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# THE EFFECT OF ENVIRONMENTAL UNCERTAINTY, BUSINESS STRATEGY AND BUDGET PARTICIPATION ON THE QUALITY OF MANAGEMENT ACCOUNTING INFORMATION SYSTEMS
## (Empirical Study on Banking in Indonesia)

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***Abstract.***

*The quality of management accounting information systems is very important to be improved and known in supporting the stability and transparency of a company. Therefore it is necessary to know what are the factors that influence the quality of the management accounting information system. This study aims to determine the effect of environmental uncertainty, business strategy and budgetary participation on the quality of management accounting information systems in banks in Indonesia. This research is a quantitative research with a correlation or relationship approach. The sample used in this study were 15 banks consisting of 4 state-owned banks, 9 national private commercial banks and 2 regional development banks with a total of 75 respondents. The data analysis technique uses descriptive analysis and path analysis which is processed using SmartPLS. The results of the hypothesis test prove that the variables of environmental uncertainty, business strategy and budget participation have a positive and significant effect on the quality of management accounting information systems in banks in Indonesia.*

*Keywords: environmental uncertainty, business strategy, budget participation, management accounting information system quality.*

## BACKGROUND

Information is seen as a business resource, as is the case with other business resources such as raw materials, machinery and labor, this information is necessary to maintain the viability of the company (Shotter, 1999).Management accounting information is the result of the management accounting process in the form of financial information and non-financial information presented for the benefit of internal company. Management accounting information is useful for managers to carry out the functions of planning, coordinating and controlling organizational activities.

The need for management accounting information can be obtained through the company's Management Accounting Information System (SIAM). According to Bouwens & Abernethy (2000) in Khasanah & Kristanti (2020) that " *management accounting information system is a formal system designed for providing information to managers* ". Furthermore, Hansen & Mowen (2015) in Badollahi & Susanto (2020) further added that: " *Management accounting information system is an information system that produces output using inputs and processes needed to satisfy specific management objectives* ". Agree with Cassia (2005) in Ermawati (2022) explaining that " *management accounting systems as a set of tools involving the activities of information collection, classification and computing in order to help the strategic decision making process* ". Before conducting research, researchers reviewed several previous studies that were relevant to the research to be conducted. Based on research conducted by (Dapiah, 2021) . The results of his research indicate that the variable level of environmental uncertainty affects the quality of the management accounting information system at PT. Indonesian National Bank. Environmental uncertainty has a significant effect on the use of the quality of management accounting information systems at PT. Indonesian State Bank.

Based on research conducted by Ramadhani (2021), this study found that business strategy is significant for the quality of management accounting information systems. The interaction of variables (moderation) from business strategy, management accounting systems and environmental uncertainty does not have a moderating effect on the relationship of leadership style to managerial performance. This

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is because PT. Bank Negara Indonesia is an institution that already has an optimal business strategy and management accounting system. Environmental uncertainty in companies engaged in the banking sector has a significant impact on organizational sustainability.

Based on research conducted by Toib (2020) where research was conducted to determine the effect of budget participation on the quality of the management accounting information system at PT. Indonesian State Bank. The result of his research is that budget participation has a positive and significant effect on the quality of the management accounting information system at PT. Indonesian State Bank. This means that budgetary participation is a supporting factor and determines whether or not the quality of the management accounting information system is good or bad. Budget participation has a positive and significant effect on managerial performance at PT. Indonesian State Bank. This means that budgetary participation is a supporting factor and determines whether or not the quality of the management accounting information system is good or bad.

In 2022, the business environment which is characterized by intense world level competition has changed the nature of the United States economy, and has elicited a response from many manufacturing companies in the United States, which has dramatically changed the way these companies do their business. With this change, the traditional management accounting system is no longer valid. Therefore, a new management accounting system emerged. The company's demands for the best financial performance are to maintain the extension or continuity of the company's operations, good performance can be seen from the reciprocal relationship between managers and subordinates, thus there is a close relationship between management accounting including information quality, cost efficiency and timeliness of performance company finance.

The phenomenon that occurs in Indonesia regarding the quality of accounting information in institutions in the Republic of Indonesia, we can see this from several phenomena put forward by experts on timely indicators, such as delays in submitting financial reports from the proper schedule because they are still conducting audits on The subsidy proposed by the former Secretary of the Ministry of BUMN Said Didu on April 10 2022 regarding timely information revealed that there are two giant BUMNs in the energy sector that appear to have not submitted financial reports, namely PT Pertamina (Persero) and PT PLN (Persero). This has given rise to speculation that the SOEs' financial statements have not been submitted, it is suspected that there was an act of polishing the financial statements.

