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She Builds & She Thrives: The influence of human capital on SME financial & non-financial performance

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ABSTRACT

Women entrepreneurs are making a significant contribution to the country’s economy. To improve the performance of women SMEs, human capital development is very important because it can have a significant impact on an organization. The success of an organization depends on the quality and quantity of its human capital, whether intellectual or personal. The purpose of this study is to examine the influence of human capital dimensions (i.e., competencies, motivation, and creativity) on financial and non-financial performance. A quantitative approach based on online surveys was used in this study. The study sample consisted of 400 SME entrepreneurs aged 18 to 60 years who operated businesses in Klang Valley. This analysis uses structural equation modelling (SEM). Respondents were selected using purposive, cluster, and snowball sampling methods. Findings show that competencies, motivation, and creativity have a significant impact on the financial and non-financial performance of women's SMEs. In this regard, the organization needs to prioritize investment in human capital to develop employees with exemplary values. Considering the importance of knowledge as the basis for added value in human development, employers' roles are crucial in nurturing and encouraging employees to continue gaining knowledge to produce successful individuals.

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1. INTRODUCTION

Small and Medium Enterprises (SMEs) serve as the backbone of Malaysia's economic landscape, injecting vitality and dynamism into the country's financial framework (Basit et al., 2024). These enterprises contribute significantly, contributing over a third of Malaysia's Gross Domestic Product (GDP). In Malaysia, the classification of an enterprise as an SME is determined primarily by two factors: sales turnover and number of full-time employees (Tahir et al., 2018). In the manufacturing sector, micro enterprises are firms with sales turnover of less than Ringgit Malaysia (RM) 300,000 or fewer than 5 full-time employees. A small enterprise is a firm with sales turnover between RM300,000 and RM15 million, or 5 to fewer than 75 full-time employees (Chin & Lim, 2018). Medium enterprises generate sales turnover of RM15 million to RM50 million or employ 75 to 200 full-time employees (Tahir et al., 2018). For services and other sectors, the breakdown is slightly different. Micro enterprises have a sales turnover of less than RM300,000 or less than 5 full-time employees. Small enterprises have a sales turnover of RM300,000 or less and 5 or fewer full-time employees; they fall into this category. The medium enterprise category includes firms with sales turnover of RM3 million or more but not more than RM20 million, and with 30 to 75 full-time employees (Bai & Harith, 2023).

SMEs continue to strengthen their position as key players in the Malaysian economy, contributing RM652.4 billion in 2024. According to official statistics from the Department of Statistics Malaysia (DOSM), SMEs grew by 5.8 percent in 2024, ahead of the national economy, which grew by around 5.1 percent, and non-SMEs, which grew by 4.7 percent (Utusan Malaysia, 2025). This encouraging performance, in line with the overall Malaysian economic growth trajectory, was driven by the construction sector, which recorded growth of 17.3 percent, compared to 5.8 percent in 2023 (Utusan Malaysia, 2025). Women's involvement in the SME sector is certainly not new. This is because several factors encourage women to be indirectly involved in the SME sector, including the high cost of living, family finances, and job opportunities as entrepreneurs (Anggadwita & Indarti, 2025). Therefore, there is a need for women SMEs to grow and achieve good business performance. However, women SMEs face many obstacles that limit their long-term survival and expansion and potentially reduce their business performance. Business growth often involves risks, uncertainties, and additional learning costs associated with new products and markets as well as internal changes to the company (Abdulla & Ahmad, 2023; Noor & Omar, 2024). According to Majumdar et al. (2023), it is not easy for small firms to achieve sustainable, profitable growth unless critical challenges are identified and managed effectively.

Leoni (2025) stated that the human capital available to an entrepreneur can confer a competitive advantage and create value for the firm. Auerbach and Green (2025) believe that SMEs are highly dependent on the development of human capital because it affects their productivity. In addition, the benefits of human capital for SMEs include fostering greater interaction, creating a friendly environment, and encouraging creativity and cooperation (Iqbal et al., 2023). Several measurement dimensions are rarely used by past scholars, such as competencies, stability, compliance, innovation, creativity, internal advisors, and health (Ausat et al., 2022; Bourlès & Cozarenco, 2018; Mai et al., 2022). Although there have been many past studies that have looked at the relationship between human capital and SME performance (e.g., Ibidunni et al., 2022; Mai et al., 2022; Mokbel Al Koliby et al., 2024), several measurement dimensions are still rarely used in representing human capital. Highlights from past studies indicate that the dimensions of

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competencies, motivation, and creativity are still not widely used in studies on human capital and SME performance (Ausat et al., 2022; Gilson, 2024; Souto, 2022).

