

RESEARCH ARTICLE

Analyzing the Impact of Performance Metrics on Profitability: A Case Study of SMEs in Cambodian Food, Beverage, and Tobacco Industries

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ARTICLE INFO

Received: Mar 3, 2024

Accepted: Apr 30, 2024

Keywords

Performance measurement

Business profits

Food

Beverage

Tobacco

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ABSTRACT

This study examines the performance of small and medium-sized enterprises in the food, beverage, and tobacco sectors that affect business profits in Cambodia. The study used an explanatory sequential mixed method with a follow-up explanatory design. Stratified sampling was used to select 313 participants, whereas purposive sampling was applied to select 16 key informants. Data were collected from a questionnaire survey and semi-structured interviews. Descriptive statistics, multiple discriminant analysis, and content analysis were used to analyze the data. The results showed that two independent variables, investment and customer satisfaction, affect the business profits of SMEs in the food, beverage, and tobacco sectors by over 15%. The results of the qualitative analysis were the same, with additional external factors, such as government regulations, market competition, and economic conditions, which could affect business profits among SMEs in Cambodia in the food, beverage, and tobacco sectors. These findings provide insights into why SME entrepreneurs should focus on investment, building customer satisfaction, developing human competence, and external factors to gain and sustain business profits. This study can be used as a guideline for monitoring business operations and profits among SMEs. It would facilitate stakeholders, such as governments and the private sector, to support policy and implement strategies for SMEs.

INTRODUCTION

Small- and Medium-Sized Enterprises (SMEs) are vital to the economic fabric of countries, while the region plays an irreplaceable role in fostering development, growth, and industrialization across the globe. SMEs, declared the bedrock of economic prosperity in Cambodia, contribute substantially to the national GDP with a valuable figure of close to 14.2 billion US dollars, sustaining thousands of

job recruitments by the World Bank in 2021. Such an entity plays an important role in improving the living standard and reducing poverty. According to the Ministry of Industry, Science, Technology, and Innovation data, it contributes to 70% of the employment in the country, involving around 3.5 to 4 million people (Chan and Kanagaraj, 2019). During the last decades, SMEs in the food, beverage, and tobacco sectors have impacted the Cambodian

economy. They have been responsible for important contributions to the generation of jobs, supply of raw materials, export of products, and increase of GDP (Kimseng and Chareonsudjai, 2017). The statistical outcomes from the 2021 research by Talaengsatya are clear: the value for all the above-represented areas was equal to 1.9% of the GDP. By 2022, the number of mid-registered SMEs in the manufacturing sector had risen to 43,648, which offered jobs to 440,340 people, of which 164,880 specifically belonged to the food, beverage, and tobacco sectors (Royal Government of Cambodia, 2019). Given their very important role in national economic development, this has drawn concerted efforts from government bodies, private entities, NGOs, and enterprise support organizations. They have all marshaled together to develop various strategies for raising performance, resilience, and profitability levels among SMEs within these sectors. This was evident in the National Strategic Development Plan 2009–2013 development plan, which prioritized support and integration of the sectors into the global value chain (Royal Government of Cambodia, 2010).

Further, modernization was one of the other strategic development plans to strengthen these SME sectors' modernization, entrepreneurship, investment, and export enhancement (Royal Government of Cambodia, 2019). Although it is promising and support comes from different quarters, challenges still need to be overcome in the industrial field, especially for food, beverage, and tobacco SMEs, which still exhibit low performance and low profits (Royal Government of Cambodia, 2019). This means taking appropriate performance measures to enhance short-term and long-term performance stability and strength. Thus, according to Ates et al. (2013) and further supported by Taticchi (2010), performance measurement is considered an important management tool through which entrepreneurs can evaluate the business performance outcome in connection with securing enhancements in profitability. It is, therefore, historically researched with SME performance measurements that range from financial resources, innovation, and customer satisfaction of the firm. Therefore, Some researchers have recommended the adoption of some performance metrics to optimize business operations and profitability (Ahmad,

2014). However, there still seems to be a need for more research in the specific area of performance measurements directly relevant to profit margins in the food, beverage, and tobacco industries. Given the importance of SMEs in the Cambodian economy, especially in the food, beverage, and tobacco sectors, this research is poised to go into the intricate dynamics between performance measurements and business profitability.

Zhou et al. (2021) researched the influence of dynamic capabilities on the performance of food and beverage firms in Lagos, Nigeria. The sub-variables, i.e., strategic decision-making capacity, product innovation capability, strategic flexibility, competitive intensity, technological turbulence, and technological capability, represented the variable of dynamic capability. He found that these sub-variables could be classified under the enterprise performance variable of enterprise performance, with the sub-variables given as sales growth, enterprise survival, enterprise efficiency, and competitive advantage.

