

Business Improvement Strategy for Local ERP Provider Company in Indonesia with SWOT-Fuzzy AHP-TOPSIS Method

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Abstract

Every company needs to continuously identify strategies to achieve competitive advantage and improve business to survive in intense competition. Nowadays, customer demand is increasingly varied, and the level of competition is getting higher. To digitize their business processes, an increasing number of businesses are utilizing Enterprise Resource Planning (ERP). This need will undoubtedly be a good prospect for ERP provider companies, but not for one of Indonesia's local ERP provider companies, which experienced a decline in sales. This paper was written to define alternative methods for improving the business of a company using a systematic approach that analyzed both internal and external environmental factors. As a method for determining the strategy, this study employed SWOT analysis, Fuzzy AHP (F-AHP), and TOPSIS. Moreover, strengths, weaknesses, opportunities, and threats can be identified and classified from intrinsic and extrinsic factors that have an impact on the company through to this SWOT analysis. The SWOT analysis' findings are mapped using the tows matrix to formulate alternative strategies for improving the company's business. The weight of each SWOT factor is determined using the fuzzy AHP method, and alternative business improvement strategies are prioritized using the TOPSIS method elicited from the weighted SWOT factors outcome. This study yields a high-priority strategy for improving the business of a local Indonesian ERP provider.

Keywords

Business Improvement, ERP Provider, SWOT Analysis, Fuzzy Analytical Hierarchy Process, TOPSIS

1. Introduction

Globalization has brought several challenges in terms of business and technology. Companies are required to be able to overcome various obstacles to win the increasingly fierce competition. Therefore, the efficient and purposeful use of resources is very important. This cannot be achieved without the existence of information and communication technology, especially ERP, which is a tool to ensure company flexibility and create an environment to achieve strategic advantages from the integration process (Azevedo et al. 2014). The global ERP market is undergoing rapid growth, with the total market size estimated to surpass 49.5 billion USD by 2025. The global ERP software market grew by 9% in 2019 compared to the previous year and generated a total worldwide software revenue value of around 39 billion USD (Oracle NetSuite 2020).

The Indonesian government has encouraged companies in Indonesia to use digital systems in order to enhance the business processes effectiveness and increase competence in facing global competition. This provides good prospects for ERP provider companies in Indonesia. In addition, the ERP market potential available in Indonesia is still very wide. Evidently, in 2019 alone, there were 30,072 upper-middle companies in the manufacturing industry (Central Bureau of Statistics 2020). The growth of the ERP market in Indonesia is also quite promising, where the growth of the ERP market in the medium enterprise segment is 10.94% and for the large enterprise segment is 6.41% (Inkwood Research 2018).

One of the ERP products that are starting to be widely used by companies in Indonesia is PT. X. This platform targets the middle to upper-scale business segments in the manufacturing, distribution, trade, and service industries, by

providing a system that handles the company's business processes consisting of 11 Business Suites and 25 functional modules.

However, in the last three years, sales of the company have decreased, from the original 6 products in 2019, to only 3 products in 2020. Until now, the ERP system market share in Indonesia is still controlled by global players such as SAP, Oracle, and Infor. In addition, the company was only able to control 0.16% of the market share, where Oracle controlled 14% and SAP controlled 22%. Not only that, based on marketing data, the company is also still targeting clients who do not meet the set target, which is 21% of SME companies. In carrying out the marketing process, the company also relies on the pipeline provided by distribution partners (resellers), which is 72%. Meanwhile, based on sales activity data, the success rate of ERP products sales is only 7.7%. In this regard, it is critical for the company to maintain business continuity by increasing sales. Therefore, the goal of this study is to formulate a business improvement strategy that can be applied by the company by considering the company's internal and external conditions through a company SWOT analysis combined with F-AHP and TOPSIS technique. F-AHP is the acronym of Fuzzy Analytic Hierarchy Process, meanwhile TOPSIS stands for Technique for Order of Preference by Similarity to Ideal Solution.