Human capital encompasses the entire competencies and knowledge of employees in an organization (Trieu et al., 2024). By structuring management and sharing knowledge, an organization can develop key competencies that are difficult to create, thereby increasing sustainable competitive advantage (Ibidunni et al., 2022; Mai et al., 2022). On the other hand, motivation is a force that strengthens and guides behavior and is based on a tendency towards a stance (Lingappa et al., 2023). Creativity in organizations play a role in every aspect whether the organization is a business that emphasizes creativity through innovative products and services that meet customer needs, thus fulfilling customer needs, creating job opportunities and contributing to the economy, or a government-based organization that uses creative ideas to meet community needs, thus indirectly improving the quality of life (Ausat et al., 2022; Gilson, 2024; Rumanti et al., 2023). Therefore, the objectives of the study are as follows:

(i) To assess the influence of the human capital dimension (i.e., competencies, motivation, and creativity) on the financial performance of women's SMEs.

(ii) To examine the influence of human capital dimension (i.e., competencies, motivation, and creativity) on women SMEs' non-financial performance.

This study hopes to fill the gap in previous studies. First, most existing studies have focused on SMEs in general, but research on women SME entrepreneurs remains limited. However, the study found that human capital positively affects the performance of SME entrepreneurs. However, it is important to remember that the challenges and situations faced by women SME entrepreneurs differ. According to the 2023 Economic Census, 20.1 percent of businesses in Malaysia are owned by women, with an annual growth rate of 2.3 percent compared to the 2015 Census (Department of Statistics Malaysia, 2025). While this development is encouraging, the reality still shows a continuing gap that needs to be bridged by women, with opportunities that suit their respective ambitions. Furthermore, there is a lack of research in integrating financial and non-financial performance elements. Several business performance measures are often used, namely profit, productivity, growth, stakeholder satisfaction, market share, and competitive position (Ahinful et al., 2023). Financial indicators are not the only indicators of a company's performance. In fact, financial measurements need to be combined with non-financial measurements that reflect a business organization's level of adaptation to changes in its internal and external environment (Alves & Lourenço, 2022). In this regard, non-financial aspects, such as willingness and ability to learn, innovation and use of information, and improved relationships with customers and suppliers, are also performance indicators (Abdulrab et al., 2022).

2. LITERATURE REVIEW

2.1 Human capital theory

Human capital is defined as the abilities possessed by humans, whether innate or acquired through learning (Strober, 1990). The definition recognizes any effort to develop people through specific programs or initiatives to enable them to realize their full potential and make free choices to achieve what they want in life (Leoni, 2025). Human Capital Theory is relevant to driving successful entrepreneurship due to the following factors: 1) Human capital is the driving force behind efforts to explore and create entrepreneurial opportunities; 2) Human capital will exploit opportunities by obtaining capital and establishing a business entity to realize a business idea; and 3) Human capital helps in the accumulation of new knowledge and the creation of advantages for a new firm (Auerbach & Green, 2025; El Nemar et al., 2025; Weiss, 2015). A study by Iqbal et al. (2023) found that specific human capital is more important and necessary for commercial entrepreneurship, whereas general human capital is important for social entrepreneurship. Thus, the impact of human capital on business performance is expected to depend on these principles. General human capital refers to individuals who have knowledge and skills that can be applied across various jobs and industries. In contrast, specific human capital refers to knowledge, skills, and abilities that are specific to a particular job context or sector (AlQershi et al., 2022). The application of Human Capital Theory is expected to take various forms, including training, guidance, and capital assistance. This aligns with the findings of Lang et al. (2023), who found that applying a variety of skills across different exposure platforms is important for developing entrepreneurs, especially for individuals without a natural entrepreneurial personality. In fact, a study by Tjahjadi et al. (2022) has shown that the success of a new business is largely dependent on human capital, especially the skills of its owner. In this regard, it justifies the appropriateness of Human Capital Theory for this article. This study applies Human Capital Theory to examine the influence of human capital on the financial and non-financial performance of women's SMEs.

2.2 Human capital dimension and SME performance

Human capital is the main asset of an organization, namely knowledge, skills, experience, competence, attitude, commitment, and individual characteristics (Auerbach & Green, 2025; El Nemar et al., 2025; Weiss, 2015). These elements will be transformed into intangible assets that create profits and productivity. This study aims to measure the dimensions of human capital held by entrepreneurs in SMEs. The literature review indicates that various studies have demonstrated the importance of human capital in business. Empirical studies conducted by Auerbach and Green (2025) and Iqbal et al. (2023) have shown that investment in human capital can improve performance. Meanwhile, Leoni (2025) argues that human capital is a resource that not only motivates and increases entrepreneurs' commitment but also drives spending on research and development, which, in turn, paves the way for the generation of new knowledge for the economy and society as a whole.

In fact, Iqbal et al. (2023) argue that human capital is important because it is a source of innovation and strategic renewal, whether it is from brainstorming in a research lab, daydreaming at the office, throwing out old files, re-engineering new processes, improving personal skills, or developing new leads in a sales rep's little black book. The essence of human capital is the sheer intelligence of the organizational member. In addition, human capital is an invaluable asset for a country or business because it creates a competitive advantage in the global market. Therefore, human capital is seen as a "key ingredient" to success. Human capital also influences business output in the context of internationalization (Ndofirepi, 2024). According to Fernández-Alles et al. (2022), in response to rapid change and a dynamic, competitive environment, businesses today continue to develop products, services, and processes. Therefore, these businesses need to achieve their goals through the knowledge, skills, and creativity of human resources.