According to Adam and Alarifi (2021), even the innovative practices that the SMEs resorted to in facing the repercussions of COVID-19 had some positive spill-over effects on their performance and likelihood of business survival. Findings from PLS-SEM with the bootstrap have affirmed that the support from the environment clearly supports the relationship between the innovation practices of SMEs and strengthening business survival rather than their performance.

In such a view, therefore, the research attempts to bridge this research gap and offer research insights that could aid the SME entrepreneur not only in Cambodia but also in the whole of the ASEAN region through the ability of performance measurements within similar business contexts for purposes of operational monitoring and profit optimization. It also seeks to serve as a resource to help the stakeholders further support policy frames and strategic implementation for SMEs, particularly in the food, beverage, and tobacco sectors. The next section will provide a comprehensive literature review to establish a theoretical framework, thus leading to the study reaching some significant findings. With these enterprises making critical contributions to employment and GDP, strategic efforts to enhance

their growth and integration into global value chains have faced challenges due to performance and profitability. This points to a significant gap: a need for understanding and, thus, effective measurement implementation that could directly impact and improve profit margins in those sectors. Hence, in this study, an attempt will be made to indicate and analyze the key performance measurements that could help describe the profitability of SMEs in operation among the selected food, beverage, and tobacco sectors in Cambodia. This will eventually form part of a comprehensive framework that may be used by SME entrepreneurs in Cambodia and, by extension, the ASEAN region to check on their operations to improve their operations and, therefore, profitability. In an attempt, the lessons from this contribution will provide valuable insight for all stakeholders from the point of view of policy formulation in a more robust and resilient SME sector.

LITERATURE REVIEW

The existing literature pays much attention to specific aspects of the role of small- and medium-sized enterprises in world economic development and the social area (Gherghina et al., 2004; Belu et al., 2018). The importance of the enterprise does not depend on its uniqueness in a given country or region. On the international level, this kind represents the most common structure of businesses and contributes most to economic growth. The contribution of SMEs to GDP is one reason that developed and developing countries value these firms apart from other factors of contribution: employment generation and growth (Manzoor et al., 2021; Rashid et al., 2023). In such an environment, SMEs increasingly take over the business environment, capturing even 95% of the company totals worldwide. The contribution of small companies to the business environment accounts for 60% of private employment. SMEs are many times more flexible with market changes and new requirements or needs made by the customer. Sometimes, their organizational structure allows them to make decisions instantly.

Moreover, the level of flexibility in addressing these matters is ample compared to large firms. Therefore, their reaction to technological changes and flexibility in their markets is relatively higher. The literature on

SMEs' efficiency is vast (Fitrah, 2023; Mallinguh et al., 2020; Mishrif and Khan, 2023). However, all these works deal with the estimate of cost minimization efficiency, measuring how the costs are close within a company to the costs of a best-practice company producing the same output under similar conditions.

Recent advances in performance metrics and SME profitability

In this context, indeed, modern literature underlines that there has been an evolution in these metrics, particularly with the development of digital transformation and increased sustainability concerns (Gyamera et al., 2023; Jam et al., 2010; Nodee, 2016) further explain that in SMEs, digital tools are inserted within the performance measurement systems that signal the improvement for real-time monitoring and influence decision-making. This is most pertinent to the fast-evolving industries like food, beverage, and tobacco, wherein the market demands and supply chain dynamics might take a 180-degree turn from one period to another.

Sustainability and ethical sourcing

The sustainability and ethical considerations of consumer preferences become essential for businesses related to consumers, consequently leading to a body of research looking into the impact of these on SME profitability. Adewole (2024) has emphasized that if sustainability metrics are embedded in the performance appraisal framework, this will ultimately draw competitive advantages along with long-term improved profitability for SMEs. Thus, This is of great importance for the industries that rely on those agricultural inputs and food and tobacco, on which sustainability and ethics in sourcing arise as critical factors in consumer choice.

Technological adoption and operational efficiency

In recent literature, much focus has been put on examining the role of technology in enhancing operational efficiency and, in turn, profitability in SMEs. Chen et al. (2023) empirically investigated the effect of technological adoption, including logistic and inventory management technologies, on the performance metrics of SMEs. In this view, the study has been realized to be very pertinent in the Cambodian food, beverage, and tobacco sector, in which efficiency in supply chain management ranks among the prime determinants of profitability.

The Cambodian context post-2020

Considering the present global impacts brought about by the COVID-19 pandemic, a study of resilience and adaptability for SMEs in Cambodia becomes an important area to focus on. The survey by Engidaw (2022) has raised both the hurdles and opportunities that the pandemic offers SMEs in Southeast Asia, including Cambodia.

The study indicates that SMEs equipped with flexible, adaptive performance measurement systems were better positioned to be minimally affected by the wave of uncertainties while ensuring profitability.