2. Literature Review

2.1 Enterprise Resource Planning

In order to coordinate information across all functional areas, companies adopt a software named Enterprise Resource Planning (ERP). By utilizing a central repository and shared management reporting tools, ERP programs are essential in the management of business processes (Monk & Wagner 2013). Furthermore, ERP software enables businesses to operate more efficiently. ERP works by integrating sales, marketing, manufacturing, logistics, accounting, and human resources (Dachyar & Prawira 2016). ERP or Enterprise resource planning system refers to a system in business management that is supported by a collection of integrated software modules that enable the management and integration of all business functions within a company. It is identified by the integration of core processes (Chatzoglou et al. 2017).

2.2 Strategic Management

Strategic management is a term that refers to the evaluation, planning, and implementation processes that are used to help a business increase its one-upmanship. The company's external and internal environment is closely related to the evaluation stage. Planning stage entails the creation of business models, competitive strategies, international expansion plans, acquisitions, and collaborative actions. On the other hand, the implementation phase focuses on establishing an appropriate organizational structure, cultivating a management culture, monitoring strategic processes, and directing the business with the use of corporate governance (Teece 2010). Furthermore, strategic management can be seen as a collection of managerial decision-making actions aimed at achieving business objectives. Strategic management entails analyzing the external and internal environment, as well as developing, implementing, evaluating and controlling the strategy (Aldea et al. 2013).

2.3 SWOT Analysis

Essentially, SWOT analysis is critical in resolving a problematic strategic situation through condensing data in order to enhance decision-making. SWOT-analysis helps identify gaps and synergies between a company's competencies and resources and its business environment. SWOT analysis is a widely used and widely accepted marketing and business strategy technique. The tool's simplicity ensures its continued use in business as a way to evaluate multiple alternatives as well as complex decision-making situations. Given the clustering of internal and external problems, it enables the rapid development of strategic planning that benefits from differing viewpoints. Typically, managers begin by assessing internal strengths and weaknesses. This is including an organization's structure, image, financial resources, capacity and efficiency, and access to natural resources. On the other hand, external opportunities and threats are included in the bottom row of the SWOT analysis, including partners and suppliers, customers, social changes and new technologies, competitors, market trends, as well as different political, economic, and environmental regulatory affairs. When it comes to its role, SWOT analysis assists in identifying environmental relationships and developing a path forward for a country, business, or other entity (Helms and Nixon 2010). SWOT stands for Strengths, Weaknesses, Opportunities, and Threats. These four strategic factors can influence an organization's success (Sammut-Bonnici 2015). Additionally, SWOT analysis is a strategic management tool that assists decision-

makers in understanding the current state of the organization and formulating the right strategy for the future (Hajizadeh 2019).

SWOT analysis begins with identifying internal strengths and weaknesses, followed by the identification of external opportunities and threats. The TOWS matrix illustrates how a company's external opportunities and threats can be balanced against its internal capabilities, which include strengths and weaknesses. The four strategic factors, including aggressive strategy (SO), conservative strategy (WO), competitive strategy (ST), and defensive strategy (WT), are what make up the TOWS matrix (Gottfried et al. 2018). When identifying the company's strengths, weaknesses, opportunities, and threats are done, the TOWS matrix can be created.

2.4 Fuzzy Analytic Hierarchy Process

Analytic Hierarchy Process (AHP) is a method for multi-criteria decision-making (MCDM) that provides relevant data that helps decision-makers in selecting the best options or ranking a set of options. AHP process is mainly used to solve complex and unstructured problems by describing the components in the system and arranging these components or variables into a hierarchy, providing a numerical assessment to ascertain each variable's significance level that is considered important. and in the end carry out a synthesis of opinions to determine which variables have the highest priority as the results of the analysis. At the same hierarchical level, the elements of the decision matrix can be compared (pairwise comparison) by including considerations of qualitative and quantitative factors (Kahraman et al. 2008). The AHP method is founded on three precepts: (1) hierarchical construction, (2) setting priorities and (3) measuring consistency. To begin, hierarchies are used to decompose a complex system into its parts. In addition, the hierarchy's priority for each element is determined by comparing it to all elements at lower levels. Pairwise comparisons are made using a nine-level standard comparison scale. Lastly, the consistency ratio can be used to determine the pairwise comparison matrix's consistency (Mardani et al. 2015).