As highlighted by past scholars such as Bontis (1998), Subramaniam and Youndt (2005), and Youndt et al. (2004), this study uses the dimensions of competencies, motivation, and creativity as measurements of human capital. This section aims to discuss key facts about these dimensions. Mai et al. (2022) define

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competencies as individual characteristics, including personality, knowledge, and skills that lead to effective and higher entrepreneurial work performance, which can be assessed through entrepreneurial behavior. Mokbel Al Koliby et al. (2024) also argue that businesses with managers with high levels of competence will be more inclined to scan and manage their workplace environment to identify new opportunities and subsequently leverage them in combination with their competitive position. In addition, entrepreneurial competencies such as relationships, analysis, operations, strategy, and personal competencies are needed by entrepreneurs, enabling them to formulate strategies and identify new business opportunities (Ibidunni et al., 2022; Noor et al., 2024). Another study found that entrepreneurs with high levels of competencies are more likely to succeed in their careers (Opatha et al., 2025). Furthermore, Trieu et al. (2024) found that specific competencies have a significant impact on business growth, whereas general competencies affect it indirectly. In discussing the impact of competencies on financial and non-financial business performance, an efficient entrepreneur can manage costs and increase their business's income (Andriamahery & Qamruzzaman, 2022). For example, an efficient entrepreneur always monitors cash flow and is careful with spending to prevent the business from facing financial problems, especially in purchasing raw materials, covering transportation costs, and maintaining operations.

Motivation is also an important element of human capital, though few studies treat it as such. The definition of this motivation may vary widely due to the concept's complexity and because researchers define it from different theoretical perspectives (Machmud & Sidharta, 2016). However, it can be concluded that motivation activates human energy; it makes individuals strive to fulfill their needs; individual behavior is motivated to a certain extent; and the critical factor is the direction of the motivation (Bourlès & Cozarenco, 2018). Lingappa et al. (2023) stated that motivation is a powerful tool that encourages behavior and serves as a trigger to continue it. This motivation is an internal drive to fulfill needs and achieve certain goals. Motivation is also a process that begins with physiological and psychological needs, which stimulate performance in line with objectives (Shetty et al., 2024). There is a significant relationship between motivation and work performance. In today's competitive business world, motivating employees to achieve high levels of efficiency is the key to success (Lingappa et al., 2023). In addition, companies can not only increase efficiency but also maintain employee happiness and satisfaction. When employees feel that they are working in a supportive environment, they are more likely to work hard and achieve high efficiency (Wardiansyah et al., 2024).

As previously stated, the third dimension of human capital used in this study is creativity. According to Rumanti et al. (2023), creativity is an important dimension of human capital and plays a key role in economic development. Ausat et al. (2022) define creativity as comprising three components: ability, attitude, and process. From the perspective of ability, creativity is defined as the capacity to imagine or invent something new (Souto, 2022). Creativity is not creating something that does not exist, but is the ability to generate new ideas by combining, changing, and applying existing ideas (Gilson, 2024). In terms of attitude, creativity refers to the ability to accept change and innovation, the willingness to "play around" with ideas and possibilities, flexibility in outlook, and the habit of enjoying good things, while thinking about improving what needs improvement (Valaei et al., 2022). While Adomako and Nguyen (2023) define creativity as the ability to create, bring into existence, organize in new forms, produce through imaginative skills, and make something new. Nawaz et al. (2025) believe that creative individuals are a means of achieving sustainable competitive advantage in firms. Creative entrepreneurs can diversify revenue streams, develop new products or services, and explore new markets to increase profits (Noor, 2025; Setyaningrum & Muafi, 2022). Based on the above discussions, the following hypotheses are posited:

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H1: Competencies significantly influence the women SME's financial performance.
H2: Competencies significantly influence the women SME non-financial performance.
H3: Motivation significantly influences the financial performance of women's SMEs.
H4: Motivation significantly influences the non-financial performance of women's SMEs.
H5: Creativity significantly influences the women SME's financial performance.
H6: Creativity significantly influences the non-financial performance of women's SMEs.

Figure 1 below shows the research model of the study.