Based on this phenomenon, it can be said that the case lies in inaccuracy, irrelevance, timeliness and incompleteness of the information to be conveyed. From these various problems, it can be said that institutions in Indonesia have not been able to produce accounting information that is in accordance with expectations and calculations in their planning. The quality of management accounting information systems is very important to be improved and known in supporting the stability and transparency of a company. Therefore, it is necessary to know what are the factors that influence the quality of the management accounting information system. Based on the description of previous research, it is known that the quality of management accounting information systems is influenced by environmental uncertainty, business strategy, and company budget participation.

## THEORETICAL BASIS

### Stakeholder Theory

*Stakeholder* theory explicitly considers the impact of corporate disclosure policies when there are different stakeholder groups within a company. Disclosure of information by companies is used as a management tool to manage the information needs required by various groups (*stakeholders*). Managers are expected to carry out activities that are considered important by their stakeholders, and report on these activities. Because the existence of a company is strongly influenced by the support provided by stakeholders to the company (Freudenreich et al., 2019) . This theory initially emerged because of the development of awareness and understanding that companies have stakeholders, namely parties with an interest in the company. Stakeholder theory says that a company is not an entity that only operates for its own sake, but must provide benefits to its stakeholders (shareholders, creditors, consumers, suppliers, government, community, investors, analysts and other parties). Stakeholder theory states that companies try to meet stakeholder expectations. *Stakeholders* are groups or individuals who can influence or be affected by the process of achieving the goals of an organization (Freudenreich et al., 2019).

*Stakeholder* theory illustrates that companies are not only responsible for maximizing profits for owners and investors who can be called *shareholders* but are also responsible for providing benefits to the community, social environment and government which can be called *stakeholders* (Godfrey, 2010). *Stakeholders* play an important role in the sustainability of the company. This is because stakeholders have the ability to control the resources needed for the survival of the company. Companies must maintain relationships with stakeholders or stakeholders by accommodating their wants and needs, especially stakeholders who have power over the availability of resources used for company operational activities, such as workers, customers and owners (Ahmed et al., 2020).

**Quality of Management Accounting Information System**

According to Bagranoff (2005) in Freudenreich (2019) explains: "*an accounting information system is a collection of data and processing procedures that creates needed information for its users*". From this understanding it can be interpreted that, an accounting information system is a collection of data and process procedures that produce the information needed by its users. Furthermore, Heidman (2008) in (Managerial, 2020) explains that a management accounting information system is a formal system that provides information from the internal environment and the external environment for managers.
The information system quality indicators according to DeLone and McLean (2003:26), include:

1) Adaptability
   The adaptability of an information system indicates that the applied information system is of good quality. Adaptability in question is the ability of information systems to make changes in relation to meeting user needs and easily adaptable within corporate organizations and easily adapted by users.
2) Availability
   The system is available for operation and use by stating the service level statement or agreement.
3) System Reliability
   A quality information system is a reliable information system. If the system is reliable then the information system is feasible to use. Information system reliability in this context is the resilience of information systems from damage and errors.
4) Response Time
   System response time, assumes a fast or timely system response to requests for information.
5) Usability
   The effort required to learn, operate, prepare input, and interpret output of software.

**Environmental Uncertainty**

Environmental uncertainty is difficult to predict, so information is needed which is a very useful commodity in the process of planning and control activities within an organization so as to produce a reliable management accounting information system. The business environment faced by companies today is changing rapidly and continuously (Horngren, 2006). This is because, now the world has entered the era of globalization of the economy, politics, the era of information technology, and the era of management revolution. The business environment has changed rapidly, radically, simultaneously, and pervasively with the increasing process of globalization, the more extensive use of information technology in business, the increasing number of companies adopting quality management strategies, and the increasingly widespread management revolution throughout the world. Rapid environmental changes have resulted in companies making adjustments to existing conditions by implementing strategic changes and good management control. Indicators for measuring environmental uncertainty variables (Adelia, 2015) are as follows:

1. *State* Uncertainty
   If someone feels that the environment is unpredictable, it means that someone does not understand how the environmental components will change. A manager may feel uncertain about what actions to take in dealing with the dynamics of relevant environmental changes, such as changes in technology, culture and so on.
2. Uncertainty Effect
   Relates to a person's ability to predict environmental influences. The uncertainty of this effect includes the nature, depth, and time. A person is in uncertainty of influence, if he feels uncertain about how an event affects the nature, how far the event has an effect (depth) and when the influence reaches the organization (time). Uncertainty about the impact of events that will occur in the future

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will become more prominent if the uncertainty of environmental conditions is very high in the future.

3. Uncertainty Response
   what response options are available to the organization and the benefits of each response to be made. Thus, response uncertainty is defined as the lack of knowledge about the choice of response and the inability to predict the consequences that may arise as a result of the choice of response.

