

Indonesian SMEs and Global Market Penetration: The Effects of Human Capital Investment, Government Role, and Technological Progress

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ABSTRACT

This study aims to analyze the influence of entrepreneurial orientation, human capital investment, technological transformation, and government role on the internationalization strategy of Micro, Small, and Medium Enterprises (MSMEs) in Indonesia. MSMEs play a crucial role in the Indonesian economy, contributing more than half of the national income in 2019 and holding significant potential for international expansion, which is the focus of this research. Quantitative methods were employed using descriptive-verification analysis, following the footsteps of statistical pioneers like Ronald A. Fisher and Karl Pearson. The sample comprised 180 MSME exporters selected through cluster sampling. Data were collected via questionnaires using a 1-7 Likert scale, and analysis was conducted using descriptive statistics and Partial Least Squares (PLS) to test the significance of variables and their relationships in the model. The results indicate that technological transformation significantly impacts the internationalization strategy of MSMEs, while entrepreneurial orientation, human capital investment, and government role do not have strong enough effects in this context. Nevertheless, this study provides better guidance for stakeholders in supporting the growth and success of MSMEs in international markets and expanding the international market share of MSMEs to support sustainable economic growth in Indonesia. The novelty of this research lies in the simultaneous integration of four variables: entrepreneurial orientation, human capital investment, technological transformation, and government role, which has not been done before in similar studies. This adds original value by summarizing the crucial factors influencing MSMEs in Indonesia in the context of internationalization, contributing fresh insights to related literature, and enriching understanding of MSME dynamics in the Indonesian economy.

Keywords : Indonesian SMEs, Human Capital Investment, Government Role, Technological Progress

I. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a vital role in the Indonesian economy, contributing 52.28% of national income in 2019 and employing 123,300 workers (Lubis, 2021). However, only 14.5% of MSMEs have penetrated the export market, while most have not received adequate support (Fatimah et al., 2021). MSMEs contribute 60.5% to the GDP, making them a crucial pillar of the national economy. The challenges MSMEs face include supply, capital, and market demand aspects, which require more attention to encourage their participation in the international market (Suhaili & Sugiharsono, 2019).

To support MSME internationalization, entrepreneurial orientation, human capital investment, technological innovation, and government roles are essential (Kunday & Şengüler, 2015). Entrepreneurial orientation reflects the ability of MSMEs to identify and exploit global market opportunities (Yoon et al., 2018). Investment in human capital enhances employee skills and operational efficiency, while technological innovation helps MSMEs understand global consumer preferences and improve operational efficiency through e-commerce and AI (Mukhtar, 2009). The government's role in creating supportive regulations is also crucial for ensuring the success of MSMEs in the international market (Stawiarska, 2021).

This study aims to analyze the influence of entrepreneurial orientation (Smallbone & Do, 2020), human capital investment (Taylor, 2004), technological innovation (Wilkinson & Brouthers, 2006), and the role of government on the internationalization strategy of MSMEs in Indonesia (Rahmi, 2021; Alfian & Maulana, 2022). This research fills the gap from previous studies by comprehensively examining these four variables in one study. It is expected to provide better guidance for stakeholders to support the growth and success of MSMEs in international markets.

In the context of Indonesia Emas 2045 (Bianchi et al., 2017; Removing Barriers to SME Access to International Markets, 2008; Knight, 2001; Keen, 2013), the export potential of MSMEs becomes a key element in achieving the vision of sustainable economic development. This study also highlights the importance of collaboration between the younger generation and MSME actors in developing superior products to compete in global markets (Distributor Resmi Omron Indonesia | Moxa Indonesia | Distributor Patlite, 2023; Amir, 2013). A mindset transformation and social capital development are necessary for

MSMEs to compete internationally, making them key players in realizing Indonesia as a global economic leader by 2045 (Muhammad et al., 2009; Tangkittipaporn & Songkroh, 2009; Chandio & Rizwan, 2021; Falahat et al., 2020; Zhang et al., 2012; Su et al., 2020).

