d. >15 Years	
6.	Job Position	:	a. Director	
			b. Manager	
			c. Supervisor	

d. Staff

#### **Instructions**

- Answer each of the following statements according to your assessment of "The Effect of Accounting Information Systems, Internal Control Systems and Human Resource Competency to Prevent Fraud at PDAM Bandarmasih".
- 2. Choose one answer from the six alternative answers that are appropriate by putting a mark  $(\sqrt{\ })$  in one of the columns in the available answers.
- 3. Description of the answer as follows:
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Somewhat Disagree
  - 4. Somewhat Agree
  - 5. Agree
  - 6. Strongly Agree

No.	Part 1 : Accounting Information Systems	1	2	3	4	5	6
2.	The accounting information system (AIS) has been operated using an appropriate computer specifications  Computer devices (and support) used by employees simplify the operation of accounting information system (AIS)			15			
3.	Accounting information system (AIS) software (application program) eases the workload of employees						

4.	The accounting information system (AIS) software (application program) applied in the company never/rarely has any disturbances				
5.	There is a clear authorization regarding the use of software (application programs) in the company's operational activities				
6.	The accounting information system (AIS) database has been well designed	4		1	
7.	The accounting information system database (AIS) is always updated if there are changes	•		DO	
8.	Accounting information system (AIS) software (application program) is always used continuously by employees to search for required information.			NES	

Source: (Susanto, 2013)

	"W = 3/1/1						
	م السال الله	ħ ~		115	2411	,	T
No.	Part 2 : Internal Control Systems	1	2	2 3	4	5	6
		-	رب		$\Rightarrow$		-
1.	The company demonstrates a		_				
	commitment to integrity and ethical						
	values.						

2.	The company structure describes the division of tasks and responsibilities					
	clearly.					
3.	The company identifies and assesses changes internally and externally to determine their impact on the internal control system.					
4.	The Company identifies and nalyses risks to determine how these risks are controlled.				Ź	
5.	There is a separation of duties and functions for each employee activity, strict authorization for each activity, as well as adequate documents and records.					
6.	There are procedures and policies to prevent the identified risks from occurring.				S	
7.	The company communicates information on matters that affect the internal control function	/····	2 ( )	( 1		
8.	The Company conducts separate and periodic monitoring to determine the quality and effectiveness of internal control.	ىت س			3-0·	

Source : (Wulandari Dan Nuryanto, 2018)

No.	Part 3 : Human Resource Competence	1	2	3	4	5	6
1.	Employees who procure goods/services already have a high integrity.						
2.	Compliance with company policies is required.				f		
3.	Employees have a good understanding and knowledge of systems and procedures				D		
4.	Employees already have the ability in accordance with the field.				Z		
5.	Employees have high loyalty.				П		
6.	The recruitment of employees is carried out in accordance with good systems and procedures.				ZIS		
7.	Employees always work by prioritizing ethics and code of ethics as an employee	رسِ.ب		(£5	البع		
8.	Employees have an objective work orientation in supporting the achievement of the company's vision and mission.		(ענ	200	<i><del>4</del></i>		

Source: (Nurhanjanti, 2017)

No.	Part 4 : Fraud Prevention	1	2	3	4	5	6
1.	The company conducts awareness training against fraud in accordance with the work responsibilities of each employee						
2.	The company conducts training to increase employee morale which can reduce the risk of committing fraud						
3.	The company identifies fraud risks and handles them quickly when fraud occurs	1			Z		
4.	The company has instilled sanctions to minimize irregularities and fraud that occurred in the company				0		
5.	The company has implemented an anti-fraud control program based on the company's values				III (S		
6.	The company has and implements a code of ethics in the employee environment to build a culture of honesty and openness of employees within the company	المالية المالية		作	ک ا		
7.	Company management supervises fraud prevention	س	ואו)		Á)		
8.	There is an internal auditor who monitors the company						

Source : (Santoso, 2015)

# APPENDIX 3 DATA TABULATION

### 1. Accounting Information System

Accounting Information System (AIS)											
No. Respond	dents	AIS1	AIS2	AIS3	AIS4	AIS5	AIS6	AIS7	AIS8	X1	
1		6	6	4	6	3	4	5	6	5,00	
2		4	6	6	6	5	6	6	6	5,63	
3		4	6	3	6	5	5	6	6	5,13	
4	7	6	6	4	6	6	6	5	6	5,63	
5	U	6	6	6	6	6	5	5	6	5,75	
6	a	6	4	6	6	6	5	5	6	5,50	
7	П	6	6	6	5	5	6	6	6	5,75	
8		6	6	5	6	4	6	6	6	5,63	
9		6	5	6	6	6	6	6	6	5,88	
10	K	6	5	6	6	6	5	6	6	5,75	
11		5	5	5	4	5	5	4	5	4,75	
12	•• W	6	4	6	5	5	6	6	6	5,50	
13	ت	6	6	4	6	4	4	6	4	5,00	
14	وت	6	6	6	6	6	6	5	5	5,75	
15		5	6	5	6	5	3	4	6	5,00	
16		6	5	5	5	4	5	5	6	5,13	
17		5	5	6	6	6	6	4	5	5,38	
18		5	6	5	6	4	4	4	6	5,00	

