Management Accounting Application Model and Business Strategy: The Context of SMEs in Indonesia

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Abstract

Investigating the effects of business characteristics (BC), business environment (BE), business strategy (BS), and human resource skills (HR Skills) on the adoption of management accounting (MA) practices among micro, small, and medium-sized firms (SMEs) in Indonesia is the goal of this study. Additionally, the mediating role of information system integration (IIS) is also explored. The cross-sectional research design was used quantitatively, relying on survey data from 132 SMEs that were selected by purposive sampling. For statistical data analysis using the path structural model, the PROCESS SPSS macro model is adapted. The study findings show that HR skills, BC, BE, and BS significantly positively affect IIS. However, only HR Skills and BE were found to have a direct and significant positive impact on the implementation of MA among SMEs. Additionally, IIS also demonstrated a significant positive influence.

On the other hand, BC and BS do not have a direct impact on the implementation of MA. Evaluating the mediation pathway model parameters shows an indirect effect through IIS. However, the mediation effect of IIS is at a moderate level of partial mediation capability. The findings also conclude that some HR Skills have a positive and significant indirect effect on applying MA through IIS mediation. Also, some of the BC, BE, and BS showed a positive and significant indirect effect on the application of MA among SMEs.

JEL: M21, L11, Z32

Keywords: HR skills; business characteristics; business environment; business strategy; information system integration; management accounting

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1. Introduction

SMEs are moving toward sustainability with a focus on operational efficiency as a result of the disruptive period in the global business landscape (Azudin & Mansor, 2018). This shift is essential to remain competitive in an increasingly globalized market (Nguyen et al., 2019), as it is now a crucial requirement for maintaining business stability over time. The ongoing and significant changes in the business environment (Firmansyah, Susetyo, et al., 2022) further emphasize this need. A company's success hinges on numerous managerial decisions that are informed by accounting data, particularly management accounting (Burns & Scapens, 2000). In order to accomplish corporate objectives, this kind of information is mostly meant for internal usage, directing different business and strategic decisions (Horngren et al., 2015; Firmansyah & Saepuloh, 2020). The effectiveness and caliber of accounting procedures directly affect the operational management of the company, which in turn affects how well its goals are met (Bhimani, 2003; Firmansyah et al., 2021).

Managers can efficiently run operations, exert control, and make well-informed decisions with the use of MA, a scientific instrument (Kaplan & Norton, 1996; Horngren et al., 2004). The importance of management accounting and its role in the effective management of organizations and companies, including those in the domains of personal business (PB), family business (FB), and entrepreneurship, especially within SMEs, have been highlighted in a number of recent studies, which is not surprising given its significance (Pierce & O'Dea, 1998; Hyvönen, 2007; Salvato & Moores, 2010; Songini et al., 2013; Prencipe et al., 2014; Senftlechner & Hiebl, 2015). But private companies, family companies, or SMEs might not always be able to completely embrace and execute Management Accounting methods because of their smaller scale—taking into account demographic demographics and business characteristics—(Jorissen et al., 2005; Senftlechner & Hiebl, 2015). The ability to effectively apply management accounting over time is a critical point to achieving management accounting suitability, even though technological resources will be the facilitators supporting the implementation of this process (Yigitbasioglu, 2016). While the integration of information systems can enhance technological adoption and support the consistent application of management accounting, this is largely due to the challenges posed by information integration in data management (Rom & Rohde, 2007; Azmi et al., 2018). This applies to both qualitative and quantitative data produced by management accounting information systems.

The integration of information systems can enhance the implementation and stability of MA by generating high-quality management accounting information. Tools like budgeting software, enterprise resource planning systems, business intelligence, and analytics play a crucial role as decision-making aids, supporting the functions of management accountants (Rom & Rohde, 2007; Rikhardsson & Yigitbasioglu, 2018). Therefore, integrating information systems (internal and external), specifically internally, It plays a vital role in integrating and coordinating information and activities across the business's functional areas, influencing the implementation of MA. The results of studies by Maiga et al. (2015), Chapman & Kihn (2009), and Yigitbasioglu (2016) demonstrate that when management accounting is applied in conjunction with an integrated information system, its efficacy increases (Azmi et al., 2018). Executives view technology, data, and analytics as transformative elements in business. Traditionally, MA has been the primary support for decision-making and control within organizations (Rikhardsson & Yigitbasioglu, 2018). This applies to personal business (PB), family business (FB), micro, small, and medium enterprises (MSMEs), and entrepreneurship, where the implementation of MA is adapted based on the business's scale and the core business model being utilized.

When making strategic decisions, PB usually have a longer time horizon than NPB. This is due to the fact that choices made in PB, including FB, may have an effect on one or more potential future family successors as well as the current generation (Senftlechner & Hiebl, 2015). Thus, strategic decisions can influence the long-term survival of PBs, which is frequently considered a primary goal (Sirmon & Hitt, 2003). Based on their business attributes, classifications, and criteria, PBs and FBs can actually be categorized as MSME players (Wahdiniwaty et al., 2022; Firmansyah & Saepuloh, 2022). Nonetheless, a firm is more appropriately referred to be entrepreneurship if it is run by a group that takes advantage of chances to open up new markets or if it is run independently (self-employment). Entrepreneurship, as defined by Ireland et al. (2009:21), is the process by which a person or group, in collaboration with an already-existing organization, creates a new organization or promotes innovation and renewal inside an already-existing organization (Theriou & Chatzoudes, 2015; Firmansyah, 2022a).

As entrepreneurship evolves, it can enhance operational effectiveness by setting strategic goals and adopting management accounting practices, possibly supported by advanced management tools. The significance of management accounting techniques in entrepreneurship is shown by research from a variety of academic fields. The use of management accounting in SMEs is the subject of this study, which also emphasizes the function of information system integration as a mediator and enabler in these interactions. Additionally, the study will explore the context of entrepreneurship to enrich the discussion and complement the findings.

There are a number of elements that affect how management accounting is applied in both individual and group firms, entrepreneurship, and SMEs globally, including Indonesia, where these businesses operate in both distant and metropolitan places. Key factors affecting the use of management accounting include informality, centrality, trust, interpersonal values, and geographic considerations (Senftlechner & Hiebl, 2015). The adoption of management accounting systems is influenced by performance and goals, as stated by Duréndez et al. (2011) and Giovannoni et al. (2011). This has a favorable effect on internal corporate communication. Additional noteworthy elements encompass attributes of production and business, intricacy of information, rivalry in the market, and competencies of human resources concerning prospective entrepreneurship (Firmansyah, Rifa'i, et al., 2022). Research by Maiga et al. (2015), Chapman & Kihn (2009), and Yigitbasioglu (2016) indicates that integrating information systems can enhance the effectiveness of management accounting implementation. Conversely, factors such as business strategy, awareness of management accounting's importance, business intensity, competition, employee numbers, and technology use also influence management accounting practices (Nair, 2017; Chenhall, 2003; Choe, 2004). Strategic decisions made by individuals and groups in the digital economy era can be influenced by advances in digital literacy and multiliteracy, including economic and financial literacy (Firmansyah & Susetyo, 2022). This is because management accounting incorporates both qualitative and quantitative (monetary/financial) information.

Previous studies indicate that more research is needed to understand the factors influencing the application of MA across different types and levels of business practices. Despite recognizing various factors impacting MA in SMEs, these studies often vary in their focus on interventions, consistency, and specific contexts. This study fills the gap between the existing research findings by offering a MA application model and business strategy in the context of SMEs. By looking at how variables including SME human resource quality and skills, business attributes and size, business climate and level of competition, business strategy, and technology affect MA implementation in SMEs, this study expands its purview. Additionally, it explores the mediating role of information system integration. The study focuses on SMEs in tourism areas of West Java, Indonesia, analyzing data from over 100 SMEs.

