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The Influence of Balanced Scorecard on Management Accounting Performance in Malaysia during the Covid-19 Pandemic

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Abstract: Strategic planning, using the balanced scorecard, plays an important role in management accounting performance; however, studies in this area are limited, especially in Malaysia. As such, the goal of this study was to examine the impact of the four main perspectives of the balanced scorecard financial perspective, customer perspective, internal business perspective, and the learning and growth perspective on management accounting performance in Malaysian organizations. This study aimed to contribute to existing knowledge on the possible influence of the four perspectives of the balanced scorecard on organizations in Malaysia with the hope that implementing policies would facilitate the application of the balanced scorecard in Malaysian organizations. The research methodology employed in this study was a deductive approach. The study was an explanatory, mono-method quantitative design using questionnaires distributed online to senior managers in Selangor, Malaysia. The research strategy applied was the survey method using a cross-sectional study. A total of 195 respondents answered the online questionnaire. Data analysis was done using the Statistical Package for Social Sciences (SPSS) software. The application of the SPSS software was necessary for testing the data reliability, conducting linearity, correlation, and multiple regression test in examining the relationships between the independent variables and dependent variables. The study results revealed that the customer, internal, learning, and growth perspectives had significant positive relationships with management accounting performance. The scientific novelty of the study was the test results on the financial perspective that refutes the results of past studies. The study provides implications of the research findings.

Keywords: management accounting performance, financial perspective, customer perspective, internal business perspective, learning and growth perspective.

新冠肺炎大流行期間平衡計分卡對馬來西亞管理會計績效的影響

摘要：使用平衡計分卡的戰略規劃在管理會計績效中起著重要作用；然而，這方面的研究是有限的，尤其是在馬來西亞。因此，本研究的目的是檢驗平衡計分卡財務視角、客戶視角、內部業務視角以及學習和成長視角這四個主要視角對馬來西亞組織管理會計績效的影響。本研究旨在就平衡計分卡的四個觀點對馬來西亞組織的可能影響的現有知識做出貢獻，希望實施政策將促進平衡計分卡在馬來西亞組織中的應用。本研究採用的研究方法是演繹法。該研究是一項解釋性的、單一方法的定量設計，使用在線分發給馬來西亞雪蘭莪州高級管理人員的問卷。所應用的研究策略是使用橫斷面研究的調查方法。共有一百九十五名受訪者回答了在線問卷。使用社會科學統計軟件包軟件進行數據分析。使用社會科學統計軟件包軟件的應用對於檢驗數據的可靠性，進行線性、相關性和多元回歸檢驗是檢驗自變量與因變量之間的關係所必需的。研究結果表明，客戶、內部、學習和成長視角與管理會計績效顯著正相關。該研究的科學新穎之處在於金融角度的測試結果反駁了過去的研究結果。該研究提供了研究結果的含義。

关键词：管理會計績效、財務視角、客戶視角、內部業務視角、學習成長視角。

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1. Introduction

Management accounting plays a significant role in influencing the decision-making process in many organizations today. Organizations have made use of financial and non-financial data using both traditional and contemporary management accounting techniques in assessing their business operations, subsequently in planning, directing, controlling, and making decisions that will affect their business performance [1]. Furthermore, the application of management accounting has allowed organizations to reduce the possible risks and uncertainty of current and future organizational activities [2]. According to [3], skilled accountants have played an important role in organizations by analyzing value-added and non-value-added activities to enhance management accounting performance. Recently, the globalization of the world economy was affected by the Covid-19 pandemic, which led to the fall in consumer demand, reduction in income, rise in unemployment, and disruption in transportation and services [4], [5]. Businesses must focus on management accounting performance, notably long-term performance and business sustainability [6]. Management accounting performance is important as it ensures business growth, the sustainability of the businesses, and better opportunities in competing in the global market [7]. In order for organizations to develop and grow, management accounting performance is essential [8]. Management accounting performance is crucial for better resource allocation, time management, environmental considerations, or even disclosure of activity [9]. According to the research by [10], a good management accounting performance allows organizations to control organizational operations better and increase competitive advantages. In Ghana, for example, stated that in 2013, the Association of Ghana Industries (AGI) found that most of the manufacturing firms in Ghana had poor performance in terms of competition and technological advancement [10]. The manufacturing sector even achieved a -8% growth rate in 2015. However, the study found that organizational performances improved when AGI recognized and valued the importance of management accounting performance. 62.3% of the 200-targeted firms in Ghana affirmed that improvements in organizational development came from enhanced management accounting performance. In Malaysia, the enhancement of management accounting performances was seen in the public sector regarding the provision of services, social functions, and public amenities [11]. Management accounting performance works to determine the organizational structure, then assign responsibility to each appropriate division or department and use a system to measure the performance [12]. Management accounting performance aims to increase organizational sustainability and create opportunities for businesses [13]. The "Performance" in management accounting

