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# The effect of strategic management accounting on strategic supply chain through internal and external orientation

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**A B S T R A C T**

This paper aims to empirically examine how public sector auditing agencies have strategically positioned themselves in a changing external operating environment and policy context. Specifically, this study aims to examine the effect of strategic management accounting on strategic supply chain positioning. The mediating roles of external and internal orientations were employed as mediating variables in this study. The research was conducted in the Audit Board of the Republic of Indonesia (BPK) in December 2022 to January 2023 by involving a total sample of 325 respondents. The data obtained in this study were analyzed using a variance-based structural method using the Partial Least Squares path modeling method through SmartPLS software. The findings showed that there is a significant influence of strategic management accounting on strategic supply chain positioning. The findings also emphasized the mediating roles of internal orientation and external orientation in strengthening the effects of strategic management accounting on strategic supply chain positioning. The results highlighted that strategic management accounting plays an important role in helping public sector auditing agencies to strategically position themselves in auditing practices. In addition, internal orientation can also help organizations to optimize the use and the allocation of internal resources. The findings presented in this study theoretically contribute to explaining empirical evidence regarding the effect of strategic supply chain positioning in strategic management accounting activities in public sector accounting and auditing practices.

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## 1. Introduction

Strategic supply chain positioning is an important concept in strategic supply chain management. This concept includes the process of planning, managing, and optimizing the strategic position of a supply chain, so that organizations can maximize benefits and reduce risks in the face of increasingly fierce competition (Thomas & Griffin, 1996). The existing body of literature shows that positioning as it pertains to both for-profit and non-profit organizations has been defined in various ways (Li et al., 2006; Kushwaha, 2012). According to Chew and Osborne (2009), strategic positioning refers to the process by which managers make decisions to create a positioning strategy for their organization that effectively sets it apart from other service providers. Public sector organizations have been facing increasing demands from external factors such as socio-economic changes, technological advancements, and competitive pressures, which have forced them to efficiently handle their operations to meet their immediate client requirements while also securing their long-term strategic goals in many areas or public sector, including auditing. Previous literature has revealed the effect of strategic positioning in auditing practices (Kochetova-Kozloski & Messier, 2011; Ballou et al., 2004; McCracken et al., 2008). To carry out an audit, the auditor should gain a comprehensive comprehension of the client and their surroundings, analyze that knowledge, and create suitable audit methods to address the auditing (Chew & Osborne, 2009).

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One crucial factor of understanding the client and their surroundings is through performing a strategic analysis of the client, which is a component of strategic positioning. According to Kochetova-Kozloski and Messier (2011), strategic positioning refers to the analysis and evaluation of a company's position in the market, its competitive advantages, and its potential risks from the perspective of an auditor. It involves assessing the company's business model, industry trends, financial performance, and governance practices to identify potential areas of audit risk and determine the appropriate audit approach. Kochetova-Kozloski and Messier (2011) also highlight the importance of strategic positioning in enhancing the quality and effectiveness of audit risk assessments and improving overall audit outcomes. Johnstone and Bedard (2004) stated that strategic positioning is related to the decision-making process used by audit firms in managing their portfolio of clients. This involves identifying and evaluating clients based on various factors such as industry risks, growth potential, and profitability. Audit firms then use this information to allocate resources, such as staffing and technology, to meet the specific needs of each client. In a business context, by strategically positioning themselves in the market, audit firms aim to achieve a competitive advantage and maximize their profitability. Furthermore, McCracken et al. (2008) suggest that auditors engage in strategic positioning by using their knowledge and expertise to influence client decisions and ensure that financial reporting is accurate and complies with accounting standards. This involves taking a proactive approach to communication and building strong relationships with the client's management team. According to McCracken et al. (2008), strategic positioning is beneficial for both the auditor and the client, as it promotes greater trust and cooperation between the two parties, resulting in more reliable financial reporting. This means that there are some antecedents of strategic supply chain positioning in auditing practices. For instance, strategic positioning is related with external and internal orientations of auditing personnel to strategically consider decision-making processes and manage the portfolio of clients. Moreover, strategic positioning identifies information to allocate resources, technology, and organizational structure to meet the specific needs of each client. This means that strategic positioning is related to strategic management accounting (SMA) practices. SMA involves providing and analyzing management accounting information on a company's products in the markets, its cost structure, and the costs of its competitors. Additionally, it monitors the strategic positions of the company and its competitors in these markets over time. SMA methods can bring numerous advantages to organizations, such as competitor accounting, customer accounting, strategic costing, strategic planning, control and performance management, and strategic decision-making (Nik Abdullah et al., 2022). The objective of this article is to investigate, through empirical means, how auditing agencies in the public sector have adapted their strategic positioning in response to evolving policies and external environmental changes. Specifically, this study aims to examine the effect of strategic management accounting on strategic supply chain positioning. The mediating roles of external and internal orientations were employed as mediating variables in this study. The findings presented in this study theoretically contribute to explaining empirical evidence regarding the effect of strategic supply chain positioning in strategic management accounting activities in public sector accounting and auditing practices.

