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ABSTRACT

The small and medium industries are key to improving national and global economies and yet the industries are faced with many challenges in accessing global markets, building global networks and cooperation, and accessing technology. To this end, this study aims to analyze the export development strategy of small and medium industries in Indonesia. The study applied an Analytic Hierarchy Process (AHP) by formulating it based on priority factor weights condition, competition, demand condition, and associated supporting industry. In the study, primary data were sourced by giving questionnaires to exporters in small and medium industries, government agencies, academics, trade experts, importers, and Indonesian trade representatives. The empirical strategy revealed that the priority weight of the small and medium industry export development factor was the demand condition factor with a consistency index of 0.007 showing consistent results as it falls below the 0.1 threshold index. The results of the priority weighting of the small and medium industry export development strategy are the development of a marketplace with the results of a consistency index analysis with a value of 0.05 which shows consistent results because the consistency index value is below 0.1. The study further recommends that the government needs to conduct more in-depth research on the nature of consumers at home and abroad. Innovating products by following market developments will help producers attract more consumers. Governments can play an important role in increasing the level of quality and complexity of a country's comparative advantage.

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1. Introduction

Exporting is one of the ways that companies increase their economic scale (Sjöholm, 1999). Export is a key indicator that, the exportable commodity in question has entered the global market and it signifies the competitive strength of a country's export sector. For a company to survive and compete well in foreign markets, the company must re-strategize with new product development to boost export activities (Sjöholm, 1999). Johanson and Mattsson (2015) emphasize the role of a network of relationships in the internationalization process of companies. Manufacturing SMEs have realized that a major challenge to internationalization is the channels to customers in foreign markets (Reim et al., 2022). The network model is relevant and superior compared to other market models because the model considers the development and interdependencies of foreign markets (Johanson & Mattsson, 2015). Networks in international markets can be thought of as systems of cross-border industrial and social relations among suppliers, customers, competitors, family, and friends (Coviello & Munro, 1995). In particular, network relations are certain mutual contracts in which the company establishes positions among its own, while

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such roles may include those with suppliers, customers, distributors, industry, public bodies, regulators, and other market participants (Coviello & Munro, 1995).

The availability of such relationships can stimulate and facilitate companies' ventures abroad. Additional benefits that can be gained from networking include market knowledge, with which companies can gradually expand activities beyond the current scope and across national boundaries (Johanson & Mattsson, 2015). Small and medium industries (SMI) have sufficient resources to go international, so network connections can serve as an appropriate strategy and a viable path toward internationalization, as connections in the network will further minimize the need for knowledge development and adjustments in the international market. In addition, established connections will also help exploit prevailing business networks within overseas markets (Abdullah & Zain, 2011; Ruzzier et al., 2006).

Small and medium-sized industries (SMI) have proven to be critical in improving the Indonesian economy and employment. Entering the era of free trade, SMI needs to improve its ability to remain competitive. To win the competition, companies must innovate Chaithanapat et al. (2022) and ensure the effectiveness of simultaneous innovation practices (Zhang, 2022). Innovation is any activity that includes the processes of idea creation, technology development, production, and marketing of a new product or product improvisation in the production process (Trott, 2002). Firms innovate to enhance and improve their strategy and effectiveness (Chen et al., 2023). Without innovation, you can be sure that companies will be left behind and even die because they lose the competition. With innovation, the company will increase the added value of a product and produce new products that can provide solutions to problems faced by consumers.

Small and medium industries (SMI) are an important sector in improving the world economy and contribute significantly to the national economy of a country. SMI is the backbone of the global economy; more than 95% of SMI are members of the OECD and contribute greatly to job creation, innovation, and economic growth (Bouri et al., 2011). The same thing is also expressed by Bhasin and Venkataramany (2010) who say that SMI is very important for young and developing economies in most Southeast Asian countries, including Indonesia.

The low contribution of the SMI value is partly due to various constraints faced by the industry. In general, the obstacles faced by SMI are caused by several factors which include among others; weakness in accessing and developing markets, weaknesses in the capital structure and limited access to capital resources, limitations in building global networks and cooperation, limitations in accessing and controlling technology, inadequate business information, the high level of competition due to economic globalization and trade liberalization (Bhasin & Venkataramany, 2010). The Director General of SMI-Ministry of Industry stated that the real obstacles still faced by SMI in Indonesia include among others; the entrepreneurial spirit is still very low, SMI products are not competitive due to a lack of quality and sustainable standards, inability to establish partnerships with large industries, lack of market information, low accessibility to sources of capital.

Verdin and Heck (2002) stated three main benefits to companies undertaking internationalization include; cost advantages, networking benefits, and learning opportunities. Studies conducted on 400 SMI in Malaysia have identified the reasons for doing international business. These include; increasing profits (36.7%), the existence of market opportunities (23.9%), business expansion and product marketing (12.8%), and entrepreneurial motivation (13.8%) (Abdullah & Zain, 2011). Both studies are able to show that the decision of SMI to do international business is driven, among other things, by the desire to improve performance and expand the market. Doing international business, among others, through exports not only provides benefits because the value of foreign currencies is higher, but SMI players can open new markets that will have an impact on greater returns (Ter Wengel & Rodriguez, 2006).

Some studies have delved into SMI's performance in building and expanding its business strategies as it relates to the export market. Bashir et al. (2023) confirm that managerial ties are important in business model innovation (BMI) and the performance of SMI. They revealed a positive link between firm performance and managerial ties. They further conclude that to support BMI, the SMI managers need to focus more on managerial ties. In the case of Thai SMEs Chaithanapat et al. (2022), confirm the possible links between firm performance, innovation quality, knowledge-oriented leadership, and customer knowledge management in 283 SMI. Ho et al. (2022) observed that innovation, reputational advantage, and customer linking are positively linked to SME tea producers' cost advantage. The study points out that,

to create premium-priced offerings, developing countries need to focus on cost-based advantage. Lee (2023) investigated the influence of innovation characteristics and innovation on SMEs' survival in which profit prospects, owner capability, and productization capability positively affect the SMEs' survival period, while market status, technology superiority, and R&D capability negatively affect SMEs' survival.