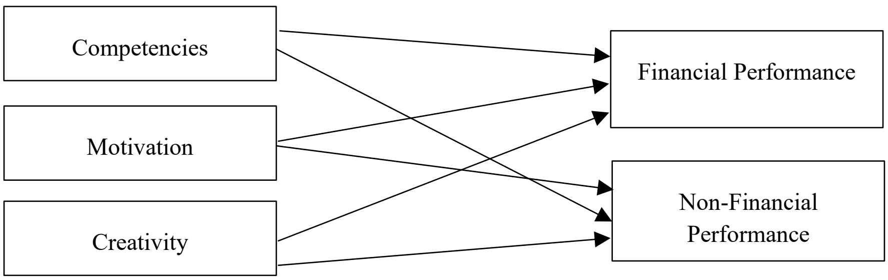

Fig. 1. Research model

3. METHODOLOGY

The study design is quantitative, involving the distribution of questionnaires. The scope of the study is the group of women SME entrepreneurs in Klang Valley, Malaysia. According to DOSM, the number of SME has increased from 907,065 in 2015 to 1,069,831 in 2022 (New Straits Times, 2024). In Malaysia, there is currently no data on regional clusters and gender-owned SMEs, and most studies rely solely on national data. In determining the sample size, structural equation modeling (SEM) requires large samples. According to Kline (2011), the sample size for model testing using SEM is between 100 and 200, or, depending on the number of parameters in the latent variables, between 5 and 10 times that number. Therefore, the sample size for this study is 400 respondents. The sampling techniques used for this study are purposive, cluster, and snowball. Purpose sampling or judgment sampling refers to a sampling procedure in which a group of subjects who have certain characteristics is selected as respondents based on the researchers' knowledge and specific research objectives (Noor & Fuzi, 2024). The criteria used in selecting the respondents are 1) Malaysian women entrepreneurs, 2) aged from 18 to 60 years old, 3) who own or manage SMEs, and 4) operating businesses in the Klang Valley.

Next, the study has clustered the sampling frame into five districts, namely Petaling Jaya, Shah Alam, Klang, Lembah Pantai, and Gombak. Cluster sampling is a sampling method in which the population is divided into clusters or groups, each of which represents the entire population (Noor & Fuzi, 2024). The limitation faced by the study was obtaining a list of women SME entrepreneurs to determine the sampling frame. However, this limitation was overcome by referring to several nonprofit groups' social media platforms, such as the National Association of Women Entrepreneurs of Malaysia (NAWEM), Ibupreneur, Women of Will, Peniagawati, and others. Using snowball sampling, the researchers gather assistance from subjects to identify more women entrepreneurs. By leveraging referrals from early participants, researchers

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can expand the sample size and gain access to individuals who engage in stigmatized behaviors (Noor & Fuzi, 2024). All participant information was treated with the utmost confidentiality and used solely for academic purposes. Participants were also given the right to withdraw from the study at any time without any consequences. This was to ensure that the research was conducted ethically, respected participants' rights, and maintained academic integrity. Confidentiality assurances were given to the entrepreneurs involved that their responses and identities would be kept confidential and would not be disclosed to any party.

The questionnaires were distributed by first contacting potential respondents and informing them of the study's intent to distribute them. The questionnaires were distributed via Google Forms. The questionnaire is divided into four parts: Part A covers the demographics of the respondents; Part B covers the human capital dimensions; and Part C covers the financial and non-financial business performance. The questionnaire items were identified from previous research highlights. To measure competencies, this study adapted the 5 items from Subramaniam and Youndt (2005) and Youndt et al. (2004) studies. Among the items are "Employees are capable of solving work-related problems efficiently" and "Employees continuously improve their job-related skills." To measure motivation, a 5-item scale is adapted from Delaney and Huselid (1996). Among the items are "Employees are enthusiastic about their work" and "Employees take initiative in completing tasks without supervision." In this study, creativity is measured using 5 items from Zhou and George's (2001) scales. Among the items measured are "Employees are encouraged to think innovatively in their work" and "Our employees often come up with novel solutions to challenges."

Following this, the 12 items for measuring financial and non-financial performance were adapted from Anwar and Shah (2021) and Zehir et al. (2016). Among the financial performance items are "My business has experienced growth in sales revenue over the past three years" and "My business has achieved growth in profitability in recent years." Among the non-financial performance items are "My business has expanded its customer base over the past few years" and "My business has achieved high customer satisfaction." The respondent's answer scale uses a Likert scale with values: 1=strongly disagree, 2=disagree, 3=moderate agreement, 4=agree, and 5=strongly agree. Structural Equation Modeling (SEM) is used to explain the relationships among the variables in the research comprehensively. The main purpose of using SEM is to develop a hypothetical model consisting of a structural and a measurement model, with theoretical justification.

4. FINDINGS

4.1 Demographic profiles

A total of 400 questionnaires were returned from 317 questionnaires distributed to respondents. As shown in Table 1, most respondents are between 36 and 40 years old (n=117, 36.9%). This followed with 41–45 (n=98, 30.9%), 26–30 (n=55, 17.4%), 31–35 (n=30, 9.5%), 46–50 (n=10, 3.2%), 18-25 (n=5, 1.6%), and above 50 (n=2, 0.6%). Next, most of the respondents live in Kuala Lumpur (192, 60.6%), followed by Selangor (125, 39.4%). Next, regarding the SME Category, most respondents owned and managed micro businesses (n=245, 77.3%). This was followed by small businesses (n=41, 12.9%) and medium businesses (n=31, 9.8%). Then, most respondents have obtained the *Sijil Pelajaran Malaysia (SPM)* academic

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qualification (n=200, 63.1%). This was followed by Diploma (n=56, 17.7%), bachelor's degree (n=39, 12.3%), Postgraduate (n=14, 4.4%), Foundation (n=4, 1.3%), and *Peperiksaan Menengah Rendah (PMR)* (n=4, 1.3%). Finally, most respondents have operated their businesses for 4–6 years (n=183, 57.7%). This followed with 7–10 years (n=100, 31.5%), 1–3 years (n=27, 8.5%), and more than 10 years (n=7, 2.2%).