In conclusion, this study will thoroughly investigate how entrepreneurial orientation, human capital investment, technological transformation, and government roles influence the internationalization strategy of MSMEs. By understanding the relationships between these variables, MSMEs can build effective internationalization strategies, optimize opportunities in the global market, and support Indonesia's sustainable economic growth. This research is expected to provide deeper insights to help MSMEs overcome global challenges and expand their international market share (Villar & Barber, 2018; Knight, 2001; Jin & Cho, 2018; Order, 2019; Wood et al., 2009; Knight & Yaprak, 2004; Zahoor et al., 2021; Thoo et al., 2017; Mitan & Vătămănescu, 2019).

LITERATURE REVIEW

i. Theoretical Review on International Entry Modes

The study of international entry modes encompasses five main models (King & Skeldon, 2010; Kim & Hwang, 1992; Brouthers et al., 2022; Canabal & White, 2008) used to understand the most effective entry mode choices for companies seeking to enter international markets. The Uppsala Internationalization Model emphasizes a gradual approach to entering foreign markets, starting with low-risk entry modes in culturally similar markets and progressing to higher-risk modes. Psychic distance, which includes differences in language, culture, and political systems, acts as a barrier in the internationalization process. Understanding psychic distance helps companies better identify opportunities and reduce uncertainties in international markets.

The Transaction Cost Approach (TCA) (Teece, 1986; Transfer Pricing Services in India, 2023; Hennart, 2010; Brouthers et al., 2003; Coggan et al., 2013; International Trading Company Help in Providing Accuracy, Traceability and Transparency, 2018; Hazen et al., 2016; Susantya et al., 2022) focuses on business transaction efficiency, considering transaction frequency, uncertainty, and asset specificity. Higher investments in transactions necessitate greater control by the company in the chosen entry mode. The eclectic paradigm, or Foreign Direct Investment (FDI) theory, expands on TCA by

adding three advantages: ownership, location, and internalization, which influence the choice of entry mode into foreign markets.

The Organizational Capability Perspective is based on the resource-based view (Deng et al., 2008; Wernerfelt, 1984; Grant, 1991; Acedo et al., 2006; Foss, 1998; Helfat & Peteraf, 2003; The Nature and Dynamics of Organizational Capabilities, 2001; Coates & McDermott, 2002; Cacciolatti & Lee, 2016; Bowman & Ambrosini, 2003), viewing the company as a bundle of resources that can be transformed into capabilities. In this perspective, entry modes are categorized into internalization and collaboration (Tehseen & Sajilan, 2016; Deng et al., 2008). Finally, the Network Perspective emphasizes the importance of building formal and informal relationships (Leitch & Harrison, n.d.) with network participants in foreign markets to achieve internationalization through extension, penetration, or integration.

ii. International Entry Strategies

International entry strategies include four main methods: exporting, international licensing and franchising, international strategic alliances, and Foreign Direct Investment (FDI) (Foreign market entry modes, 2010; Market Entry Strategies, n.d.; Market Entry Consulting Services – International - Global | Brand Management Company | BBC, 2020; International Markets | Market Entry Strategies, 2016; Top reasons to enter International Markets, 2013; Term Paper: International Marketing Management A) Market Entry Strategy, 2023; International Business and Go To Market Strategy, 2023). Exporting can be done directly or indirectly, with the latter involving intermediaries. International licensing and franchising are legal agreements between two parties in different countries, offering an easier and lower-risk way to enter foreign markets.

International strategic alliances involve cooperation between companies from different countries to achieve common goals, either through International Joint Ventures (IJV) or International Cooperative Alliances (ICA) (India Office Setup & Consulting | International Marketing Entry Strategies, 2020). FDI strategies involve partial or full ownership of operations in another country through acquisitions or mergers with existing companies, allowing firms to establish subsidiaries along the value chain (Strategy Consulting, 2022).

iii. Role of MSMEs in the Economy

Micro, Small, and Medium Enterprises (MSMEs) play a crucial role in both local and national economies, with advantages such as product innovation, employment generation, and flexibility in adapting to market changes. In Indonesia, MSMEs are defined based on the number of employees and turnover, with various categories reflecting the scale of the business, such as micro, small, and medium enterprises (Rilis Berita, 2023; Umam, 2023).