In this study, we built based on prior knowledge of export development strategy and aim to investigate the export development strategy of small and medium industries (SMLs) in Indonesia. Firms in SMLs face many challenges that hinder them from engaging in trading in international markets. Typically, breaking barriers to trade, development of information technology, and innovation allows firms to increase their internalization network. To this end, we unraveled the key strategies for promoting export in Indonesia SMLs by adopting an analytical hierarchy process (AHP), in which questionnaires were administered with questions targeted at respondents from the export industry, government, academia, and trade representatives from other countries. The study applied structured and unstructured interviews for respondents to learn more about the work done in relation to export competitiveness.

2. Theoretical background and hypothesis development

In this study, two prominent theories were considered most relevant in explaining internationalization. These theories that emerged from internationalization literature are the International New Venture (INV) theory and the Uppsala Process theory of Internationalization (PTI) (Autio, 2004). The theories attempted to explain the process that business enterprises follow to move from domestic markets to international markets. Therefore, the theories were relevant to this study because the study focuses on the SMLs export development strategy which may encompass a move from small local SMLs to big international SMLs. Elango and Pattnaik (2007) opined that PTI is suitable for describing the process of internationalization from underdeveloped to emerging nations. Some studies point to the importance of INV theory (Naudé & Rossouw, 2010). As resources, knowledge changes, perceptions, and apparent risk decrease over time to permit internationalization, the PTI theory is a dynamic and compatible model for this change. The increase in the firm's commitment and operation in foreign markets was the result of the use of knowledge, integration, and firm acquisition. experimental knowledge is an important factor for firms to key into the foreign markets and that lack of experimental knowledge discourages internationalization (Autio et al., 2000). The growth and development are addition and are said to start in markets that exhibit the same characteristics as the domestic market in areas of culture, institutions, and language (Johanson & Wiedersheim-Paul, 1975).

Another ground theory that explains the competitive nature of countries and business firms is Porter's Diamond Theory. The theory is based on a model designed to help understand the competitive advantage that a country or group has due to certain available factors as well as explain how governments can operate to improve a country's position in a globally competitive economic environment. Dallas Diamond Porter's Model has the main question that there is a literature on why some countries and industries are more successful than others on a global scale (Özer et al., 2012). However, a Self-selection theory implies that more productive firms become exporters because they can cover the high fixed costs of entering and servicing foreign markets, including costs associated with networking and adapting to new quality standards (Haidar, 2012). The reason for this expectation is that there are additional costs for selling goods abroad. Range of additional costs (a sunk cost), e.g. international customer demand, transportation costs, distribution or marketing costs, and foreign network management costs (Haidar, 2012; Harris & Li, 2008). These costs provide an insurmountable barrier to entry for less productive companies. Exporters are very productive compared to non-exporters, and before exporting, companies have to improve production efficiency and the technological quality of their products and services, which results in higher productivity (Guan & Ma, 2003).

Linder's theory of 'Overlapping Demand Theory' states that firms in one country generally want to produce goods that have a large domestic market and export surplus, so that a commodity will potentially be exported if there is a large demand for it in the domestic market. In addition, Linder stated that consumer demand is largely determined by the level of income. Countries with a high per capita income will demand higher quality goods, and countries with a low per capita income will demand lower quality goods. As a result, countries with similar per capita incomes will have overlapping demand structures

and will likely demand similar goods. However, this does not mean that low-quality products will not be demanded by high-income countries, and vice versa. Given the differences in income distribution across all societies, some measures of similarity in preferences and overlap in demand cannot be ruled out. Different types of products are produced by different countries to meet domestic demand, and the same products are exported abroad.

On the empirical ground, many other studies have explored export promotion and SMIs as an engine of national growth and development. Stefanelli et al. (2022) have investigated crowdfunding as a means of supporting SMIs' business and financing decisions. They argued that crowdfunding is an innovative financing mechanism for SMIs and is valuable in risky and vulnerable markets. Despite the usefulness of SMIs crowdfunding in terms of its timeliness of the services, they observed some drawbacks associated with the system in terms of information transparency on services. On the operational and strategic levels, Lahtinen and Rannikko (2018) explained how export development is systematized in Germany, Spain, and Denmark. The study emphasized the effectiveness of export promotion as it relates to the trading bloc in which instruments for the development of exports are described as effective in the three countries. In the case Chinese province of Ningxia Bell (2012) examined the nexus between entrepreneurial input and experimental knowledge based on certain barriers to the export of manufacturing firms. The study observed an increase in specific experimental knowledge and entrepreneurial input variables of the model, while there was a decrease in specifically selected barriers to export. Okpara and Koumbiadis (2009) studied the export entry and strategic process of manufacturing SMIs in Nigeria. Findings indicate that entrepreneurial orientation is closely linked to strategic decisions for firms to enter the export market. High entrepreneurial orientation promotes SMIs internationalization than low entrepreneurial orientation. Additionally, corruption, poor infrastructure, resource-constrained, lack of export assistance, and knowledge barriers hinder SMIs exports. An empirical strategy by Pham (2009) provides evidence that, with downstream and upstream activities, firms in Vietnam create international competitiveness which is found to be more attractive in terms of profitability, growth, and export sales.

The dynamic nature of the export activity of firms has been explored in the context of continuous participation in international networks, exporting, importing, and global value chains (GVC) by Córcoles et al. (2016) findings indicate that the firms are labor productivity dominant, invest heavily in innovation, and continue exporting due to internationalization complexity. However, firms engaged in high internationalization networks experienced higher exports and there is the likelihood that firms engaged in mixed complex internationalization can withstand uncertainties associated with international markets. A study by Siawsurat and Önel (2011) reports that SMIs in Thailand can start engaging in foreign markets by exporting either directly or through the use of trade fairs, distributors, and company representatives abroad. In the process of internalization barriers can occur and reduce export activities and exports need to break barriers to penetrate the export market.

3. Research methods

3.1. Conceptual framework

This research aims to establish a strategy for the development of small and Medium Industries (SMI) exports in Indonesia, using a three-stage Analytic Hierarchy Process (AHP) technique. The first stage of analysis is carried out using the AHP method which forms a hierarchy. In this study, there are three hierarchies for determining the best strategy. Small and medium-sized industries (SMI) abound in Indonesia. In Indonesia, small and medium industries (SMI) began to develop as a result of settlement and competitive conditions, demand conditions, and related industries and suppliers.

Besides using the AHP model, this study also uses primary data by conducting interviews and focus group discussions. Four key respondents are selected according to their expertise (purposive sampling). They are exporters and also export consultants for Small and Medium Enterprises (SMEs). They answer questions that have been prepared to strengthen the findings of AHP model results.