Table 1. Demographic Profile of Respondents

Profile		**Frequency (n)**	**Percentage (%)**
Age Group	18–25	5	1.6
	26–30	55	17.4
	31–35	30	9.5
	36–40	117	36.9
	41–45	98	30.9
	46–50	10	3.2
	Above 50	2	0.6
Business Location	Kuala Lumpur	192	60.6
	Selangor	125	39.4
SME Category	Micro	245	77.3
	Small	41	12.9
	Medium	31	9.8
Academic Qualification	PMR	4	1.3
	SPM	200	63.1
	Foundation	4	1.3
	Diploma	56	17.7
	Bachelor's Degree	39	12.3
	Postgraduate	14	4.4
Business Operation Duration	1–3 years	27	8.5
	4–6 years	183	57.7
	7–10 years	100	31.5
	More than 10 years	7	2.2

4.2 Confirmatory factor analysis (CFA)

In general, an SEM model can be divided into two main parts, namely: 1) Measurement model (to describe the relationship between latent variables and their indicators), and 2) Structural model (to describe the relationship between latent variables or between exogenous variables and latent variables). In the measurement model, suitability is assessed using various goodness-of-fit criteria (Noor & Fuzi, 2025). Some compatibility indices and cutoff values to test whether a model can be accepted or rejected include:

(i) The Root Mean Square Error of Approximation (RMSEA), which indicates the goodness-of-fit expected when the model is estimated in the population (Hair et al., 1995). A smaller or equal RMSEA value, with 0.08 being an index to accept the model that shows a close fit of the model based on degrees of freedom.

(ii) The Goodness-of-Fit Index (GFI) is a nonstatistical measure with a value range of 0 (poor fit) to 1.0 (perfect fit) (Hu & Bentler, 1999). A high value on this index indicates a "better fit".

(iii) The Minimum Sample Discrepancy Function, which is divided by Degrees of Freedom (CMIN/DF). A relative chi-square value less than 3.0 indicates an acceptable fit between the model and the data (Hu & Bentler, 1999).

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(iv) The Tucker Lewis Index (TLI) is an incremental index comparing a tested model with a baseline model; a TLI ≥ 0.90 and a value close to 1 indicate a very good fit (Hu & Bentler, 1999).

(v) Comparative Fit Index (CFI), which is close to 1 and indicates the highest level of fit. The recommended value is CFI ≥ 0.90 (Hu & Bentler, 1999).

Based on Figure 2, after modification, the measurement model achieved an adequate level of fit, as indicated by the Confirmatory Factor Analysis (CFA) results. This is shown by the model qualification indicators reaching the specified levels (i.e., CMIN/DF = 1.718, RMSEA = 0.042, GFI = 0.970, CFI = 0.960, and TLI = 0.956).