performance indicates the outcome of an organization's strategic planning by using various management accounting techniques [14], [15]. One of the tools used that affects management accounting performance is the balanced scorecard, a "means of measuring organizational performance along with various dimensions so that an organization is implementing its strategic intent" [15].

1.1. Balanced Scorecard

Past studies have examined the role of the balanced scorecard and its effect on organizational performance and organizational sustainability [16], [17], [18]. However, there is still a lack of studies on the influence of the four main perspectives (financial perspective, customer perspective, internal business perspective, and learning and growth perspective) of the balanced scorecard on organizational management accounting performance [19]. The Covid-19 pandemic crippled many businesses and national economies [20]. According to [21], the Covid-19 pandemic has also severely stricken the organizational financial performance of Malaysian businesses. For instance, issues of cash flow and working capital constriction, deferred payment to staffs' salaries and creditors, and breach of contract with banks due to the Covid-19 pandemic have severely affected the financial performances of businesses. Additionally, the pandemic also caused the global organizations' bankruptcy rate to increase to a staggering number, with the United States of America (USA) having almost 630 companies bankrupt in the year 2020 [22]. According to [23], the capital of Malaysia, Kuala Lumpur, has had 2,713 SMEs closed down. Besides, [23] stated that almost 80% of SMEs struggle with cash flow issues due to the Covid-19 pandemic. The severity of these issues and the ability to control or avoid them could be related to the level of management accounting performance in businesses today [24]. As of 2016, Malaysia's net foreign direct investment (FDI) rapidly decreased from RM 47 billion to RM 33 billion. This situation indicates that the Malaysian economy could be slowing down, and businesses are apprehensive to invest and may not be willing to suffer from risks [25].

Moreover, the current issue of investment growth in Malaysia from 2016 until 2019 highlights the importance of focusing on the financial perspective for strategic planning. An organization's poor financial performance reflects the future survivability and sustainability of any organization [26]. The financial perspective in the balanced scorecard, which represents the organizational financial performance, plays an important role in management accounting performance [27]. Therefore, this study will examine the financial perspective of a balanced scorecard and its influence on management accounting performance in Malaysian organizations.

Besides, this study also focused on the importance

of the customer perspective towards management accounting performance. The lack of support from customers can be detrimental to a business [28]. The study of consumer behavior, satisfaction level, and experiences are the important elements influencing management accounting performance. According to the findings of the Malaysian Communications and Multimedia Commission (MCMC) [29] (MCMC, 2018), about 16.6 million (51.2%) of the population in the year 2018 preferred to shop online. Additionally, the Covid-19 pandemic further brought 73% of the Malaysian population to shop online [30]. Due to bottlenecks caused by the external environment, most companies in Malaysia have only begun to develop their online business. The difficulties and problems of “just begun” may directly increase the dissatisfaction level from customers, for example, shortages of the products, failure in advertising, or lack communication with customers [31].

Moreover, the consideration of the customers' disposable income or purchase ability is necessary for any organization. In the year 2019, the Central Bank of Malaysia (Bank Negara Malaysia publish) reported that the Malaysia household debt to Gross Domestic Product (GDP) was 82.7% [32]. However, with the Covid-19 pandemic, many Malaysians are cautious with their spending [33]. Thus, the customer perspective from the balanced scorecard is important to management accounting performance, as it will affect its financial position and business reputation.