The AHP method excels in its simplicity of use because it is in accordance with the basic human ability to judge a thing and is equipped with consistency testing so that it can guarantee the decisions taken (Bhatt et al. 2021). However, due to the large number of pairwise comparisons, the AHP method is inapplicable to a wide variety of alternatives. Therefore, AHP is usually used in factor weighting (Azimifard et al. 2018). The AHP method also has a disadvantage, it allows for input dependence from the perception of a decision maker. To deal with the uncertainty and ambiguity of expert opinion, Fuzzy set theory can be employed (Solangi et al. 2019).

2.5 Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS)

TOPSIS is a recognized MCDM approach, which is based on the premise that the one that is relatively close to the positive ideal solution and the one that is farthest away from it is the best-chosen strategy (Gupta & Barua 2018). The TOPSIS method, which was established in 1981 by Hwang and Yoon, helps calculate the distance using the Euclidean distance. In addition, the positive ideal solution is described as the combined potential of all the best values for each factor. On the other hand, the negative ideal solution is defined as the results of the worst values of each factor (Uddin et al. 2021). Among the upsides of the TOPSIS method is that it allows for the entry of an infinite number of factors. Since it reflects rational human decision-making with a straightforward calculation method, TOPSIS has been adopted by many research applications (Ayağ & Samanlıoğlu 2020).

3. Methods

SWOT analysis, fuzzy AHP, and TOPSIS are used as the method of this study. It works as a framework for obtaining priority business improvement strategies for a local ERP company in Indonesia. Analysis of the ERP company's business environment is carried out first by identifying the company's internal and external factors. To achieve this goal, interviews were conducted with 5 experts consisting of 2 internal companies (directors and managers of strategic planning) and 3 externals from practitioners. In order to obtain information about the company's internal business environment, interviews were conducted through Business Model Canvas framework. In contrast, to ascertain the company's uncontrollable factors, the Political, Economic, Social, and Technological or PEST and Porter's 5 Forces frameworks were used. Various information and inputs obtained from experts, which are the result of the interview process, are then analyzed and arranged in a SWOT factor so that the strengths, weaknesses, opportunities, and threats are generated. The data is then processed using the Fuzzy Analytic Hierarchy Process (Fuzzy AHP) to ascertain the relative significance of the variables affecting the company's business performance: strength, weakness, opportunity, and threat. This weighting is carried out by five experts from the company's external environment by filling out a pairwise comparison questionnaire. The Fuzzy AHP method will produce a weighted value for each SWOT factor on

the basis of the results of processing the questionnaire, ensuring that the SWOT factor ranking is the most influential for the company's business improvement. After obtaining the ranking of each SWOT factor, the formulation of a business improvement strategy is carried out using the TOWS Matrix. The strategy that has the highest performance value based on calculations using the TOPSIS method will be selected as a strategic priority for increasing the company's business.

4. Results

The result of interview process that has been analyzed based on SWOT produces 10 strengths, 9 weaknesses, 8 opportunities, and 8 threats that are owned and faced by the company. To test the validity of the subfactors that will be included, a strategy validation assessment was carried out by 5 experts from external parties using a questionnaire. The questionnaire assessment results were then processed using geomean calculations, yielding six strengths, seven weaknesses, four opportunities, and three threats affecting the business performance. The validated sub-factors are then verified through several studies that discuss the influence of each sub-factor of strengths, weaknesses, opportunities and threats on the business continuity of a company as shown in Table 2.