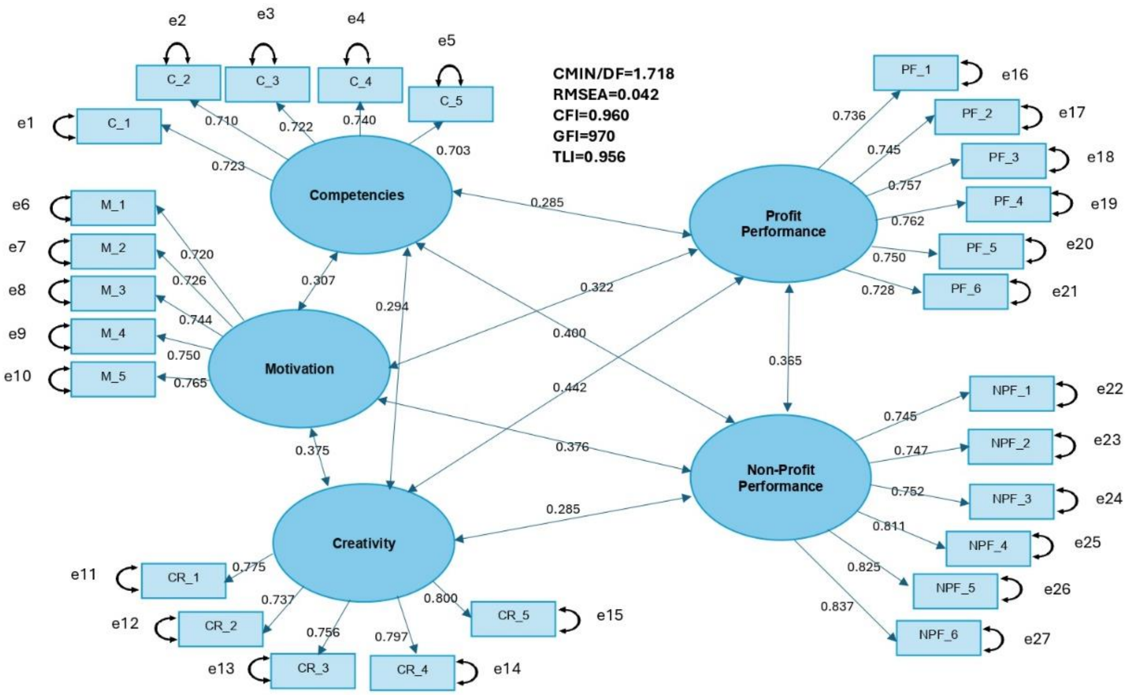

Fig. 2. CFA model

4.3 Validity and reliability assessments

In general, data validity describes the suitability of each indicator for its variable. Convergent validity can be assessed based on factor loadings. If the value is greater than 0.5, the indicator is valid. We can assess the reliability of the construct using the values of Construct Reliability (CR) and Average Variance Extracted (AVE), with a valid limit set at CR > 0.7 and AVE > 0.5 (Fornell & Larcker, 1981; Hair et al., 2019). Based on the information in Table 2, all variables are valid and reliable.

Table 2. Composite Reliability (CR) and Average Variance Extracted (AVE) Results

Variable	Item	Loadings	AVE	CR
Competencies	C1	0.723	0.518	0.843
	C2	0.710		
	C3	0.722		
	C4	0.740		
	C5	0.703		
Motivation	M1	0.720	0.549	0.859
	M2	0.726		
	M3	0.744		
	M4	0.750		
	M5	0.765		
Creativity	CR1	0.775	0.598	0.882
	CR2	0.737		
	CR3	0.756		
	CR4	0.797		
	CR5	0.800		
Financial Performance	PF1	0.736	0.557	0.883
	PF2	0.745		
	PF3	0.757		
	PF4	0.762		
	PF5	0.750		
	PF6	0.728		
Non-Financial Performance	NPF1	0.745	0.620	0.907
	NPF2	0.747		
	NPF3	0.752		
	NPF4	0.811		
	NPF5	0.825		
	NPF6	0.837		

4.4 Discriminant validity assessment

Discriminant validity aims to determine whether a variable is greater than its relationships with other variables in the observation. The researchers can evaluate discriminant validity using the Fornell-Larcker criterion or the AVE Root. The way is to compare the AVE and the Correlation with other constructs. If the AVE root is greater than the correlation with other constructs, then it is concluded that the latent construct is discriminately valid (Fornell & Larcker, 1981). As shown in Table 3, the concepts are unrelated.

Table 3. Discriminant Validity

Variable	1	2	3	4	5
Competencies	0.720				
Motivation	0.307***	0.741			
Creativity	0.294***	0.375***	0.773		
Financial Performance	0.285***	0.322***	0.442***	0.883	
Non-Financial Performance	0.400***	0.376***	0.285***	0.365***	0.787

Note: Values in the diagonal show the square root of AVE

4.5 Hypotheses testing

Hypothesis testing is used to determine whether the variable's relationship to the coefficient is true or to assess the variable's correlation. The criteria used in the hypothesis test are that the t-statistic is greater than 1.96 and the p-value is less than 0.05. As shown in Table 4, the Standardized Direct or the direct influence on business performance can be concluded as follows:

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(i) The direct influence of competencies on financial performance is 0.345, indicating that competencies positively influence financial performance by 34.5%. This means that every increase of one unit of competency can increase financial performance by 34.5%.

(ii) The direct influence of motivation on financial performance is 0.275, indicating that motivation positively influences financial performance by 27.5%. This means that for every increase of one unit of motivation, financial performance can increase by 27.5%.

(iii) The direct influence of creativity on financial performance is 0.254, indicating that creativity positively influences financial performance by 25.4%. This means that for every increase of one unit of creativity, financial performance can increase by 25.4%.

(iv) The direct influence of competencies on non-financial performance is 0.432, indicating that competencies positively influence non-financial performance by 43.2%. This means that every increase of one unit in competencies can lead to a 43.2% increase in non-financial performance.

(v) The direct influence of motivation on non-financial performance is 0.374, indicating that motivation positively influences non-financial performance by 37.4%. This means that every increase of one unit of motivation can lead to a 37.4% increase in non-financial performance.

(vi) The direct influence of creativity on non-financial performance is 0.384, indicating that creativity positively influences non-financial performance by 38.4%. This means that every increase of one unit of creativity can lead to a 38.4% increase in non-financial performance.

Table 4. Assessment of the Structural Model

Direct Path	**β**	**S.E.**	**C.R.**
Competencies to Financial Performance	0.345***	0.063	4.832
Motivation to Financial Performance	0.275***	0.059	4.570
Creativity to Financial Performance	0.254***	0.059	4.321
Competencies to Non-Financial Performance	0.432***	0.077	5.73
Motivation to Non-Financial Performance	0.374***	0.063	5.400
Creativity to Non-Financial Performance	0.384***	0.064	5.587

5. FINDINGS

Women entrepreneurs are making a significant contribution to the country's economy (Noor et al., 2025). To improve the performance of women's SMEs, human capital development is crucial because it can significantly impact an organization (Green, 2025; Iqbal et al., 2023). The success of an organization depends on the quality and quantity of its human capital, whether intellectual or personal. The purpose of this study is to examine the influence of human capital dimensions (i.e., competencies, motivation, and creativity) on financial and non-financial performance.