**Business strategy**

Warren et al (2008) defines that business strategy is a series of integrated plans and actions designed for the company as a means to gain an advantage over its competitors as well as to maximize profits. Tedjo and Udan (2005) argue that business strategy is to identify the opportunities and threats that will be faced by the business/SBU in the future and explore the resource capabilities and 'skills' possessed by the organization (SBU) that can be used to deal with opportunities and threats so that organizational goals are achieved. (SBU) can be achieved.

Indicators for measuring business strategy variables ( Hunger & Wheelen (2003 ) are as follows:

1. *Prospectors*
   are companies that have broad product lines, and focus on product innovation and market opportunities. Sales orientation makes them inefficient. They tend to emphasize creativity over efficiency.
2. *Defenders*
   are companies that have a limited product line and focus on the efficiency of their existing operations. This organization has a narrow *product-market dominance.* But they focused on increasing the efficiency of their operations. This price orientation makes the company do not like to innovate in new areas.
3. *Analyzers*
   is a company that operates in at least two different product market areas, one stable and one variable. Companies of this type emphasize efficiency in stable areas and innovation in variable areas.
4. *Reactors*
   are companies that lack a consistent relationship between strategy, structure, and culture. Their responses (often inefficient) to environmental pressures. This creates a tendency to make changes in strategy in pieces (not comprehensively).

**Budget Participation**

Participation in budgeting is a process that describes the involvement of individuals in an organization in preparing the budget and having an influence on budget targets. Participatory budgeting is an approach that in general can improve performance which in turn can increase organizational effectiveness.

Indicators for measuring budget participation variables (Sinaga, 2013) are as follows:

1. Involvement in preparing the budget
   The existence of the right to submit a budget arrangement within the organization in accordance with the responsibilities it has.
2. Influence on setting the budget
   The amount of influence in this case shows how big the role and participation given by employees is in the final budget decision.
3. The importance of budget proposals
   The ability of individuals to provide suggestions/opinions from subordinates is expected to provide benefits to the organization in achieving organizational goals
4. Logic in the budget
   Sometimes budgets are made based on interpretations and assumptions, so they contain an element of uncertainty. Therefore, accuracy and confidence are needed in making a budget so that the budget is logical in accordance with existing needs.

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**Framework**

The framework of thought is a syntax of several variables that are arranged based on various theories that have been explained and explained systematically which are then critically analyzed from the various theories that have been described so that they can be analyzed critically and systematically which will later produce a syntax about the relationship of the variables studied. The synthesis of these variable relationships is then used to formulate hypotheses.

This research has three independent variables and one dependent variable, while the independent variables of this research are environmental uncertainty, business strategy, and budget participation. While the dependent variable in this study is the quality of the management accounting information system. The framework for this research can be seen in Figure 1 below.

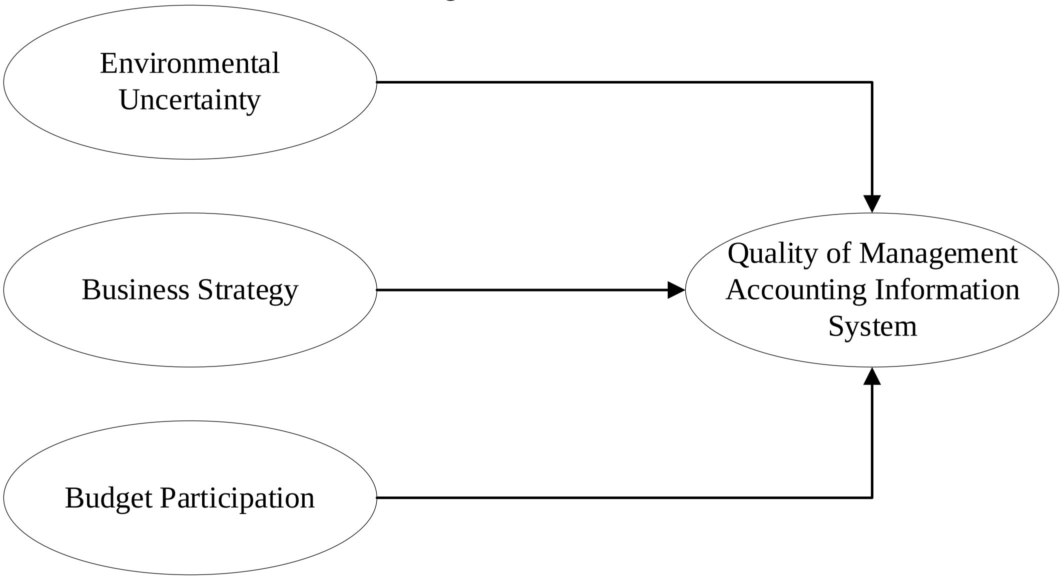


**Figure 1. Mindset**

## RESEARCH METHODOLOGY

This research is a quantitative research with a correlation or relationship approach. The population in this study are banking employees in Indonesia. The sample used in this study were 15 banks consisting of 4 state-owned banks, 9 national private commercial banks and 2 regional development banks with bank employee respondents working in the fields of accounting and management, finance and corporate strategy management with each bank. 5 questionnaires to obtain a sample of 75 respondents. Research data analysis uses the Partial Least Square (PLS) approach using SmartPLS version 3.0 software.