Figure 1 illustrates Our conceptual frameworks which were based on the competitiveness advantage (diamond) theory from Porter (1990). Some factors determine the competitiveness of a firm. First of all, is factor condition. Factor conditions relate to the position of the country. The factors used are

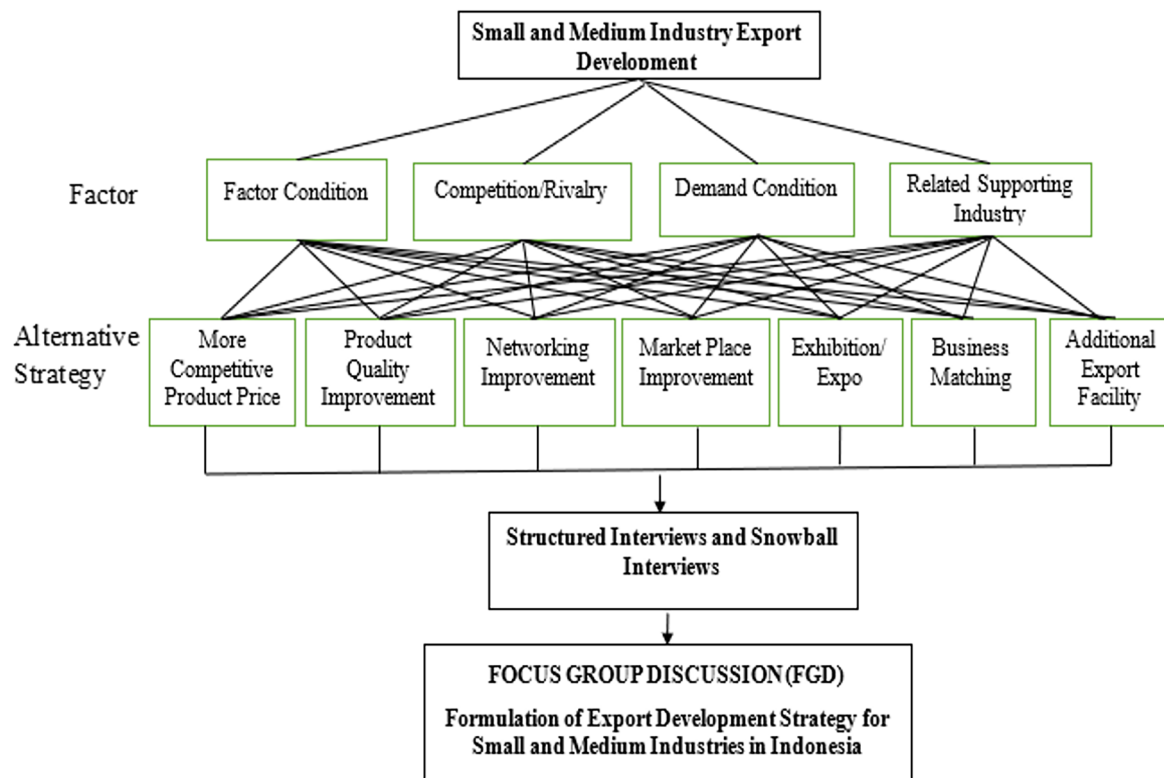


Figure 1. Three-stage Analytic Hierarchy Process (AHP) model.

production factors, which include parts such as natural resources, capital, infrastructure, and labor. The completion/rivalry factor is related to the exporter structure which discusses free competition between several countries related to the strength of competition in certain industries.

The demand conditions factor is related to the destination country's demand for exporters, both quantitative and qualitative. Demand conditions are also related to the capacity of exporters to sell their flagship products to buyers. Exporters' capacity to sell flagship products needs to be supported by a close relationship between exporters and buyers which affects demand for goods. Apart from that, exporters need to provide quality services to maintain the quality of the relationship between exporters and buyers. The next factor is the related and supporting industries factor.

The related and supporting industries factor is related to a strong domestic industrial structure, namely related to an industrial structure that has strong relationships with companies and supporting industries. Strong relationships between domestic industrial structures, companies, and supporting industries ultimately have a positive effect in the form of increasing competitiveness among exporters.

Based on these criteria, alternative strategy options were obtained which include more competitive product prices, improving product quality, increasing networking, developing marketplaces, exhibitions/expos, business matching/trade missions, and adding export facilities. More competitive product prices are product prices determined by exporting companies that are very affordable and competitive with product prices from other countries. Improving product quality is providing training to exporters and the public in improving skills and information related to free market needs. Increasing networking is an effort by exporters and the government to maximize market networks, and trust and establish cooperation between other exporters and destination countries.

Marketplace development means the government and exporters play an active role in the international marketplace. Exhibition/expo is taking part in all international exhibitions according to commodities. Business matching/trade missions are activities to bring together potential buyers in one place, in most cases this is intended for foreign buyers abroad with potential exporters from Indonesia. Additional export facilities are conveniences provided by the government and non-government to exporters in carrying out exports. After conducting the Analytic Hierarchy Process (AHP) analysis where the questionnaire questions were addressed to respondents from industry exporters, government, academics, and

trade representatives abroad, the next analysis (second stage) was to conduct structured and unstructured interviews/snowball interviews. to respondents to find out more in-depth regarding export competitiveness that has been carried out so far.

The next stages are carried out by conducting interviews and Focus Grouped Discussion methods to confirm previous findings as well as formulate the best strategy for developing small and medium industrial exports by inviting all respondents to the same forum. It is hoped that the formulation of this policy is a synthesis of all existing policy strategies and is mutually agreed upon by stakeholders (respondents) related to small and medium industrial export companies in Indonesia.

3.2. Analytic Hierarchy Process (AHP)

In this study, the AHP technique is used to select and determine the strategy for developing the export performance of Indonesian SMIs. According to Saaty (2008), AHP is a model of measurement and evaluation via pairwise comparisons that depend on an expert's decision to strive for desired scales. In addition, Saaty (2008) explained that decision-making is divided into twelve areas, which include; planning, generation of a set of alternatives, prioritization, policy selection after finding several alternatives, resource allocation, determination of requirements or needs, forecasting results or outputs, system design, performance measurement, system stability, optimization, and conflict resolution. The theory put forward by Saaty (2008) states that explicit logical analysis is the basis of analytical thinking used in the problem-solving process. In the AHP Method, three main bases are obtained, which are; the principle of arranging hierarchy, the principle of setting priorities, and the principle of logical consistency. According to Saaty (2008), several components were obtained while developing AHP techniques, which include among others; breaking down the techniques for complex problems. The complexity of the problem is included in a number of sections that have a small assortment. After that, do the sorting of the elements until a hierarchy is formed.