Table 1 below gives the data for Cambodian small and medium-sized enterprises in the manufacturing industry (food, beverage, and tobacco industries):

Table 1: Small and medium sized enterprise in industry sector

Sector	Number of Employees		Annual Turnover (US Dollar)		Assets (US Dollar)	
	Small	Medium	Small	Medium	Small	Medium
Industry (Food, Beverage and Tobacco)	5-49	50-199	62,500-400,000	400,001-2,000,000	50,000-500,000	500,001-1,000,000

The researcher determined the independent variables of performance measurement linked to business profits, such as quality, lead time, investment, flexibility, customer satisfaction, and human resources (Table 2). The researcher will use these independent

variables of performance measures to create control variables that specify the business profits of SMEs in Cambodia’s food, beverage, and tobacco sectors. An independent variable was established as the control variable.

Table 2: Nineteen variables of dimensions for performance measurement related to business profits of SMEs in food, beverage and tobacco sectors

Independent Variables	Control Variables	Total of Variables
Quality	Product quality, waste, defects and Suppliers	4
Lead Time	Delivery time, work in process	2
Investment	expenditure, inventory, profit and cash flow, and revenue	5
Flexibility	Product innovation and new product launching	2
Customer Satisfaction	Customers’ complaints, product return and user problems	3
Human Resource	Employee turnover, work safety and staff training	3
Total Variables		19

Objectives

The following are the main objectives of the research, each of which holds significant importance in the field of business and performance measurement:

- To compare the sectorial attitudes and practices of performance measurements between SMEs and explore the opinions.
- The research aims to compare and contrast business earnings across SMEs in different sectors, particularly emphasizing the unique financial outcomes that these sectors present. It also aims to identify the relationship between performance measurements and business profits within SMEs in the food,

beverage, and tobacco sectors and establish how the performance metrics influence financial success.

Based on these three objectives, studying business profits by evaluating performance measurements in different SME sectors is crucial. The conceptual framework of this research, which has direct implications for real-world business practices, is derived from research on performance measurement in SMEs that relates to business profits (Ahmad, 2014; Ahmad and Zabri, 2016; Ruangchoengchum, 2017; Taticchi, 2010; Simons, 2014) and the 19 variables of performance measurement created by the researcher. The conceptual framework is illustrated in Figure 1.

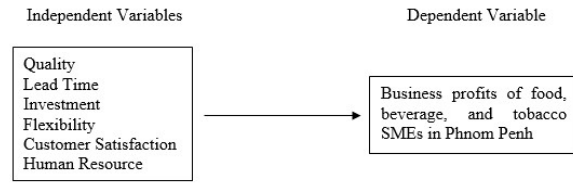


Figure 1: Conceptual framework

METHODOLOGY

The research applied a mixed-methods approach to explain performance metrics influencing SME profitability in Cambodia's food, beverage, and tobacco sectors. The research design was guided by a quantitative data collection and analysis approach. However, it was necessary to embrace qualitative revelations to elaborate further and set the context of the numerical findings. Explanatory sequential mixed methods—identifying through a follow-up explanation design, according to Edmonds and Kennedy (2017). The approach would systematically give a guideline to mesh the qualitative observations

and the quantitative results so that a more prosperous and subtler understanding will likely emerge. From the beginning, relevant quantitative data was dissected; this was the pertinent SME performance and profitability. Subsequently, qualitative insights were integrated to better interpret these quantitative results. The methodology is then divided into two distinct stages, the first of which primarily focuses on collecting and analyzing quantitative data. At the same time, the other stage involves explicitly collecting and analyzing quality data to complement and expound on the findings provided in the first stage.

The research design is illustrated in Figure 2.

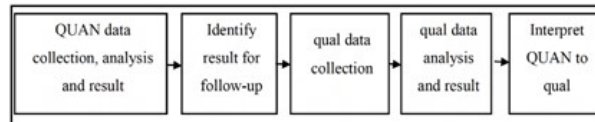


Figure 2: Follow-up explanation design, Edmonds and Kennedy (2017)

Participants

Quantitative phase: The researcher chose Phnom Penh, the capital city of Cambodia, as the study area. This area is a hub of economic, industrial, cultural, and business centers. Most manufacturing businesses are small- and medium-sized enterprises in the food, beverage, and tobacco industries (Rastogi, 2017). According to the Ministry of Industry, Science, Technology, and Innovation's official registered numbers, 1,692 food, beverage, and tobacco SMEs employ 35,192 people (Royal Government of Cambodia, 2019). Thus, data were collected from entrepreneurs or managers in this population group.

For the first quantitative phase, questionnaires were used as a research tool to collect data for this study, and respondents were asked to indicate their opinions on the statement of each performance measurement related to business profit of the 19 variables that

were created in a structured questionnaire with five-point Likert scales (Cooper and Schindler, 2014). Furthermore, the respondents were asked to provide information on the annual net profit, ranging from less than 5%, 5–7%, 8–10%, 11–15%, and more than 15% (Ruangchoengchum, 2017).