## 2. Literature Review and Hypotheses

Strategic management accounting (SMA) has an important role in achieving the goal of good strategic supply chain positioning. Strategic management accounting is used to integrate financial and non-financial aspects in making company strategic decisions (Alamri, 2019). Strategic management accounting can assist organizations in conducting cost and benefit analysis of various possible supply chain strategic positioning options and determining performance targets that should be achieved and in monitoring their performance against these targets (Lord, 2007; Manyaeva et al., 2016; Shah et al., 2011). Strategic management accounting emphasizes the role of accounting as a tool to assist management in understanding their business environment and making the right strategic decisions (Alamri, 2019). Strategic management accounting is different from traditional accounting which is more focused on measuring an organization's financial performance. In its use, strategic management accounting involves collaboration between the accounting department and management in collecting, analyzing, and interpreting the information needed for strategic decision making. Strategic management accounting can also help organizations to identify opportunities and risks associated with their business environment, as well as develop strategies to overcome challenges and take advantage of these opportunities (Manyaeva et al., 2016; Naim et al., 2022). In addition, strategic management accounting can assist organizations in identifying external factors that may affect their strategic supply chain positioning, such as market trends, government regulations, and market competition. Strategic management accounting can also assist organizations in identifying internal factors that can affect their strategic supply chain positioning, such as internal capabilities, resource availability, and organizational structure (Doktoralina & Apollo, 2019).

Thus, strategic management accounting can assist organizations in choosing the right strategic position for their supply chain, which in turn can assist them in facing increasingly fierce market competition and achieving organizational goals that have been set. Strategic supply chain positioning can be done by identifying critical points in the supply chain that need to be improved, as well as by optimizing the use of technology and information in managing the supply chain. The strategic supply chain positioning process can be carried out by considering various factors, such as client needs and preferences, production costs, risk, availability of raw materials, speed of delivery, and operational efficiency (Gunasekaran et al., 2004). Organizations also need to continuously evaluate and plan to adapt their strategic position to market changes and the ever-changing business environment. By carrying out the right strategic supply chain positioning, an organization can increase its competitive advantage and achieve its business objectives effectively and efficiently (Santos et al., 2021). Therefore, strategic supply chain positioning is a very important concept in strategic supply chain positioning and should be managed properly by organizations to achieve success in an increasingly competitive market (Cox, 1999).

Strategic management accounting in this case is related to technology, information and organizational policies. In terms of technology, strategic management accounting can help to use the right information technology to optimize its strategic supply chain positioning (Ali et al., 2022). These include the use of an integrated accounting information system that can assist in monitoring its supply chain performance and identifying problems that arise. Then in terms of information, strategic management accounting can also help them obtain the information needed for making the right strategic decisions. Strategic management accounting can assist in collecting, analyzing, and interpreting financial and non-financial information related to its supply chain. This can assist in making better decisions related to its strategic supply chain positioning. Furthermore, in terms of organizational policy, strategic management accounting can help to develop appropriate organizational policies to support its strategic supply chain positioning (Suzan et al., 2019; Alamri, 2019). In the context of strategic supply chain positioning, strategic management accounting can help organizations understand the costs and performance of their supply chain and identify ways to increase efficiency and effectiveness in the supply chain (Doktoralina & Apollo, 2019). This can help organizations to increase their competitive advantage and advantage through better strategic supply chain positioning. Kirli and Gümüş's (2011) stated that the use of strategic management accounting can help organizations better identify, measure, and monitor supply chain performance, enabling organizations to take more appropriate actions and improve their supply chain performance.

The effect of strategic management accounting on strategic supply chain positioning can be influenced by internal orientation and external orientation factors. Internal orientation is an organization's ability to understand and manage its internal resources well (Maes & Sels, 2014). This includes operational management capabilities, financial management, human resource management, and so on. Internal orientation can assist organizations in optimizing the use of their internal resources to achieve a better strategic position in the supply chain (Oboh & Ajibolade, 2017). Internal orientation can be influenced by factors such as organizational culture, organizational structure, and management capabilities. Meanwhile, external orientation is a concept in strategic management accounting that refers to an organization's ability to monitor and respond to changes in the external environment in its strategy and business operations (Cinquini & Tenucci, 2010; Nixon & Burns, 2012). External orientation can be interpreted as an organization's ability to understand external environmental factors and respond appropriately and effectively in decision making and strategic supply chain positioning (Maes & Sels, 2014). This involves an organization's ability to gather information about its external environment, analyze it, and take appropriate action to optimize its organizational performance.

Internal orientation and external orientation are considered as mediators between the use of strategic management accounting (SMA) and strategic supply chain positioning (Oboh & Ajibolade, 2017). This means that the effect of the use of strategic management accounting on the strategic position of the supply chain can be influenced by internal orientation and external orientation factors. Internal orientation is related to an organization's ability to understand and manage its internal resources well, such as operational management capabilities, financial management, human resource management, and so on (Tichy et al., 1982; Suzan et al., 2019). Internal orientation can assist in optimizing the use of its internal resources to achieve a better strategic position in the supply chain. Meanwhile, external orientation is related to the organization's ability to respond well to the external environment. External orientation can assist in optimizing its decision-making and strategic supply chain positioning by considering external environmental factors that can affect its performance (Maes & Sels, 2014).