The second stage allowed to structure of a complex decision to create a hierarchy of all objectives across various criteria and sub-criteria, down to the lowest level. The appearance of the top level of the hierarchy indicates the presence of deliberate decisions. The appearance at the middle level is the appearance of the criteria and sub-criteria of the decision, while the appearance at the last level of the hierarchy is part of the decision alternatives.

The steps of choosing a policy alternative by using AHP are (1) building a hierarchical structure to decide criteria, sub-criteria, and alternatives, (2) determining priorities arranged in pairs on relative and sub-criteria, (3) Estimating relative weights with eigenvalues which shows the importance of criteria and sub-criteria, (4) Determine the consistency index and consistency ratio. The comparison matrix in AHP will be accepted if the consistency ratio is less or equal to 10% ($CR \leq 0,10$) Batagarawa et al. (2015).

The Theory of Saaty (2008) explains that the establishment of a hierarchy when built with human perspective, creativity, and memory. Furthermore, Saaty (2008) observes that the procedure's pillars are required to include the stages of activities in the hierarchy. The following is the hierarchical structure depicted in Figure 2:

A series of pairwise comparisons between elements is made up of ratio scales. After creating a comparison that has pairs between elements, proceed to arrange the hierarchy. As for a series of comparison matrices contained in all parts of the hierarchy that refer to parts of a higher level, they are built on a

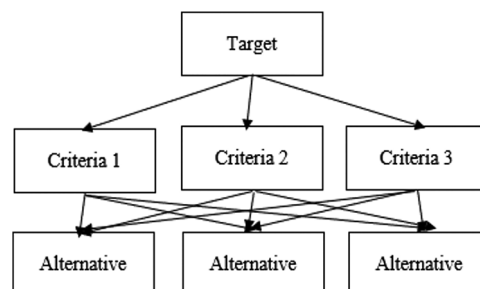


Figure 2. AHP hierarchical structure.

priority basis. Then, make changes to the personal comparisons into a scale ratio selection. Changes were made by measuring using the scale 9 technique. According to the comparison scale in Table 1, the value and definition of qualitative thinking are provided. The use of the eigen-value method is useful for providing estimates of the relative weights of each element.

Pairwise comparison is presented in matrix form, for example with matrix A and the matrix element is a_{ij} , where factor i is relatively important compared to factor j, so it can be calculated as follows;

$$A = [a_{ij}] = \begin{bmatrix} 1 & a_{12} & \dots & a_{1n} \\ 1/a_{12} & 1 & \dots & a_{2n} \\ \vdots & \vdots & \dots & \vdots \\ 1/a_{1n} & 1/a_{2n} & \dots & 1 \end{bmatrix} \quad (1)$$

The number of cells in the paired assessment matrix is $n(n-1)/2$. Assessment of paired comparisons based on the above equation applies the law of reciprocal axioms, for example, if element A is more important with value 3 than element B, then element B is more important with $1/3$ compared to element A. If element A is as important as element B, then each element is worth 1 (Batagarawa et al., 2015).

Estimating relative weights with eigenvalues that indicate the importance of criteria and sub-criteria. Determination of the weight carried out by the key person according to the questionnaire Batagarawa et al. (2015). The weight that is searched is expressed in the vector $w = (w_1, w_2, \dots, w_n)$, so the eigen-vector is;

$$AW = \begin{pmatrix} a_{11} & a_{12} & \dots & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & \dots & a_{2n} \\ \dots & \dots & \dots & \dots & \dots \\ \dots & \dots & \dots & \dots & \dots \\ a_{n1} & a_{n2} & \dots & \dots & a_{nn} \end{pmatrix} \times \begin{pmatrix} w_1 \\ w_2 \\ \dots \\ \dots \\ w_j \end{pmatrix} \quad (2)$$

While the eigenvalue is;

$$\lambda_{\max} = \frac{1}{n} \sum_{w_i} \frac{(AW)_i}{w_i} \quad (3)$$

Determine the index of consistency and consistency ratio. The consistency indicator is measured through a consistency index with the following formula;

$$CI = \frac{\lambda_{\max} - n}{n - 1} \quad (4)$$

where CI is the consistency index, λ_{\max} is the maximum eigenvalue and n is the matrix size. Knowing the Consistency Index, the next question is how do we use this index? Again, Saaty (2004) proposed that

Table 1. Paired comparison scale.

Priority Intensity	Description	Explanation
1	The importance of these two elements	The effect of the 2 elements on the goal is to have the same effect.
3	One element has more importance than the other elements.	The existence of experience and judgment provides support for 1 element that will be compared with other elements.
5	One element has more importance than the other elements.	Experience and judgment have such a strong influence. Strong influence and experience provide support for 1 element compared to other elements.
7	The first element has absolute importance compared to the other elements.	There is 1 strong element that can support the two dominants seen in practice.
9	One element has absolute importance compared to other elements.	Evidence is supported by one element with another having a high degree of certainty that is likely to provide strength.
2, 4, 6, 8	There is a value that has 2 values in considering 2 positions that are close to each other.	If there are 2 components, it will give a value between the 2 options.

Source: Saaty (2004).

we use this index by comparing it with the appropriate one. The appropriate Consistency index is called the Random Consistency Index (RI). Ratio consistency with the formula;

$$CR = \frac{CI}{RI} \quad (5)$$

where CR is the consistency ratio, CI is the consistency index and RI is the Random Consistency Index. The random index value is presented in the table below:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0.00	0.00	0.58	0.90	1.12	1.24	1.32	1.41	1.45	1.49	1.51	1.48	1.56	1.57	1.59

Source: Saaty and Vargas (2012).

If the value of the Consistency Ratio is smaller or equal to 10%, the inconsistency is acceptable. If the Consistency Ratio is greater than 10%, we need to revise the subjective judgment.

This study uses Super Decisions as a tool to process AHP to produce an export development strategy. The AHP method consists of three phases of model construction that can be obtained from the literature study, model quantification is by compiling a paired questionnaire on the levels in the hierarchy used, and the analysis of results is based on validating and interpreting the answers from experts.