## RESEARCH RESULTS AND DISCUSSION

### Structural Equation Modeling (SEM) Analysis

Testing the results of structural equation modeling with the PLS approach is carried out by looking at the results of the measurement model (*outer model*) and the results of the structural model (*inner model*) of the model studied using *second order analysis* .

### Measurement Model Testing (*Outer models*)

Testing the measurement model ( *outer model* ) is used to determine the specification of the relationship between latent variables and their manifest variables, this test includes *convergent validity, discriminant validity* and reliability.

**1) *Loading Factor***

 

*Convergent validity* relates to the principle that the manifest variables of a construct should be highly correlated. *Convergent validity* test can be seen from the value of Factor Loading for each construct indicator. As for assessing *convergent validity* , the Loading Factor value is expected to be > 0.70 and can be considered for an interval of 0.5 0-0.70 if it can strengthen *the Average Variance Extracted* (AVE) value. The following is a schematic model of the PLS program tested:

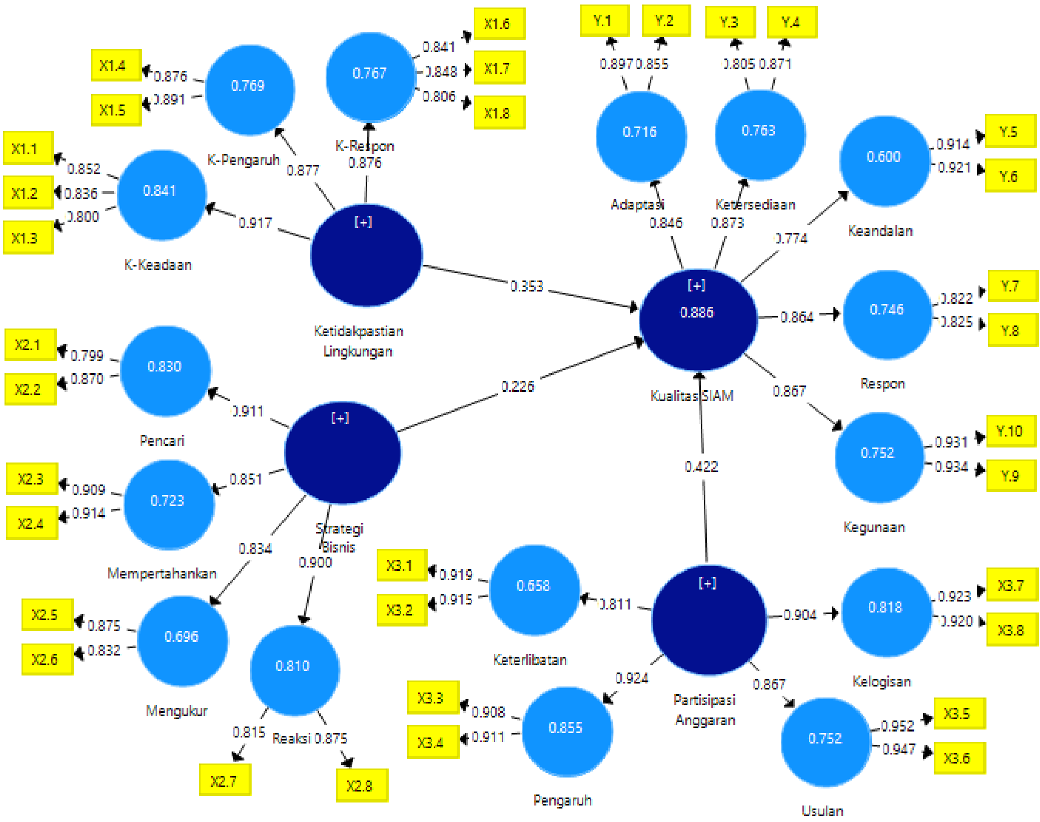


**Figure 2. Outer Model *Path Coefficients***

Source: Primary data, processed (2023)

Based on the picture above it can be seen that the variables of environmental uncertainty, business strategy, budget participation and quality of SIAM have a *loading factor* value (correlation between item scores/component scores with construct scores). > 0.7 so that the indicators of all variables meet convergent validity.