19	3	3	6	3	5	3	6	4	4,13
20	4	4	5	6	5	6	5	6	5,13
21	5	6	5	6	3	3	6	6	5,00
22	4	6	3	6	4	6	5	6	5,00
23	6	5	4	6	4	6	3	6	5,00
24	6	5	5	6	3	3	6	6	5,00
25	4	6	5	5	3	6	6	6	5,13
26	6	6	6	5	5	6	4	6	5,50
27	6	6	6	6	5	5	6	4	5,50
28	6	6	6	6	6	6	6	4	5,75
29	6	3	3	6	4	6	6	6	5,00
30	6	6	6	3	2	6	3	6	4,75
31	6	6	3	4	6	3	6	3	4,63
32	3	3	3	3	4	6	4	6	4,00
33	6	6	4	4	4	4	4	6	4,75
34	5	6	5	6	5	6	5	5	5,38
35	6	6	5	6	6	4	6	4	5,38
36	4	6	5	6	5	6	5	6	5,38
37	4	6	4	6	4	6	4	6	5,00
38	6	6	3	3	6	3	6	4	4,63
39	6	3	6	4	6	6	6	6	5,38
40	6	6	6	6	6	6	6	6	6,00
41	4	6	6	6	3	6	6	6	5,38
42	6	6	6	6	6	6	6	4	5,75

43		6	5	6	6	6	6	6	6	5,88
44		6	6	6	4	3	5	6	6	5,25
45		6	6	6	6	6	6	5	6	5,88
46		6	6	5	6	5	6	6	6	5,75
47		5	5	5	5	5	5	5	5	5,00
48		6	6	6	5	5	6	5	6	5,63
49		6	6	6	6	4	3	6	4	5,13
50		6	6	6	4	6	6	6	6	5,75
51		5	5	6	5	6	6	6	6	5,63
52		4	5	6	5	6	6	6	6	5,50
53	V	6	5	6	5	6	6	6	6	5,75
54	$\alpha$	5	3	3	6	6	6	6	6	5,13
55	Ц	5	5	6	4	4	6	6	6	5,25
56		6	3	3	5	3	6	4	6	4,50
57		4	5	6	6	6	6	6	6	5,63
58	4	6	6	6	6	6	5	6	6	5,88
59		5	5	6	5	5	5	5	5	5,13
60	.ω	6	6	6	6	6	6	6	6	6,00
61	V.	6	6	6	6	6	6	6	6	6,00
62		6	6	6	6	6	6	5	6	5,88
63		6	6	6	6	5	6	6	6	5,88
64		6	5	6	5	3	6	6	6	5,38
65		6	6	6	6	6	6	6	6	6,00
66		6	5	6	6	6	6	6	6	5,88

67	5	4	6	5	6	6	6	6	5,50
68	6	6	6	6	5	6	6	6	5,88
69	6	6	6	6	6	6	6	6	6,00
70	6	6	6	6	5	6	5	6	5,75
71	6	6	6	6	6	6	6	4	5,75
72	6	6	6	6	6	6	6	6	6,00
73	6	6	6	6	6	6	6	3	5,63
74	6	6	6	6	5	6	6	6	5,88
75	6	5	4	6	6	6	6	6	5,63
76	6	4	5	5	6	6	6	6	5,50
77	6	6	5	4	6	4	6	6	5,38
78	6	6	6	6	4	6	6	6	5,75
79	6	4	6	4	6	6	6	6	5,50
80	6	6	6	6	6	6	6	6	6,00
81	6	6	5	6	6	6	6	6	5,88
82	6	6	6	6	5	6	6	6	5,88
83	6	5	6	5	5	5	5	5	5,25
84	5	5	5	5	5	5	5	5	5,00
85	6	6	6	6	6	5	6	6	5,88
86	5	5	4	6	4	6	6	6	5,25
87	6	6	6	6	6	6	6	6	6,00
88	6	5	6	6	6	6	6	6	5,88
89	6	6	6	6	6	6	6	6	6,00
90	6	6	5	6	6	6	6	6	5,88

91	6	6	6	5	6	6	6	6	5,88
92	6	6	6	6	6	6	6	6	6,00
93	6	6	6	6	5	6	6	6	5,88
94	6	6	6	6	6	6	6	6	6,00
95	6	6	6	6	5	6	6	6	5,88
96	6	6	6	6	6	6	4	6	5,75
97	6	6	6	6	6	6	6	6	6,00
98	6	5	5	6	6	6	6	6	5,75
99	6	6	6	6	6	6	6	6	6,00
100	4	6	6	6	6	6	6	6	5,75