Export Development strategies are adopted from the Diamond Theory of Competitiveness Advantage from Porter (1990) to the study of literature and informal interviews with SME export observers, namely academicians, and government authorities in managing international trade both from municipal, provincial, and central government levels, Small and Medium Enterprise owners, export experts and non-governmental organizations. Overall respondents are 11. Perhaps, the choice of this sample determines the Export of SME strategy that is adapted to the current circumstance of SME.

3.3. Structured interview and focus group discussion (FGD)

After analyzing the analytical hierarchy process (AHP), questionnaires were administered with questions targeted at respondents from the export industry, government, academia, and trade representatives from other countries. The next stage of the analysis (second stage) is the use of structured and unstructured interviews (snowball interviews) for respondents to learn more about the work done in relation to export competitiveness.

Meanwhile, to obtain primary data, we conducted a Focused Group Discussion (FGD) together with SME exporters, academicians, export experts, and officials from the municipal, provincial, and central government Department of Industry and Trade including the trade attached that represent trade and have an important role in strengthening the development of Indonesian SME Exports Strategy.

4. Results

Our findings are better explained and presented in Figure 3 in which we determined the priority factors for the development of small and medium industry exports and Figure 4 in which we determined the priority weight of the small and medium industry export development strategy.

4.1. Determination of the priority factors for the development of small and medium industry exports

From the analysis, the result shows a consistency index with a value of 0.007, it is consistent because the observed value falls below the threshold of 0.1. While the dominant weight of small and medium-sized industry export development efforts indicates that demand is the most important factor. The demand condition factor, which has the highest priority weight, shows that this factor is the most dominant and needs to be done first in the context of the export development of small and medium industries. Porter (1990) points out that the demand condition is one of the most interesting dimensions as it relates to the nature of consumers in the home market. Demand conditions are buyer-based pressures regarding

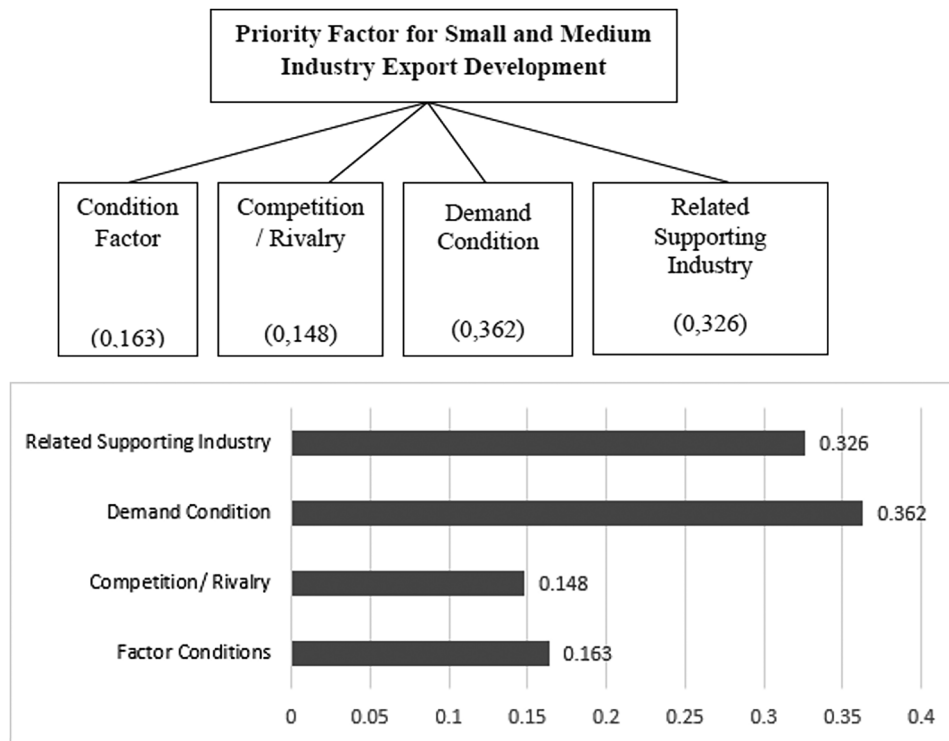


Figure 3. Priority factor of small and medium industry export development.

Note: The observed consistency index is 0.007.

requirements about quality, price, and service in a particular industry (Barragan, 2005). Demand conditions affect the formation of certain factors. They affect the speed and direction of innovation and product development (Naserbakht et al., 2008). The combination of demand conditions is indicated by three main characteristics that are essential to gaining a national competitive advantage (Manevska-Tasevska, 2006). The priority weight value in the demand condition is 0.362. The 'demand condition' is a condition of demand that can affect export demand. Businesses involved in the development of small and medium industrial exports need to pay attention to international demand so that small and medium industrial exports continue to grow.

According to Linder's hypothesis, countries with the same per capita income would have the same spending patterns. In this case, comparable demand conditions in these countries lead to an analogous demand structure, which increases the dusty railway trade. These demand conditions, as described by Porter, do affect the underlying resource differences between countries and the relative location advantage of a country, as described by the new trade theory. The nature of resource differences, driven by demand conditions, can be differences in productivity, differences in factor endowment, or differences in the scale of production. Following the demand condition, the second factor with a weight value is related to supporting the industry. The weight value of 0.326 indicates that supporting industry factors must be addressed. Related supporting industries explain that the linkage or connectivity between the supporting industries and the main industry will increase competitiveness. The related supporting industry represents upstream and downstream related industries that stimulate competitiveness (Wu et al., 2017). Related supporting industries promote the development of competitive industries by improving the coordination and sharing of activities in the value chain. In addition, product improvement can be achieved through cooperation with supporting industries and suppliers (Shafaei, 2009).