Thus, internal orientation and external orientation can mediate the relationship between the use of strategic management accounting and strategic supply chain positioning (Ali et al., 2022). This means that the effect of using strategic management accounting on the strategic position of the supply chain can be more visible and measurable through internal orientation and external orientation mediators. Oboh and Ajibolade (2017) showed internal orientation can positively influence the effect of strategic management accounting on organizational performance, while external orientation can strengthen the effect of strategic management accounting on organizational performance. Considering the role of internal orientation and external orientation as mediators in the relationship between the use of strategic management accounting and strategic supply chain positioning can provide a more comprehensive understanding of the factors that can affect supply chain performance in public organizations. As well as being able to produce a more complete understanding of the influence of strategic management accounting on strategic supply chain positioning. Therefore, the second and third hypotheses in this study are as follows:

**$H_1$:** *Strategic management accounting has a significant effect on internal orientation.*
**$H_2$:** *Strategic management accounting has a significant effect on external orientation.*
**$H_3$:** *Strategic management accounting has a significant effect on strategic supply chain positioning.*
**$H_4$:** *Internal orientation has a significant effect on strategic supply chain positioning.*
**$H_5$:** *External orientation has a significant effect on strategic supply chain positioning.*
**$H_6$:** *Internal orientation mediates the relationship between strategic management accounting and strategic supply chain positioning.*
**$H_3$:** *External orientation mediates the relationship between strategic management accounting and strategic supply chain positioning.*

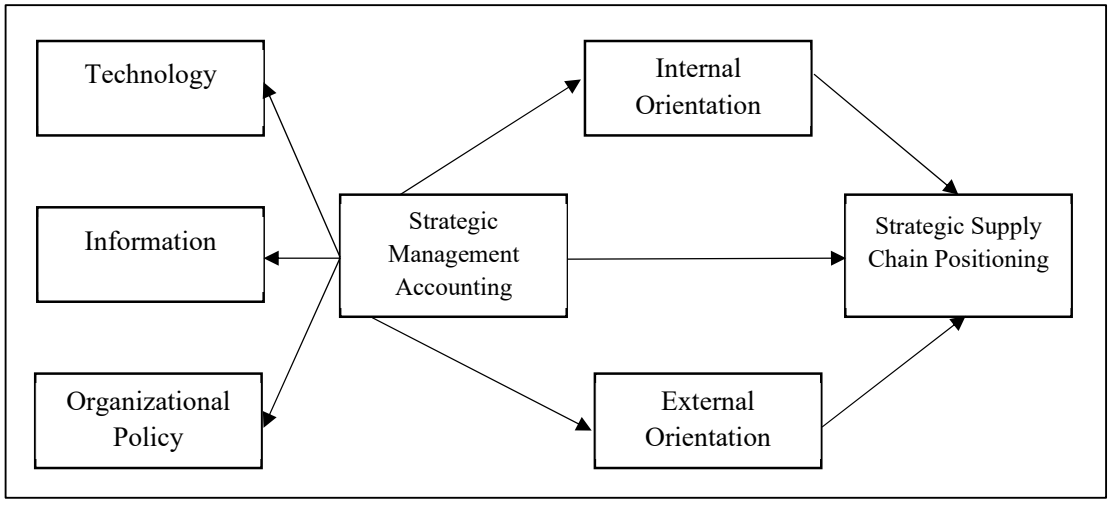


**Fig. 1.** Theoretical Conception

## 3. Method

The research was conducted in the Audit Board of the Republic of Indonesia (BPK) to empirically examine how public sector auditing agencies can strategically position themselves in a changing external environment and internal context by using strategic management accounting practices (Fig. 1). The data obtained in this study were analyzed using a variance-based structural method using the Partial Least Squares path modeling method through Smart PLS software. This study relies on primary data collected from respondents using a structured questionnaire. The questionnaire consists of questions related to strategic management accounting, internal orientation, external orientation, and strategic supply chain positioning variables. The data was collected through the utilization of a survey questionnaire in December 2022 to January 2023. The sample was selected using a purposive sampling technique, namely by selecting respondents who have knowledge and experience of strategic management accounting and strategic supply chain positioning. The sample size was chosen according to the suggestions made by Comrey and Lee (1992), which deemed a sample of 300 as sufficient. As a result, a sample size of 300 was selected for the study. Thus, the number of samples used in this study were 325 respondents. Out of the 325 questionnaires that were distributed, 276 were collected. However, 19 of these 276 questionnaires were found to be incomplete, resulting in their exclusion from the study. Thus, a total of 257 questionnaires were chosen for data analysis. The study implemented a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Strategic management accounting (SMA) is defined as an accounting approach that focuses on the use of accounting and management information to assist organizations in making the right strategic decisions (Lord, 2007). Strategic management accounting places more emphasis on the use of financial and non-financial information to assist management in developing appropriate strategies and improving overall business performance (Cinquini & Tenucci, 2010). This study employed three mains' aspects of strategic management accounting, namely technology, information and organizational policy. The items were derived from these three aspects modified from Oboh and Ajibolade (2017) containing 10 measuring items.