Findings show that human capital dimensions have a significant impact on the financial and non-financial performance of women's SMEs. Human capital is a fundamental resource for determining an organization's success or failure (Leoni, 2025). For an excellent organization, human capital will be used as the main pillar where various activities that lead to improving the quality of human capital will be implemented systematically and strategically to achieve the goals and vision of the organization (Auerbach & Green, 2025; El Nemar et al., 2025; Weiss, 2015). Therefore, organizations need to identify and understand the components of human capital before designing strategic activities, ensuring their implementation aligns with the organization's needs and goals. Failure to identify the components of human capital will lead to inefficient human capital-related activities, resulting in losses from short- and long-term investments (AlQershi et al., 2022; Leoni, 2025).

Entrepreneurial competencies are translated as the combination of elements of behaviour, character, personal characteristics, knowledge, social roles, desires, and skills that underpin his or her actions in exploring, building, and developing a business (Mohd Noor et al., 2024). Women entrepreneurs with high competencies can integrate planning, leading, using the latest techniques, managing time, and adapting to current changes to multiply profits (Mai et al., 2022; Mokbel Al Koliby et al., 2024; Noor et al., 2024). In addition, for most successful entrepreneurs, motivation is not just a temporary feeling; it is the main catalyst that pushes them to overcome challenges and achieve their set goals (Ibidunni et al., 2022). In the journey of entrepreneurship, there will certainly be various challenges and failures.

However, successful entrepreneurs have a high spirit of resilience. They see failure as a lesson and continue to move forward with unquenchable enthusiasm (Opatha et al., 2025). In the business world, motivation is closely related to two other terms, performance and productivity (Fernández-Alles et al., 2022). When employees perform at their peak, the company's productivity increases, yielding greater benefits. There are several reasons why employee motivation is important. Several studies have found that employees who feel more comfortable in their company increase their productivity and benefit from improved benefits (Ibidunni et al., 2022; Opatha et al., 2025). If an employee is not motivated, they tend to waste time and work as little as possible.

Past studies also found that entrepreneurs need to constantly think creatively to introduce or improve products or services to seize opportunities and dominate new markets (Bourlès & Cozarenco, 2018; Lingappa et al., 2023). Entrepreneurs must be smart and creative in creating and offering "commercial value" from various sources to meet the needs and wants of global consumers, who are constantly evolving in line with technological modernization (Shetty et al., 2024). Using creative techniques in business has many positive effects. First, it can increase operational efficiency by enabling employees to find new ways to solve problems and improve processes (Lingappa et al., 2023). Second, creativity adds value to products and services, thereby increasing customer satisfaction. In addition, innovative businesses are better able to adapt quickly to market challenges and ever-changing customer needs. Finally, fostering creativity in teams can also increase employee morale and commitment, making them feel more engaged and valued in the workplace (Wardiansyah et al., 2024).

This study has offered several implications for theory and methodology. This study helps strengthen human capital theory by confirming that its dimensions are important contributors to the performance of women entrepreneurs. This study also shows that human capital is a multidimensional variable that can be assessed in depth to show which factors are more dominant for SMEs. The human capital model is often seen as a unidimensional construct, and this study attempts to look at it from a multidimensional aspect to strengthen the evaluation of the impact of competencies, motivation, and creativity. Multidimensional variables are

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better because they provide a more accurate picture of the real world, allow for in-depth analysis, and avoid information bias compared to a one-dimensional model. Humans are created differently, not the same from one another, with different ways of thinking and abilities. For example, women entrepreneurs who are highly motivated do not necessarily have high creativity. Creative thinking depends on the experience and educational process received.

Furthermore, studies that focus on SMEs owned by women entrepreneurs are also still lacking while their challenges are very unique especially in Malaysia, which is characterized by a deeply rooted patriarchal system. The patriarchal system has conditioned our society with an ideology that considers women to be objects that are under male domination. Feminism was born from the struggle of women to free themselves from any form of oppression and demand equal rights for women. Feminism is not a philosophy that hates men but a thought of resistance that targets the patriarchal system and demands equal rights regardless of gender differences, yet the women empowerment still not strong as compared to other countries which give unique challenges for women entrepreneurs in Malaysia.

This study also shows that organizational performance should not be assessed solely on financial factors but also on non-financial ones, such as operational efficiency, customer satisfaction, employee engagement, and sustainability efforts. They are increasingly recognized as important for a comprehensive understanding of the company's overall health and long-term success. Furthermore, the use of structural equation modeling (SEM) enables the analysis of complex relationships and improves data accuracy compared to traditional regression analysis.

As practical implications, organizations need to implement continuous training programs to ensure their employees remain competitive and up to date with the latest skills. These include technical courses, leadership courses, and mentoring programs that help improve employees' interpersonal and decision-making skills. Through continuous education, employees can not only improve the quality of their work but also feel that the organization is investing in their future, thereby increasing their loyalty to the company (Mai et al., 2022; Mokbel Al Koliby et al., 2024). Employees who have opportunities to develop themselves and their skills are more likely to be satisfied with their jobs (Mohd Noor et al., 2025; Opatha et al., 2025).