The third factor that needs to be addressed is the factor condition, which has a weight value of 0.163. Factor condition is the condition of the factors that affect an increase in exports. Factor conditions include skilled labor, low material costs, low energy costs, and infrastructure (Shafaei, 2009). The fourth factor is competition or rivalry. The weight value of the competition/rivalry factor of 0.148 indicates that it needs to be considered. Competition or rivalry, which is an environmental condition, means that competitors are influencing the development of exports. On the other hand, the consistency index that

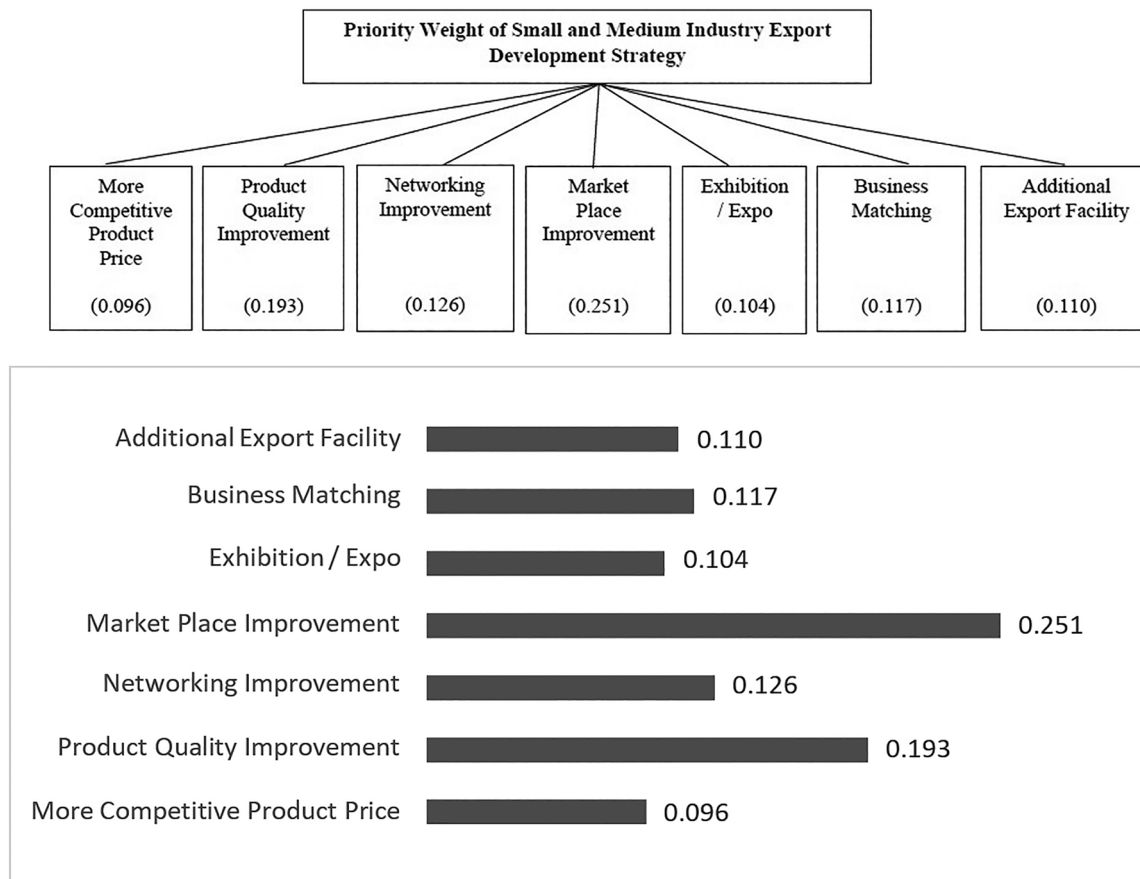


Figure 4. Priority weight of small and medium industry export development strategy.

Note: The observed consistency index is 0.05.

shows 0.007 is smaller than the value of 0.1, indicating that there is high consistency. Based on the results of the AHP analysis of four factors in the export development efforts of small and medium industries, several things need to be done. The first step in the export development of small and medium industries is to improve demand conditions to improve the export development strategy of small and medium industries. The second step is to expand the related supporting industry, which helps to connect the supporting industry with the main industry to improve export competitiveness. The third step is to increase the factor condition, and the fourth step is to maintain competition or rivalry, which aims to influence the development of small and medium-sized industry exports.

Based on the results of the analysis using the AHP method to determine the best strategy for increasing exports of small and medium industries. It can be seen that four factors have a significant effect on the development of exports of small and medium industries. One of the four factors that have the highest priority in influencing the development of small and medium-sized industry exports is the demand condition factor. Following the results of the analysis of the most appropriate strategy for encouraging demand conditions to increase exports of small and medium industries, such as the development of the marketplace (weight = 0.251). Meanwhile, more competitive product prices become the last priority. On the other hand, a consistency index of 0.05 less than 0.10 indicates that there is good consistency (Figure 3).

4.2. Determination of priority weight of the small and medium industry export development strategy

The analysis shows a consistency result index of 0.05. This is consistent because the value falls below the set threshold of 0.1. The dominant weight in the alternative strategy for the development of small and medium industry exports lies in the development of the market place which has the highest priority

weight. The first step that needs to be taken in the development of small and medium industry exports is the development of market places. The Directorate General of Small, Medium, and Multifarious Industries (Dirjen IKMA) provides IKM profiles on the Inaproduct.com website to increase the competitiveness of IKM and expand marketing access. The expansion of market access for small and medium industries has been carried out by the government. That is by the Ministry of Industry which has carried out a program through e-smart IKM based on utilizing internet marketing since 2017. This program aims to enable consumers to reach products marketed by Indonesian manufacturers. The way this is done is by connecting the national small and medium industry database with online or e-commerce market places and integrating with producer social media. This program is presented in the form of industry profiles, centers, and products traded in online catalogs. It was recorded that more than 4,600 small and medium industrial business actors had attended the e-Smart IKM webinar in 2021. The 3,256 IKM actors had entered the sustainability program. The sustainability program itself has various activities such as digital marketing assistance called the e-Smart Program which is part of the Proud Made in Indonesia National Movement, webinars related to exports, to IKM e-Smart workshops.

A study by Ahsyar et al. (2020) emphasized that developing a market place is a more effective strategy compared to other strategies such as holding collaborations with third parties, exhibitions, and business consulting services. This research analyzes the development of an e-marketplace system that has a web base for media-promoting products from small and medium industries. This system was developed using Object Oriented Analysis Design in analyzing system design using the waterfall method. The research resulted in a web-based e-marketplace. E-Market place has features that have run 100% on several popular web browsers. In testing this system, it can be concluded that the e-market place system can run and has a very good level of system acceptance. This system will be very helpful in facilitating MSME actors in promoting their products widely.

The second weight with a value of 0.193 is an increase in product quality. The quality of export products for small and medium industries must be improved by providing training and socialization related to the quality of export commodities. A product needs to be different from other products to be able to compete with other products. According to Zeithaml et al. (2009), a product is considered valuable if the quality of the product is considered comparable to the sacrifices that have been made by consumers and consumers are satisfied with the product. Efforts to improve product quality can be carried out by considering product design, development, and improvement of the quality of raw materials or through the production process. Product design is an important factor because the initial appearance of the product must be able to bind consumers. Apart from the uniqueness of the product design to attract consumers, producers need differences, meaning that producers must be able to create product differentiation. Products that are different in terms of quality must go through innovations, so producers need fresh ideas to differentiate their products from other products. When an item that is traded can attract consumers because of its quality and uniqueness, it will increase sales (Sumarwan, 2008).