The variable of external orientation is defined as the extent to which an organization is focused on internal processes. This variable was measured by using 4 items such as organizational structure, communication channels, decision-making processes, and performance standards. Moreover, the variable of external orientation is defined as an organization's ability to monitor and respond to changes in the external environment in its strategy and business operations (Cinquini & Tenucci, 2010; Nixon & Burns, 2012). There are 5 items to measure this variable.

Strategic supply chain positioning was defined as the strategic position of an organization in the supply chain which includes risk management, coordination with suppliers and clients, and optimization of overall supply chain performance (Lavastre et al., 2012). The items to measure this variable were 5 items adopted from Philipp (2020) in examining strategic positioning.
The data obtained in this study were analyzed using a variance-based structural method using the Partial Least Squares path modeling method. The data were analyzed using SmartPLS software to test the hypothesis on the effect of strategic management accounting on strategic supply chain positioning, as well as through internal orientation and external orientation.

## 4. Empirical Results

The initial analysis test using SmartPLS before testing the hypothesis is carried out is to first consider the standard loading factor value, reliability and validity of each indicator variable to be analyzed. This initial test is important to do before testing the hypothesis to ensure that the variables to be tested are relevant. The first test is the loading factor test to ensure that the selected variables have a strong correlation with the construct being measured. Variables that have low factor loading values

can be considered to be removed from the analysis to get more accurate values. According to Hair et al. (2010), the acceptable loading factor limit is 0.5. If the loading factor value is > 0.5, the indicator is said to be valid in measuring the construct and can be used to conduct research, meaning that convergent validity has been met. Table 1 showed the results of the loading factor test.

**Table 1**
Standard Loading Factor

| Variable | Items | VIF Value | Std. Loading Factor |
|---|---|---|---|
| Strategic Management Accounting | TECH1 | 4.229 | 0.736 |
| | TECH2 | 4.751 | 0.774 |
| | TECH3 | 4.200 | 0.786 |
| | INF1 | 1.888 | 0.704 |
| | INF2 | 3.467 | 0.827 |
| | INF3 | 2.887 | 0.784 |
| | OP1 | 3.671 | 0.819 |
| | OP2 | 2.761 | 0.769 |
| | OP3 | 4.811 | 0.846 |
| | OP4 | 3.930 | 0.813 |
| Internal Orientation | IO1 | 2.747 | 0.888 |
| | IO2 | 2.279 | 0.843 |
| | IO3 | 3.003 | 0.871 |
| | IO4 | 3.216 | 0.892 |
| External Orientation | EO1 | 3.141 | 0.893 |
| | EO2 | 2.304 | 0.836 |
| | EO3 | 2.597 | 0.859 |
| | EO4 | 2.864 | 0.881 |
| | EO5 | 2.225 | 0.835 |
| Strategic Supply Chain Positioning | SSCP1 | 2.678 | 0.845 |
| | SSCP2 | 2.483 | 0.854 |
| | SSCP3 | 2.938 | 0.879 |
| | SSCP4 | 3.621 | 0.908 |
| | SSCP5 | 2.160 | 0.795 |

The results of the loading factor test in Table 1 show that all values of the latent variable indicators are within a satisfactory range, where the results obtained are > 0.5. In the strategic management accounting variable, the technology indicator obtains a std value. loading factor in the range of 0.736 - 0.786, information indicators obtain values in the range of 0.704 - 0.827, and organizational policy indicators have values in the range of 0.769 - 0.846. Then, the internal variable orientation obtains the std value. loading factor with a range of 0.843 - 0.892, external orientation variable has a value ranging from 0.835 - 0.893. Furthermore, on the strategic supply chain positioning variable, the value of std. The loading factor obtained is in the range of 0.795 - 0.908. With the results of the loading factor test, it can be concluded that each indicator of the variable in this study can be said to be valid in measuring the construct, meaning that convergent validity has been met and can be used in conducting this research (Fig. 2).