2. Literature Review and Hypothesis

2.1 Skills and Quality of Human Resources with Information System Integration and Management Accounting Application

The capacity to accept and apply new procedures and systems depends on one's skill set (Leiponen, 2005). Agency theory states that managers, directors, or agents should have an incentive structure in place to promote and compensate positive behavior (Armstrong, 2006). A corporation gains a competitive edge when its resources are valuable, hard to come by, and challenging to replicate. Armstrong (2006) argued that human resources (HR) are viewed similarly to materials, money, systems, and technology; their value is determined by how effectively they can be leveraged for economic gain. High-quality HR skills contribute to company growth in an economy by fostering innovation and operational success (Firmansyah, Rifa'i, et al., 2022). The expertise of accounting professionals is also crucial in utilizing integrated information systems to dynamically enhance value (Suryana et al., 2023).

One important element affecting the use of management accounting in MSMEs is the availability of qualified workers in the accounting sector. Bigger businesses usually have dedicated finance or accounting departments with trained accountants on staff to produce reports and offer guidance. In contrast, many small businesses may not have qualified accounting staff (Nguyen et al., 2019). Chang (2020) discovered that having qualified accountants on staff who are well-versed in management accounting techniques improves the use of these practices in businesses, and their presence helps SMEs adopt and grow management accounting. Professionalism within the MA system is fostered by knowledgeable and competent management accountants (Moilanen, 2008). Hiebl et al. (2012), however, contend that a more nuanced picture of the function of financial and HR specialists as change agents in management accounting may exist.

H1: The skills and quality of human resources positively impact the integration of information systems.

H5: The skills and quality of human resources directly and positively influence the implementation of management accounting.

2.2 Business Characteristics and Organizational Size with the Application of Management Accounting

Refers to the theory of technological literature that develops the integration of information systems as a model adapted to small businesses. Important factors driving it involve decision-maker characteristics, information system characteristics, business characteristics, and environmental characteristics. The decision to adopt is driven by leadership characteristics at the strategic level, such as the ability to innovate and adapt to competitive business stability (Thong, 1999; Firmansyah et al., 2024). Meanwhile, business characteristics are the main factor determining the adoption level of integrated information systems in small businesses (Thong, 1999).

The structure and control of the corporation are expected to be influenced by business features and organizational size (Chenhall, 2003; Nguyen et al., 2019). When a business expands, it gains the resources necessary to apply management accounting more advanced than smaller businesses. The complexity of accounting systems and cost estimation generally rises with the company's size (Haldma & Lääts, 2002).

Large companies typically have more extensive resources and superior internal communication systems, which facilitate the implementation of management accounting. Compared to smaller businesses, these organizations frequently have greater financial means to pay for the costs of accounting information, according to Ling-yee and Ogunmokun (2008). Furthermore, compared to

smaller businesses, managers and accountants at large companies must manage a higher volume of information. Hutaibat (2005) found a significant relationship between the use of management accounting and the size of the organization, as determined by sales and personnel count (Nguyen et al., 2019). Changes and the implementation of more formal control systems, including the adoption of management accounting standards, are required due to the increased complexity brought about by factors including succession, professionalization, and growth (Giovannoni et al., 2011).

H2: The characteristics of the business and the size of the company positively influence the integration of information systems.

H6: The characteristics of the business and the company's size have a direct and positive impact on the implementation of management accounting.

2.3 Business Environment and Intensity of Competition with Information System Integration and Application of Management Accounting

In the age of disruption, widespread environmental changes are ongoing, necessitating the development of new ideologies, concepts, or even paradigms in economic philosophy to address emerging challenges and facilitate the required transition (Firmansyah, Rifa'i, et al., 2022; Wahdiniwaty et al., 2022). Intuitive and disciplined analytical skills greatly influence managers' decision-making when developing a business in the transition phase. Developing integrated information systems to enrich information can support the managerial analysis of profitable business decisions, although technological advancements, business environment conditions, and competition may affect such adoption and development (Becker et al., 2003). To improve the effectiveness of relationship management with customers and other stakeholders in the supply chain of materials and products In the digital economy era, the implementation of the information system integration model is greatly influenced by the environment and business competition, business transformation, and digitalization practices (Wahdiniwaty et al., 2023).

The intensity of market competition is highlighted by the pressure and competitiveness among enterprises in the market, which is generated by pricing tactics, services, and product diversity (Cadez & Guilding, 2008). This is an interesting finding. Given the level of competitiveness and complexity of the business environment, firms must adopt MA methods to assist them evaluate the resources used in each stage of production (Leite et al., 2016).

An organization needs a more sophisticated and formal MA system as it becomes larger and more complicated (Giovannoni et al., 2011; Neubauer et al., 2012). According to Zainun Tuanmat and Smith (2011), the use of MA is influenced by the intricacy of the external business environment. Furthermore, Choiriah and Sudibyo (2020) found that the effective deployment of management accounting information systems is favorably and significantly impacted by elements like competitive advantage, corporate culture, and sustainable leadership. Ghasemi et al. (2016) also noted that the adoption of management accounting systems is impacted by market competitiveness and the complexity of the company environment, which in turn has an impact on managerial performance.

H3: The business environment and the intensity of competition have a positive effect on the

integration of information systems.

H7: The business environment and the level of competition have a direct impact on the implementation of management accounting.

2.4 Business Strategy with Information System Integration and Management Accounting Application

According to Porter (1996:p.43), strategy is the ability to create unique and valuable positions by considering the involvement of stages in various activities. Activities that are different and superior to competitors are important in creating strategies in business. Differences in activities and excellence deliver the ability to create superior value relevant to business needs and objectives and integrate it with customer preferences and needs over time (Porter & Magretta, 2014; Wahdiniwaty et al., 2023). Therefore, customer needs, customer accessibility, or various products or services of the company can be used as a strategic position (Porter, 1996).

Strategy represents a key approach among various alternative strategic plans. When a business is set up, it employs a specific business model, either explicitly or implicitly, that outlines the design or structure for creating, delivering, and capturing value. At the core of the business model is the strategy, which defines how the company provides value, convinces customers to pay for it, and turns those payments into profits (Teece, 2010). Finding and selecting the right business strategy will encourage integration initiatives in the intensity of information system utilization, especially in the supply chain (Kim & Narasimhan, 2002). Sustainable business competitiveness stability can be achieved with a focus on using integrated information systems. With a good ability to manage the integration of information systems, economic benefits as business directions and goals are very likely to be achieved (Hedman & Sarker, 2015). The success of businesses in integrating various interests is inseparable from the suitability of business strategies and the integration of information systems (Hedman & Sarker, 2015; Baker & Niederman, 2014; Mehta & Hirschheim, 2007; Wijnhoven et al., 2006).

Additionally, management accounting is closely tied to business strategy (Choe, 2004). Achieving competitive advantage often drives companies to implement management accounting systems that align with their strategic priorities. Customer-focused strategies, when combined with management accounting practices, can enhance customer performance (Hyvönen, 2007). Ultimately, a company's strategic choices or changes will influence the adoption of different management accounting approaches, which should be more suitable and effective. Research by Senftlechner and Hiebl (2015) found that business strategies and objectives impact how management accounting is implemented, particularly within family businesses, entrepreneurship, and the SME sector.

H4: Business strategy positively influences the integration of information systems.