The samples used in this study were entrepreneurs of small- and medium-sized enterprises in Phnom Penh, Cambodia's food, beverage, and tobacco sectors. Additionally, researchers were randomly selected from 1,692 businesses (Cooper and Schindler, 2014). As cited in Ahmad and Halim (2017), the researcher followed Cochran's method. The alpha level was set at .05, the level of acceptable error was set at 5%, and the standard deviation of the scale was estimated to be 0.5. Thus, the sample size formula for categorical data was as follows:

$$\text{Formula: } n_0 = \frac{(t)^2(p)(q)}{(d)^2}$$

Where t is the value for the selected alpha level of 0.25

in each tail = 1.96.

(p)(q) is the estimated variance = 0.25

d is the acceptable margin of error for proportion being estimated = 0.5

$$\text{Thus, } n_0 = \frac{(1.96)^2(.5)(.5)}{(0.5)^2} = 384$$

Therefore, the required sample size is 384 for a population of 1,692.

However, since this sample size exceeds 5% of the population (1,692*.05=85), Cochran's correction formula should be used to calculate the final sample size, as Ahmad and Halim (2017) cited. The calculations are as follows:

$$n_1 = \frac{n_0}{1+n_0/\text{Population}}$$

Where: Population is 1,692

n_0 is required return sample size according to

Cochran's formula =384

n_1 is required return sample size because sample > 5% of population

Thus, the final sample size was calculated as follows:

$$n_1 = 384 / 1+384/1692 = 313$$

Therefore, 313 food, beverage, and tobacco SMEs are classified into subgroups. To determine the proportion of the samples from each subgroup, stratified random sampling was used (Cooper and Schindler, 2014). The calculation of the stratified random sample size for each SME subgroup in the food, beverage, and tobacco sectors is shown in Table 3. Samples were randomly selected from each subgroup.

Table 3: Number of stratified random sampling for each subgroup of SMEs in food, beverage and tobacco

SMEs Sector in	Population*	Percentage	Number of Sample
Food	1,210	72%	224
Beverage	464	27%	85
Tobacco	18	1%	4
Total	1,692	100%	313

Source: * Royal Government of Cambodia (2019)

Qualitative phase: Qualitative data were collected from entrepreneurs who were critical informants of SMEs in Phnom Penh, Cambodia's food, beverage, and tobacco sectors. Semi-structured interviews were conducted to collect data. An interview guide supported the interviews with intentionally open-ended questions on how performance measurement factors affect business profits. Online interviews were used to collect qualitative data, as supported by Salmons (2017).

The number of key informants was typically fewer than 30 (Vasiliou and Adams, 2018). There are three main characteristics in choosing key informants: age (over 30 years), experience in operating businesses (more than five years), and educational background (bachelor's degree and above). Thus, in practice, the researchers chose 16 key informants as participants, comprising 10 key informants from the food sector, five key informants from the beverage sector, and one key informant from the tobacco sector. A purposive sampling technique was applied to select SME entrepreneurs (Cooper and Schindler, 2014).

Reliability test

The reliability of the questionnaire was tested through a pilot test involving 30 individuals who used the cronbach alpha coefficient. A pilot test was conducted on 30 respondents to determine the tool's reliability. On the other hand, the questionnaire was reliable if the coefficient value of the questionnaire's cronbach's alpha was not less than 0.7. This, therefore, resulted in a coefficient value of 0.944, indicating that the questionnaire is reliable for use in this research as it has satisfied the benchmark of cronbach's alpha.

The study focused on ensuring descriptive and interpretive validity during the qualitative phase. Descriptive validity was enhanced using investigator triangulation: more than one coder independently reviewed the data at different times and then discussed his findings with a consensus toward the descriptions of the analytical results. This assures that the interpretation of qualitative data is profound and confirmed in collaboration, hence of high quality or validity.

Data analysis

Quantitative phase: Descriptive statistics were used to calculate the Arithmetic Mean (AM) and Standard

Deviation (SD). The examined data were evaluated and divided into numerous comment levels by statistically applying an average score for each level.

The average levels of opinions following the wide-interval computation are shown in Table 4.

Table 4: Criteria for interpreting mean factors

Average	Interpretation
Average of 4.00 to 5.00	In the mean opinion level (Very high)
Average of 3.50 to 3.99	Means there are a lot of opinion (High)
Average of 3.00 to 3.49	Means there is moderate opinion (Medium)
Average of 2.50 to 2.99	Means there is less opinion (Low)
Average of 1.00 to 2.49	Means the least number of opinions (Very low)

The researcher used a multiple discriminant analysis technique to study the performance measurement that affects business profits. Multiple Discriminant Analysis (MDA) is an appropriate

multivariate technique if a single dependent variable is multichotomous and nonmetric. This method is suitable for situations where there are several metrically independent variables (Hair et al., 2017).