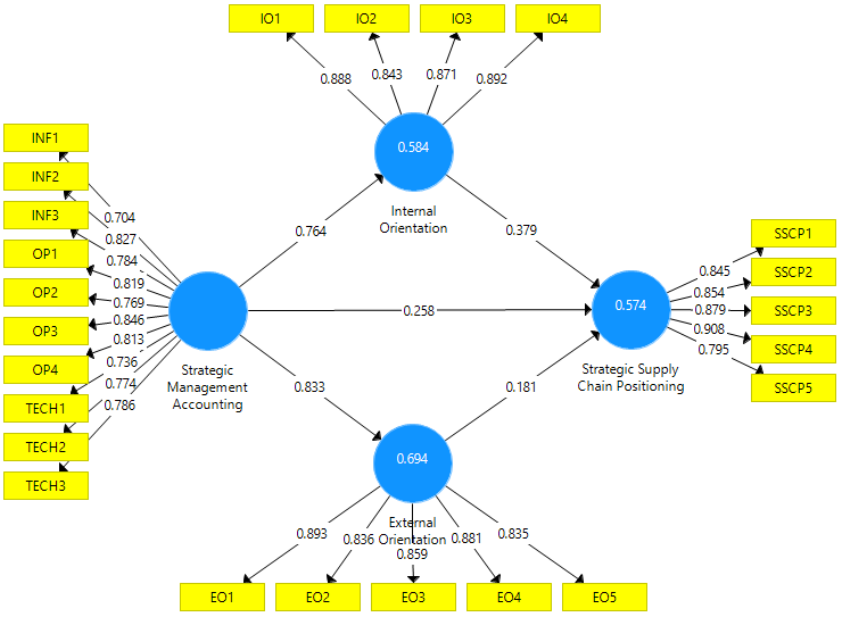


**Fig. 2.** Measurement Model
Source: Processed data (2023)

The next analysis test is the reliability test and the validity test. The reliability test is used to prove the accuracy, consistency and accuracy of the questionnaire which is an indicator of a variable or construct. Reliable or not the indicators of the variables used can be seen from the Cronbach's alpha value or the composite reliability value of the analysis results. Cronbach's alpha value measures the lower limit of the reliability value of a construct while composite reliability measures the actual value of the reliability of a construct. The rule of thumb used for the Cronbach's alpha value should be greater than 0.7 and the composite reliability value should also be greater than 0.7 (Ghozali, 2016). Chin (1998) also states that in order to achieve good reliability, Cronbach's alpha and composite reliability values should be greater than 0.7. Then, the validity test was used to measure the legitimacy or validity of the questionnaire used in the study. Validity tests are important to ensure that the research results obtained are valid. An acceptable validity test should have an average variance extract (AVE) value of more than 0.5 to achieve convergent validity (Hair et al., 2010).

**Table 2**
Reliability and Validity

| Variables | Cronbach's Alpha | rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|---|---|---|---|---|
| Strategic Management Accounting | 0.932 | 0.936 | 0.942 | 0.619 |
| Internal Orientation | 0.897 | 0.899 | 0.928 | 0.764 |
| External Orientation | 0.913 | 0.914 | 0.935 | 0.742 |
| Strategic Supply Chain Positioning | 0.909 | 0.911 | 0.933 | 0.735 |

The reliability and validity tests in this study as presented in table 2 above show that the independent variables, namely strategic management accounting which includes technology, information, and organizational policy, have a Cronbach's alpha value of 0.932, composite reliability of 0.942 and an average variance extracted value (AVE) of 0.619. Then the mediating variables, namely internal orientation and external orientation, obtained a Cronbach's alpha value of 0.897; 0.913, composite reliability of 0.928; 0.935 with an average variance extracted (AVE) value of 0.764; 0.742. Furthermore, on the dependent variable, strategic supply chain positioning obtained Cronbach's alpha value of 0.909, a composite reliability value of 0.933 and an average variance extracted (AVE) value of 0.735. All these variables can be said to be reliable and valid because the Cronbach's alpha value and the composite reliability value of each variable obtain a value of > 0.7 and the average variance extracted (AVE) value of each of these variables obtains a value of > 0.5. In testing the validity of the questionnaire, this study also conducted a discriminant validity test which aims to show that the instrument used can really distinguish between the constructs being measured and other irrelevant constructs. Discriminant validity can be said to be good if the roots of the AVE in the construct are higher than the construct's correlation with other latent variables (Kock & Lynn, 2012). The results of the discriminant validity test in this study are acceptable because the values obtained from all constructs are higher than the correlation of constructs with other latent variables. In more detail, the results of the discriminant validity test can be seen in Table 3.

**Table 3**
Discriminant Validity: Cross Loadings

| Variables/Items | | SMA | Internal | External | SSCP |
|---|---|---|---|---|---|
| Strategic Management Accounting (SMA) | TECH1 | 0.736 | 0.659 | 0.728 | 0.553 |
| | TECH2 | 0.774 | 0.702 | 0.765 | 0.666 |
| | TECH3 | 0.786 | 0.687 | 0.731 | 0.640 |
| | INF1 | 0.704 | 0.522 | 0.540 | 0.400 |
| | INF2 | 0.827 | 0.555 | 0.607 | 0.540 |
| | INF3 | 0.784 | 0.542 | 0.603 | 0.513 |
| | OP1 | 0.819 | 0.565 | 0.592 | 0.529 |
| | OP2 | 0.769 | 0.531 | 0.524 | 0.514 |
| | OP3 | 0.846 | 0.606 | 0.609 | 0.550 |
| | OP4 | 0.813 | 0.556 | 0.568 | 0.504 |
| Internal Orientation | IO1 | 0.699 | 0.888 | 0.783 | 0.653 |
| | IO2 | 0.645 | 0.843 | 0.678 | 0.622 |
| | IO3 | 0.627 | 0.871 | 0.575 | 0.575 |
| | IO4 | 0.695 | 0.892 | 0.588 | 0.636 |
| External Orientation | EO1 | 0.755 | 0.626 | 0.893 | 0.600 |
| | EO2 | 0.685 | 0.624 | 0.836 | 0.578 |
| | EO3 | 0.713 | 0.609 | 0.859 | 0.573 |
| | EO4 | 0.705 | 0.734 | 0.881 | 0.633 |
| | EO5 | 0.730 | 0.650 | 0.835 | 0.550 |
| Strategic Supply Chain Positioning (SSCP) | SSCP1 | 0.548 | 0.601 | 0.513 | 0.845 |
| | SSCP2 | 0.598 | 0.630 | 0.594 | 0.854 |
| | SSCP3 | 0.577 | 0.595 | 0.608 | 0.879 |
| | SSCP4 | 0.670 | 0.642 | 0.622 | 0.908 |
| | SSCP5 | 0.594 | 0.585 | 0.580 | 0.795 |