H8: Business strategy has a direct and positive impact on the implementation of management accounting.

2.5 Information System Integration and Application of Management Accounting

The expertise of human resources, accountants, and professionalism are crucial for effectively using an integrated information system that can enhance value dynamically. Integrating information systems enhances visibility in information processing and supports global transparency, facilitating integration and reconfiguration. This transforms the information systems infrastructure into a distinctive capability that enables seamless information flow and sharing within and between organizations (McAdam & Galloway, 2005; Chapman & Kihn, 2009; Maiga et al., 2015).

Rom & Rohde (2007) suggest that integrating information systems, including budgeting software, enterprise resource planning systems, business intelligence, and analytics, can enhance the quality of management accounting. According to the Balanced Scorecard theory, business analytics—descriptive,

predictive, and prescriptive—are applied across four perspectives of measuring company performance: finance, customers, internal processes, and learning and growth, within the company's system environment.

Conversely, business intelligence technology plays a key role in data collection, analysis, and information presentation, serving as a decision-making tool that aids management accountants in their activities (Appelbaum et al., 2017); this allows the production of data quality and data integration that becomes information input in the MA that is processed to become a useful output for the internal parties/management of the company, especially related to decision-making and management control. Meanwhile, Maiga et al. (2015), Chapman & Kihn (2009), and Yigitbasioglu (2016) mentioned that the application of management accounting will be more effective if it is supported by an integrated information system (Azmi et al., 2018). The adaptability of information systems is a crucial component of an organization's IT infrastructure (Byrd, 2000), as it supports various factors that influence the effectiveness of management accounting implementation. According to Gonzálvez-Gallego et al. (2015) findings show that integrating information systems mediates factors that affect business management and performance, where business performance is related to external factors, such as suppliers and customers.

H9: The integration of information systems positively impacts the implementation of management accounting.

H10: The integration of information systems acts as a mediator in how skills and quality of human resources, business characteristics, and business strategies affect the implementation of management accounting.

3. Data and Research Method

3.1 Target Population

This research focuses on SMEs operating in the tourism sector in West Java, Indonesia. As the tourism industry expands across various regions in Indonesia, it is often accompanied by the growth of SMEs in this sector. The tourism and SME sectors are closely intertwined and significantly contribute to the gross domestic product (GDP), thus bolstering the national economy. The presence of human resources and professionalism among SMEs is indispensable in the application of management accounting to improve various effective internal decisions in profitable businesses by adapting and developing alternative selected business strategies to be able to create sustainable economic competitiveness stability in a dynamic business environment that continues to change due to the current of technological developments and digitalization practices.

The application of management accounting allows effective operations to be carried out. Various information integrated into the information system can help decision-makers plan, control, evaluate, and improve sustainable business strategies and operations. Stable and sustainable SME operations have the potential to strengthen the growth of the tourism sector and introduce this sector to other countries globally with all the brands of products it offers.

3.2 Sampling and Data Collection

This study seeks to investigate and evaluate the factors influencing the management accounting implementation model in SMEs. It examines how HR skills, business characteristics, business strategy, and information system integration impact the application of management accounting. Data were collected through observation and unstructured interviews. The testing and analysis stage uses primary data sources obtained from

respondents' answers to the disseminated research instruments. A Likert scale of 1-7 was applied to this research instrument.

The research instrument is part of the empirical questionnaire developed from the theoretical concept to measure each latent variable studied. HR skills are developed with fourteen indicators (HRS1-HRS12), business characteristics (BC) consisting of ten indicators (BC1-BC10), BE consisting of eight indicators (BE1-BE8), BS consisting of ten indicators (BS1-BS10), information system integration consisting of eight indicators (IIS1-IIS8), and application of MA consisting of twelve indicators (MA1-MA12). A combination of questionnaire dissemination techniques through Google Forms, social media, email, and face-to-face is adopted and carried out (for example, conducted by Budiarti & Firmansyah, 2024). The nomination of respondents refers to the criteria of the selected sample, SMEs who operate in tourism areas, as the designated prima criteria. In addition, the minimum business duration of 10 years with employees equal to or more than ten people also has at least three main management functions as part of the respondent profile considered.

Total of 178 surveys were distributed to chosen respondents using the purposive sampling method (Taherdoost, 2016; Sharma, 2017; Firmansyah, 2022b), which was developed with innovative sampling techniques to achieve target samples that are difficult to reach (Hibberts et al., 2012; Firmansyah, 2022b), and emphasizes the referral sampling technique, which relies on parties who have access and connections to the target population, and potentially have the willingness to participate in providing responses and providing actual information about the condition of the object being studied. Heads of the SME community, organizations, and related departments also contribute as facilitators who connect research instruments to the respondents.

However, as many as 132 returned questionnaires were accepted by the research team, which contained complete answers to the respondents according to the number of questions stated in the research instrument items. This condition shows as many as 74% of the respondents' response rate (RR = 74%) who participated in this study. The sample size meets the criteria established by statistical standards, as outlined by Hair et al. (2010), which recommend collecting data from at least 100 respondents to ensure that the statistical data analysis techniques in quantitative research provide reliable results.

3.3 Model Analysis and Estimation Method

The collected data were analyzed using IBM's Statistical Package for the Social Sciences (SPSS) v.26. The analysis employed the structural path analysis method through a constructed structural path model. SPSS remains effective for validating relationships between latent constructs and observed variables in straightforward model path analyses, particularly given the sample size ($\sum n \geq 100 < 200$) (Firmansyah & Saepuloh, 2022a), and it is capable of accurately measuring the variance in latent variables.

The evaluation of data quality in the analysis model was carried out by setting the threshold criteria for the validity level of the instrument greater than the critical number $r>0,3$ (Gujarati, 2012), and the reliability of the instrument of each construct was applied with the value of Cronbach's Alpha ($C\alpha$)>0,7 (Hair et al., 2011; Ghozali, 2014). The normality of the data was in the range of +2,58 to - 2,58, the alternative model of the K-S NPart test with the criteria of data normality was met at the Asymp value Sig.>0,05. Full collinearity in the classical assumption test is applied with the VIF<3,3 value criterion (Kock & Lynn, 2012; Budiarti & Firmansyah, 2024), with the VIF<10 alternatives still being met, and the correlation between endogenous latent has a value of r<0,80 (Firmansyah et al., 2022). Evaluation of each path if the coefficient value is greater than null ($\rho>0$) indicates a relationship. The PROCESS SPSS macro model created by Hayes (2018) was used to examine the mediation role, employing bias correction and percentile methods to test the mediation effect. This approach utilized regression forecasting, with a confidence level set at $\alpha = 0.05$ (5%) and a t-statistic threshold of >1.96. An estimation of the structural pathway model was carried out with the Sobel test to determine the magnitude of the mediation pathway coefficient and the significance of the mediation effect. VAF was

also used to measure the presence or absence of a mediation effect on the criteria of VAF> 20% but <80%, there was partial mediation, and if VAF> 80%, there was a full mediation effect (Hair et al., 2012; Bagga et al., 2023; Budiarti & Firmansyah, 2024).

3.4 Research Design

This research uses a quantitative methodology with an emphasis on causal and explanatory analysis. Quantitative research, according to Creswell (2014), examines correlations between latent variables in order to evaluate objective ideas. Specifically, explanatory research uses hypothesis testing to examine the relationships between two or more variables (Cooper et al., 2014). This study employs a cross-sectional model and bases its analysis on survey data.