The internal business perspective, which represents the organizational operations, may affect the performance of management accounting as well [34]. Businesses that do not have clear internal business strategies will negatively affect their management accounting performance [35], [36]. In October 2018, the Industry Revolution 4.0 (IR4.0) launch in Malaysia emphasized boosting productivity growth and meeting customer demand on time. However, statistics found by [37] revealed that only 30% of the entire Malaysian manufacturing sector had applied the concept of IR4.0 in their businesses. Global technology has become more complex and advanced with the use of robotics, and consumer needs and knowledge are changing. Products quantity and quality should have to improve to fulfill the needs and perception of customers to ensure organizational sustainability and profitability. Therefore, this study will examine the influence of the internal business perspective from the balanced scorecard on the management accounting performance.

Part of organizational development has employees who are well-trained and equipped with the knowledge of running the business's day-to-day activities. As such, an organization has to ensure that the learning and growth of all its members meet the standards set by the organization and by various governing bodies [38]. According to [39], the manufacturing sector in Malaysia strongly relies on foreign workers due to its

lower labor costs. However, this can be a serious phenomenon because the foreign workers employed by the organization may be semi-skilled or unskilled. The manufacturing industry is facing challenges in adopting new technology in terms of efficiency and productivity. These semi-skilled or unskilled employees that fail to operate the advanced technology may affect organizational development [40]. Hence, management accounting performance can be a result of the productivity of employees itself. Additionally, [41] stated that internal auditors in Malaysia's public sector are insufficiently skilled in running their activities and responsibilities. Due to the inefficiency of audit activities, the organization will fall into serious risks. Therefore, this study will be examining the learning and growth perspective from the balanced scorecard in influencing the management accounting performance towards the organization's efficiency.

This research aims to study the possible relationships between the four perspectives of the balanced scorecard; financial perspective, customer perspective, internal business perspective, and learning and growth perspective with the management accounting performance in Malaysian businesses. This research would contribute to existing knowledge, especially since scarce research is available in this area [19]. In addition, this study would create awareness and promote the benefits of implementing the balanced scorecard to organizations in enhancing management accounting performance in Malaysia.

2. Literature Review

2.1. Financial Perspective

The financial perspective in the balanced scorecard is defined as a tool used to measure the organization's strategy in elevating its profitability, shareholders' value, and business growth [42]. According to the study by [18], the financial perspective from the balanced scorecard has a strong relationship with the management accounting performance, in which the financial perspective can enhance the managerial decisions to achieve the organizational financial goals. The author [18] found that Vietnamese commercial banks that applied the balanced scorecard's financial perspective could generate economic growth in shareholder value. The financial measures set was used to analyze the bank's important financial indicators such as loans, bad debt, and tax for better management accounting performance in monetary measures and value creation concepts. Moreover, [43] study revealed that the financial perspective had a significant impact on management accounting performance for insurance companies to achieve their missions and objectives. The financial perspective allowed insurance companies to make proper risk assessments in investments and create the organization's financial policies.

According to the study by [44], the financial

perspective provided financial information in terms of historical data, long-term and short-term information for the management accountant to determine the organizational growth. Such financial information is extremely important in increasing accountants' analysis to estimate future corporate events and financial performance. Moreover, the research results have determined that the financial perspective from the balanced scorecard has a strong positive relationship with managerial accounting data analytics (MADA). Hence, MADA is a technique assisting the organization in performance measurement and decision-making, such as cost reduction and cost allocation [45]. Therefore, MADA strengthens the management accounting performance.

A study conducted in the United Kingdom has determined that the financial perspective from the balanced scorecard is also significant to the public sector, although the main goal of the public sector is not to maximize profits but to provide better public services [46]. The financial perspective does, however, help to strengthen the management accounting performance framework to achieve outstanding performance in public sector activities. For example, solving the finance issue by continually improves their performance [47]. Hence, from this literature review, we proposed that:

H1: There is a significant positive relationship between the balanced scorecard's financial perspective and management accounting performance in Malaysia.

2.2. Customer Perspective

According to [48], customer perspective is defined as the measurement specifically targeted for customers in terms of satisfaction, value, or customers' demands. Customer perspective in the balanced scorecard has improved management accounting performance in terms of total quality management (TQM) [49]. A study by [50] demonstrated that, by understanding customers' needs and satisfaction through the customer perspective, TQM could assist the management accountant to perform continuous improvement activities. For example, concentration on customer needs to achieve their satisfaction in a long-term manner. Besides, the study [51] in Iran has recognized that water and wastewater organizations focus on customer expectations and service quality. Both studies above realized that customers played an extremely important role in affecting organizational sustainability and profitability, and customers are the organizational revenue controllers [50], [51].