The next analysis test is the fit model test (Table 4). This test was conducted to ensure that the model used describes how fits the model used in the study. It is very important to test the model fit to ensure that the model used can explain the patterns in the data properly and is in accordance with the proposed hypothesis.

**Table 4**
Fit Summary

| Index | Saturated Model | Estimated Model |
|---|---|---|
| SRMR | 0.087 | 0.090 |
| d_ULS | 2.287 | 2.449 |
| d_G | 1.068 | 1.086 |
| Chi-Square | 1179.717 | 1193.219 |
| NFI | 0.744 | 0.741 |

In this fit summary model, in assessing the compatibility between the correlations/relationships of the variables in the study, it can be said to be suitable if the Standardized Root Mean Squared Residual (SRMR) value obtained is <0.10 (Hu & Bentler, 1999). Then, the closer the Normal Fit Index (NFI) value is to 1.0, the better or more appropriate the model used will be. In this study, the SRMR value obtained was <0.10 and the NFI value obtained was 0.744 (already close to 1.0). Thus, it means that the model used in conducting this research is good enough. Hypothesis testing is carried out by determining the T statistics and P values obtained from each hypothesis. The hypothesis can be accepted if the T statistics value obtained is greater than 1.96 and the P value obtained is less than 0.05.

**Table 5**
Hypothesis Testing

| Hypothesis | | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STDEV\|) | P Values |
|---|---|---|---|---|---|---|
| H1 | Strategic Management Accounting → Internal Orientation | 0.764 | 0.772 | 0.040 | 19.141 | 0.000 |
| H2 | Strategic Management Accounting → External Orientation | 0.833 | 0.837 | 0.029 | 29.167 | 0.000 |
| H3 | Strategic Management Accounting → Strategic Supply Chain Positioning | 0.258 | 0.262 | 0.123 | 2.093 | 0.038 |
| H4 | Internal Orientation → Strategic Supply Chain Positioning | 0.379 | 0.366 | 0.123 | 3.090 | 0.002 |
| H5 | External Orientation → Strategic Supply Chain Positioning | 0.181 | 0.193 | 0.130 | 1.401 | 0.163 |
| **R Square** | | | | | | |
| Strategic Supply Chain Positioning (R Square Adjusted) | | 0.674 | 0.667 | | | |

The results of the first hypothesis test in this study as shown in Table 5 which examine the effect of strategic management accounting on internal orientation. The results indicate that the effect of Strategic Management Accounting (SMA) on internal orientation is significant. The Original Sample (O) had a value of 0.764, suggesting a positive relationship between SMA and Internal Orientation. The T Statistics (|O/STDEV|) were found to be 19.141. Furthermore, the P Values were 0.000, indicating that the findings were statistically significant. This means that implementing SMA practices can have a significant impact on an organization's internal orientation. This means that the first hypothesis is accepted.
The testing of the second hypothesis revealed a significant effect of strategic management accounting in increasing external orientation, as indicated by the high Original Sample score of 0.833. This is further supported by the T Statistics value of 29.167. Additionally, the P Values of 0.000 suggest high statistical significance, indicating significant effect of strategic management accounting in increasing external orientation. This means that the implementation of Strategic Management Accounting can lead to a significant increase in external orientation, which can ultimately benefit the organization. Thus, the second hypothesis is accepted.

The third hypothesis is to examine the effect of Strategic Management Accounting on Strategic Supply Chain Positioning. The results indicate that there is a significant effect of Strategic Management Accounting on Strategic Supply Chain Positioning. The original sample (O) has a value of 0.258, which suggests a positive relationship between Strategic Management Accounting practices and Strategic Supply Chain Positioning. The t-statistics value (|O/STDEV|) is 2.093, which is greater than the critical value of 1.96 at a 95% confidence level. This suggests that the results are statistically significant. The p-value is 0.038, which is less than the significance level of 0.05. This indicates that there is a significant effect of Strategic Management Accounting on Strategic Supply Chain Positioning. Thus, the third hypothesis is accepted.
The third hypothesis is to examine the effect of Internal orientation on Strategic Supply Chain Positioning. The significant results suggest that there is a positive effect of internal orientation on strategic supply chain positioning. The original sample showed a coefficient of 0.379, with the T statistics of 0.123, and the p-value of 0.002 < 0.05. Therefore, based on these significant results, it can be inferred that internal orientation plays a crucial role in determining strategic supply chain positioning. This finding highlights the importance of companies embracing an internal orientation mindset to optimize their supply chain strategy and performance. Therefore, the fourth hypothesis is accepted.