### 2. Internal Control Systems

	Internal Control (IC)										
No. Respondents	IC1	IC2	IC3	IC4	IC5	IC6	IC7	IC8	X2		
1	5	4	5	6	4	4	6	6	5,00		
2	6	6	6	6	6	6	4	6	5,75		
3 ,,ω	5 2	5	5	ų5 1,5	5	5	5	5	5,00		
4	4	6	6	5	5	6	6	6	5,50		
5	6	6	5	6	6	5	6	6	5,75		
6	4	6	4	6	6	6	6	6	5,50		
7	6	6	6	6	6	3	6	6	5,63		
8	6	6	6	5	6	5	6	6	5,75		
9	6	6	6	6	3	6	6	6	5,63		

10		6	5	6	6	5	6	5	6	5,63
11		6	6	3	6	6	3	6	3	4,88
12		6	6	6	3	3	6	6	6	5,25
13		6	4	6	4	6	4	6	6	5,25
14		6	6	5	6	5	6	5	6	5,63
15		6	5	6	5	6	4	5	3	5,00
16		6	4	6	5	5	6	5	5	5,25
17		5	5	5	5	6	5	5	6	5,25
18		4	4	6	4	5	6	6	6	5,13
19		6	6	4	6	4	4	4	6	5,00
20	U,	4	3	6	3	6	6	6	6	5,00
21	$\alpha$	6	6	6	3	3	4	6	5	4,88
22	1	6	3	3	6	4	6	6	6	5,00
23		6	4	6	6	6	3	6	3	5,00
24		6	4	6	4	6	4	6	6	5,25
25	4	6	6	6	6	3	3	6	6	5,25
26	)	6	6	6	6	4	6	4	6	5,50
27	1, W	3	6	6	6	6	3	6	6	5,25
28	ي	6	6	6	6	6	6	6	6	6,00
29		4	6	4	6	3	6	4	6	4,88
30		5	5	5	4	5	4	4	4	4,50
31		6	3	4	6	4	4	5	6	4,75
32		4	4	4	3	3	4	3	4	3,63
33		6	4	4	4	6	4	6	4	4,75

34		5	6	5	5	6	5	6	6	5,50
35		6	6	6	6	6	4	6	4	5,50
36		5	6	5	4	5	6	6	6	5,38
37		6	5	4	5	5	5	5	5	5,00
38		4	3	3	5	5	6	5	6	4,63
39		6	4	6	4	6	4	6	6	5,25
40		6	6	6	6	6	6	6	6	6,00
41		6	6	4	6	5	6	4	6	5,38
42		6	6	6	6	5	6	6	4	5,63
43		6	6	6	6	6	6	6	5	5,88
44	U,	5	5	5	5	5	5	5	5	5,00
45	$\alpha$	6	6	6	6	6	6	6	6	6,00
46		6	3	6	6	6	6	6	6	5,63
47		5	5	5	5	5	5	5	5	5,00
48		6	6	4	6	6	6	6	5	5,63
49	4	5	6	5	5	5	5	5	5	5,13
50		6	6	6	4	6	4	6	6	5,50
51	1, W	6	4	6	6	6	6	5	6	5,63
52	يم	6	6	6	3	6	6	6	6	5,63
53	2	6	6	6	6	6	6	4	5	5,63
54		6	6	3	6	6	6	4	4	5,13
55		6	4	6	4	6	4	6	6	5,25
56		4	5	5	4	4	5	4	5	4,50
57		6	6	4	6	6	6	6	6	5,75

58		6	6	6	6	6	6	6	6	6,00
59		4	4	6	6	5	4	6	6	5,13
60		6	4	6	6	6	6	6	5	5,63
61		6	6	4	6	6	6	6	5	5,63
62		6	6	6	6	6	6	5	5	5,75
63		6	6	4	6	6	4	6	6	5,50
64		6	6	6	6	5	5	6	5	5,63
65		6	5	6	5	6	6	6	6	5,75
66	7/	6	6	6	6	6	6	6	6	6,00
67		6	6	6	6	6	6	6	6	6,00
68	V,	6	5	6	6	6	4	6	5	5,50
69	R	6	6	6	6	4	6	6	5	5,63
70		6	6	5	5	6	6	6	5	5,63
71		6	6	6	6	6	6	6	6	6,00
72		6	6	6	6	6	6	6	5	5,88
73		6	6	6	6	6	6	6	6	6,00
74		6	6	6	5	6	6	6	6	5,88
75	1. W	6	6	6	6	5	6	5	6	5,75
76	ي	6	5	4	6	6	6	6	6	5,63
77	2	6	4	6	4	4	6	6	6	5,25
78		6	6	6	6	6	5	6	6	5,88
79		6	6	6	6	6	4	6	4	5,50
80		6	6	6	6	5	6	6	6	5,88
81		6	6	6	5	6	6	6	6	5,88

82	6	6	5	5	6	5	6	6	5,63
83	6	5	5	6	4	4	5	6	5,13
84	5	5	5	5	5	5	5	5	5,00
85	6	6	6	6	6	6	6	6	6,00
86	5	5	5	5	6	5	6	5	5,25
87	6	6	6	6	6	6	6	6	6,00
88	6	6	5	6	6	6	6	6	5,88
89	6	6	6	6	6	5	6	6	5,88
90	6	6	6	5	6	6	6	6	5,88
91	6	6	6	5	6	6	6	6	5,88
92	6	6	6	6	6	6	6	6	6,00
93	6	5	6	6	6	6	6	6	5,88
94	5	6	6	6	6	6	6	6	5,88
95	6	6	5	6	6	6	6	6	5,88
96	6	6	6	6	6	6	6	6	6,00
97	6	5	6	6	6	6	6	6	5,88
98	6	6	6	6	6	6	6	6	6,00
99	5	6	6	6	6	6	6	6	5,88
100	6	6	5	6	5	6	6	6	5,75
. Human Resource	Compete	ence							