Table 5: Performance measurement of SMEs in food, beverage and tobacco

Performance measurement Dimension	Overview			Food			Beverage			Tobacco		
	<i>X</i>	<i>S.D.</i>	Opinion level	<i>X</i>	<i>S.D.</i>	Opinion level	<i>X</i>	<i>S.D.</i>	Opinion level	<i>X</i>	<i>S.D.</i>	Opinion level
Product Quality	4.14	.65	Very high	4.09	.63	Very high	4.26	.67	Very high	4.5	.57	Very high
Waste	4.08	.56	Very High	4.08	.55	Very High	4.09	.57	Very High	4.25	.50	Very high
Suppliers	4.01	.59	Very High	4.04	.58	Very High	3.95	.61	High	3.50	.57	High
Defects	3.79	.61	High	3.77	.62	High	3.82	.58	High	4.25	.50	Very high
Delivery Time	3.81	.60	High	3.79	.59	High	3.87	.63	High	3.75	.50	High
Work in Process	3.78	.54	High	3.75	.52	High	3.88	.58	High	3.75	.50	High
Expenditure	3.13	.83	Medium	3.06	.87	Medium	3.29	.73	Medium	3.50	.57	High
Inventory	3.24	.96	Medium	3.14	1.02	Medium	3.49	.76	Medium	3.50	.57	High
Profit	3.30	.88	Medium	3.17	.89	Medium	3.64	.76	High	4.00	.00	Very high
Cash Flow	3.18	.90	Medium	3.03	.92	Medium	3.56	.73	High	3.75	.50	High
Revenue	3.25	.91	Medium	3.08	.90	Medium	3.68	.72	High	4.00	.00	Very high
Product Innovation	4.00	.63	Very High	4.06	.66	Very High	3.87	.55	High	3.50	.84	High
New Product Launching	3.60	.96	High	3.55	1.01	High	3.75	.77	High	3.40	.57	Medium
Customer Complaints	3.30	.95	Medium	3.95	1.04	High	3.61	.76	High	4.00	.81	Very High
Product Return	3.35	.97	Medium	3.29	.97	Medium	3.62	.83	High	4.00	.00	Very high
Customer Problems	3.40	.87	Medium	3.33	.89	Medium	3.56	.93	High	4.25	.50	Very high
Employee Turnover	3.92	.70	High	3.96	.75	High	3.85	.56	High	3.75	.50	High
Work Safety	4.18	.64	Very high	4.17	.63	Very high	4.21	.67	Very high	4.00	.84	Very high
Staff Development	4.00	.66	Very High	3.99	.71	High	4.04	.55	Very High	4.25	.50	Very high

The researcher found that SME entrepreneurs had performance measurements at very high levels for almost all the variables. However, the results showed that investments in inventory, profits, cash flow, revenue, and expenditure were at medium levels. Moreover, performance was at a medium level for customer satisfaction, such as customer complaints,

product returns, and user problems.

By contrast, when examining SMEs in each sector separately, the tobacco industry performed at very high and high levels, except that the new product launch variable was at a medium level. Objective 1 is thus achieved. The results for SME in the food and beverage sector are presented in Table 5.

Table 6: SMEs' business profit classified by sectors

SMEs' Profit classification	Sector of SMEs			Total n (%)
	Food n (%)	Beverage n (%)	Tobacco n (%)	
Net profit more than 15% (Strong net profit)	49 (21.9%)	12 (14.1%)	1 (25.0%)	62 (19.8%)
Net profit between 11% - 15% (normal net profit)	65 (29.0%)	29 (34.1%)	3 (75.0%)	97 (31.0%)
Net profit between 8% - 10% (Not strong net profit)	91 (40.6%)	39 (45.9%)	-	130 (41.5%)
Net profit between 5% - 7% (Poor net profit but still have fund)	19(8.5%)	5 (5.9%)	-	24 (7.7%)
Total n (%)	224 (72%)	85 (27%)	4 (1%)	(100%)

Despite having the most significant number of SMEs, the food sector shows a wide distribution across profit categories, indicating varied performance (Table 6). The beverage sector has a relatively high proportion of SMEs in the "normal net profit" and "not strong net profit" categories. The tobacco sector needs to be bigger to draw significant conclusions, though one of its four businesses reports net solid profits. The SME sector performs reasonably well, particularly

food and beverage, with a majority reporting at least "not strong net profit." SMEs across all profit categories suggest diversity in how these businesses are managed and their resulting financial health.

The results of performance measurement and business profits

The researcher used these two results to determine the performance measurement that affects business profits among.