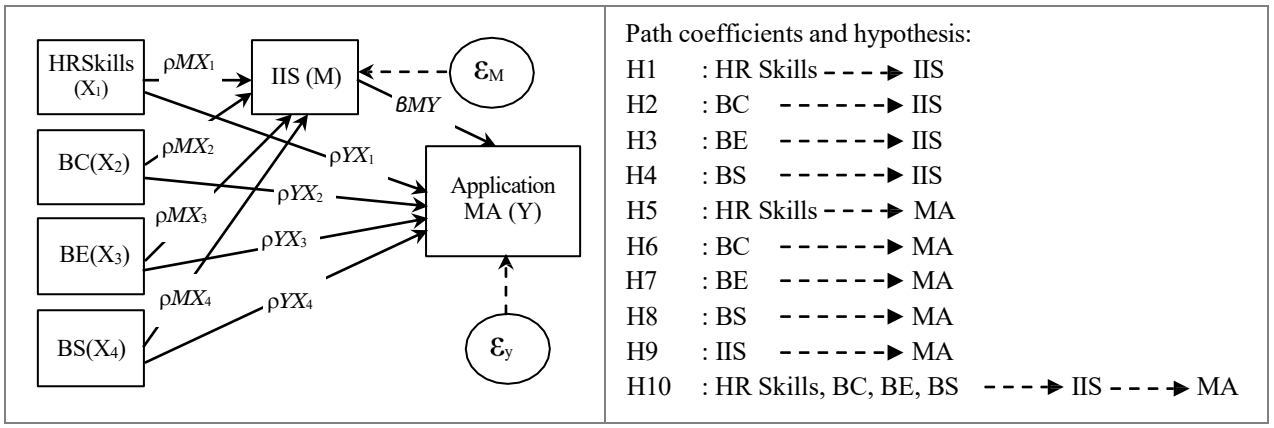

Figure 1. Conceptual Framework Model

Structural path model equation 1:

$$M = \rho M X_1 + \varepsilon M \text{ ..... (1)}$$

$$M = \rho M X_2 + \varepsilon M \text{ ..... (2)}$$

$$M = \rho M X_3 + \varepsilon M \text{ ..... (3)}$$

$$M = \rho Y_1 X_4 + \varepsilon M \text{ ..... (4)}$$

$$M = \rho M X_1 + \rho M X_2 + \rho M X_3 + \rho M X_4 + \varepsilon M \text{ ..... (5)}$$

Structural path model equation 2:

$$Y = \rho Y X_1 + \varepsilon y \text{ ..... (6)}$$

$$Y = \rho Y X_2 + \varepsilon y \text{ ..... (7)}$$

$$Y = \rho Y X_3 + \varepsilon y \text{ ..... (8)}$$

$$Y = \rho Y X_4 + \varepsilon y \text{ ..... (9)}$$

$$Y = \beta Y Y_1 + \varepsilon y \text{ ..... (10)}$$

$$Y = \rho Y X_1 + \rho Y X_2 + \rho Y X_3 + \rho Y X_4 + \beta Y M + \varepsilon y \text{ ..... (11)}$$

Sobel Test:

$$t = \frac{ab}{\sqrt{{}^2 SE^2 \quad {}^2 SE^2}}$$

4. Empirical Results

4.1 Test Results of Research Instruments

The results of the HR Skills variable instrument test (X1) were declared to have a validity value with a strong and reliable correlation at a good consistency level of HRSkills = 12 items, $C\alpha$ = 0,819 ($C\alpha$>0,70), there are two items, namely HR Skills 3 and HR Skills 7 are discarded because of the value o$C\alpha$<0,70. The BC variable (X_2), valid and reliable test results from BC1, BC2, BC3, BC5, BC6, BC7, BC8, BC9 and BC10 = 9 items, $C\alpha$ = 0,828 ($C\alpha$>0,70), while BC4 was forced to be deleted has a value of $C\alpha$<0,70. The BE variable (X_3) is declared valid and reliable; composite of BE1, BE2, BE3, BE4, BE6, and BE7 = 6 items, $C\alpha$ = 0,717 ($C\alpha$>0,70), while BE5 and BE8 are forced to be eliminated as BE parameters because the value of $C\alpha$ is below the required threshold. The BS variable (X_4) was declared a valid and reliable composite of 8 items ($C\alpha$>0,70), and two BS items were eliminated with $C\alpha$<0,70. Meanwhile, the IIS variable (M) was declared valid and reliable as a composite of IIS1 – IIS7= 7 items, $C\alpha$ = 0,805 ($C\alpha$>0,70), while IIS8 was deleted because $C\alpha$<0,70. Also, the MA (Y) variable was declared to have a strong level of validity and reliability with a good level of consistency from MA1, MA2, MA3, MA4, MA5, MA6, MA8, MA9, and MA11 = 9 items, with $C\alpha$ = 0,776 ($C\alpha$>0,70), while MA7, MA10, and MA12 were forced to be eliminated and discarded because the value had $C\alpha$<0,70. The instrument test results were that as many as eleven indicators were eliminated from the measurement model, so 49 indicators were retained and used to test the hypothesis.

The results of the classical assumption test in structural I were declared to be met, so in structural II, where normal distributed data could be satisfied in the K-S NPar tests, *Asymp Sig*. = 0.200$^{c.d}$ >p;α = 0,05. Also, the criteria for multicollinearity between latent exogenous variables can be met ($VIF_{X1;X2;X3;X4;Y1}$<3,3; VIF<10), where the value of $VIF_{HRSkills}$ = 6,953 (VIF<10); VIF_{BC} = 6,425 (VIF<10); and VIF_{BE} = 2.961 (VIF<3,3); VIF_{BS} = 5.686 (VIF<10); and VIF_{IIS}= 7,007 (VIF<10).

4.2 Model Estimation

4.2.1 Estimation of the Structural Model of Path 1

1. Estimation of the value of the path coefficient

The estimation of the structural model of line 1 is carried out by adopting a regression model. The coefficients table shows the estimation and prediction of the structural model of the path.

Table 1. Coefficients Path Structural 1

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t-Stat	Sig.
1	(Constant)	2.795	1.241		2.252*	.027
	HRSkills	.407	.048	.723	8.449**	.000
	BC	.249	.070	.336	3.539*	.001
	BE	.132	.060	.127	1.986	.050
	BS	.200	.085	.221	2.365*	.020

Note: a. Dependent Variable: IIS; **. Significant at α<0.01; *. Significant at α<0.05.

Referring to the data in Table 1, a structural equation model of path 1 can be formulated:

IIS = 2,795 + 0,407 HRs + 0,249 BC + 0,132 BE + 0,200 BS ..... (12)

HR skills, BC, BE, and BS are latent exogenous variables with a coefficient value greater than zero (ρ>0). All latent exogenous variables can predict any change in the integration of information systems as an endogenous variable, but assumptions apply. These findings show that HR skills, BC, BE, and BS correlate with the integration of information systems among SMEs; the magnitude and direction

of the relationship are confirmed to be positive.

2. Evaluation of the feasibility of the Pathway 1 structural model

Summary statistics in the summary structural model of line I are evaluated. The magnitude of the Adjusted R^2 value (*Adj. R^2*) is evaluated to regulate the feasibility of the model and the predictive power of the endogenous latent construction, either partially or simultaneously.

Table 2. Partial evaluation of the structural model fit of line 1

Dependent Variable	Predictors	R	R^2	Adj. R^2	Std. Error of the Estimate
IIS	HR Skills	0.916[a]	0.840	0.838	0.904
	BC	0.802[a]	0.643	0.639	1.350
	BE	0.768[a]	0.590	0.586	1.446
	BS	0.740[a]	0.547	0.542	1.520

Note: The Adj.R2 value evaluates the model's feasibility, with partial prediction strength in the range of 0.00-1.00.