The contribution of MSMEs to Indonesia's Gross Domestic Product (GDP) is significant, accounting for more than 61% in 2018 (Suhaili & Sugiharsono, 2019; Indonesia GDP - Gross Domestic Product 2024, 2022). MSMEs also serve as major job creators, contributing 97% of total employment during the same period. Characteristics of MSMEs include small business scale, geographical location in rural or suburban areas, private or family ownership, and often part-time or supplementary business operations.

Government Regulation (PP) Number 7 of 2021 aims to provide ease, protection, and empowerment for cooperatives and MSMEs (Humas, 2021; Lubis, 2021). This regulation includes administrative facilitation, access to capital, intellectual property protection, and technical support through incubation. The central and regional governments are instructed to support the implementation of this regulation by providing special fund allocations and facilities for promoting and developing micro and small enterprises.

iv. MSME Internationalization

MSME internationalization refers to the gradual process by which small and medium-sized enterprises (SMEs) enter foreign markets, considering company strategy, structure, and resources to achieve desired goals. According to the SME Observatory Survey Summary (Suess et al., 2022; Shen et al., 2023; Onken et al., 2019), the main drivers for MSME internationalization are to increase competitiveness by accessing larger markets. Internationalization often involves export activities, and advances in

technology and communication between countries open opportunities for MSMEs to enter international markets. The degree of internationalization refers to the international activities undertaken by MSMEs and the characteristics of the entrepreneurs who conduct them. Important aspects of MSME internationalization include information dissemination through digital media, sustainable programs and measurable evaluation, collaboration among stakeholders, and active roles of MSMEs in the internationalization process.

Factors influencing MSME internationalization include global economic changes, the communication and information technology revolution, business network complexity, and increased knowledge and experience of entrepreneurs (Kunday & Şengüler, 2015; Suh & Kim, 2014). MSMEs in developed countries tend to focus more on international markets, while those in developing countries balance domestic and international markets (Sibuea et al., 2022). According to Coviello and McAuley (1999), MSMEs adopting a staged approach are not an exception but a crucial element in the internationalization process (Leask, 2015; Coviello & Martin, 1999). This process is often time-dependent, with global MSMEs having an international orientation from the start, while others develop over time based on their interest in internationalization and adaptation to changes.

Factors such as entrepreneurship, financial aspects, technology, resources, company routines, knowledge, and entrepreneurial actions are essential in MSME internationalization (Suh & Kim, 2014; Kunday & Şengüler, 2015; Dimitratos et al., 2016; Lu & Beamish, 2001). The concept of resources and competencies unites three MSME internationalization approaches, illustrating the phenomenon of global MSMEs exhibiting entrepreneurial behavior. MSME internationalization often evolves over time, with international experience influencing company performance through managerial learning processes.

v. Entrepreneurial Orientation and Other Influences

Entrepreneurial orientation includes innovation, proactivity, and risk-taking, all of which are essential characteristics for enhancing entrepreneurial success (Kundu & Rani, 2004; Smart & Conant, 2011; Leutner et al., 2014). Investment in human capital

is also crucial, with education, skills, and knowledge playing significant roles in workforce productivity and internationalization. Technological transformation, including digitalization, is a critical need for MSMEs to address market changes and improve business performance. The government plays a crucial role in fostering and developing MSMEs through various programs and regulatory support aimed at enhancing MSME competitiveness in international markets (Doh & Kim, 2014; Aikaeli, 2007; Muhammad et al., 2009).

vi. Research Contributions and Hypotheses

Overall, MSME internationalization is influenced by various internal and external factors, including entrepreneurial orientation, human capital investment, technological transformation, and government roles. Collaboration among governments, the private sector, and international organizations can support MSMEs in facing globalization challenges and increasing their success opportunities in international markets.

The state of the art in this research shows a significant improvement over previous studies by filling the gaps related to MSMEs. Previous research by (Ramos & Kiyama, 2021; Kuncel et al., 2004; Mirzaie et al., 2019; Kim, 2015) Sri Layla Wahyu Istanti & Maslichan (2017), Fadila Almahdali (2022), and Ahmad Feriyansyah & Febriansyah (2023) focused only on Human Capital variables, while Owais Mufti, G. Parvaiz, & Marium Durrani (2016) discussed Human Capital and Technology. This study adds value by combining four variables simultaneously: Entrepreneurial Orientation, Human Capital Investment, Technological Transformation, and Government Roles, which have not been examined together in a single research framework related to MSME Internationalization Strategy. These four independent variables give this research high originality by summarizing and combining several important variables and dimensions that can influence MSME Internationalization Strategy in Indonesia.