2) **Reliability**

*a composite reliability* and *Cronbach alpha* value greater than 0.7, it can be concluded that the manifest variable has accuracy, consistency and accuracy instrument Which Good in measure construct. Results testing using the SmartPLS software is presented in the table following:

**Table 1 . *Composite Reliability***

| Variable | Composite Reliability | Dimensions | Composite Reliability |
|---|---|---|---|
| Environmental Uncertainty | 0912 | K-State | 0869 |
| | | K-Influence | 0.877 |
| | | K-Response | 0.871 |
| Business strategy | 0912 | seeker | 0.822 |

| Variable | Composite Reliability | Dimensions | Composite Reliability |
|---|---|---|---|
| | | Maintain | 0.908 |
| | | Measure | 0.844 |
| | | Reaction | 0.834 |
| Budget Participation | 0939 | Involvement | 0914 |
| | | Influence | 0.906 |
| | | Proposal | 0.949 |
| | | logical | 0.918 |
| SIAM quality | 0.924 | Adaptation | 0869 |
| | | Availability | 0.826 |
| | | Reliability | 0914 |
| | | Response | 0.808 |
| | | Utility | 0.930 |

Source: Results of Smart PLS Data Processing ( 2023)

Measurement reliability in this study includes dimensions and variables. The results of the dimensional reliability measurements show that all dimensions of the variables of environmental uncertainty, business strategy, budget participation and quality of management accounting information systems have a *composite reliability value* of greater than 0.7. Thus all dimensions are reliable and reliable. Then the variable reliability measurement shows that the variables of environmental uncertainty, business strategy, budget participation and quality of management accounting information systems have a composite reliability value of *greater* than 0.7. This means that all variables are reliable and reliable.

**Structural Model Measurement ( *Inner Model* )**

**1) Coefficient of Determination ($R^2$)**

*Coefficient determination (R-Square)* is used to measure how much the endogenous variables are influenced by other variables. The results of the test for the coefficient of determination ( *R Square* ) can be seen in the table below:

**Table 2. Coefficient of Determination ($R^{2\ test}$)**

| | R Square | R Square Adjusted |
|---|---|---|
| **Quality of Management Accounting Information System** | 0.886 | 0.881 |

Source: Data processed using PLS *software*

In the table above, it can be seen that the *R Square value* for the management accounting information system quality variable obtained is 0.8 86 or 8 8.6% indicating the model is in the strong category because *R square* in the range > 0.67. These results indicate that environmental uncertainty, business strategy and budget participation together have an influence of 88.6% on the quality of the management accounting information system , while the remaining 11.4 % is a large contribution of influence exerted by other factors not examined.

**2) Path Analysis**

The path coefficient evaluation is used to show how strong the effect or influence of the independent variable is on the dependent variable n as can be described as follows.

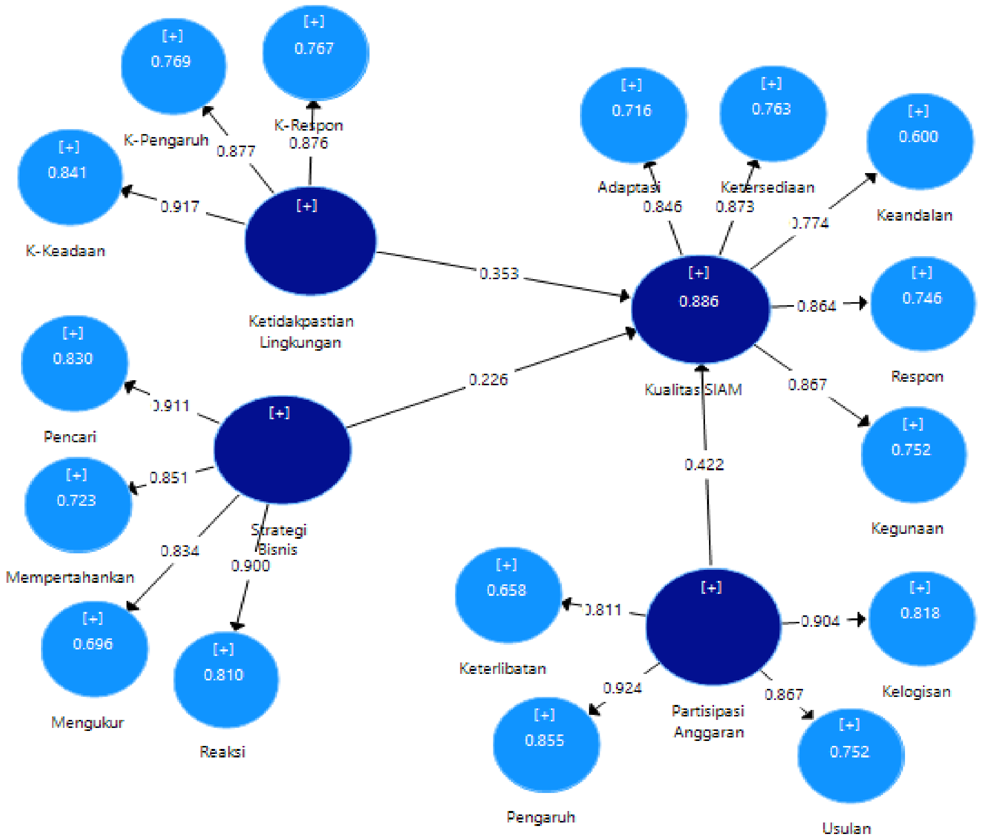


**Figure 2. Path Coefficient**

Source : Data is processed using PLS *software*

Furthermore, based on the figure above, the structural equation model is obtained as follows:

$$Y = 0.353X_1 + 0.226X_2 + 0.422X_3 + e$$

Information :

$X_1$ = Environmental Uncertainty

$X_2$ = Business Strategy

$X_3$ = Budget Participation

$Y$ = Quality of Management Accounting Information System

$e$ = Residual or *Error*

The value of the correlation coefficient above can be explained as follows:

1) *The path coefficient* value obtained is between environmental uncertainty and the quality of management accounting information systems is equal to 0.353. The value of the positive correlation coefficient indicates that the relationship that occurs between the two is unidirectional, meaning that increasing environmental uncertainty will have an impact on increasing the quality of the management accounting information system by 0.353 points.
2) *The path coefficient* value obtained is between business strategy and the quality of management accounting information systems is equal to 0.226. The value of the positive correlation coefficient indicates that the relationship that occurs between the two is unidirectional, meaning that increasing business strategy will have an impact on increasing the quality of the management accounting information system by 0.226 points.
3) *The path coefficient* value obtained is between budget participation and the quality of the management accounting information system is equal to 0.422. The value of the positive correlation coefficient indicates that the relationship that occurs between the two is unidirectional,

meaning that increasing budget participation will have an impact on increasing the quality of the management accounting information system by 0.422 points.

b. **Statistical Hypothesis Testing**

Testing the hypothesis in this study is based on the value contained in the SEM analysis with a limit value for testing the hypothesis. The significance value used is 1.96 (significance level = 5%) (Ghozali and Latan, 2016). So that constructs that have t $_{statistics}$ > 1.96 and *p-value* < 0.05 are declared to have a significant effect. The following is a summary of the results of hypothesis testing.

**Table 3 . Statistical Hypothesis Test Results**

| | Original Sample (O) | T Statistics (\|O/STDEV\|) | P Values | Decision |
|---|---|---|---|---|
| **Environmental Uncertainty -> Quality of Management Accounting Information Systems** | 0.353 | 3,286 | **0.001** | **Accepted** |
| **Business Strategy -> Quality Management Accounting Information System** | 0.226 | 2,822 | **0.005** | **Accepted** |
| **Budget Participation -> Quality Management Accounting Information System** | 0.422 | 4,667 | **0.000** | **Accepted** |

*(Source: Results of Smart PLS Data Processing, 2023)*

Based on the results of hypothesis testing, it can be explained as follows:

**H $_1$ : The Effect of Environmental Uncertainty on the Quality of Management Accounting Information Systems**

Hypothesis 1 explains the effect of environmental uncertainty on the quality of management accounting information systems . By looking at the results of existing data processing it is known that *the path coefficient* value is 0.3 53 with a t-statistics value = 3.286 > 1.96 and p - values *0.00* 1 < 0.05 so H $_1$ is accepted, this means that the environmental uncertainty variable has a positive effect and significant to the quality of management accounting information systems .

**H $_2$ : The Effect of Business Strategy on the Quality of Management Accounting Information Systems**

Hypothesis 2 explains the effect of business strategy on the quality of management accounting information systems . By looking at the results of existing data processing, it is known that *the path coefficient* value is 0. 2 26 with a t - statistics value = 2.8 2 2 > 1.96 and *p-values* 0.005 <0.05 so H2 $_{is}$ accepted, this means that the business strategy variable has a positive and significant effect on the quality of management accounting information systems .

**H $_3$ : The Effect of Budget Participation on the Quality of Management Accounting Information Systems**

Hypothesis 3 explains the effect of budgetary participation on the quality of management accounting information systems . By looking at the results of existing data processing it is

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known that *the path coefficient* value is 0.4 22 with a t-statistics value = 4.667 > 1.96 and p - *values* 0.000 <0.05 so $H_3$ is accepted, this means that the budget participation variable has a positive and significant effect on quality management accounting information system .