The results of the partial evaluation of the feasibility of the pathway 1 structural model in Table 2 found that HR skills have an Adj. R^2 value of 83,8%, business characteristics have an Adj. R^2 value of 63,9%, an Adj. The R^2 value of the business environment is 58.6%, and a business strategy has an Adj. R^2 value of 54,2%. The values of Adj R^2 mean that the contribution and predictability of all predictor variables is greater than 50% or close to the value of +1. These findings also indicate the strong predictive ability and power of individuals. The feasibility evaluation of the Pathway 1 structural model shows that HR skills, BC, BE, and BS can partially predict and explain the variance of information system integration. However, other factors outside the model can potentially affect the integration of information systems among SMEs.

Table 3. Simultaneous evaluation of the feasibility of the structural model of Path 1

Dependent Variable	Predictors	R	R^2	Adj. R^2	Std. Error of the Estimate
IIS	HR Skills; BC; BE; BS	0.930[a]	0.865	0.859	0.844

Note: The value of Adj.R2 evaluates the model's feasibility; simultaneous prediction power is in the range of 0.00-1.00.

The Adj. R^2 value of 86,5%, indicating that the contribution and predictive ability of all predictor variables together have a value greater than 50% or close to a value of +1 (table 3). These findings indicate a strong simultaneous prediction capability and power. This finding also concludes that the contribution of HR skills, BC, BE, and BS together in predicting and explaining the variance of information system integration is 86,5%. The remaining 13,5% is not spared from the influence of other factors outside this research model.

4.2.2 Estimation of the Structural Model of Path 2

1. Estimation of the value of the path coefficient

Table 4. Coefficients Structural Path 2

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t.Stat	Sig.
1	(Constant)	.211	1.544		.137	.891
	HRSkills	.166	.079	.225	2.116*	.037
	BC	.134	.091	.138	1.475	.144
	BE	.218	.082	.160	2.659*	.009
	BS	.018	.106	.015	.170	.865
	IIS	.619	.130	.471	4.775**	.000

Note: a. Dependent Variable: MA; **. Significant at $\alpha<0.01$; *. Significant at $\alpha<0.05$.

$$MA = 0{,}211 + 0{,}166\ HRs + 0{,}134\ BC + 0{,}218\ BE + 0{,}018\ BS + 0{,}619\ IIS \quad (13)$$

Based on the equation of the structural model of path II in Table 4, it shows that HR skills, BC, BE, BS and ISI are latent exogenous variables, each having a coefficient value greater than zero (ρ>0). This finding means that every change that occurs in the application of MA as a latent exogenous variable can be predicted by HR skills, BC, BE, BS and IIS, but every possibility that occurs is not spared from the assumption set. These findings also show that HR skills, BC, BE, BS and IIS correlate with the application of management accounting among SMEs; the magnitude and direction of the relationship are confirmed to be positive.

2. Evaluation of the feasibility of the Pathway 2 structural model

The summary statistics in the summary model of the structural path II in the evaluation refer to the *Adj. The* R^2 value of each predictor.

Table 5. Coefficients Structural Path 2 partially

Dependent Variable	Predictors	R	R^2	Adj. R^2	Std. Error of the Estimate
MA	HR Skills	0.905[a]	0.819	0.817	1.264
	BC	0.812[a]	0.659	0.655	1.733
	BE	0.795[a]	0.633	0.629	1.799
	BS	0.718[a]	0.529	0.561	1.900
	IIS	0.921[a]	0.848	0.846	1.158

Note: The value of Adj.R2 evaluates the model's feasibility; partial prediction strength is in the range of 0.00-1.00.

HR Skills has an Adj. R^2 score of 81,7%, an Adj. R^2 score of business characteristics of 65,5%, a business environment with an Adj. R^2 score of 62.9%, an Adj. R^2 score of business strategy of 56,1%, and information system integration has an Adj. R^2 value by 84,6% (see table 5). These findings show that HR skills, BC, BE, BS and IIS can each partially predict and explain the variance of the application of management accounting. The magnitude of the contribution and predictive ability of all predictor variables is greater than 50% or close to a value of +1. These findings indicate the strong ability and power of individual predictions.

Table 6. Simultaneous evaluation of the feasibility of the line II structural model

Dependent Variable	Predictors	R	R^2	Adj. R^2	Std. Error of the Estimate
MA	HR Skills; BC; BE; BS; IIS	0.942[a]	0.887	0.881	1.020

Note: The value of Adj.R2 evaluates the model's feasibility; simultaneous prediction power is in the range of 0.00-1.00.

The Adj. The R^2 value of 88,7% in the path 2 structure involving the IIS mediation role explains that the magnitude of contribution and the predictive ability of all predictor variables together have a value greater than 50% or close to a value of +1. These findings indicate a strong simultaneous prediction capability and power. These findings also show the contribution of HR skills, BC, BE, BS and IIS together in predicting and explaining the variance of the application of management accounting by 88,7%. The remaining 11,3% is the rest and is certainly influenced by other factors outside the construction of this research model. This explains that the structural model of path 2 has high predictive power and can describe the construction of all endogenous latent.

4.3 Hypothesis Test

4.3.1 Direct Effects Test Results

The significance test of direct effect was carried out to find out 1) the significance of the effect of HR Skills on IIS; 2) the significance of the effect of BC on IIS; 3) the significance of the effect of the BE on the IIS; 4) the significance of the effect of BS on IIS; 5) the significance of the direct effect of HR skills on the application of MA; 6) the significance of the direct effect of BC on the application of MA; 7) the significance of the direct effect of the BE on the application of MA; 8) the significance of the direct effect of BS on the application of MA; and 9) the significance of the effect of IIS on the application of MA.

Table 7. Direct Effects Significance Test Results

Hypothesis	Path Coefficients	DE	SE	Beta	t-Stat	Sig.	Conclusions
H_1	HR Skills → IIS	0.407	0.048	0.723	8.449**	0.000	Accepted
H_2	BC → IIS	0.249	0.070	0.336	3.539*	0.001	Accepted
H_3	BE → IIS	0.132	0.060	0.127	1.986	0.050	Accepted
H_4	BS → IIS	0.200	0.085	0.221	2.365*	0.020	Accepted
H_5	HR Skills → MA	0.166	0.079	0.225	2.116*	0.037	Accepted
H_6	BC → MA	0.134	0.091	0.138	1.475	0.144	Rejected
H_7	BE → MA	0.218	0.082	0.160	2.659*	0.009	Accepted
H_8	BS → MA	0.018	0.106	0.015	0.170	0.865	Rejected
H_9	IIS → MA	0.619	0.130	0.471	4.775**	0.000	Accepted

Note: DE, direct effect; SE, std. error; **. Significant at $\alpha<0.01$; *. Significant at $\alpha<0.05$. t-stat> critical value 1,96, there is a significant effect; Sig. = p-value.

Referring to the results of the direct effects significance test of each structural model constructed (see table 7), the findings show that: 1) HR skills have a positive effect on the integration of information systems (IIS), statistically significant at $\alpha = 0,01$ (0,000<0,01) and t-Stat = 8,449>1,96, supporting H_1 to be accepted; 2) BC have a positive effect on the IIS, significant at $\alpha = 0,05$ and t-Stat = 3,539>1,96, then H_2 is accepted; 3) BE has a positive effect on IIS, significant at $\alpha = 0,05$ and t-Stat = 1,986>1,96, then H_3 is accepted; and 4) also shows BS had a positive effect on of IIS, statistically significant at $\alpha = 0,05$ (0,020<0,05) and t-Stat = 2,365>1,96 these findings supported H_4 accepted.