Table 7: Test of equality of the group means

	Wilks'lambda	F	df1	df2	Sig.
Quality	.986	1.479	3	309	.220
Leadtime	.995	.490	3	309	.690
Investment	.959	4.450	3	309	.004
Flexibility	.982	1.890	3	309	.131
Customer Satisfaction	.974	2.708	3	309	.045
Human Resource	.997	.303	3	309	.823

Using multiple discriminant analysis, the results of the equality of group test showed that two performance measurements affect business profits: investment and customer satisfaction. The researchers had a significant value of less than 0.05, as shown in Table 7. To check the reliability of the outcome, the researcher determined that the test results had a significance value of 0.72, which is greater than 0.05. Therefore, these results are acceptable.

The following equation was obtained from these

results: the other four independent variables were excluded because researchers had a significance value greater than 0.05.

Hence, the equation can be written as

$Z(i) = a + W_1 \text{ investment} + W_2 \text{ customer satisfaction}$ where I = 1, 2, 3, and 4 is regarded as the performance measurement that affects business profit with the following classifications: strong net profit (more than 15%), normal net profit (11-15%), not strong net profit (8-10%), and quite poor net profit (5-7%).

Table 8: Canonical discriminant function coefficients

Independent Variables	Function		
	1	2	3
Investment	1.047	.871	-.844
Customer Satisfaction	.937	-1.350	1.193
(Constant)	-3.505	-6.262	-7.770

Remark: Unstandardized coefficients

According to the canonical discriminant function coefficients in Table 8, the following three equations can be written: The few opinions on poor net profit might affect the accuracy of the prediction. Therefore, researchers were grouped as not having strong net profit.

The following models were developed by the researcher in this context.

Model 1

$$Z_1 = -3.505 + 1.047 \text{ investment} + 0.937 \text{ customer satisfaction}$$

Model 2

$$Z_2 = -6.262 + 0.871 \text{ investment} - 1.350 \text{ customer satisfaction}$$

Model 3

$$Z_3 = -7.770 + 0.844 \text{ investment} - 1.193 \text{ customer satisfaction}$$

From the model mentioned above, the two performance measurement factors affect business profit, investment, and customer satisfaction. Thus, Objective 3 is achieved,

Qualitative phase

The analyzed data are derived from the collected data as presented. According to Cooper and Schindler (2014), therefore, content analysis involves a number of systematic steps to ensure a thorough evaluation of the qualitatively collected data.

The interview audio tapes were first transcribed into verbal data and were further analyzed

Once the transcribing process is complete, the data should be read to achieve a comprehensive and complete understanding of transcribing data. This review process is important for getting familiar with response content and context.

The core of the analysis was processes like coding the data, which involved organizing the data into categories and themes that summarized similar meanings or concepts. This process is important because it will help realize patterns and meaningful insights from the data.

Interpretation of the data

In this stage, the identified themes and patterns were interpreted to derive meaningful insights and conclusions from the data about research questions.

This step is the last one in line with writing a detailed explanation of the data based on its interpreted meanings. The findings were presented with supporting information, quantifying where possible, to substantiate the derived conclusions of the analysis.

Investment

Many participants described investment and financial performance as the most important SME dimensions. Entrepreneurs need help managing this dimension, as it is always complicated and changeable. Participants expressed that investment performance is directly related to profits and that this dimension affects profits if it cannot be managed effectively. Some participants, as key informants, revealed the following:

"The investment factor of performance measurement plays a crucial role in influencing business profits. By effectively measuring and evaluating the performance of investments, businesses can make informed decisions." Participant 3

Similarly, another participant explained:

"I agree that investment is the main dimension that affects business profits because the investment factor can lead to improved products or services and ultimately higher profits." Participant 16

Customer satisfaction

Most participants mentioned that customer satisfaction is a critical factor influencing business profit. When SMEs prioritize and effectively measure customer satisfaction, participants contribute to customer loyalty, which can increase business profitability through sustainable growth. This can be seen from the participant, an entrepreneur in SMEs.

"I agree that customer satisfaction is the key performance that affects profits. Satisfied customers are more likely to become repeat customers and can

drive profitability through a sustainable competitive advantage." Participant 5

Another participant contended that "customer satisfaction significantly impacts business profits. Measuring and improving customer satisfaction can lead to customer loyalty. Thus, entrepreneurs' SMEs can strengthen their profitability." Participant 7

Others

As mentioned, most participants pointed out that entrepreneurs widely use performance measurements to measure business profits based on their investment and customer satisfaction factors. However, others are related to weak entrepreneurship and external factors, as follows:

Weak entrepreneurship

Over two-thirds of participants stated that performance measurements were used when entrepreneurs could handle or use them properly. However, most SME entrepreneurs need to be more vital regarding human competencies and cannot measure their business profits. One participant stated the following:

"Human competencies, or employees' skills, knowledge, and abilities, play a crucial role in driving business profits. However, many SME entrepreneurs are still weak in competencies. This is the result that can affect business profits." Participant 10

Thus, SME entrepreneurs should recognize that organizational human competency is essential for achieving and sustaining business profits. In addition, SME entrepreneurs can use performance measurements to monitor business profits, particularly regarding human competencies.