Table 2. SWOT subfactor verified with previous research

No.	Factor	Subfactor	Reference
1.	Strengths	Products are flexible	(Rajan & Baral 2015; Seethamraju & Krishna Sundar 2013)
2.		Product has complete functions and features	(Karsak & Özogul 2009; Tsai et al. 2012)
3.		Affordable prices	(Haddara 2014; Tsai et al., 2012)
4.		Product integrated with other digital products such as banking	(Ferreira et al. 2019; Verhoef et al. 2021)
5.		Company has a local use case reference	(Karsak & Özogul 2009; Ruivo et al. 2020)
6.		Company has an extensive network of partnerships	(Elragal & Haddara 2013; Ruivo et al. 2020)
7.	Weaknesses	Product display is not user-friendly	(Karsak & Özogul 2009; Ruivo et al. 2020)
8.		Inadequate product innovation process	(Karsak & Özogul 2009; Ruivo et al. 2020)
9.		Reseller partner capability is not sufficient	(Hallikainen et al. 2020; Mayer & Voeth 2021; Sleep et al. 2020)
10.		Insufficient marketing HR capability	(Geiger and Hüffmeier 2020; Ruivo et al. 2020)
11.		Insufficient marketing HR capacity	(Geiger and Hüffmeier 2020; Ruivo et al. 2020)
12.		Marketing process does not focus on the target segment	(Brotspies and Weinstein 2019; Geiger and Hüffmeier 2020; Mora Cortez et al. 2021)
13.		Low brand awareness	(Candra 2012; Karsak & Özogul 2009; Tsai et al. 2012)
14.	Opportunities	Wide market potential	(Min & Kim 2021; Reş & Bresfelean 2014)
15.		Increasing need for companies for digital solutions	(Nadkarni & Prügl 2021; Saarikko et al. 2020; Skare & Riberio Soriano 2021)
16.		The emergence of new potential partners	(Nadkarni & Prügl 2021; Skare & Riberio Soriano 2021; Verhoef et al. 2021)
17.		Technology advances	(Kerimoglu et al. 2008; Khin & Ho 2019)

No.	Factor	Subfactor	Reference
18.	Threats	Trade globalization trend	(Feng et al. 2020; Ma et al. 2018; Skare & Riberio Soriano 2021)
19.		Newcomer with attractive pricing policy	(Antero et al. 2014; Armando et al. 2016; Karakaya & Parayitam 2018)
20.		Innovations made by competitors by utilizing new technology	(Kindermann et al. 2021; Rajan & Baral 2015; Reş & Bresfelean 2014)

Pairwise comparisons between SWOT factors were carried out using a fuzzy 1-5 scale in each SWOT cluster (Solangi et al., 2019). The pairwise comparisons were conducted using the results of a questionnaire completed by five experts. The Fuzzy AHP method was used to measure factor and subfactor weights (Dachyar & Purnomo 2018). By multiplying the factor's weight by the subfactor's weight, the global weight of the subfactor is acquired (Kahraman et al., 2008). Table 3 presents the overall weights for the SWOT factors and subfactors, where it can be seen that the weakness factor has the highest factor weight value of 0.372. Meanwhile, the broad market potential (O1) is the subfactor with the subfactor with the highest weight among other subfactors, which is 0.120. These results indicate that the weakness and sub-factors of broad market potential are the factors and sub-factors that most influence the company in doing business improvement.

Table 3. The results of weighting factor and subfactor SWOT

Factor	Factor weight	Subfactor	Local weight	Global weight	Rank
Strengths	0,29	Products are flexible (S1)	0,117	0,024	18
		Product has complete functions and features (S2)	0,309	0,064	6
		Affordable prices (S3)	0,086	0,018	20
		Product integrated with other digital products such as banking (S4)	0,155	0,032	14
		Company has a local use case reference (S5)	0,167	0,035	12
		Company has an extensive network of partnerships (S6)	0,166	0,035	13
Weaknesses	0,372	Product display is not user-friendly (W1)	0,078	0,029	15
		Inadequate product innovation process (W2)	0,112	0,042	9
		Reseller partner capability is not sufficient (W3)	0,095	0,035	11
		Insufficient marketing HR capability (W4)	0,169	0,063	7
		Insufficient marketing HR capacity (W5)	0,195	0,073	5
		Marketing process does not focus on the target segment (W6)	0,146	0,054	8
		Low brand awareness (W7)	0,203	0,076	4
Opportunities	0,285	Broad market potential (O1)	0,422	0,120	1
		The emergence of new potential partners (O2)	0,086	0,024	17
		Increasing needs for digital solutions (O3)	0,366	0,104	2
		Technological advancement (O4)	0,126	0,036	10
Threats	0,134	Trade globalization trend (T1)	0,153	0,021	19
		Newcomer with attractive pricing policy (T2)	0,210	0,028	16

Factor	Factor weight	Subfactor	Local weight	Global weight	Rank
		Innovations made by competitors by utilizing new technology (T3)	0,637	0,086	3

Twelve strategies were developed with the guidance of experts, previous literature, and past experiences of other players in the ERP industry after identifying the SWOT factors and subfactors affecting the company's business performance and obtaining the weighting results of each SWOT factor and subfactor. The strategy is developed using the TOWS matrix, which is then used as a decision-making tool, as illustrated in Table 4.