In addition, 5) the findings also show that HR Skills have a direct positive effect on the application of MA, statistically significant at $\alpha = 0,05$ (0,000<0,01) adn t-Stat = 2,116>1,96, then H_5 is accepted; 6) business characteristics (BC) do not have a direct effect on the application of MA, where the value of Sig.= 0,144>α = 0,05 and t-Stat = 1,475<1,96, these findings do not support the proof of the hypothesis so H_6 is rejected; 7) the BE has a direct positive effect on the application of MA, statistically significant at $\alpha = 0,05$ (0,009<0,05) and t-Stat = 2,659>1,96, the supporting H_7 is accepted; 8) BS has no direct effect on the application of MA, where the value of Sig.= 0,865>α = 0,05 and t-Stat = 0,170<1,96, these findings do not support the proof of the hypothesis and H_8 is rejected; and 9) IIS had a positive effect on the application of MA, statistically significant at $\alpha = 0,01$ (0,000<0,01) and t-Stat = 4,775>1,96, the findings supporting H_9 were accepted.

The findings of this study prove that the seven hypotheses of direct effect that were built are acceptable. However, two hypotheses proposed, namely H_6 and H_8, are not proven and rejected. The results of the study indicate that there is no direct effect of business characteristics on the application of MA in SMEs, and BS is also not found to have a direct effect on the application of MA in SMEs.

4.3.2 Indirect Effects Test Results

This section conducted the indirect effect test by testing the mediation effect of IIS.

Table 8. Indirect Effects Significance Test Results

Hypothesis	Path Coefficients	IDE	TE	SE	VAF	t-Stat	Sig.	Conclusions
H_{10}	1. HR Skills → IIS → MA	0.250	0.658	0.063	0.3812	3.950**	000	Accepted
	2. BC → IIS → MA	0.156	0.410	0.056	0.3812	2.792*	005	Accepted
	3. BE → IIS → MA	0.081	0.213	0.041	0.3812	1.973*	.048	Accepted
	4. BS → IIS → MA	0.123	0.323	0.059	0.3812	2.081*	.037	Accepted

Note: IDE, indirect effect; TE, total effect = partial mediation; SE, std. error; VAF, value adjustment factor; **. Signifikan level at α<0.01; *. Signifikan level at α<0.05; t-stat> critical value 1,96, significant effect. Sig. = p-value.

Table 8 shows the test results of the mediation model; the indirect effect of IIS on the relationship between HR Skills and MA was found to be statistically significant with a path coefficient of 0,250 and a *p-value of Sig.* 0,000 these findings support $H_{10.1}$ is accepted. The indirect effect of IIS on the relationship between BC and MA has a path coefficient of 0,156 and is statistically significant at *the p-value Sig.* 0,005, supporting $H_{10.2}$, is accepted. The indirect effect of IIS on the relationship between BE and MA was found to be statistically significant, with a pathway coefficient of 0,081 and a *p-value of Sig.* 0,048, supporting $H_{10.3}$, is accepted. The findings also show that the indirect effect of IIS on the relationship between BS and MA has a path coefficient of 0,123 and is statistically significant at *the p-value Sig.* 0,037, this finding supports $H_{10.4}$ accepted. An illustration of the construction model of the research findings offered in Figure 2.

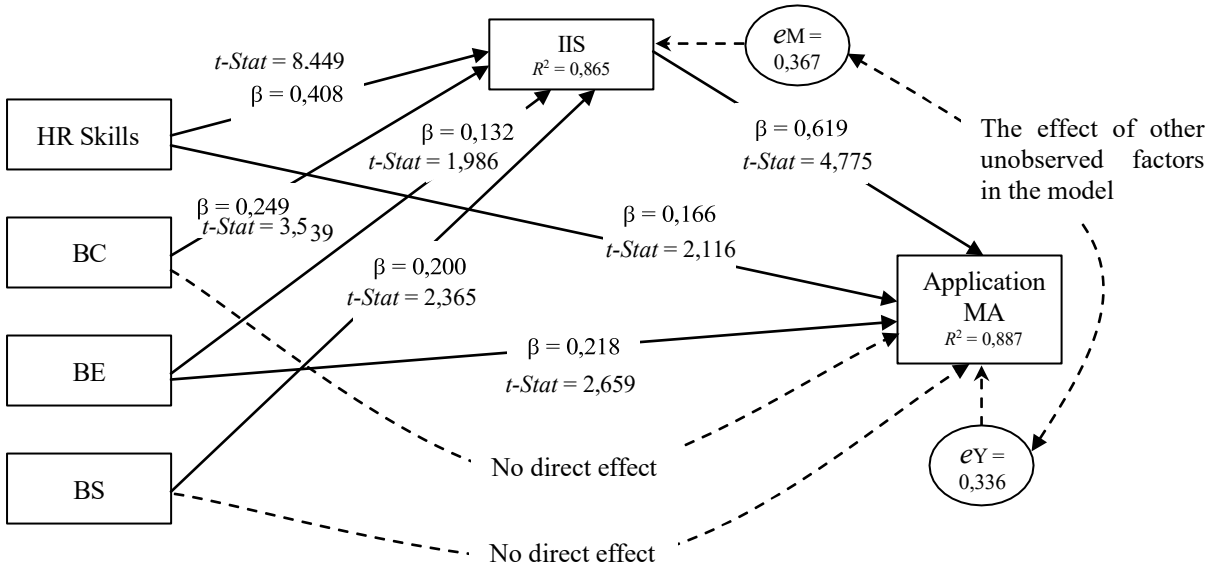

Figure 2. Temuan Penelitian: Management Accounting Application Model and Business Strategy in SMEs

Equation for the indirect effect (IDE) model, partial mediation:

$H_{10.1}$: Y = ρX_1.βM + ey. Y = 0,250 + 0,336.....(14)
$H_{10.2}$: Y = ρX_2.βM + ey. Y = 0,156 + 0,336.....(15)
$H_{10.3}$: Y = ρX_3.βM + ey. Y = 0,081 + 0,336.....(16)

$H_{10.4}$: Y = $\rho X_4.\beta M + ey$. Y = 0,123 + 0,336 .....(17)

In addition, the evaluation results in Table 8 also show that the VAF for hypotheses $H_{10.1}$, $H_{10.2}$, $H_{10.3}$, and $H_{10.4}$ are around 38,12% (0,3812), which is in the range of VAF>20% but <80%. These findings conclude that IIS partially mediates the relationship between HR Skills and MA, BC, and MA, and BA and MA and IIS mediates the relationship between BS and MA, so this finding can fill the research gap. Managerial decisions are based on accounting information, especially applying good management accounting. Skills and quality of human resources, business characteristics, business environment, and competition, as well as business strategies, can effectively and efficiently affect the quality of the implementation of management accounting according to the vision, mission, and business objectives among SMEs when it involves the role of information system integration, such as the availability of software budgeting, corporate resource planning systems, business intelligence, data collection, analytics and the accuracy of information presentation. Figure 2 illustrates the final findings of constructing a model for applying management accounting and business strategy among SMEs.

5. Discussion

It is known that HR competencies, business traits, business environments, and business strategies link with information system integration and can both predict and impact the integration of information systems in MSME actors when analyzing the parameters in the structural equation of path 1. According to the research, HRS Skills, BC, BE, and BS all significantly improve IIS. Individual skills also significantly improve IIS. Furthermore, it is established that concurrently (simultaneously) HR Skills, BC, BE, and BS have a major good impact on IIS.