The study by [52] determined that the customer's perspective significantly improves the management accounting performance of supply chain integration (SCI). The SCI tries to link every individual who associates with the organization's work to achieve the same goals. For instance, eliminate possible barriers in communications. The study had certified that the

banking sector used "customer perspective" as a tool to measure customers' satisfaction, sort out needs and requirements information, and focus on customer feedback. Hence, such information communicated to the related department will lead to better decisions and improvements [52]. Besides, [53] research found that neglecting customers' perspectives would negatively affect the profitability and organization performance, subsequently affecting management accounting performance. The study compared European airline organizations with other countries such as China in the "customer perspective" area. The study found that European organizations are underestimating the importance of "customer" in terms of satisfaction and feedbacks. The researchers also tested and recommended that organizations should focus on the "customer perspective" so that the organization can survive in a highly competitive market. Lastly, a study by [54] that investigated 22 hospitals in Iran found that hospitals that applied the customer perspective from the balanced scorecard in collecting customers' satisfaction levels, evaluate customers' opinions, and prepare the facilities for visitors or families experienced an improvement in management accounting performance. Hence, from this literature review, we proposed that:

H2: There is a significant positive relationship between the balanced scorecard's customer perspective and management accounting performance in Malaysia.

2.3. Internal Business Perspective

The Internal business perspective is the measurement and identification of organizational business processes and internal structure to ensure that the business meets and exceeds the expectations of shareholders and customers [55]. A study [56] on a university's internal business perspective from a balanced scorecard showed that it assisted the organization in measuring the internal operations and allowed the organization to provide a recommendation to the management accounting department to make appropriate decisions for the specific enhancements needed. Another study conducted in Nigeria's manufacturing organizations found that the internal business perspective improved the financial success and satisfied the customers better through their management controls [57]. Through the guidance from the internal business perspective, most manufacturing organizations are strict on internal operations to ensure efficiency from productivity and maintain satisfactory outcomes.

According to [58] study, the internal business perspective from the balanced scorecard has significantly helped the management set better operational strategies for organizational sustainability. The study found that the management applied the internal business perspective in information technology (IT)-based to enhance IT services ability, business

continuity, and IT improvement. For example, the study found that the organizations that maintain the IT infrastructure ran the business processes non-stop. Besides, a study by [59] in Indonesia found that the internal business perspective of the balanced scorecard improved management accounting performance, as it was able to discover the weaknesses of the internal operations on the audit performance of local governments. This perspective assisted the organizations in developing new processes for a better community performance, yet it also pointed to the internal inability of the audit performance. For example, there was a lack of precise guidance for audit objects and limitations on human resources. Lastly, the measurement from the internal business perspective in the balanced scorecard allowed Safeway Incorporation in the USA to improve its management performance and empower its employees [60]. Management can determine the ability of the organization to meet the demands and requirements of the market, its manufacturing capacities, and operational management. Hence, from this literature review, we proposed that:

H3: There is a significant positive relationship between the balanced scorecard's internal business perspective and management accounting performance in Malaysia.

2.4. Learning and Growth Perspective

The learning and growth perspective in the balanced scorecard measures employees' skills and satisfaction levels to enhance overall management performance. Employee enhancements can be in the form of appropriate training, which must align with the organization's goals [61]. In Assalaam Islamic Modern Boarding School Surakarta (AIMBSS), in Java Indonesia, the learning and growth perspective from the balanced scorecard measured three significant elements: retention, satisfaction, and productivity of employees, which subsequently affected the management accounting performance [62]. Furthermore, the study results allowed management to allocate reasonable costs for employees to motivate employees (teachers). Moreover, the study [63] also found a similar result that the learning and growth perspective affected the organization's performance. The authors found that organizations' management in Maros Regency (Indonesia) applied the learning and growth perspective to motivate, measure employee performance and development, and enhance the working environment, and it affected the employee and management accounting performance.