Moreover, encouraging teamwork is important to increase motivation. Involving them in group projects or social activities can help build a spirit of cooperation and improve relationships between employees (Wardiansyah et al., 2024). This, in turn, creates a more harmonious work environment. While financial incentives are important, sometimes non-financial rewards can have a deeper impact. Publicly recognizing employees who have done a good job can increase their sense of self-worth. This can be done through awards ceremonies, announcements through internal communications, or even as simple as delivering positive words in person (Bourlès & Cozarenco, 2018; Lingappa et al., 2023). This recognition is not just for big achievements; consistently appreciating small efforts can also give employees extra motivation to continue giving their best. To maximize human capital, organizations should plan a comprehensive strategy that combines hiring, training, and performance management. One effective strategy is to use a performance management system that enables owners or managers to regularly evaluate and provide feedback on employee performance (Shetty et al., 2024).

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In addition, providing opportunities for employees to participate in innovative projects and social initiatives within the organization can stimulate creativity and encourage their involvement in the organization's vision (Rumanti et al., 2023). One of the best ways to foster creativity is to encourage employees to experiment and not be afraid to make mistakes (Noor, 2025). Giving them the freedom to experiment without fear of negative consequences enables them to generate more innovative ideas (Valaei et al., 2022). This culture of innovation is crucial to achieving long-term success. In a dynamic business environment, the courage to try new things is key. Accepting that not all attempts will succeed and cultivating a positive approach to failure often provides an incentive to continue innovating (Nawaz et al., 2025). In this way, employees can feel freer to come up with ideas that may initially be considered risky. Valuing employee feedback is an important way to foster creativity (Ausat et al., 2022; Souto, 2022). Organizations that develop an effective feedback system can receive valuable knowledge and insights from various parties (Gilson, 2024). By integrating this feedback into the decision-making process, businesses can better adapt and change their approaches.

6. CONCLUSION

In today's digital economy, a nation's progress is no longer measured solely by its natural resources or the splendor of its physical infrastructure. The most fundamental asset is human capital—the pool of knowledge, skills, and health possessed by the entire population. This is the true engine behind innovation and national prosperity. The purpose of this study is to examine the influence of human capital dimensions (i.e., competencies, motivation, and creativity) on financial and non-financial performance. Findings show that human capital dimensions have a significant impact on the financial and non-financial performance of women's SMEs.

This study provides a clear conceptual framework for understanding the relationship between human capital and business performance. This framework not only fills a gap in the entrepreneurship literature but can also be used as a basis for future empirical studies. From a practical and policy perspective, this study emphasizes the need to design a more comprehensive women's entrepreneur development program that integrates aspects of human development.

There are several limitations of the study, including the limited number of samples. This study only focused on women SMEs from five districts, namely Petaling Jaya, Shah Alam, Klang, Lembah Pantai, and Gombak, and did not include other states and locations; therefore, the results of the study cannot be generalized to all SME women entrepreneurs. This study used a cross-sectional design, which is relatively inexpensive and allows researchers to collect a lot of information quickly. One of the main limitations of cross-sectional studies is their inability to determine cause-and-effect relationships. Because the data is collected at a single point in time, it is difficult to determine whether a factor caused a particular outcome or vice versa. Cross-sectional studies can be susceptible to selection bias, especially when the sample is not randomly selected or does not represent the target population. This can affect the generalization of research results.

Therefore, future studies can use a longitudinal design, observing the same subjects repeatedly over time. This approach allows researchers to monitor changes and developments in the research subject over time, enabling them to identify patterns that cannot be seen in cross-sectional research conducted only once. In addition, future researchers can use qualitative techniques to develop research methods further and obtain diverse perspectives from each respondent.

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8. CONFLICT OF INTEREST STATEMENT

The authors agree that this research was conducted in the absence of any self-benefit, commercial, or financial conflicts and declare that there are no conflicts of interest with the funders.

9. AUTHORS' CONTRIBUTIONS

Nurul Hidayana Mohd Noor and **Azizan Zainuddin**: Conceptualization and writing-original draft; writing- review and editing, and validation; **Hasnatulsyakhira Abdullah Hadi**: data collection and formal analysis; writing- review and editing, and validation.

10. DECLARATION OF GENERATIVE AI IN THE WRITING PROCESS

The authors acknowledge using Grammarly to support language refinement, including grammar, spelling, and sentence clarity. While the authors acknowledge the usage of AI, they maintain that they are the sole authors of this article and take full responsibility for the content therein, as outlined in COPE recommendations.

11. DATA AVAILABILITY/SUPPLEMENTARY MATERIALS

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

12. ETHICS STATEMENT

This study was reviewed and approved by the UiTM Research Ethics Committee (Approval No: REC/04/2025 (ST/MR/58). All procedures involving human participants were conducted in accordance with the ethical standards of the 1964 Helsinki Declaration.

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