Human Resource Competence (HRC)									
No. Respondents	HRC1	HRC2	HRC3	HRC4	HRC5	HRC6	HRC7	HRC8	Х3
1	4	3	3	6	6	6	6	6	5,00

2	6	6	4	6	6	6	6	6	5,75
3	6	3	6	4	5	6	4	6	5,00
4	6	5	5	6	5	6	6	6	5,63
5	6	6	6	6	3	5	6	6	5,50
6	3	6	6	6	6	6	6	5	5,50
7	6	6	6	3	6	6	6	6	5,63
8	6	6	3	6	6	6	6	6	5,63
9	6	3	6	6	6	6	6	6	5,63
10	5	6	6	5	6	6	5	6	5,63
11	6	6	6	3	3	6	3	6	4,88
12	6	6	6	6	6	3	3	6	5,25
13	4	6	4	6	6	4	6	6	5,25
14	6	6	5	5	6	5	6	5	5,50
15	5	5	5	5	5	5	5	5	5,00
16	4	5	6	5	6	5	5	6	5,25
17	6	4	6	3	6	6	6	6	5,38
18	6	4	6	3	6	3	6	6	5,00
19	5	5	5	ω <sup>5</sup>	5	6	6	4	5,13
20	5	5	5	5	5	5	5	5	5,00
21	4	3	6	4	5	4	6	5	4,63
22	6	4	5	6	4	5	4	6	5,00
23	5	5	5	4	5	4	5	6	4,88
24	5	5	5	6	6	5	5	5	5,25
25	4	6	5	6	6	4	5	6	5,25

26	6	3	6	6	6	6	6	6	5,63
27	6	5	6	5	6	6	5	6	5,63
28	6	6	6	6	6	6	6	6	6,00
29	4	5	4	6	4	6	4	6	4,88
30	4	4	5	6	5	4	4	6	4,75
31	5	5	5	5	5	4	4	4	4,63
32	4	3	4	4	4	4	5	3	3,88
33	5	5	5	4	4	5	5	5	4,75
34	5	3	6	5	6	6	6	6	5,38
35	6	5	5	5	6	5	5	6	5,38
36	6	4	6	4	6	4	6	6	5,25
37	4	5	5	5	6	4	6	4	4,88
38	4	4	4	4	4	4	6	6	4,50
39	6	4	6	4	6	4	6	6	5,25
40	6	6	6	6	6	6	6	6	6,00
41	6	5	6	6	4	6	4	6	5,38
42	6	6	6	5	6	5	5	6	5,63
43	6	6	6	ω6,	6	6	6	6	6,00
44	6	6	5	4	3	6	6	6	5,25
45	6	6	6	6	6	6	5	6	5,88
46	6	6	6	6	6	5	6	5	5,75
47	5	3	5	5	5	5	6	6	5,00
48	6	6	6	6	5	5	5	5	5,50
49	5	5	5	5	5	5	6	5	5,13

50	6	6	6	3	6	6	6	6	5,63
51	6	4	6	6	6	5	6	6	5,63
52	6	6	6	6	3	6	6	6	5,63
53	6	4	5	6	6	6	6	6	5,63
54	6	4	5	5	5	6	6	3	5,00
55	6	6	4	4	4	6	6	6	5,25
56	6	3	3	6	3	6	3	6	4,50
57	6	6	6	3	6	6	6	6	5,63
58	6	6	6	6	6	6	6	6	6,00
59	6	3	3	6	6	3	6	6	4,88
60	3	6	6	6	6	3	6	6	5,25
61	6	6	6	3	3	6	6	6	5,25
62	6	6	6	6	6	6	6	6	6,00
63	6	6	6	3	3	6	6	6	5,25
64	6	6	6	3	3	3	6	6	4,88
65	6	6	6	6	6	6	6	6	6,00
66	6	6	6	6	6	3	6	6	5,63
67	6	6	6	ω6	6	6	6	6	6,00
68	3	6	6	3	6	6	6	6	5,25
69	6	6	6	6	6	6	3	6	5,63
70	6	6	6	6	6	6	6	6	6,00
71	6	6	6	6	6	6	6	6	6,00
72	6	6	6	5	5	5	6	6	5,63
73	5	5	5	5	4	5	5	5	4,88