**Discussion**

Based on the results of quantitative data to answer the problem formulation that the researcher made, each hypothesis result can be explained as follows :

1. **The Effect of Environmental Uncertainty on the Quality of Management Accounting Information Systems**

Uncertainty is a feeling of individual inability to predict something precisely. Environmental uncertainty is a form of individual inability to assess the probability of how much a decision that has been made will succeed or fail due to the difficulty in predicting the situation around it, so they try to do something to deal with environmental uncertainty. Individuals will face limitations in obtaining information from the environment so that they cannot know the failures and successes of the decisions they have made. This uncertainty requires individuals within the organization to think critically so that the problems that will be faced later can be resolved. Companies will find it difficult to determine corporate strategy when the company faces environmental uncertainty.

The results of this study prove that environmental uncertainty has a positive and significant effect on the quality of management accounting information systems in banks in Indonesia. This means that with increasing conditions of environmental uncertainty, it will encourage management to use a quality management accounting information system to process information relating to the banking business environment.

The results of the study indicate that environmental uncertainty makes it increasingly difficult for company management to predict future sales growth and is prone to high risks within the industry scope. In avoiding this risk, managers must be able to carry out a risk management, namely the process of identifying, assessing, controlling, and minimizing the risks that may occur. In the process of risk management, managers use management accounting systems to collect, organize, accumulate and integrate data owned by the company. Through this SIAM, the risk management process can be carried out properly so that managers can make the right decisions to reduce the risks that will occur. This shows that perceived environmental uncertainty will encourage the use of higher management accounting information systems.

This result is in line with research conducted by Asrida and Astuti (2018) which found environmental uncertainty strengthens the effect of accounting knowledge on the use of accounting information. Likewise Novianty (2019) proves that environmental uncertainty has a positive influence on the management accounting information system. Pravita (2019) environmental uncertainty has a significant influence on the quality of management accounting information systems. Environmental uncertainty is a condition where the company's management does not know and does not recognize conditions that are outside or within the company.

Uncertain environmental conditions such as customers who demand banks to provide responsive services require banks to be able to take advantage of rapidly changing technology in order to serve customers quickly. Customers also have the possibility of moving to other banks that provide more attractive investments. Then the response uncertainty from changes in the banking business, changes in inflation and exchange rates greatly affect bank performance. Facing this environmental uncertainty, management must prepare various response/action options for the risk of bad credit that can occur. These things challenge management to provide a quality management accounting information system so that information from the business environment can be processed quickly and accurately.

2. **The Effect of Business Strategy on the Quality of Management Accounting Information Systems**

Business strategy is a method used by companies to achieve corporate goals in winning competition and achieving competitive advantage through various integrated activities. Which means the business strategy is a way that is done by the company in order to survive and compete in the market with activities that are interconnected.

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The results of this study prove that business strategy has a positive and significant effect on the quality of management accounting information systems. With a better business strategy, the higher the quality of management accounting information systems provided by banks. When the company's business strategy is good and clear, the company will find it easier to assemble a management accounting information system.

These results are in line with Puspitawati's research (2021) which states that a company's business strategy influences the effectiveness of accounting software. Sari, et al (2019) proved that business strategy affects the quality of accounting information systems. Eker (2019) business strategy influences the quality of management accounting information systems. Where the management accounting information system is the heart of the company to achieve competitive advantage. In implementing the cost leadership strategy, the company must be able to automate suppliers as much as possible in supporting customer service.

Banking business strategy, where the bank has a business strategy that focuses on product innovation to win the competition. Strategies by opening branch offices to bring customers closer, focusing more on the efficiency of existing operational activities, and reacting quickly to competitive environmental conditions so that these strategies demand higher quality management accounting information systems.

Companies that carry out a *prospector strategy* usually face greater *unpredictability and environmental uncertainty compared to companies that carry out a defender strategy*. The information needs of managers to produce accurate decisions in *prospector companies* will be greater due to high environmental uncertainties. *Prospector* and *defender* companies require very different administrative processes and internal structures, which in turn will require different management accounting information system designs.

**3. The Effect of Budget Participation on the Quality of Management Accounting Information Systems**

Budget participation is a process in which individuals are involved and have an influence on the preparation of budget targets that will be evaluated and the need for rewards for achieving their targets. Participatory budgeting refers to the degree to which managers participate in preparing budgets and influencing budget targets in each responsibility center. If the manager has set a budget, the achievement of the budget target can only be carried out through a series of activities that have been previously determined in the budget.

The results of this study prove that budgetary participation has a positive and significant effect on the quality of management accounting information systems. The higher the participation of managers in preparing the budget, it will have an impact on the increasing quality of the management accounting information system presented by the company as a form of manager's responsibility for their involvement in preparing the budget.

The results of this study are in line with Toib's research (2020) which proves that budgetary participation has a positive and significant effect on the quality of management accounting information systems. This means that budgetary participation is a supporting factor and determines whether or not the quality of the management accounting information system is good or bad.