The research hypotheses propose assumptions about the relationships between specific variables and MSME internationalization strategies. First, based on previous research, entrepreneurial orientation is believed to have a positive effect on MSME internationalization strategy (Yoon et al., 2018; Brouthers et al., 2015; Osei-Bonsu, 2020; Dimitratos et al., 2016; M

eliá et al., 2009; Armario, 2008) (H1). Investment in human capital is also assumed to positively impact MSME internationalization strategy, aligning with findings on the importance of human capital in the internationalization process (Muda & Rahman, 2016; Ruzzier et al., 2007; Festing, 2007; Zhang et al., 2012; Lu & Beamish, 2001) (H2). Furthermore, technological transformation is believed to positively affect MSME internationalization strategy, given the role of technology in enhancing innovation and competitiveness in international markets (Kalinic & Forza, 2012; Crick & Jones, 2000; Lu & Beamish, 2001; Ruzzier et al., 2006; Jean & Kim, 2020; Baiyeshea, 2016) (H3). Finally, government roles are assumed to have a positive influence on MSME internationalization strategy, despite differing views on the extent to which governments have supported MSME internationalization activities (Vide et al., 2010; Danson et al., 2005; Promoting International Investment by Small and Medium-sized Enterprises, 2024; Kalinic & Clegg, 2017; Smallbone & Welter, 2001; Wright et al., 2007; Ács et al., 1997; Smallbone & Do, 2020; SME internationalisation, 2018) (H4).

RESEARCH METHODOLOGY AND APPROACH

This study employs a quantitative research method with descriptive-verification statistical analysis (SBOBET88: Login & Daftar Taruhan Judi Bola Online Agen SBOBET 2024, 2018)(Sari et al., 2020)(Sudirjo et al., 2023). This method has strong historical roots in the development of statistics, with key figures such as Ronald A. Fisher, Karl Pearson, George W. Snedecor, Jerzy Neyman, and Egon Pearson playing pivotal roles in forming the concepts and techniques of quantitative descriptive analysis. Descriptive analysis is used to detail and summarize collected data, while verification is conducted to test the truth or validity of existing hypotheses (Norton, 1978)(Pearson, 1963)(Pearson, 1932)(Magnello, 2009)(Egon Pearson (1895 - 1980) - Biography - MacTutor History of Mathematics, 1997)(Bartlett, 1981)(Pearson & Wilks, 1933)(Stouffer, 1958)(Bilder & Loughin, 2007). The descriptive-verification approach is adopted to provide deep understanding and test the applicability of theories in the observed practical context (Sousa, 2014)(Morse et al., 2002).

The variables in this study consist of mediating, independent, and dependent variables. The independent variables are those controlled or manipulated by the researcher, while the dependent variables are those influenced by the independent variables (Research Glossary,

2023). Mediating variables act as intermediaries between independent and dependent variables, offering a clearer picture of the observed phenomena (VAssist Research - Thesis Writing Articles Publication, Poster Paper Bio-Statistics Plagiarism, 2020)(Validity in Quantitative Research Designs, 2022)(Mediation and Moderation Analysis Homework Solution, 2023). These variables are operationalized into dimensions and indicators relevant to the research concepts.

The research population consists of Micro, Small, and Medium Enterprises (MSMEs) engaged in export activities in Indonesia. The sample is selected using the cluster sampling method, where the population is divided into separate groups, and several groups are randomly chosen as the sample. The sample size is determined by multiplying the number of research indicators (Abdullah et al., 2021)(Pusdiktasari et al., 2021) by 6, resulting in a sample size of 180 respondents.

Data is collected through the distribution of questionnaires using a Likert scale of 1-7 (Raifman et al., 2022)(Collins et al., 2006), which is used to measure the research variables. Primary data is obtained through questionnaires distributed to respondents (Andrade, 2020), while secondary data is sourced from existing resources (Li, 2013). Data analysis is conducted using descriptive statistical methods to detail and summarize data (Statistical Data Analysis Service | Statistics services - Statswork, 2023)(Simpson, 2015), and Partial Least Squares (PLS) to test the significance (Finnstats, 2021) of the variables and their relationships within the model.