External factor

Most participants stated that performance measurements are more likely to be internal controls and that many entrepreneurs utilize them. However, external factors, such as economic conditions, market competition, technological development, consumer behavior, and trends, significantly influence profits. These factors often go beyond business controls and can directly impact profitability. The participants in this study concurred with the following:

"External factors are affecting the business profits of SMEs in the food, beverage, and tobacco sectors. We cannot control the external environment, and it also seems to be a difficult task for other entrepreneurs."

Participants 8 and 11

Similarly, another participant revealed that:

"External factors are crucial for SMEs to navigate the dynamic business environment, and entrepreneurs can directly impact profitability." Participant 15

Thus, external factors significantly impact SMEs' profitability. By understanding these factors, staying agile, fostering innovation, and adopting proactive strategies, SMEs can position themselves for success, mitigate risks, and capitalize on opportunities presented by the dynamic business environment. SMEs must measure and adapt to these external factors to mitigate risk and identify opportunities to enhance profitability.

In the following section, the research outcomes are evaluated and synthesized for discussion to enhance SMEs' business profit performance and implement policies and strategies for SME development.

DISCUSSION

Performance measurement for SMEs is crucial to their growth, success, and sustainability. Performance measurements can help organizations identify areas for improvement, track progress, and monitor their current performance. The results show that SMEs and entrepreneurs in the food sector had medium levels of all investment measures, such as expenditure, inventory, cash flow, revenue, and profits. In contrast, entrepreneurs in the beverage sector performed better at a high level in terms of cash flow, revenue, and profit. Entrepreneurs in the food sector performed at a medium level in product returns and customer problems, whereas entrepreneurs in the beverage and tobacco sectors performed at extremely high levels. Unlike entrepreneurs in the food and beverage sector, entrepreneurs in the tobacco sector had a very high level of opinion in all performance measurements, except in the new product launch, which was only at a medium level. These results are consistent with Ahmad and Zabri (2016), Maduekwe and Kamala (2016), Ruangchoengchum (2017), and Sondakh et al. (2017), which reveal that different sectors of SMEs have varying performances. Similarly, the results show that entrepreneurs of SMEs in the food, beverage, and tobacco sectors have different levels of performance. Anggadwita and Mustafid (2014) revealed that the better performance of SMEs is

mainly due to the competency of human resources and entrepreneurship in the organization.

Second, the results show that the SMEs in each sector earn different profits. In addition, the multiple discriminant analysis results show that two performance measurements—investment and customer satisfaction—affect business profits at five levels. These findings are consistent with Ahmad et al. (2010) and Hu et al. (2022), who found that financial success or profits depend on entrepreneurs' competencies in entrepreneurship and human relationships. Undoubtedly, the qualitative results could further explain the results of these two performance measurements and the weaknesses of entrepreneurship and human competency. At the same time, external factors were the key elements that affected business profits among SMEs in Cambodia's food, beverage, and tobacco sectors. The results support Mitchelmore and Rowley (2010), who found that SME entrepreneurs may lack the necessary managerial skills or competencies, which can impact their ability to run effectively and increase their businesses' profits, similar to the significant impact of external factors such as market competition and consumer behavior. These external factors are key elements affecting business profits among SMEs (Dwivedi et al., 2021).

Third, this study does not fill the gap in performance measurement that affects business profits among SMEs in the food, beverage, and tobacco sectors, which has yet to be previously explored or sufficiently characterized in the literature. Still, it also addresses the research objective of performance measurement affecting business profits. This study clearly defines investment and customer satisfaction as two performance measurements that affect the business profits of SMEs in the food, beverage, and tobacco sectors.

This conclusion is consistent with the fact that investment and customer satisfaction are interconnected factors that mutually reinforce each other and contribute to profitability. Gholami et al. (2013) concluded that investments made by SMEs can directly influence customer satisfaction. For instance, investments in product quality, research and development (R&D), and innovation can lead to the development of superior products or services,

resulting in increased customer satisfaction and SME profitability. Similarly, Saleh and Saheli (2018) demonstrate that high levels of customer satisfaction contribute to customer loyalty, a key driver of long-term profitability in SMEs. Satisfied customers are more likely to become repeat customers, provide positive referrals, and have a higher lifetime value for the business. This loyalty translates into sustained revenue streams and improves profitability. This claim also syncs with Asiaei et al. (2022), who concluded that building customer satisfaction and loyalty through investments in quality, service, and relationship management can contribute to long-term sustainability and profitability. Satisfied customers are more likely to make repeat purchases and advocate for a business, resulting in a stable revenue stream. These studies provide insights into the importance of customer satisfaction, its relationship with profitability, and the impact of investment on customer satisfaction. These offer a comprehensive understanding of the subject and can serve as a starting point for further exploration.