According to another study from [64] on microenterprises, small enterprises, and medium enterprises, it was found that the learning and growth of their employees positively enhanced management accounting performance. The learning and growth perspective improves the organizations' culture, which effectively improves the company's overall

performance. Besides that, the study from [65] showed that the implementation of the learning and growth perspective in organizations could estimate the company's ability in terms of innovation, improvement, and learning. The perspective aided the management department in allocating costs for developing new goods and services and introducing new technologies. Furthermore, [66] study on applying the learning and growth perspective from the balanced scorecard on commercial banks in India revealed that employees' learning and growth perspective was extremely important for organizational performance. The learning and growth perspective was significant in helping the management in recruitment, training, and identifying each employee's ability [66]. Hence, from this literature review, we proposed that:

H4: There is a significant positive relationship between the balanced scorecard's learning and growth perspective and management accounting performance in Malaysia.

Figure 1 shows the conceptual framework based on the literature review.

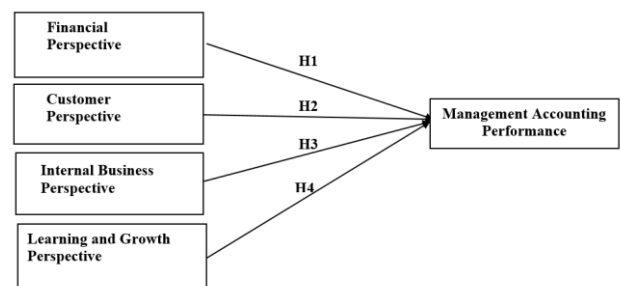


Fig. 1 The conceptual framework

3. Research Method

3.1. Sample

This research employed a deductive approach using a quantitative method. Data was collected from 195 senior managers currently using the balanced scorecard in their organization in Selangor, Malaysia. Selangor, Malaysia, was chosen as it has the highest gross domestic product (GDP), foreign and direct investment in Malaysia [67]. Questionnaires were distributed online, and the sample was collected using the non-probability sampling method, the purposive sampling technique [67].

3.2. Questionnaire Design

The questionnaire's first section required respondents to provide their demographic profile of gender, age, race, highest education qualification, and monthly income. The second section asks respondents to answer questions related to the variables in this study. A five-item scale was used to measure management accounting performance adapted from [68]. A five-item scale was also used to measure the four main perspectives of the balanced scorecard

(financial perspective, customer perspective, internal business perspective, and the learning and growth perspective). The scale for financial and customer perspective was adapted from [68], the internal business perspective was adapted from [69], while the learning and growth perspective was adapted from [70]. Each of the variables in this study was measured using a 5 point Likert scale ranging from (1) "strongly disagree" to (5) "strongly agree."

3.3. Data Analysis

The analysis of data was done using Statistical Package for Social Sciences (SPSS) software. The result of the overall reliability test of the study was 0.927, which is above 0.70. The reliability test for each variable was also above 0.70 (0.722 for financial perspective, 0.741 for customer perspective, 0.728 for internal business perspective, and 0.711 for learning and growth). In addition, the normality test was done through the Z-score calculation in which the Z-score value of 1.1322 was within $-3.29 < Z < 3.29$ [70]. The curve graph from the histogram of this study based on the data collected was normal. Moreover, a linearity test was conducted to determine the linearity of the relationships between the independent variable and the dependent variable using a scatter plot graph. The randomized pattern of the scatter plot indicated that the linearity assumption was met [71].

3.4. Demographics of Respondents

The respondents comprised 51 percent female and 49 percent male. In terms of race, about 61 percent of the respondents were Chinese, 22 percent were Indians, and 17 percent were Malays. Age-wise, 31 percent of the respondents were between the age group of 36 to 45 years old, followed by 28 percent were between the age group of 46 to 55 years old, and 23 percent were between the age group of 26 to 35 years old. Almost 60 percent of the respondents had a bachelor's degree as their highest qualification. Income-wise, 39 percent earned a monthly income above RM5,000 while 35 percent earned a monthly income between RM4,001 to RM5,000. Table 1 shows the respondents' demographic profiles.