The weight with the third rank is an increase in networking. Networking improvement gets the third priority weight with a weight value of 0.126. A networking improvement strategy needs to be done to increase export partners. Networking itself is a network formed by producers with their business partners. Networking was built to make it easier for both parties to access resources and information professionally by utilizing relationships based on social and economic principles. Doing Networking in the business world means connecting relations between producers and their trading partners, especially customers or consumers, which is usually done between companies and their trading partners. Networking is important because it can expand coverage in marketing products even overseas which can increase product sales (Livia & Nuringsih, 2020).

Business matching/trade mission has a priority weight value of 0.117. The choice of business matching as one of the strategies in developing small and medium industrial efforts is due to the need to seek cooperation to ensure that producers can still produce goods and market them. The fifth weight is the addition of export facilities with a value of 0.110. The addition of export facilities is important so that the production carried out by producers is of high quality and makes it easier for small and medium industry workers to get information and be facilitated to improve all aspects. A study by Darmanto (2011) found that adding facilities in export activities would have a pretty good impact because it could

expedite the frequency of work to make it more efficient and effective, allow more space for movement in completing work, and provide security and comfort for people involved in the trading process.

Exhibition/Expo is ranked sixth with a weight value of 0.104. Exhibitions/Expos conducted either by the government or the industrial community can be very helpful in attracting consumers. Exhibitions/Expos are a good way for manufacturers/companies to introduce their products to the general public. This is also proven by the Dewi et al. (2018) study which analyzed the potential and strategies for developing the woven handicraft industry in Tapin Regency. The exhibition/expo has proven to help market woven handicraft products. This exhibition/expo is supported by the role of the regional government through Industry, Trade, Cooperatives, and SMEs, and the Regional National Crafts Council (DEKRANASDA) in providing guidance/counseling/training as well as organizing exhibitions/expos and another facilitation has proven to be able to encourage efforts to significantly increase the competitiveness of SMEs, it's just that the intensity is still lacking. The weight that has the smallest value is the more competitive product price, with a weight value of 0.096. These results indicate that competitive prices are seen as not too important. This is because when the production of good quality goods increases, it will lead to more competitive prices. Pricing that adjusts to consumer purchasing power and the competitiveness of its competitors will determine consumer intentions in buying a product.

4.3. Analysis of interview results

Market place development is a fairly effective way to increase product sales in a company. In line with that, according to the results of interviews obtained by the marketplace, it is not limited by space and time because marketing a product can be done offline or online. According to Hindra Soeparjanto S.M, businessman and export coach at SME Indonesia, exhibitions provided by the government are the best places to market products. In line with this, Ir. Fernando Reza Muhammad M.M, coordinator of labor at the Export Center Surabaya also stated that international exhibitions, business-to-business exhibitions, and business to consumers must be attended a lot. Apart from that, according to Steven Halim S.T., the owner of Atlanta Indonesia, signing an MoU contract with a distributor can guarantee the continuity of production.

In connection with the development of the market place, products must also be acceptable to consumers, especially foreign consumers. According to Steven Halim S.T., the owner of Atlanta Indonesia, for products to be accepted by foreign consumers it still depends on the quality of the product itself. Meanwhile, according to Ir. Fernando Reza Muhammad, M.M. labor coordinator at the Export Center Surabaya, market education conducted by producers will help consumers understand the product and attract buyers. International consumers have several preferences for products marketed, this is following what Hindra Soeparjanto S.M, a businessman and export coach at SME Indonesia said, that product quality must be high, prices competitive but affordable, and product appearance attractive.

Improving the quality of export products can be done by establishing certification and standardization. According to Steven Halim S.T., the owner of Atlanta Indonesia, product quality is also improved by having clear work procedures and quality control in each section. Wahyu Kusumo Hadi, S.T, the product standardization engineering team at the Surabaya Export Center stated that to maintain the quality of the products to be exported, clear rules were needed such as manufacturing procedures, production process procedures for quality, and raw material flow processes and product innovation needed to keep abreast of market developments. According to Hindra Soeparjanto S.M, businessman and export trainer at SME Indonesia, ready-to-eat products such as food and beverages and ready-to-use products such as clothing and cosmetics need to always seek innovation and novelty to continue to be able to participate in market developments.

Networking in the export trade of small and medium industries is important and must be done. Networking can be done with similar associations, to companies with the same capabilities. In the small and medium industry, Steven Halim S.T., the owner of Atlanta Indonesia prefers to enter into a network of similar associations that can pattern efficient procedures and choose suppliers with the best prices. Hindra Soeparjanto S.M, businessman and export trainer at SME Indonesia said that to enter and join a network, you must prepare product legality, a clear market development structure, and a good company profile. Because networking is a way to connect with other people, careful preparation will help expedite the relationship that will be formed.

Business matching/trade missions are an important strategy for the development of small and medium industry exports. According to Steven Halim S.T., the owner of Atlanta Indonesia, if domestic producers want to get information about overseas buyers, they can work more effectively in finding partners or by joining the same network with similar business partners. Meanwhile, according to Ir. Fernando Reza Muhammad, M.M. the labor coordinator at the Surabaya Export Center, to add or seek information about trading partners through business matching, you can visit the export center in the relevant area. According to Wahyu Kusumo Hadi, S.T., looking for information related to exports to expand trade partners, the product standardization engineering team at the Surabaya Export Center can also go through the Indonesian Trade Promotion Center (ITPC). The Indonesian Trade Promotion Center (ITPC) itself has the task of promoting trade abroad, such as market penetration by organizing business contacts, fostering and developing business networks; providing market information by conducting market intelligence, providing market analysis and market survey results; participating in international trade fairs; and providing services to domestic businesses such as business advocacy, assisting with negotiations for exporters, and business consulting for exporters and importers.