Table 4. Tows matrix formulate strategies for business improvement

Internal Factors	Strengths S1: Products are flexible S2: Product has complete functions and features S3: Product has been integrated with banking services S4: Affordable prices S5: Use-case reference originating from Indonesia (local) S6: The company has a wide partnership network	Weaknesses W1: Product display is not user-friendly W2: Inadequate product innovation process W3: Reseller partner capability is not sufficient W4: Insufficient marketing HR capability W5: Insufficient marketing HR capacity W6: Marketing process does not focus on the target segment W7: Low brand awareness
External Factors		
Opportunities O1: Broad market potential O2: The emergence of new potential partners O3: Increasing needs for digital solutions O4: Technological advancement	S-O Strategy SO1: Expanding the marketing network by implementing a joint marketing strategy in collaboration with strategic partners (S6, O1, O2) SO2: Develop cloud-based products (S2, O4) SO3: Offering a new business scheme approach through revenue-sharing (S4, O3)	W-O Strategy WO1: Conduct training to improve the competence and capability of internal marketing human resources and reseller partners (W3, W4, O1) WO2: Focusing the marketing process on the target segment according to the features and price requirements (W6, O1) WO3: Implement the interface development process that adapts to customer preferences (W1, O3) WO4: Increase brand awareness by forming a community (W7, O1)
Threats T1: Trade globalization trend T2: Newcomer with attractive pricing policy T3: Innovations made by competitors by utilizing new technology	S-T Strategy ST1: Developing new products for the SME segment (S2, T2) ST2: Expansion of the market (S2, T1) ST3: Acquire a product or service provider (S1, T2)	W-T Strategy WT1: Cooperating with new reseller partners to expand the market (W3, W5, T1) WT2: Strengthening research and development function (W2, T3)

The performance evaluation of the company's business improvement strategy is carried out based on its relationship with the results of the SWOT factor and subfactor analysis. This stage involves the creation of an initial decision matrix with the same group of experts as in the previous stage. Assessing the evaluation was conducted using a 5-point Likert scale questionnaire and analyzed using the TOPSIS method to generate a performance score for each business improvement strategy presented in the form of a closeness coefficient (*CCi*). Table 5 summarizes the performance and rating of each strategy.

Table 5. Closeness coefficient (*CCi*) for each business improvement strategy

Strategies	<i>CCi</i>	Rank
SO1	0,567	2
SO2	0,539	4
SO3	0,564	3
ST1	0,345	12
ST2	0,359	11
ST3	0,463	7
WO1	0,430	8
WO2	0,486	6
WO3	0,399	10
WO4	0,608	1
WT1	0,507	5
WT2	0,423	9

The ranking of strategies from highest to lowest is WO4 – SO1 – SO3 – SO2 – WT1 – WO2 – ST3 – WO1 – WT2 – WO3 – ST2 – ST1. The WO4 strategy, namely Increase brand awareness by forming a community, ranks first with a closeness coefficient value (*CCi*) of 0.608. These findings indicate that the WO4 strategy outperforms the other business improvement strategies. The SO1 strategy, namely implementing joint marketing strategy, ranks second with a closeness coefficient (*CCi*) of 0.567. After that, the SO3 strategy, offering a new business scheme approach through revenue-sharing, is a strategy with the third priority order with a closeness coefficient (*CCi*) of 0.564. The implementation recommendations of these three prioritized strategies will be described in the next section.

Each alternative business improvement strategy that has been proposed previously has a different level of effort in implementing it. The level of this effort depends on three aspects, including the time, cost, and HR competencies needed to implement the chosen alternative business improvement strategy. This effort level calculation can provide additional evaluation material for decision makers to assist in prioritizing decision making based on the effort that will be expended by management. Each business improvement strategy's level of effort is measured using a 5-point Likert scale. The assessment of the level of effort was carried out by one of the experts who served as Vice President of the Strategic Planning Division with the results of the assessment shown in Table 6.