Table 1 Respondents' demographic profile

Demographic features		Frequency	Percentage
Gender	Male	96	49
	Female	99	51
Race	Malay	34	17
	Chinese	119	61
	Indian	42	22
Age	< 25 years old	13	7
	26 - 35 years old	45	23
	36 - 45 years old	61	31
	46 - 55 years old	55	28
	> 55 years old	21	11
Highest Education level	Diploma/ A levels	20	10
	Bachelor's Degree	115	59
	Masters	43	22
	Others	17	9

Income level	< RM3,000	18	9
	RM3,001 – RM4,000	34	17
	RM4,001 – RM5,000	67	35
	> RM5,000	76	39

4. Result and Discussion

4.1. Pearson Correlation

The Pearson correlation coefficient was conducted to test if there was a correlation between each of the independent variables, which are the four main perspectives of the balanced scorecard (financial perspective, customer perspective, internal business perspective, and the learning and growth perspective) with the dependent variable management accounting performance. The results indicate that the financial perspective is 0.427, the customer perspective is 0.516, the internal business perspective is 0.511, and the learning and growth perspective is 0.623. The results indicated a moderate positive correlation between financial perspective, customer perspective, internal business perspective, and the learning and growth perspective with management accounting performance. Please refer to Table 2 for the results of the Pearson Correlation test.

Table 2 Results of the Pearson correlation test

		Management Accounting Performance	Financial Perspective	Customer Perspective	Internal Business Perspective	Learning and Growth Perspective
Management Accounting Performance	Pearson Correlation	1	.427	.516	.511	.623
	Sig. (2 tailed)					
	N	195	195	195	195	195

4.2. Multiple Regression Analysis

Multiple regression analysis examines the regression coefficients for each independent variable and dependent variable. Durbin-Watson in this research is 1.966, which is within the required range of 1 to 3 [71]. The result of Durbin-Watson indicates that there is no autocorrelation among residuals (homoscedasticity). This means the data collected in this study shows that there is no inter-item correlation. Besides that, the result of R Square is 0.431 or 43.1%, indicating that the total independent variables explain 43.1% of the total variance in the dependent variable. Table 3 shows the model summary.

Table 3 Model summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimation	Durbin Watson
1	.657a	.431	.419	.31154	1.966

ANOVA analysis covers the sum of squares, df, mean square, F, and significant values. The ANOVA model focuses on the significant value to determine if the model was suitable and fit for further analysis [71]. According to ANOVA analysis, the model is

statistically significant as it achieves a p-value of 0.000, indicating a significant relationship between a dependent variable and independent variables. As such, the model is considered fit for further analysis. The F

value of 36.010 indicates that the conceptual model is strongly significant, and the variation is not accounted for by possibility. Table 4 shows the analysis of variance (ANOVA) in this study.

Table 4 Analysis of variance (ANOVA) in this study

ANOVA						
Model		Sum of Squares	DF	Mean Square	F	Significance
1	Regression	13.980	4	3.495	36.01	.000b
	Residual	18.441	190	.097		
	Total	32.421	194			

According to the coefficients in table 5, the significant value for customer perspective, internal business perspective, and learning and growth perspective are lower than 0.05, which indicates that H2, H3, and H4 are accepted. However, the financial perspective is 0.953, greater than 0.05; thus, hypothesis H1 was rejected. Furthermore, the highest B value obtained in this study belongs to the learning and growth perspective, which is 0.403. This means that the learning and growth perspective is the independent variable that is the most crucial factor in this study affecting management accounting performance. Additionally, all of the independent variables have a positive B value, which means that management accounting performances will also increase when these independent variables increase. Lastly was the analysis of collinearity statistics. When the tolerance value is lower or equal to 10, the determination of the multicollinearity problem can proceed.

A VIF value equal to 1 indicates no correlation, 1 to 5 indicates a moderate correlation, and greater than 5 indicates a high correlation. In this study, the VIF value for all independent variables was moderately correlated. Therefore, the result shows that no multicollinearity problem exists [71]. Table 5 represents the results of the coefficients, while Table 6 shows the summary of the hypotheses results.

Table 5 Results of the coefficients

Coefficients							
Model	Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant	1.309	.260		5.042	.000		
Financial Perspective	.004	.063	.004	.059	.953	.564	1.772
Customer Perspective	.170	.070	.181	2.423	.016	.537	1.862
Internal Business Perspective	.157	.069	.167	2.276	.024	.559	1.788
Learning and Growth	.372	.075	.403	4.943	.000	.451	2.218