Support from the government regarding the addition of export facilities can be in the form of assistance in increasing production, providing a website to obtain information about exports, as well as holding exhibitions or expos to promote IKM products that are ready for export. In addition, according to Hindra Soeparjanto S.M, businessman and export trainer at SME Indonesia, the government also provides convenience in the legality process, ease of access to certification, ease of access to market opportunities, and international scale exhibitions. Exporters can access information regarding export facilities provided by the government through websites. Then Ir. Fernando Reza Muhammad, M.M. the labor coordinator at the Surabaya Export Center said that exporters can also contact Trade Representatives (Perwadag) to be consulted, and receive training and assistance regarding exports. Wahyu Kusumo Hadi, S.T., the product standardization engineering team at the Surabaya Export Center also added that the government is providing additional export facilities to assist producers in the ease of applying for permits.

Exhibitions/Expos organized by the government help exporters to show their existence, and promote and market their products. According to Wahyu Kusumo Hadi, S.T, the product standardization engineering team at the Surabaya Export Center, several exhibitions are regularly held by the government, one of which is IFEC (International Furniture Expo), JIFFINA (Jogja International Furniture & Craft Fair Indonesia), and TEI (Trade Expo). Indonesia). However, Ir. Fernando Reza Muhammad, M.M. the manpower coordinator at the Export Center Surabaya believes that even though there are many exhibitions or expos, business matching, and trade missions are still more effective.

More competitive product prices are product prices determined by exporters that are very affordable and able to compete with competitors or product prices from other countries. According to Ir. Fernando Reza Muhammad, M.M. the labor coordinator at the Surabaya Export Center, and Wahyu Kusumo Hadi, S.T, the product standardization engineering team at the Surabaya Export Center comparing international prices of goods or production costs can help in determining the price of goods exported. However, Hindra Soeparjanto S.M, a businessman and export coach at SME Indonesia thinks this is only an insight because international prices are sometimes not comparable to the quality of a product. The way that can be done to determine the price so that the goods sold can be more competitive is to determine the supply that can be exported, know production standards, and look for prices from competitors as a consideration for product quality. All sources agreed that the pricing of a product must also consider production costs, logistics costs, and marketing costs.

Meanwhile, the strength possessed by IKM from Indonesia to be able to compete in the international market is because it has a uniqueness that displays Indonesian characteristics, as well as a price and quality that can compete with products from other countries. Then the challenges or obstacles experienced by exporters are very diverse both internally and externally. Hindra Soeparjanto S.M, businessman and export trainer at SME Indonesia said that internal challenges or obstacles could be in the form of unstable product prices, difficulty maintaining product quality, and unstable production capacity. Then the external challenges or obstacles according to Hindra Soeparjanto S.M, a businessman and export coach at SME Indonesia are competition between regions, as well as uncontrolled supply chains. In addition to obstacles or challenges, exporters also have weaknesses when marketing

their products in international markets. Hinda said that there was still a lack of understanding regarding international marketing, and a lack of responsiveness to changes in business methods from offline to online.

5. Conclusion and suggestion

Based on the foregoing analysis, the study concludes as follows; the priority weighting of the export development factors of small and medium industries confirms that the consistency index analysis has a value of 0.007 which demonstrates consistent findings as the observed index falls below 0.1. Additionally, we observed that the demand condition factor has the highest priority weight which implies that, it is the most dominant and needs to be done first in the context of developing a small and medium industry export strategy. Porter (1990) shows that demand condition is one of the most interesting dimensions because it relates to the nature of consumers in the domestic market. Demand conditions are pressures based on buyers regarding requirements and quality, price, and service in a particular industry (Barragan, 2005). The priority weight of the small and medium industry export development strategy has a consistency index value of 0.05 which shows consistent results because the value falls below 0.1. The dominant weight in the alternative strategy for developing small and medium industry exports lies in the marketplace development which has the highest priority weight. Ahsyar et al. (2020) emphasized that marketplace development is a more effective strategy compared to other strategies such as holding exhibitions in various regions, collaborating with third parties, and providing business consulting services.

As part of policy recommendation, since the demand condition factor is the highest priority weight from the study findings. Therefore, a demand condition is a demand condition that can affect export demand. To this end, the government needs to conduct more in-depth research on the nature of consumers at home and abroad. Innovating products by following market developments will help producers attract more consumers. Demand conditions are important because they contain several conditions that must be adjusted, such as price, quality, and services provided by producers to consumers. Governments can play an important role in increasing the level of quality and complexity of a country's comparative advantage (e.g. increasing the skills of workers, generating domestic demand for national brand clothing products, improving infrastructure, etc.). Marketplace development is the highest priority weight in the small and medium industry export development strategy. The Indonesian government has launched the IKM e-smart program, which is an IKM database system presented in the form of industry profiles, centers, and products in the form of an online catalog. Therefore, the government needs to carry out socialization regarding digitization in advance to IKM producers. In this regard, disseminating information on where and how to access online marketplace programs to consumers will help producers to increase their business. The IKM digitalization development program can accelerate the process of digital transformation in the Indonesian digital economy ecosystem, which can make IKM compete on the international stage.

Areas of future research

This study focused on establishing a strategy for the development of small and Medium Industries (SMI) exports in Indonesia. Since the study only focused on Indonesian SMI, the result cannot be generalized to other contexts and there is a need for future studies to extend and adopt the model in this study to other sample countries' SMI to have a comparative look at different findings from different contexts. The study only focused on primary data, although the data is generated via interviews and offers an intuition about the aspects of SMI export development strategy. It may still have several shortcomings due to the cross-sectional problem. Therefore, future research should bridge this gap by adopting long periods and mixed data.

Author contributions

Conceptualization, E.P. Lestari, R.D. Handoyo; Formal analysis, E.P. Lestari, R.D. Handoyo, K.H. Ibrahim, T.K. Retnaningsih; Funding acquisition, R.D. Handoyo; Investigation, E.P. Lestari, R.D. Handoyo, K.H. Ibrahim, E.L. Pradinda, Y. Rahmawati; Methodology, R.D. Handoyo, T. Sarmidi, D. Kusmawardani, T. Haryanto, A. Erlando; Project administration, R.D.

Handoyo, K.H. Ibrahim, T. Sarmidi, Y. Rahmawati, T. Haryanto; Resources, R.D. Handoyo, T. Haryanto; Software, A. Erlando; Supervision, R.D. Handoyo, K.H. Ibrahim, T. Sarmidi, D. Kusmawardani; Validation, R.D. Handoyo, K.H. Ibrahim; Writing—original draft, E.P. Lestari, K.H. Ibrahim.; Writing—review & editing, K.H. Ibrahim.

Author statement

All authors have read and agreed to the published version of the manuscript.

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Data availability statement

Available on request.

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