However, the relationship between endogenous latent construction and exogenous latent construction can be affected by other factors not observed in the model, such as the appearance of error terms in the parameter estimation results (see Figure 2) in structural path 1. At the same time, the findings show that all endogenous latent constructions have strong predictive and explanatory powers. This means that HR Skills, BC, BE, and BS contribute to predicting and explaining IIS from the total variance of IIS R^2; Adj. R^2. Applications with system integration capabilities can be developed in SMEs thanks to HR expertise and the presence of certified accountants. Large companies have the resources to implement various systems at a more complex level than small companies, which has an impact on the need for information system integration to manage various information that business managers or managers must handle. The characteristics of the business and the business environment demonstrate the size of a business and the market served. This shows that there is a suitability of the size of the company and the business environment with the need for information system integration as a business develops This finding is reinforced by the results of the research of McChlery & Rolfe (2004); Fox Garrity (2012); Ling-yee & Ogunmokun (2008); Suryana et al., (2023); and Leite et al., (2016). The existence of strategic priorities is also specifically related to the goal of achieving competitive advantage. It will affect the importance of implementing a well-integrated information system because it is believed that it can help increase the effectiveness of information processing and appropriate decision-making in pursuing competitive advantage and achieving other strategic goals (Choe, 2004; Nguyen et al., 2019).

In the present day, SMEs work in a very complicated and dynamic environment with large and unforeseen changes, where one of their primary aims as a commercial activity is profit and long-term survival. It must therefore be able to progress toward greater agility, activity, and their ability to be dynamic, their growing awareness of the significance of progress in this direction, and their alignment with change as their primary competitive advantage. Human resources/workforce that have superior competence, business characteristics and sizes, business environment, and strategy are part of dynamic aspects that require adaptability throughout the journey. The integration of information systems is an important part of the process of harmonizing the activities of a business to achieve its goals and maintain its long-term survival in a favorable position.

The results of parameter estimation and analysis on structural equation II show that HR Skills, BC, BE, BS, and IIS correlate with the application of MA. However, the findings of the study show that only HR Skills and the BE have a direct and significant influence on the implementation of MA among SMEs operating in several tourism areas in Indonesia, as well as IIS was found to have a positive and significant influence on the implementation of MA. Meanwhile, BC and BS do not directly influence the implementation of MA among SMEs operating in several tourism areas in Indonesia. Managerial and operational decisions of SMEs in tourism areas in Indonesia mostly have a special and unique perspective, such as a mindset in managing a successful business because of the intensity and number of visitors or tourists who come to the tourist area. The multiplier effect of the number of tourists who come can increase sales of products offered, impacting improving management and growing business passion. The lack of tourists who come can affect management professionalism and business passion so that business characteristics and the environment between business people have little impact. Especially for SMEs in the culinary sector who provide fast food, although SMEs in this sector can sometimes employ more than 10 employees. However, this condition only applies to SMEs who have gone digital and are involved in the digital ecosystem, marketing through marketplaces on various digital platforms, and have a wider market reach.

It is recognized that some endogenous latent constructions (MA) in the relationship with endogenous latent can be influenced by various other factors not observed in the model (see Figure 2) in the structural path 2. The development of digital technology, e-commerce, marketplaces, and digital platforms, the trend of using artificial intelligence (AI) that allows the provision of real-time information, changes in consumer behavior as an audience, and even various policies of related agencies, digital talent of SME human resources, innovation capabilities, education and training, including the intensity of SME mentoring can affect the application of management accounting among SMEs in Indonesia today which requires global insight, critical thinking and adaptive business practices in the digital economy era.

On the other hand, the findings show that HR Skills, BC, BE, BS, and IIS together significantly positively affect the application of MA. The findings also show a high joint contribution of HR Skills, BC, BE, BS, and IIS in predicting and explaining the application of MA among SMEs operating in several tourism areas in Indonesia. Of course, this refers to the total variance of the application of MA R2; Adj. R2. The presence of professional accountants with advanced knowledge significantly enhances the application of management accounting in companies. In SMEs, qualified accountants facilitate the implementation and advancement of management accounting practices. Strong and skilled management accountants promote professionalism within the management accounting system, consistent with Chang's (2020) research. The use of management accounting and a company's size, as determined by its sales and personnel count, are closely correlated, according to Moilanen (2008) and Hutaibat (2005) (Nguyen et al., 2019). According to Ghasemi et al. (2016), market competition and the complexity of the company environment have an impact on how management accounting systems are applied and how well managers perform. Additionally, changes in company strategy or the adoption of different business strategies will lead to variations in management accounting practices, which should be more effective and suitable. Senftlechner and Hiebl's (2015) study demonstrated that business strategies and goals influence how management accounting is applied in family businesses, including in entrepreneurial settings and among SMEs. In practice, the implementation of MA will be more effective if it is supported by an integrated information system (Maiga et al., 2015; Chapman & Kihn, 2009; Yigitbasioglu, 2016; Azmi et al., 2018).

The evaluation of model parameters on the mediation pathway shows that HR Skills, BC, BE, and BS have an indirect effect on MA through IIS. However, the mediation effect of IIS is at a moderate level of partial mediation ability, referring to the VAF = 38,12% criterion or in the range between 20%<38,12%<80% (see Table 8). This research suggests that, through IIS mediation, several HR Skills have a favorable and significant indirect effect on using MA. Similarly, a few BC, BE, and BS variables

demonstrated a noteworthy and favorable indirect influence on SMEs' use of MA. The application of management accounting is impacted by HR skills, BC, BE, and BS, and IIS plays a significant role in enhancing the influence of these aspects. Information system integration can help with a number of things that impact how well a business is managed and performed. An organization's information technology infrastructure should have information system flexibility as it can support a number of aspects that impact the success of MA adoption. These findings align with the findings of a study by Gonzálvez-Gallego et al. (2015) (Byrd, 2000).