74	6	6	6	6	6	6	6	6	6,00
75	6	6	5	6	4	6	6	6	5,63
76	6	5	6	5	6	6	5	6	5,63
77	3	6	6	3	6	6	6	6	5,25
78	6	6	6	6	5	6	6	6	5,88
79	6	6	6	6	6	5	5	5	5,63
80	6	6	6	6	6	6	6	6	6,00
81	6	6	6	6	6	5	5	6	5,75
82	6	6	6	6	5	6	6	6	5,88
83	5	5	5	5	5	5	6	5	5,13
84	5	5	5	5	5	5	5	5	5,00
85	6	6	6	6	6	6	6	6	6,00
86	6	5	5	5	5	5	5	5	5,13
87	6	6	6	6	6	6	6	6	6,00
88	6	5	6	6	6	6	6	6	5,88
89	6	6	6	6	6	6	6	6	6,00
90	6	6	6	6	6	6	6	6	6,00
91	6	6	6	ω6,	6	6	6	6	6,00
92	6	6	6	6	6	6	6	6	6,00
93	6	6	6	6	6	6	6	6	6,00
94	6	6	6	6	6	6	6	6	6,00
95	6	6	6	6	6	6	6	6	6,00
96	6	6	6	6	6	6	6	6	6,00
97	6	6	6	6	6	6	6	6	6,00

98	6	6	6	6	6	6	6	6	6,00
99	6	6	6	6	6	6	6	6	6,00
100	6	6	6	6	6	3	6	6	5,63

### 4. Fraud Prevention

. Fraud Preve	ention									
	0	)	Fra	aud Pre	vention	(FR)				
No. Respond	ents	FR1	FR2	FR3	FR4	FR5	FR6	FR7	FR8	Υ
1		2	6	3	4	6	6	6	6	4,88
2		6	6	6	6	6	6	5	6	5,88
3	U	6	4	3	4	6	6	6	6	5,13
4	a	6	6	6	6	6	3	6	6	5,63
5	П	6	5	6	6	6	6	6	6	5,88
6		6	6	5	5	4	6	6	6	5,50
7	7	6	6	6	6	3	3	6	6	5,25
8		6	6	6	6	3	6	6	6	5,63
9	_	6	6	6	6	6	6	6	6	6,00
10	.,ω	6	4	6	w35	6	6	6	6	5,38
11	ي	6	3	3	6	3	6	6	6	4,88
12		6	6	6	6	3	6	6	3	5,25
13		6	4	6	4	6	4	6	4	5,00
14		6	6	6	5	5	6	5	5	5,50
15		6	4	6	3	4	3	6	6	4,75
16		6	5	5	6	6	4	5	4	5,13

17	6	6	4	6	4	6	4	6	5,25
18	6	4	6	4	6	3	6	6	5,13
19	6	6	6	3	6	3	6	4	5,00
20	6	4	6	3	6	4	6	6	5,13
21	4	6	4	5	6	4	6	5	5,00
22	6	4	6	4	6	5	6	4	5,13
23	6	6	6	6	3	6	4	3	5,00
24	6	6	6	4	4	6	4	4	5,00
25	6	4	6	4	6	6	5	6	5,38
26	6	6	6	6	6	4	4	5	5,38
27	6	6	6	4	6	4	6	6	5,50
28	6	6	6	6	6	6	6	6	6,00
29	6	4	6	4	6	4	4	5	4,88
30	4	4	6	3	6	4	6	4	4,63
31	4	3	2	6	6	6	6	6	4,88
32	6	4	2	2	3	3	6	4	3,75
33	6	6	6	6	3	6	3	4	5,00
34	5	6	5	ω6,	5	6	5	6	5,50
35	6	6	6	3	6	3	6	6	5,25
36	6	5	6	5	5	6	5	4	5,25
37	5	6	4	5	4	3	6	6	4,88
38	6	6	3	6	3	3	5	4	4,50
39	6	6	6	4	3	6	6	6	5,38
40	6	6	6	6	6	6	6	6	6,00

41	6	4	6	4	5	6	6	6	5,38
42	6	6	6	6	6	5	6	4	5,63
43	6	6	6	6	6	6	6	6	6,00
44	6	6	6	6	3	6	6	3	5,25
45	6	6	6	6	6	6	6	6	6,00
46	6	5	6	5	6	6	6	6	5,75
47	5	5	5	5	5	5	5	5	5,00
48	6	6	6	6	5	5	5	5	5,50
49	6	3	6	4	5	6	6	6	5,25
50	6	6	6	6	6	6	6	6	6,00
51	6	4	5	5	6	6	6	6	5,50
52	6	6	5	5	5	6	6	6	5,63
53	5	5	5	6	6	6	6	6	5,63
54	6	6	5	4	4	4	6	6	5,13
55	4	4	4	6	6	6	6	6	5,25
56	3	6	3	6	3	3	6	6	4,50
57	6	6	6	6	3	6	6	6	5,63
58	6	6	6	ω6	6	6	6	6	6,00
59	4	6	4	4	4	6	6	6	5,00
60	6	6	6	6	6	6	6	6	6,00
61	6	6	6	6	6	6	6	6	6,00
62	6	6	6	6	3	6	6	3	5,25
63	6	6	6	6	6	6	6	6	6,00
64	6	6	6	6	6	6	6	6	6,00