The results of data analysis will provide in-depth information about the relationships between variables, the significance of findings, and the strength of existing evidence. The conclusions of this study will enrich understanding of entrepreneurial orientation, human capital investment, technological transformation, government roles, and MSME internationalization strategies in Indonesia. Thus, this research not only contributes academically but is also relevant in the practical context of MSME development and economic policy in Indonesia.

RESULT AND DISCUSS

Law No. 20 of 2008 defines Micro, Small, and Medium Enterprises (MSMEs) as three main categories within the economic sector (Simon et al., 2020)(Wajdi et al., 2017)(Fathurrahman, 2022). Micro Enterprises are productive entities owned by individuals or individual business entities. The criteria for being categorized as a micro enterprise are stipulated in the law. Small Enterprises are independent productive economic activities carried out by individuals or business entities, but they do not include subsidiaries or branches owned, controlled, or part of Medium or Large Enterprises. The classification as a Small Enterprise is also clearly defined in the law. Meanwhile, Medium Enterprises are independent productive economic activities carried out by individuals or business entities, not including subsidiaries or branches owned, controlled, or part of Small or Large Enterprises. The classification as a Medium Enterprise depends on the net assets or annual sales, as regulated by law.

The importance of MSMEs in the Indonesian economy is reflected in the significant increase in the number of MSMEs year by year (Lubis, 2021)(Suhaili & Sugiharsono, 2019)(Kesa & Pranita, 2021). Data from the Ministry of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia show a positive growth trend during the period 2015-2019. The number of MSMEs has continuously increased each year, reflecting the efforts and support from both the government and industry players in developing and strengthening the MSME sector in Indonesia (Berapa Tenaga Kerja yang Terserap dari UMKM di Indonesia?, 2020)(Utami et al., 2020)(Mustika et al., 2021). The stable growth during this period demonstrates the crucial role of MSMEs in contributing to the national economy and the resilience and adaptability of MSMEs amidst the ever-changing economic dynamics.

Table 1
Distribution of Respondents

| Row Labels | Count of Gender: |
|-------------------|-------------------------|
| Man | 79 |
| Woman | 101 |
| Grand Total | 180 |
| Row Labels | Count of Age: |
| 17 - 23 years old | 20 |
| 24 - 39 years old | 46 |

| | |
|-----------------------------------|------------------------------------|
| 40 - 55 years old | 67 |
| 56 -64 years old | 47 |
| Grand Total | 180 |
| Row Labels | Count of MSME Locations |
| Bali Island | 28 |
| Java Island | 53 |
| Kalimantan island | 33 |
| Sulawesi island | 24 |
| Sumatera island | 42 |
| Grand Total | 180 |
| Row Labels | Count of Types of MSMEs: |
| Agribusiness MSMEs | 37 |
| MSMEs in the Fashion Sector | 29 |
| MSMEs in the Culinary Sector | 34 |
| Cosmetics and Medicine MSMEs | 38 |
| UMKM Craft Products (Hand Crafts) | 42 |
| Grand Total | 180 |
| Row Labels | Count of Years of Business: |
| >10 Years | 57 |
| 15 years | 42 |
| 5 - 10 Years | 81 |
| Grand Total | 180 |

The distribution of respondents in this study provides a fairly representative overview of the characteristics of participants involved in the analysis of Micro, Small, and Medium Enterprises (MSMEs). In terms of gender, there is a balanced participation between males (43.89%) and females (56.11%), allowing for an inclusive analysis of various gender perspectives related to MSMEs. Meanwhile, the distribution based on the location of MSMEs shows significant involvement from various regions in Indonesia, with the majority of respondents coming from Java, followed by Sumatra, though MSMEs from other regions are also represented. The types of MSMEs involved cover diverse sectors, dominated by those in Craft Production, followed by Cosmetics and Pharmaceuticals. Variation in the duration of business operations was also

observed, with the majority of respondents having been in operation for 5 to 10 years, though there are still some newly established businesses as well as those that have been running for more than 10 years. Overall, this distribution of respondents provides a solid foundation for in-depth analysis of various aspects of MSMEs in Indonesia, from gender to geography and type of business.