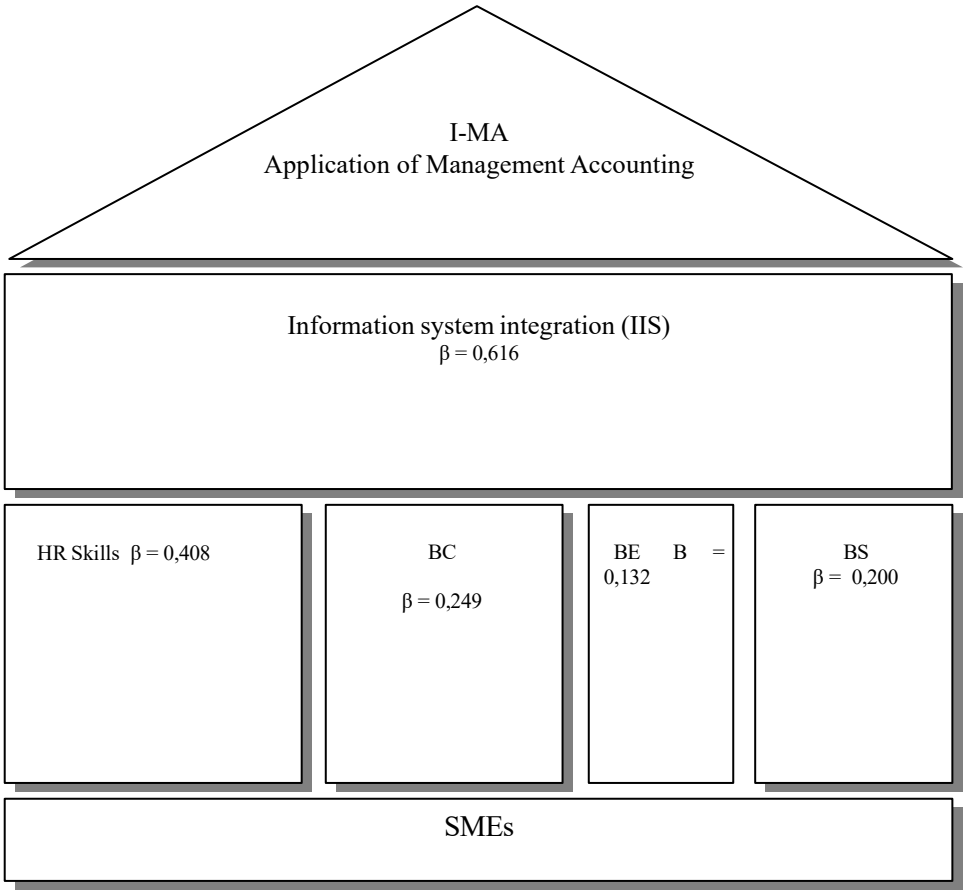

Figure 3. Management Accounting Implementation Model and Business Strategy in SMEs
Source: developed from research findings

The importance of IIS mediation in solving the relationship between BE and BS with the implementation of MA, which has no direct influence. However, with the involvement of the mediation role of IIS, there is a positive and significant relationship between BE and the application of MA and between BS and the application of MA. This condition shows that IIS can facilitate BE and BS in increasing the effectiveness and efficiency of MA applications and business managerial decisions among SMEs. McAdam & Galloway (2005), Chapman & Kihn (2009), and Maiga et al. (2015) stated that information system integration is increasingly important for the reconfiguration and transparency of information globally, also with its unique ability to provide streaming and sharing of information within and between organizations. Yigitbasioglu (2016) stated that an integrated information system can support the implementation of management accounting at a more effective level (Azmi et al., 2018). Therefore, the findings of this study can fill the gaps in existing research. However, interestingly, the model of implementing management accounting among SMEs more dominantly needs to prioritize HR skills and quality first, then sequentially consider BC, BS, and BS. While IIS is an important tool and means to support effective managerial decisions in business in the current digital economy era, even in the future. Figure 3 illustrates the model of implementing management accounting and business strategy among SMEs.

Based on their unique business needs and the surrounding environment, SMEs can take a variety of actions to enhance the caliber and competencies of their workforce, support their selected business plan, and make use of integrated information systems. It is acknowledged, nonetheless, that operating a SME can still provide challenges due to the capital issue. Nonetheless, in SMEs and larger firms, education and training can be used to enhance professionalism, sourcing abilities, and comprehension of management accounting systems. Individual characteristics and HRM competencies have a big impact on an organization's overall growth and performance (Firmansyah & Wahdiniwaty, 2017). The existence of several programs designed by the company, such as education and training programs, can be a motivation for employees to be able to improve the variety of skills and abilities needed for the effectiveness of the implementation of a system; the existence of motivation and organizational commitment are needed to support the achievement of an organization's goals (Firmansyah, Andriani, et al., 2021). In the business context, fostering sustainable multi-sector collaboration is crucial for successfully implementing new systems that demand innovation in a constantly evolving environment. Emphasizing continuous renewal and adaptation helps achieve clearer economic success in business endeavors (Wahdiniwaty et al., 2022; Firmansyah, Suryana, et al., 2022).

MA practices are essential for organizations that need to adapt flexibly and dynamically to grow and navigate the complexities of competitive markets. Effective implementation of MA helps organizations manage resources efficiently to address and minimize challenges posed by the market environment (Leite et al., 2016). In the global market, knowledge generation and application, stakeholder collaboration, and the adoption of better business practices are essential (Firmansyah, 2022a; Saepuloh et al., 2022). Effective business practices are becoming more and more important, even for companies that are dealing with unpredictable conditions. This is due to the influence of the corporate environment, social activities, market competitiveness, and creative company models (Firmansyah & Saepuloh, 2022b). Consequently, the ability to implement systems like MA becomes increasingly important. Furthermore, technology has an impact on the application of MA, particularly when businesses expand, adjust to changing environmental conditions, and contend with fierce competition. According to Nguyen et al. (2019), there is a direct correlation between increased market rivalry and the need for management accounting, and corporate strategy is a major factor in these dynamics.

Selecting the right business strategy is crucial for enhancing operational efficiency and achieving optimal goals. In order for a business to accomplish its goals and obtain a competitive advantage, management accounting can help and enhance its chosen tactics (Choe, 2004). Organizations that want to align with their strategic aims often implement management accounting solutions. The application of various management accounting techniques, which must be more appropriate and efficient, results from changes in business strategy. According to Senftlechner and Hiebl (2015), business strategies and goals influence the implementation focus of management accounting. Larger companies, with their greater resources, can utilize more complex management accounting methods compared to smaller ones. As a company grows, it is likely to expand its use of comprehensive management accounting techniques and tools, alongside implementing strategies involving costs and budgets.

Ultimately, a company's success largely hinges on managerial decisions informed by management accounting data. The effectiveness of management accounting can be enhanced through the integration of information systems, which include budgeting software, enterprise resource planning systems, business intelligence, and analytics. Business intelligence technology plays a crucial role by offering data collection, analysis, and presentation, thereby supporting management accountants in their decision-making processes (Appelbaum et al., 2017); this allows the production of data quality and data integration that becomes information input in the MA that is processed to become useful outputs for the internal/management of the company, especially related to decision-making and management control.

6. Conclusion

Human resource skills (HRS Skills), BC, BE, and BS have a significant positive effect on IIS. The findings also show that HR Skills, BC, BE, and BS simultaneously significantly positively affect IIS. HR Skills, BC, BE, and BS contribute to predicting and explaining IIS from the total variance of IIS. However, the findings of the study show that only HR Skills and BE have a direct positive and significant effect on the application of MA among SMEs operating in several tourism areas in Indonesia; IIS is also found to have a positive and significant effect on the application of MA. Meanwhile, BC and BS do not directly affect the application of MA among SMEs operating in several tourism areas in Indonesia. High HR Skills, BC, BE, BS, and IIS in predicting and explaining the application of MA among SMEs operating in several tourism areas in Indonesia.

The structural model on the mediation pathway shows an indirect effect of HR Skills, BC, BE, and BS on the application of MA through IIS. However, the mediation effect of IIS is at a moderate level of partial mediation capability. This concludes that some HR Skills have a positive and significant indirect effect on the application of MA through IIS mediation. Similar conditions were found, and some BC, BE, and BS also had a positive and significant indirect effect on the application of MA among SMEs. These findings can fill gaps in existing research. The novelty of this research produces a model for applying management accounting and business strategy among SMEs.

The implications of the research, with the development of a business, business complexity, changes in the environment and market, technological developments and digitalization, innovation practices, information system integration, and the implementation of strategies by the required business models and processes from time to time, the effectiveness of the adoption of the MA application is increasingly important to improve management performance including the context of MSMEs by the core of the business model they choose. The limitations of research and recommendations, instead of obtaining ideal research results and findings, still need to be developed from the methodological and operational aspects of research. This study focuses on just five factors influencing the application of management accounting in SMEs. However, there are numerous other elements that can impact the effectiveness of management accounting across different business scales. Future research could explore factors such as cooperation, awareness, and the capacity to fully adopt technology, especially in the context of the disruptive Industry 4.0 era and the emerging Society 5.0. These aspects could provide additional insights into the factors affecting the effectiveness of MA in SMEs.

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