65	6	6	6	6	6	6	6	6	6,00
66	6	6	6	6	6	6	6	6	6,00
67	6	6	6	6	6	6	6	6	6,00
68	6	6	6	6	6	6	6	6	6,00
69	6	6	6	6	6	6	6	6	6,00
70	6	6	6	6	6	6	6	6	6,00
71	6	6	6	6	6	6	6	6	6,00
72	6	6	6	6	6	6	6	6	6,00
73	6	6	6	6	6	6	6	6	6,00
74	6	6	6	6	6	6	6	6	6,00
75	6	6	4	4	6	6	6	6	5,50
76	6	5	5	5	6	5	6	6	5,50
77	6	5	6	4	5	5	5	6	5,25
78	6	6	6	6	6	6	6	6	6,00
79	6	4	5	6	6	6	6	6	5,63
80	6	6	6	6	6	6	6	6	6,00
81	6	6	6	6	5	6	6	6	5,88
82	6	6	6	ω6	3	6	6	6	5,63
83	5	5	5	5	5	5	5	6	5,13
84	6	6	4	4	5	5	5	5	5,00
85	6	6	6	6	6	6	6	6	6,00
86	6	6	3	6	3	6	6	6	5,25
87	6	6	6	6	6	6	6	6	6,00
88	6	6	6	6	6	6	6	6	6,00

89	6	6	6	6	6	6	6	6	6,00
90	6	6	6	6	6	6	6	6	6,00
91	6	6	6	6	6	6	6	6	6,00
92	6	6	6	6	6	6	6	6	6,00
93	6	6	6	6	6	6	6	6	6,00
94	6	6	6	6	6	6	6	6	6,00
95	6	6	6	6	6	6	6	6	6,00
96	6	6	6	6	6	6	6	6	6,00
97	6	6	6	6	6	6	6	6	6,00
98	6	6	6	6	6	6	6	6	6,00
99	6	6	6	6	6	6	6	6	6,00
100	6	6	6	5	6	5	6	6	5,75

## APPENDIX 4 DATA QUALITY TEST RESULTS USING SPSS

#### **Accounting Information Systems Validity Test**

				00	Siations					
		x1.1	x1.2	x1.3	x1.4	x1.5	x1.6	x1.7	x1.8	x1
x1.1	Pearson Correlation	1	.257**	.248*	.173	.231 <sup>*</sup>	.048	.166	026	.493**
	Sig. (2-tailed)		.010	.013	.084	.020	.635	.100	.796	.000
	N	100	100	100	100	100	100	100	100	100
x1.2	Pearson Correlation	.257**	1	.252*	.352**	.047	052	.073	081	.446**
	Sig. (2-tailed)	.010		.011	.000	.643	.611	.471	.425	.000
	N	100	100	100	100	100	100	100	100	100
x1.3	Pearson Correlation	.248 <sup>*</sup>	.252*	1	.146	.319**	.286**	.263**	.086	.652**
	Sig. (2-tailed)	.013	.011		.147	.001	.004	.008	.395	.000
	N	100	100	100	100	100	100	100	100	100
x1.4	Pearson Correlation	.173	.352**	.146	1	.206*	.254 <sup>*</sup>	.193	.147	.588**
	Sig. (2-tailed)	.084	.000	.147		.040	.011	.054	.145	.000
	N	100	100	100	100	100	100	100	100	100
x1.5	Pearson Correlation	.231*	.047	.319**	.206*	1	.243 <sup>*</sup>	.344**	108	.596**
	Sig. (2-tailed)	.020	.643	.001	.040		.015	.000	.284	.000
	N	100	100	100	100	100	100	100	100	100
x1.6	Pearson Correlation	.048	052	.286**	.254 <sup>*</sup>	.243 <sup>*</sup>	1	.065	.422**	.555**
	Sig. (2-tailed)	.635	.611	.004	.011	.015		.523	.000	.000
	N	100	100	100	100	100	100	100	100	100
x1.7	Pearson Correlation	.166	.073	.263**	.193	.344**	.065	1	075	.483**
	Sig. (2-tailed)	.100	.471	.008	.054	.000	.523		.456	.000
	N	100	100	100	100	100	100	100	100	100
x1.8	Pearson Correlation	026	081	.086	.147	108	.422**	075	1	.294**
	Sig. (2-tailed)	.796	.425	.395	.145	.284	.000	.456		.003
	N	100	100	100	100	100	100	100	100	100
x1	Pearson Correlation	.493**	.446**	.652**	.588**	.596**	.555**	.483**	.294**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.003	
	N	100	100	100	100	100	100	100	100	100