Table 6 Summary of the hypotheses result

		Significance	Results	Gradient (Beta, β)
H1	There is a significant positive relationship between the balanced scorecard's financial perspective and management accounting performance in Malaysia.	.953	Rejected	.004
H2	There is a significant	.016	Accepted	.181

	positive relationship between the balanced scorecard's customer perspective and management accounting performance in Malaysia.			
H3	There is a significant positive relationship between Malaysia's balanced scorecard's internal business and management accounting performance.	.024	Accepted	.167
H4	There is a significant positive relationship between the balanced scorecard's learning and growth and management accounting performance in Malaysia	.000	Accepted	.403

5. Conclusion

As shown in Table 5 and 6, the results of this study have shown that customer perspective has a significant positive association with management accounting performance in Malaysian similar to past studies [51], [52], [53], [54]. Likewise, similar to past research, the internal business perspective also has a significant positive association with management accounting performance in Malaysian [56], [57], [58], [59], [60]. Lastly, the learning and growth perspective also has a significant positive association with management accounting performance as supported by past research [62], [63], [64], [65], [66].

The findings of this study have theoretical implications to the research results in providing enrichment to empirical studies which can be used in conducting research related to the influence of these variables in management accounting performance to businesses, especially in Malaysia as studies in this area are limited [19], [72]. Subsequently, the results of this study have practical implications as they will be used in assisting in policy-making towards the setting of policies that serve to promote the balanced scorecard implementation towards the enhancement of management accounting performance. The implementation of the balanced scorecard to enhance management accounting performance must be embraced by organizations as they make strategic plans for the future, which includes post-Covid-19. These findings are vital to organizational leaders and managers as it increases their understanding and

awareness of the potential benefits of the balanced scorecard perspectives on management accounting performance.

The customer perspective plays a significant role in management accounting performance. Hence measures and targets set to improve customer satisfaction, increase the number of repeated customers, increase the number of new customers, and increase markets share, for example, can enhance management accounting performance. Businesses must study the external environment through market research and customer behavior when setting targets, affecting management accounting performance. Secondly, the internal business process plays a significant role in management accounting performance as it is focused on the processes that create and deliver customer value. Lastly, learning and growth play a significant role in management accounting performance. Hence, with more automated processes, employees have to be trained to adapt to these changes, businesses have to address the critical skills needed and make employees safe and motivated. Using integrated software such as customer relationship management software (CRM) and enterprise resource planning software (ERP) will make it easier for businesses to not only handle real-time data in its efforts to improve customer satisfaction, internal business process, and employee productivity but also to make forecasting for the future easier.

For this reason, more concentration by the Malaysia Digital Economy Corporation (MDEC) together with the Ministry of Finance (MOF) and accounting bodies need to work towards developing policies and procedures that will promote and facilitate the adoption of CRM and ERP among Malaysian businesses due to its strategic planning benefits. The scientific novelty of this study is the findings of this research that reveal that financial perspectives do not influence management accounting performance, which only reflects the importance of the other three perspectives: customer, internal business, and the learning and growth of employees to a business. There could be many reasons why the financial perspective did not influence management accounting performance. However, the major contributor could have been the Covid-19 pandemic which resulted in a nationwide lockdown in Malaysia in March 2020 and in May 2021 [73] [74]. Businesses in Selangor and Kuala Lumpur were further affected as the Malaysian government began the enhanced movement control order (EMCO) on July 3, 2021. Businesses may be focusing on improving customer satisfaction, improving employee's mental health and productivity as they work from home, and the internal business perspective in delivering goods and services to customers for the time being as non-financial measures may have a better impact on a business strategy performance. In fact, the source [75] have recommended that more emphasis is needed on

non-financial measures to improve the financial performances of the business and the management accounting performance of businesses during the Covid-19 pandemic.

6. Limitation and Future Research

There are a few limitations in this study and may be used to conduct future studies. Firstly, a broader sample size including other states in Malaysia such as Sarawak, Johor, Penang, and Sabah due to its high GDP per capita [74], Secondly, a longitudinal study is needed to study the effects of the perspectives of balanced scorecard on management accounting performance, which includes post-Covid-19. Control variables such as political and regulatory issues can be included in future studies [72]. This research has provided empirical knowledge on the importance of the customer, internal business, and learning and growth perspectives on the management accounting performance in Malaysia. The results will hopefully promote the usage of the balanced score in enhancing management accounting performance. However, this cannot be achieved without the intervention of the government and policymakers and professional bodies in creating awareness and providing assistance in implementing the balanced scorecard in businesses.

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