One of the most effective approaches used by companies in budgeting is *participative budgeting* which emphasizes manager participation in budgeting. Participatory budgeting is often also called budget participation. In budget participation, the preparation of the budget is delegated to the accountant, but each section head/manager in the company contributes what they need in their respective fields. In other words, all levels of management within the company, be it top level management, middle level management or lower level management, take part in preparing and developing the company's budget.

Budget participation is realized by the existence of rights for managers to submit budgets in accordance with their responsibilities and involvement in each budget preparation. The company budget will be decided jointly with the drafting team with careful calculations. With this involvement in preparing the budget, it results in an increasingly quality management accounting information system because members feel responsible as a consequence of their participation in preparing the company's budget. Stakeholder theory explains that the quality of the management accounting information system is a form of performance accountability for the funds obtained, thus

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budget participation is needed to achieve company goals. A quality management accounting information system is sufficiently accommodative to be used in preparing the budget.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusion

Based on the results of the research and discussion in the previous chapter , several research conclusions will be presented as follows:

1. Environmental uncertainty has a positive and significant effect on the quality of management accounting information systems in banks in Indonesia. This means that the higher the environmental uncertainty that occurs, it will have an impact on increasing the quality of the management accounting information system so that management can make the right decisions in responding to this environmental uncertainty.
2. Business strategy has a positive and significant effect on the quality of management accounting information systems in banks in Indonesia. With a better business strategy, the higher the quality of management accounting information systems provided by banks. When a company's business strategy is good and clear, it will be easier for the company to develop a higher quality management accounting information system.
3. Budget participation has a positive and significant effect on the quality of management accounting information systems. The higher the participation of managers in preparing the budget, it will have an impact on the increasing quality of the management accounting information system presented by the company as a form of manager's responsibility for their involvement in preparing the budget.

### Suggestion

Some suggestions that can be submitted for this research include :

1. Bank management should be able to anticipate environmental uncertainties that occur by preparing various response/action options for credit risk that may occur, because the occurrence of bad loans can disrupt bank performance. By utilizing its management accounting information system, the bank can monitor its customers in fulfilling their obligations as a creditor, which if there are unfavorable symptoms a way out can be found in a fair manner.
2. In developing a business strategy, the bank can make efficiency in areas where the market is already stable and innovate for new markets. Efficiency is needed to achieve company profitability, while innovation for new markets is needed to attract consumers to want to invest their funds or other bank services in the process of business transactions or others.
3. Managers who are experienced and have a vision for the future have an important role in determining a clear and specific company budget. For this reason, management should be able to involve all competent elements in compiling a comprehensive budget. In the budget participation process it is expected to increase control and supervision in the budget participation process so that when the budget is prepared there are no budget gaps.
4. The banking sector should be able to provide a quality management accounting information system that can present output and explanations accurately, so that users of the system can make the right decisions for the tasks they are responsible for at work.
5. This research is only limited to the variables of environmental uncertainty, business strategy, budget participation which are a small part of the variables that can affect the quality of management accounting information systems. Therefore, for further research, it can take a broader scope or need to include moderating variables that might affect the quality of the management accounting information system.

## BIBLIOGRAPHY

Badollahi, I., & Susanto, IR (nd). *The Effectiveness of Accounting Systems Management Control Systems and Environmental Uncertainty in Supporting Managerial Performance Abstract . 5* (1).

Ermawati, N., Handayani, RT, Accounting, PS, & Kudus, UM (2022). *Factors influencing the use of accounting information with environmental uncertainty as a moderating variable 1.2 . 6* (1), 124–144.

ISSN: 2477-1783 (Print)
ISSN: 2477-17xx (Online)

Freudenreich, B., Lüdeke, F., & Stefan, F. (2019). A Stakeholder Theory Perspective on Business Models : Value Creation for Sustainability. *Journal of Business Ethics* , *0* (0), 0. https://doi.org/10.1007/s10551-019-04112-z

Godfrey, J., Hodgson, A., Tarca, A., Hamilton, J., & Holmen, S. (2010). *accounting* . John Wiley & Sons, Inc.

Horngren, CT (2006). *accounting* . Pearson Educacion.

Hunger, J David & Wheelen, Thomas L. 2003. Strategic Management. Yogyakarta: Erlangga

Khasanah, SN, & Kristanti, IN (2020). *The Influence of Budget Participation, Individual Capacity, Self Esteem and Clarity of Budget Targets on Village Budget Gaps in Petanahan District* . *2* (3), 411–425.

Novianty, I. (2019). The quality of management accounting information systems from users' ethics, environmental uncertainty, and top management support perspectives (An Empirical Case of Local Government in Indonesia). *South Asian Journal of Contemporary Business, Economics & Law* , *12* (1), 1-10.

Puspitawati, L. (2021). Strategic information moderated by effectiveness management accounting information systems: Business strategy approach. *Journal of Accounting , 25* (1), 101-119.