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

### **Internal Control Systems Validity Test**

				00		_				
		x2.1	x2.2	x2.3	x2.4	x2.5	x2.6	x2.7	x2.8	x2
x2.1	Pearson Correlation	1	.237*	.192	.273**	.226 <sup>*</sup>	.117	.236*	019	.507**
	Sig. (2-tailed)		.018	.056	.006	.024	.246	.018	.853	.000
	N	100	100	100	100	100	100	100	100	100
x2.2	Pearson Correlation	.237 <sup>*</sup>	1	.156	.331**	.147	.217 <sup>*</sup>	.099	.067	.561**
	Sig. (2-tailed)	.018		.121	.001	.144	.030	.326	.505	.000
	N	100	100	100	100	100	100	100	100	100
x2.3	Pearson Correlation	.192	.156	1	035	.196	.098	.352**	.208*	.509**
	Sig. (2-tailed)	.056	.121		.729	.051	.333	.000	.038	.000
	N	100	100	100	100	100	100	100	100	100
x2.4	Pearson Correlation	.273**	.331**	035	1	.219 <sup>*</sup>	.181	.082	.083	.523**
	Sig. (2-tailed)	.006	.001	.729		.029	.071	.416	.410	.000
	N	100	100	100	100	100	100	100	100	100
x2.5	Pearson Correlation	.226*	.147	.196	.219 <sup>*</sup>	1	.127	.398**	001	.555**
	Sig. (2-tailed)	.024	.144	.051	.029		.207	.000	.991	.000
	N	100	100	100	100	100	100	100	100	100
x2.6	Pearson Correlation	.117	.217*	.098	.181	.127	1	.043	.374**	.545**
	Sig. (2-tailed)	.246	.030	.333	.071	.207		.674	.000	.000
	N	100	100	100	100	100	100	100	100	100
x2.7	Pearson Correlation	.236*	.099	.352**	.082	.398**	.043	1	.237*	.543**
	Sig. (2-tailed)	.018	.326	.000	.416	.000	.674		.018	.000
	N	100	100	100	100	100	100	100	100	100
x2.8	Pearson Correlation	019	.067	.208 <sup>*</sup>	.083	001	.374**	.237 <sup>*</sup>	1	.452**
	Sig. (2-tailed)	.853	.505	.038	.410	.991	.000	.018		.000
	N	100	100	100	100	100	100	100	100	100
x2	Pearson Correlation	.507**	.561**	.509**	.523**	.555**	.545**	.543**	.452**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	
	N	100	100	100	100	100	100	100	100	100

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

### **Human Resource Competence Validity Test**

		x3.1	x3.2	x3.3	x3.4	x3.5	x3.6	x3.7	x3.8	х3
x3.1	Pearson Correlation	1	.196	.277**	.176	.012	.286**	.058	.286**	.530**
	Sig. (2-tailed)		.050	.005	.080	.906	.004	.565	.004	.000
	N	100	100	100	100	100	100	100	100	100
x3.2	Pearson Correlation	.196	1	.395**	.150	.112	.223 <sup>*</sup>	.163	.225*	.607**
	Sig. (2-tailed)	.050		.000	.136	.265	.026	.104	.025	.000
	N	100	100	100	100	100	100	100	100	100
x3.3	Pearson Correlation	.277**	.395**	1	044	.267**	.176	.163	.251*	.567**
	Sig. (2-tailed)	.005	.000		.664	.007	.080	.106	.012	.000
	N	100	100	100	100	100	100	100	100	100
x3.4	Pearson Correlation	.176	.150	044	1	.328**	.135	007	.111	.491**
	Sig. (2-tailed)	.080	.136	.664		.001	.180	.945	.270	.000
	N	100	100	100	100	100	100	100	100	100
x3.5	Pearson Correlation	.012	.112	.267**	.328**	1	.038	.287**	.147	.540**
	Sig. (2-tailed)	.906	.265	.007	.001		.708	.004	.146	.000
	N	100	100	100	100	100	100	100	100	100
x3.6	Pearson Correlation	.286**	.223 <sup>*</sup>	.176	.135	.038	1	.130	.200*	.531**
	Sig. (2-tailed)	.004	.026	.080	.180	.708		.199	.046	.000
	N	100	100	100	100	100	100	100	100	100
x3.7	Pearson Correlation	.058	.163	.163	007	.287**	.130	1	.086	.428**
	Sig. (2-tailed)	.565	.104	.106	.945	.004	.199		.394	.000
	N	100	100	100	100	100	100	100	100	100
x3.8	Pearson Correlation	.286**	.225*	.251 <sup>*</sup>	.111	.147	.200*	.086	1	.489**
	Sig. (2-tailed)	.004	.025	.012	.270	.146	.046	.394		.000
	N	100	100	100	100	100	100	100	100	100
х3	Pearson Correlation	.530**	.607**	.567**	.491**	.540**	.531**	.428**	.489**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	
	N	100	100	100	100	100	100	100	100	100