In testing the fifth hypothesis, the results suggest that there is no significant effect of External Orientation on Strategic Supply Chain Positioning, as indicated by an Original Sample (O) of 0.379. The T Statistics (|O/STDEV|) is 1.401, which is relatively low and further indicates that the effect is not significant. The P Value of 0.163 also suggests that the results are not statistically significant. Overall, the results suggest that External Orientation does not have a significant impact on Strategic Supply Chain Positioning. Thus, the fifth hypothesis is rejected.

Table 5 also shows the R-square value of 0.674, which means that from the model used in this study, the independent variable, namely strategic management accounting, is 67.4% able to explain the strategic supply chain positioning variable.

**Table 6**
Indirect Effects

| | | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STDEV\|) | P Values |
|---|---|---|---|---|---|---|
| H6 | Strategic Management Accounting → Internal Orientation → Strategic Supply Chain Positioning | 0.290 | 0.282 | 0.095 | 3.060 | 0.003 |
| H7 | Strategic Management Accounting → External Orientation → Strategic Supply Chain Positioning | 0.151 | 0.162 | 0.109 | 1.382 | 0.169 |

The hypothesis testing of mediating variables in this study which states that the internal orientation can be used as mediating factors for the relationship between strategic management accounting and strategic supply chain positioning obtained a T statistics value of 3.060 (> 1.96) and a P value of 0.003 (< 0.05) (Table 6). Thus, it can be concluded that the sixth hypothesis in this study is accepted. It can be said that the internal orientation variable can be used as a mediating factor in the relationship between strategic management accounting and strategic supply chain positioning. However, the results of the effect of the mediating factor of External Orientation showed that there are insignificant results, indicated by T statistics value of 1.382 (< 1.96) and a P value of 0.169 (> 0.05). This finding highlights that external orientation is not a mediating variable in for the relationship between strategic management accounting and strategic supply chain positioning. Therefore, the seventh hypothesis is rejected. The results generally provide empirical evidence that organizations that are more internally oriented are more likely to receive positive feedback from strategic management accounting practices, which helps improve their strategic supply chain positioning.The results of this hypothesis test are in line with previous research conducted by Kirli & Gümüş (2011); Doktoralina & Apollo (2019) which states that strategic management accounting in this case is technology, information and organizational policy have a significant influence on strategic supply chain positioning. The results of this study also support Oboh & Ajibolade's (2017) research which states internal orientation and external orientation variables can be used as appropriate intermediary variables to link strategic management accounting variables with strategic supply chain positioning. Thus, to achieve a good strategic supply chain positioning, the organization should pay attention to strategic management accounting factors, in this case technology, information and appropriate organizational policies. In addition, the organization should also strengthen internal and external orientations to mediate the relationship between strategic management accounting and strategic supply chain positioning.

## 5. Conclusion

The results showed that optimizing strategic supply chain positioning can improve the effectiveness in managing organizational resources by using strategic management accounting. In this context, the use of information technology to speed up the audit process and increase accuracy in conducting audits. More specifically, the findings showed that there is a significant influence between strategic management accounting on strategic supply chain positioning, and this is mediated by internal orientation. In addition, internal orientation had been shown to play an important role as mediators between strategic management accounting and strategic supply chain positioning. This means that more oriented organization to internal process and environment is more likely able to improve strategic supply chain positioning. Overall, this study theoretically contributes to providing empirical evidence that strategic management accounting plays a role in influencing strategic supply chain positioning in public sector auditing.

Although the findings presented in this study theoretically contribute to explaining empirical evidence regarding the effect of strategic supply chain positioning in strategic management accounting activities in public sector accounting and auditing practices, there are some limitations regarding the lack of theoretical conception of strategic positioning in public sector accounting practices. This limits the ability to develop robust analysis regarding the role of strategic positioning accounting practices in public sector settings. Moreover, the measurement in this study has limited precedence in identifying key variables that influence the development and implementation of effective accounting strategies in strategic positioning in the public sector auditing context. These limitations suggest future research to explore the factors that influence strategic positioning in public sector accounting practices. Future research was also suggested to identify the conformity between strategic positioning in public sector auditing practices and planned performance, organizational goals, and outcomes.

## References

Alamri, A. M. (2019). Association between strategic management accounting facets and organizational performance. *Baltic Journal of Management*, *14*(2), 212-234.

Ali, M. H., Abd, M., Abdulnabi, S. M., Basheer, Z. M., Wafqan, H. M., Al_Lami, G. K., ... & Mohammad, T. A. (2022). Mediating Impact of Strategic supply chain positioning Capabilities among the Relationship of Digital Innovation, Technology Innovation and Corporate Sustainable Performance of Manufacturing Firms in Iraq. *International Journal of Operations and Quantitative Management*, *28*(1), 316-334.

Ballou, B., Earley, C. E., & Rich, J. S. (2004). The impact of strategic-positioning information on auditor judgments about business-process performance. *Auditing: A Journal of Practice & Theory*, *23*(2), 71-88.

Chew, C., & Osborne, S. P. (2009). Exploring strategic positioning in the UK charitable sector: emerging evidence from charitable organizations that provide public services. *British Journal of Management*, *20*(1), 90-105.