The majority of respondents in this study gave positive ratings on several key aspects related to Micro, Small, and Medium Enterprises (MSMEs). Firstly, in terms of Entrepreneurial Orientation, the majority of respondents gave an average score of 5.71, indicating that they recognize the importance of entrepreneurial attitudes and practices in managing their businesses. This also indicates that many respondents feel that having a strong entrepreneurial orientation is key to business success. Next, Human Capital Investment also received high ratings with an average score of 5.71, reflecting the recognition of the importance of investing in human capital development. This score shows that respondents consider dedicating time and resources to developing the skills and knowledge of employees as a crucial step in improving business performance. Technological Transformation was also rated highly by the majority of respondents, with an average score of 5.76, indicating that they recognize the importance of adopting new technologies and utilizing them effectively to enhance competitiveness and business growth. However, regarding the Role of Government, the average score was 5.56, indicating some hesitation or uncertainty in respondents' perceptions of the effectiveness and contribution of the government in supporting MSMEs. Finally, MSME Internationalization Strategy received the highest score with an average of 5.83, indicating that the majority of respondents believe that international expansion can open up new opportunities and increase business competitiveness in the global market.

Table 2.

Measurement Model (Outer Loading)

| Variable | <i>Human Capital Investment</i> | Entrepreneurial Orientation | Role of Government | MSME Internationalization Strategy | Technological Transformation |
|----------|---------------------------------|-----------------------------|--------------------|------------------------------------|------------------------------|
| X1_1 | | 0.944 | | | |
| X1_2 | | 0.919 | | | |
| X1_3 | | 0.928 | | | |
| X1_4 | | 0.924 | | | |
| X1_5 | | 0.909 | | | |

| | | | | | |
|------|-------|--|-------|-------|-------|
| X2_1 | 0.919 | | | | |
| X2_2 | 0.929 | | | | |
| X2_3 | 0.925 | | | | |
| X2_4 | 0.913 | | | | |
| X3_1 | | | | | 0.904 |
| X3_2 | | | | | 0.849 |
| X3_3 | | | | | 0.918 |
| X3_4 | | | | | 0.911 |
| X3_5 | | | | | 0.885 |
| X4_1 | | | 0.889 | | |
| X4_2 | | | 0.905 | | |
| X4_3 | | | 0.908 | | |
| X4_4 | | | 0.859 | | |
| X4_5 | | | 0.927 | | |
| X4_6 | | | 0.903 | | |
| X4_7 | | | 0.905 | | |
| X4_8 | | | 0.885 | | |
| X4_9 | | | 0.866 | | |
| Y_1 | | | | 0.852 | |
| Y_2 | | | | 0.887 | |
| Y_3 | | | | 0.892 | |
| Y_4 | | | | 0.930 | |
| Y_5 | | | | 0.863 | |
| Y_6 | | | | 0.895 | |
| Y_7 | | | | 0.851 | |

Source: processed by researchers, 2024

The outer loading results illustrate the strength of the relationship between each latent variable and the measured indicators in the study. A high outer loading value, approaching 1, indicates that the indicator has a strong relationship with the respective latent variable (Weston & Gore, 2006; Lei & Wu, 2007). In this context, the variables Human Capital Investment, Entrepreneurial Orientation, Role of Government, MSME Internationalization Strategy, and Technological Transformation all have significant outer loading values with the measured indicators. This indicates that all these latent variables are validly reflected in the indicators used in the study (Gupta, 2023; Baral, n.d.), strengthening the validity of the analysis and interpretation of the study results regarding the factors influencing MSMEs.

Table 3.
Construct Reliability and Validity

| Construct Reliability and Validity | Cronbach's Alpha | rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|------------------------------------|------------------|-------|-----------------------|----------------------------------|
| <i>Human Capital Investment</i> | 0.941 | 0.942 | 0.958 | 0.850 |
| Orientasi Kewirausahaan | 0.958 | 0.958 | 0.967 | 0.855 |
| Peranan Pemerintah | 0.969 | 0.972 | 0.973 | 0.800 |
| Strategi Internasionalisasi UMKM | 0.952 | 0.953 | 0.961 | 0.778 |
| Transformasi Teknologi | 0.937 | 0.939 | 0.952 | 0.799 |