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

### Fraud Prevention Validity Test

		y1	y2	уЗ	y4	у5	y6	y7	y8	У
y1	Pearson Correlation	1	.112	.535**	.117	.032	.139	063	036	.405**
	Sig. (2-tailed)		.266	.000	.245	.754	.168	.533	.723	.000
	N	100	100	100	100	100	100	100	100	100
y2	Pearson Correlation	.112	1	.277**	.487**	064	.169	020	.046	.483**
	Sig. (2-tailed)	.266		.005	.000	.528	.092	.845	.647	.000
	N	100	100	100	100	100	100	100	100	100
уЗ	Pearson Correlation	.535**	.277**	1	.171	.304**	.198*	.004	.001	.612**
	Sig. (2-tailed)	.000	.005		.089	.002	.048	.966	.991	.000
	N	100	100	100	100	100	100	100	100	100
y4	Pearson Correlation	.117	.487**	.171	1	.042	.477**	.017	.154	.623**
	Sig. (2-tailed)	.245	.000	.089		.682	.000	.869	.127	.000
	N	100	100	100	100	100	100	100	100	100
у5	Pearson Correlation	.032	064	.304**	.042	1	.146	.247 <sup>*</sup>	.373**	.540**
	Sig. (2-tailed)	.754	.528	.002	.682		.146	.013	.000	.000
	N	100	100	100	100	100	100	100	100	100
у6	Pearson Correlation	.139	.169	.198*	.477**	.146	1	.063	.231*	.617**
	Sig. (2-tailed)	.168	.092	.048	.000	.146		.535	.021	.000
	N	100	100	100	100	100	100	100	100	100
y7	Pearson Correlation	063	020	.004	.017	.247*	.063	1	.400**	.325**
	Sig. (2-tailed)	.533	.845	.966	.869	.013	.535		.000	.001
	N	100	100	100	100	100	100	100	100	100
y8	Pearson Correlation	036	.046	.001	.154	.373**	.231 <sup>*</sup>	.400**	1	.504**
	Sig. (2-tailed)	.723	.647	.991	.127	.000	.021	.000		.000
	N	100	100	100	100	100	100	100	100	100
У	Pearson Correlation	.405**	.483**	.612**	.623**	.540**	.617**	.325**	.504**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.001	.000	
	N	100	100	100	100	100	100	100	100	100

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

#### **Accounting Information Systems Reliability Test**

### **Reliability Statistics**

Cronbach's	
Alpha	N of Items
640	0

#### **Internal Control Systems Reliability Test**

### **Reliability Statistics**

Cronbach's	
Alpha	N of Items
.620	8

#### **Human Resource Competence Reliability Test**

### **Reliability Statistics**

Cronbach's	
Alpha	N of Items
.615	8

#### **Fraud Prevention Reliability Test**

#### **Reliability Statistics**

610	
Alpha	N of Items
Cronbach's	

### **Multicollinearity Test**

#### **Coefficients**<sup>a</sup>

		Unstandardiz	ed Coefficients	Standardized Coefficients			Collinearity	Statistics
Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	157	.207		760	.449		
	AIS	.428	.089	.401	4.833	.000	.168	5.951
	ICS	.706	.109	.651	6.505	.000	.115	8.682
	HRC	099	.085	096	-1.169	.245	.173	5.778

a. Dependent Variable: Fraud Prevention

#### **Normality Test**

### One-Sample Kolmogorov-Smirnov Test

Unstandardized

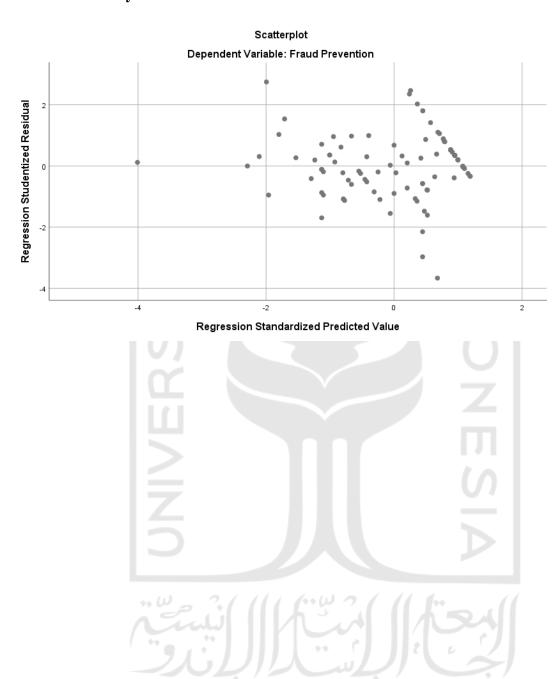
		Residual
N		100
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	.15751437
Most Extreme Differences	Absolute	.079
	Positive	.079
	Negative	063
Test Statistic		.079
Asymp. Sig. (2-tailed)		.124°

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

### **Heteroscedasticity Test**



#### **Multiple Linear Regression Analysis**

#### **Model Summary**<sup>b</sup>

			Adjusted R	Std. Error of the
Model	R	R Square	Square	Estimate
1	.943ª	.889	.886	.15996

a. Predictors: (Constant), HRC, AIS, ICSb. Dependent Variable: Fraud Prevention

#### **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.707	3	6.569	256.745	.000b
	Residual	2.456	96	.026		
	Total	22.164	99			

a. Dependent Variable: Fraud Preventionb. Predictors: (Constant), HRC, AIS, ICS

#### Coefficients<sup>a</sup>

			Occiniolent	•		
				Standardized		
		Unstandardized Coefficients		Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	157	.207		760	.449
	AIS	.428	.089	.401	4.833	.000
	ICS	.706	.109	.651	6.505	.000
	HRC	099	.085	096	-1.169	.245

a. Dependent Variable: Fraud Prevention