Chin, W. W. (1998). The Partial Least Squares Aproach to Structural Equation Modeling. *Modern Methods for Business Research, 295*, 336.

Cinquini, L., & Tenucci, A. (2010). Strategic management accounting and business strategy: a loose coupling?. *Journal of Accounting & organizational change*, *6*(2), 228-259.

Comrey, A., & Lee, H. (1992). A First Course in Factor Analysis (2nd edn.) Lawrence Earlbaum Associates. Publishers: Hillsdale, New Jersey

Cox, A. (1999). Power, value and strategic supply chain positioning. *Strategic supply chain positioning: An international journal*, *4*(4), 167-175.

Doktoralina, C., & Apollo, A. (2019). The contribution of strategic management accounting in supply chain outcomes and logistic firm profitability. *Uncertain Strategic supply chain positioning*, *7*(2), 145-156.

Ghozali, I. (2016) *Aplikasi Analisis Multivariete Dengan Program IBM SPSS 23*. Semarang: Badan Penerbit Universitas Diponegoro.

Gunasekaran, A., Patel, C., & McGaughey, R. E. (2004). A framework for supply chain performance measurement. *International journal of production economics*, *87*(3), 333-347.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. (2010). *Multivariate Data Analysis (ed.)*. New Jersey: Pearson Prentice Hall.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, *6*(1), 1-55.

Johnstone, K. M., & Bedard, J. C. (2004). Audit firm portfolio management decisions. *Journal of Accounting Research*, *42*(4), 659-690.

Kirli, M., & Gümüş, H. (2011). The implementation of strategic management accounting based on value chain analysis: value chain accounting. *International Journal of social sciences and humanity studies*, *3*(1), 307-321.

Kochetova-Kozloski, N., & Messier Jr, W. F. (2011). Strategic analysis and auditor risk judgments. *Auditing: A Journal of Practice & Theory*, *30*(4), 149-171.

Kock, N., & Lynn, G. (2012). Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations. *Journal of the Association for information Systems*, *13*(7).

Kushwaha, G. S. (2012). Operational Performance through Strategic supply chain positioning Practices. *International Journal of Business and Social Science*, *3*(2).

Lavastre, O., Gunasekaran, A., & Spalanzani, A. (2012). Supply chain risk management in French companies. *Decision Support Systems*, *52*(4), 828-838.

Li, S., Ragu-Nathan, B., Ragu-Nathan, T. S., & Rao, S. S. (2006). The impact of strategic supply chain positioning practices on competitive advantage and organizational performance. *Omega*, *34*(2), 107-124.

Lord, B. R. (2007). *Strategic management accounting*. London: Prentice Hall.

Maes, J., & Sels, L. (2014). SMEs' radical product innovation: The role of internally and externally oriented knowledge capabilities. *Journal of Small Business Management*, *52*(1), 141-163.

Manyaeva, V. A., Piskunov, V. A., & Fomin, V. P. (2016). Strategic management accounting of company costs. *International Review of Management and Marketing*, *6*(5), 255-264.

McCracken, S., Salterio, S. E., & Gibbins, M. (2008). Auditor–client management relationships and roles in negotiating financial reporting. *Accounting, organizations and society*, *33*(4-5), 362-383.

Naim, A. B., Wibawa, A. S., Yude, A. K., Akbar, B. K., Rahmadani, V. S., Shihab, M. R., & Ranti, B. (2022). Changes in IT governance and its impact on organizational business process: Case study at Supreme Audit Institution . *Procedia Computer Science*, *197*, 734-742.

Nik Abdullah, N. H., Krishnan, S., Mohd Zakaria, A. A., & Morris, G. (2022). Strategic management accounting practices in business: A systematic review of the literature and future research directions. *Cogent Business & Management*, *9*(1), 2093488.

Nixon, B., & Burns, J. (2012). The paradox of strategic management accounting. *Management Accounting Research*, *23*(4), 229-244.

Oboh, C. S., & Ajibolade, S. O. (2017). Strategic management accounting and decision making: A survey of the Nigerian Banks. *Future Business Journal*, *3*(2), 119-137.

Santos, I. M. D., Mota, C. M. D. M., & Alencar, L. H. (2021). The strategic alignment between supply chain process management maturity model and competitive strategy. *Business Process Management Journal*, *27*(3), 742-778.

Shah, H., Malik, A., & Malik, M. S. (2011). Strategic management accounting—A messiah for management accounting. *Australian Journal of Business and Management Research*, *1*(4), 1-7.

Suzan, L., Mulyani, S., Sukmadilaga, C., & Farida, I. (2019). Empirical testing of the implementation of strategic supply chain positioning and successful supporting factors of management accounting information systems. *International Journal of Supply Chain Management*, *8*, 629.

Thomas, D. J., & Griffin, P. M. (1996). Coordinated strategic supply chain positioning. *European journal of operational research*, *94*(1), 1-15.

Tichy, N. M., Fombrun, C. J., & Devanna, M. A. (1982). Strategic Human Resource Management. *Sloan Management Review*, *23*(2), 47.