Source: processed by researchers, 2024

The results of the Construct Reliability and Validity analysis show a high level of reliability and validity for all latent variables measured in the research. (Adisasmito, 2010)(Bano, 2018)(Khusairi & Haryadi, 2017) Cronbach's The results of the Construct Reliability and Validity analysis indicate a high level of reliability and validity for all latent variables measured in the study (Adisasmito, 2010; Bano, 2018; Khusairi & Haryadi, 2017). Cronbach's Alpha, rho_A, Composite Reliability, and Average Variance Extracted (AVE) values that approach or exceed generally accepted thresholds indicate that the constructs measured are reliable and valid (Tavakol & Dennick, 2011; Kennedy et al., 2021; Krueger et al., 2011). With high reliability (Cronbach's Alpha and rho_A > 0.9) and sufficiently high validity (AVE > 0.7), it can be concluded that the research instruments are capable of measuring the latent variables consistently and accurately (Alfianika & Sitohang, 2022). This reinforces the confidence in the analysis results and the conclusions drawn from the study on factors influencing MSMEs.

Table 4
R-Square

| | R Square | R Square Adjusted |
|------------------------------------|----------|-------------------|
| MSME Internationalization Strategy | 0.693 | 0.686 |

Source: processed by researchers, 2024

The results of the Construct Reliability and Validity analysis indicate a high level of reliability and validity for all latent variables measured in the study (Adisasmito, 2010; Bano, 2018; Khusairi & Haryadi, 2017). Cronbach's Alpha, rho_A, Composite Reliability, and Average Variance Extracted (AVE) values that approach or exceed generally accepted thresholds indicate that the constructs measured are reliable and valid (Tavakol & Dennick, 2011; Kennedy et al., 2021; Krueger et al., 2011). With high reliability (Cronbach's Alpha and rho_A > 0.9) and sufficiently high validity (AVE > 0.7), it can be concluded that the research instruments are capable of measuring the latent variables consistently and accurately (Alfianika & Sitohang, 2022). This reinforces the confidence in the analysis results and the conclusions drawn from the study on factors influencing MSMEs.

Table 5
Path Coefficient

| Path Coefficients | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (O/STDEV) | P Values |
|---|---------------------|-----------------|----------------------------|-------------------------|----------|
| <i>Human Capital Investment</i> -> Strategi Internasionalisasi UMKM | 0.094 | 0.093 | 0.143 | 0.657 | 0.256 |
| Orientasi Kewirausahaan -> Strategi Internasionalisasi UMKM | 0.126 | 0.134 | 0.133 | 0.952 | 0.171 |

| | | | | | |
|--|-------|-------|-------|-------|-------|
| Peranan Pemerintah -> Strategi Internasionalisasi UMKM | 0.031 | 0.032 | 0.105 | 0.300 | 0.382 |
| Transformasi Teknologi -> Strategi Internasionalisasi UMKM | 0.612 | 0.606 | 0.104 | 5.880 | 0.000 |

Source: processed by researchers, 2024

The path coefficients analysis reveals the relationship between the independent variables (Human Capital Investment, Entrepreneurial Orientation, Government Role, Technological Transformation) and the dependent variable (MSME Internationalization Strategy). From the results, it is evident that investment in human capital has a path coefficient of 0.094 towards MSME Internationalization Strategy (Ruzzier et al., 2007; Crick & Jones, 2000), indicating a positive albeit relatively weak relationship. Meanwhile, Entrepreneurial Orientation shows a slightly stronger influence with a path coefficient of 0.126 towards MSME Internationalization Strategy (Peschken et al., 2016; Kunday & Şengüler, 2015; Ngoma et al., 2017; Karami & Tang, 2019). However, Government Role exhibits a relatively small effect with a path coefficient of 0.031 towards the strategy (Yoon et al., 2018; Peschken et al., 2016). The most notable is Technological Transformation with a significant path coefficient of 0.612 and a high t-statistics value (5.880), indicating a very strong and positive influence on the MSME Internationalization Strategy. These results affirm the importance of technological transformation in supporting MSME internationalization strategies, while other variables contribute less in this analysis.