CONCLUSION

This research underscores a critical directive for entrepreneurs within the food, beverage, and tobacco sectors of Small and Medium Enterprises (SMEs). It is also essential that investment and customer satisfaction, as key performance indicators, be prioritized, guaranteeing the business more profitability. The findings highlight a clear road to success: close monitoring and response to these performance metrics could significantly increase profit margins over and above 15 percent. The results of the qualitative analysis were the same, with additional external factors, human competencies, and weak entrepreneurship, which could affect business profits among SMEs in Cambodia in the food, beverage, and tobacco sectors.

Practical and theoretical implications

The study will, therefore, be of great use to entrepreneurs and managers within the SMEs, especially in the food, beverage, and tobacco sectors, as the study will guide them on issues within their control, organization performance, and mechanisms of attaining more organizational performance and profit growth. This further encourages entrepreneurs

and managers to adopt investment and customer satisfaction as core performance metrics. These performance indicators help the business identify the strengths where it can be built and the areas that need improvement, which may initiate target strategies toward profit enhancements. This research will elicit a strong framework for SMEs to conduct the business operations' assessment and adjustment exercise towards the profit growth objectives in a structured manner. It guides towards further refining the business model and improving the customer experience through optimization of investment returns. Therefore, this supports the reason relevant policies and strategies must be developed by the concerned government units, NGOs, and the private sector, among others, to offer a good support environment for SMEs within the food, beverage, and tobacco sectors. These mainly include financial incentives, training programs for skill development, and improvements in infrastructure to raise growth and profitability for SMEs. The study unfolds the essentials of entrepreneurship and human competency skills, which are leading toward gaining business success. Training and development programs aimed at these factors enable leaders and their teams of SMEs to tackle market challenges and be better-prepared takers of opportunities. This connotes that the theoretical contribution of this study spans much more than the practical application of it, bringing substantial insight into the field of business management and SME research. Another contribution of this research to the literature is the evidence of the direct impact of investment on customer satisfaction and SME profitability in specific sectors of interest. It will help improve theoretical discussions of performance metrics with empirical evidence in the choice. That would, in fact, be such a marked difference in the SMES operating in these sectors—food, beverage, and tobacco. This distinction would nuance the theory and concept development that might guide further research and theory development in these sectors. This study may expand the theoretical perspective by acknowledging the influence of external factors on SME profitability. This message highlights the importance of considering the company's internal competencies and, at the same time, the external market conditions within

the strategic planning process, which offers a more systemic approach to business management theory. The results of the role of policy support and strategic implementation for SMEs provide an understanding of the ecosystem in which SMEs work. This is where the study will highlight the interplay of entrepreneurial action and policy frameworks, adding quality to discussions on how different aspects of the support mechanisms might be used to improve business performance and sustainability.

Limitations and future directions

The study emphasizes investment and customer satisfaction as the primary performance measurements impacting business profits. This focus may overlook other critical internal and external factors that could significantly influence profitability, such as operational efficiencies, market trends, and regulatory changes. By concentrating on the food, beverage, and tobacco sectors, the research might only capture part of the spectrum of challenges and opportunities SMEs face in other industries. The findings may be somewhat generalizable to SMEs operating outside these sectors, limiting the breadth of the study's applicability. The study's geographic limitation to Phnom Penh City presents a constraint, as it may only partially represent the diversity of business environments and conditions across Cambodia. Regional variations in economic conditions, consumer behavior, and market access could yield different insights into the performance and profitability of SMEs.

Future studies could incorporate a broader array of performance measurements to provide a more comprehensive view of what drives SME profitability. Exploring digital adoption, supply chain efficiency and employee satisfaction could yield valuable insights into additional levers for enhancing business success. Undertaking comparative studies across different sectors could reveal unique challenges and opportunities SMEs face beyond the food, beverage, and tobacco industries. This broader approach could help identify sector-agnostic and sector-specific strategies for boosting profitability. Extending the research to include SMEs in various regions of Cambodia would offer a more nuanced understanding of how regional differences impact business performance. Such studies could explore

the influence of local economic conditions, cultural factors, and market access on profitability.

Investigation of External Factors: Future research should also consider the role of external factors in shaping SME profitability. This could include studies on the impact of regulatory environments, global market trends, technological advancements, and socio-economic changes on business operations and success.

By addressing these limitations and exploring the suggested future directions, subsequent research can further enrich the understanding of SME performance and profitability, offering more robust guidance to entrepreneurs, policymakers, and scholars interested in the vibrant SME sector.

ACKNOWLEDGMENT

This work was supported by the College of Graduate Study in Management, Khon Kaen University, Thailand.

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