Based on the testing of hypotheses H1 to H4, several significant findings have been revealed. Firstly, regarding H1, which posits that Entrepreneurial Orientation has a positive influence on the MSME Internationalization Strategy, the findings indicate that there is not enough empirical support to assert this relationship. Although some previous studies suggest a positive correlation between entrepreneurial orientation and MSME internationalization, this research does not support it. Furthermore, concerning H2, which suggests that Investment in Human Capital has a positive influence on the MSME Internationalization Strategy, this hypothesis is rejected due to insufficient empirical support. However, an interesting finding emerges regarding H3, which states that Technological Transformation has a positive influence on the MSME Internationalization

Strategy. The research results indicate that Technological Transformation indeed has a significant impact, highlighting the importance of technology in the context of MSME internationalization. Lastly, regarding H4, which claims that the Government's Role in providing regulations has a positive influence on the MSME Internationalization Strategy, the research results reject this hypothesis. It means there is not enough empirical evidence to support the government's role in providing regulations for the MSME internationalization strategy. Thus, the main conclusion of this study is the importance of Technological Transformation in supporting the MSME Internationalization Strategy, while other factors such as Entrepreneurial Orientation, Investment in Human Capital, and Government's Role still require further research or different approaches to comprehensively understand their impact.

CONCLUSION

Based on the findings of the research conducted, there are significant findings regarding the relationship between certain factors and MSME internationalization strategies. Specifically, investment in human capital was not found to have a significant influence on MSME internationalization strategies, despite the hypothesis suggesting otherwise. This finding is not consistent with previous findings that indicate human capital plays an important role in the process of MSME internationalization, as found in studies by Darmayanti et al. (2021), Rabialdy (2021), and Almahdali et al. (2022). However, the research aligns with the study by Purnamasari & Wijaya (2020), which stated that entrepreneurial orientation does not significantly influence business performance but affects the market capability of MSMEs.

On the other hand, the findings support the hypothesis that technological transformation has a significant influence on MSME internationalization strategies. This aligns with several previous studies indicating that technological transformation can help MSMEs address challenges and expand international markets, as found in research by Yu et al. (2022), Reim et al. (2022), and Rochmawati et al. (2023).

However, in the context of government roles, the research results indicate that there is not enough empirical support to state that the government's role in providing regulations has a significant positive influence on MSME internationalization strategies. This contradicts some previous studies indicating that the government plays an important role in supporting

MSME internationalization, although there is disagreement among researchers regarding the effectiveness of government support.

Overall, our research findings provide valuable insights into the factors influencing MSME internationalization strategies. Although some findings are not consistent with previous research, these differences are due to factors such as research methodology, context, or different research scales. However, the findings highlight the importance of considering technological transformation as an effective strategy in supporting MSME internationalization, while also indicating that investment in human capital and government roles require further attention to support MSME growth in global markets.

POLICY RECOMMENDATION

Based on the research results and findings outlined earlier, strong and focused policy recommendations could be key to supporting more effective internationalization strategies for MSMEs. First and foremost, there needs to be an increase in investment in technological transformation among MSMEs. Governments and relevant institutions should provide greater support in the form of training, resources, and incentives to help MSMEs adopt and leverage new technologies. This step will help strengthen the competitiveness of MSMEs in the global market. Additionally, it is important to focus on human resource development. This involves efforts to enhance the skills and knowledge of MSME employees in addressing technological challenges and leveraging international opportunities. Advanced training programs and education in technology and international management can be crucial steps in enhancing the capacity of MSMEs to face the dynamics of the global market.

Furthermore, the government's role in supporting MSMEs needs to be strengthened. Efforts are needed to simplify regulations, provide financial incentives, and enhance access to international markets through trade promotion and economic diplomacy. Active engagement in international networks and platforms is also crucial. This will help MSMEs to share knowledge, experiences, and cross-border business opportunities. The government can support these initiatives by providing adequate digital infrastructure and facilitating the formation of cross-border partnerships.

Lastly, continuous monitoring and evaluation of implemented policies and programs are essential. This will help identify successes, evaluate impacts, and adjust policy strategies in line with developments at the national and international levels. By implementing these

policy recommendations holistically and sustainably, it is hoped that a conducive environment can be created for MSMEs to succeed in their internationalization efforts, which in turn will support inclusive and sustainable economic growth.

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