Table 6. The level of effort to implement each business improvement strategy

No.	Strategies	Effort Level
1.	SO1	1
2.	SO2	4
3.	SO3	1
4.	ST1	4
5.	ST2	5
6.	ST3	3
7.	WO1	2
8.	WO2	1
9.	WO3	4
10.	WO4	4
11.	WT1	3
12.	WT2	3

5. Discussion

This research offers a comprehensive system for selecting which business improvement strategy works best for local ERP provider companies across Indonesia. In this case, SWOT analysis helps accomplish the best strategy when combined with the fuzzy AHP method and TOPSIS. Essentially, fuzzy AHP method helps acquire factor weights, whereas TOPSIS contributes to ranking business improvement strategies. The weakness factor and broad market potential subfactor (O1) rank first with the highest weight, in conformity with the results of the fuzzy AHP method of weighting SWOT factors and subfactors. These results, according to experts, show that the market potential for ERP producing companies in Indonesia is still very wide, but unfortunately the company has not been able to exploit this potential optimally due to several sub-factors of weakness.

The strategy performance evaluation was carried out using the TOPSIS method by assessing strategy and the SWOT factors and sub-factors correlation, which resulted in several strategic priorities to improve the company's business. The prioritized strategy is the one that has the performance value that is not far from the positive ideal value as well as at the greatest distance from the negative ideal value (CCi) (Dachyar & Maharani 2019).

According to the results of the performance assessment (impact) of each strategy, the top three strategies were found in improving the company's business, namely forming a community to increase brand awareness (WO4), expanding the marketing network by implementing a joint marketing strategy (SO1), and offering a new business scheme approach through revenue-sharing (SO3). To assist decision makers in choosing the strategy to be implemented, an assessment of the level of effort (effort) is conducted after getting the performance value of each strategy. In conformity with the results of the assessment of the level of effort by the expert, the strategy is then compiled in a time analysis matrix per category based on the impact of benefits obtained by the company which can be seen in Table 7. The strategies classified as short-term strategies are considered to provide benefits to the company within one year. Meanwhile, strategies classified as medium to long term strategies are considered to provide benefits for the company within a period of two to five years.

Table 7. Benefit time analysis matrix

Category	Short-term (1 year)	Medium – Long Term (2 – 5 years)
Product	-	<ul style="list-style-type: none"> • Develop cloud-based products (SO2) • Implement an interface development process that adapts to customer preferences (WO3) • Develop new products for the SME segment (ST1)
Marketing	<ul style="list-style-type: none"> • Expanding the marketing network by implementing a joint marketing strategy (SO1) • Offering a new business scheme approach through revenue-sharing (SO3) • Focusing the marketing process on the target segment according to the features and price requirements (WO2) • Conduct training to improve the competence and capability of internal marketing human resources and reseller partners (WO1) 	<ul style="list-style-type: none"> • Forming a community to increase brand awareness (WO4) • Cooperating with new reseller partners for the purpose of market expansion (WT1) • Acquire other digital product or service providers (ST3) • Strengthening the research and development function (WT2) • Expansion into the ASEAN market (ST2)

Based on the results of TOPSIS calculations, forming a community of practice (CoP) to increase brand awareness (WO4) ranks first with the highest level of performance. Brand awareness is the main weakness that is the root cause

of several reasons for the failure of the sales process in the company. In today's knowledge-based and networked economy, the ability of organizations to acquire, develop, and strategically utilize knowledge has become an important factor for global competitiveness. Therefore, more and more companies are introducing knowledge management systems into their companies. The aim of this effort is to use knowledge more effectively and efficiently so as to gain strategic advantage. A group of people with similar interests, skills, and occupations are referred to as a community of practice (CoP). This group can form naturally due to its members' shared interests or with the goal of gaining knowledge in a certain field. By sharing information and experiences in groups, each member can benefit from the experiences of others and further their personal and professional development. Therefore, the CoP concept can be applied in order to build brand awareness. The formed CoP is expected to be able to collaborate all ideas, knowledge, and experiences from members who are the leaders of policy makers and staff implementing business processes in client companies. Thus, the collaboration is expected to provide new ideas on product quality improvement and improvement, as well as identify solutions to complex problems and find the best ways to implement them. Therefore, the CoP membership that can be formed by company consists of:

- Executive of the company, product development and business development (including marketing) teams, and client support
- Policy-making executives and business process executives in client companies

Furthermore, so that the formation of this CoP can strengthen the existence of the company's ERP brand in the local ERP market, the CoP membership must be expanded by adding:

- Executives (C-Level) and managers in charge of business processes of companies targeted by PT .X
- Academic circles (lecturers and students) from related study programs (e.g. Industrial Engineering, Management, Information Systems)
- Researchers, consultants, and observers of digital solution systems for improving the quality of business processes in companies.

In addition, the strategy of expanding the marketing network by implementing a joint marketing (SO1) strategy ranks second in priority to the strategy based on its performance towards increasing the company's business. When several partners collaborate to develop initiatives at an analytical, strategic, or operational level so that it can achieve certain goals in marketing with the use of customer satisfaction, the process is referred to as co-marketing or joint marketing. In today's fiercely competitive environment, company continuously strives to expand its marketing network by collaborating between companies. This strategy enables businesses to overcome several roadblocks to development and growth. This strategy helps increase a company's value in various ways, including providing access to new markets or channels for the company or its partners, providing access to all products, product features, brands, or services, or providing access to new knowledge and skills. The implementation of the joint marketing strategy will provide benefits for the company in terms of adding marketing leads and increasing the value proposition of the company. In addition, this joint marketing strategy is a cross-selling strategy where the human resources owned by partners will become additional marketing personnel who can be used to carry out the marketing process up to the initiation stage (approach) so that it is expected to increase the success of ERP products sales.

Not only that, the strategy of offering a new business scheme approach through revenue sharing (SO3) ranks third with a high-performance value in order to improve the company's business. Many companies estimate the cost of an ERP project simply as a software license fee. In practice, there is a slew of issues that should be factored into the ERP system implementation budget. Software license fees, hardware investment costs, implementation and maintenance service costs, and training costs are all examples of these expenses. Because ERP system implementation is a costly process that grows in cost with the company's size, many prospective clients cancel the ERP implementation plan. Therefore, a new business scheme option is needed which is cheaper for the client but can still generate profitable revenue for company. One option is to provide a revenue sharing business scheme, in which the additional revenue earned by the client due to the ERP system implementation will be shared based on a proportion mutually agreed upon by both parties. As with the implementation of ERP products in general, the implementation of ERP products of this company also costs a lot of money. Even though company has offered several business schemes such as licenses, subscriptions, and transaction fees to match the capabilities of their target market, but there are still prospective clients who cancel the plan to implement the company's ERP system because the price of the product is considered not in accordance with the investment budget they have. This business scheme is expected to capture potential clients who actually feel interested in the ERP product but does not have a sufficient investment budget, so that the implementation of this revenue sharing strategy is expected to increase sales success.

6. Conclusions

Thus, SWOT and MCDM methods are used in this study to develop a strategy of business improvement for ERP providers. In the SWOT analysis, Fuzzy AHP was chosen as one of the MCDM methods for determining the significance between factors and subfactors. On the other hand, each business improvement strategy's performance is evaluated using the TOPSIS MCDM method. Six sub-factors of strength, seven sub-factors of weakness, four sub-factors of opportunity, and three sub-factors of threats affecting the company's business performance and is used in the selection of business improvement strategies were obtained based on expert opinion. In line with the results of the weighting of the company's SWOT factors and subfactors, it is known that the weakness factor and broad market potential (O1) are the factors and subfactors that have the highest importance that must be considered by decision makers in formulating and choosing the right strategy for business improvement. Establishing a community of practice (CoP) to increase brand awareness (WO4), expanding the marketing network by implementing a joint marketing strategy (SO1), and offering a new business scheme approach through revenue sharing (SO3) is the selected business improvement approach with the greatest TOPSIS performance score. and level of effort assessment. Additionally, in conformity with the analysis of the effort assessment results, these three strategies will have a significant impact on the company's benefits, albeit with varying periods of benefit receipt. This study is restricted to SWOT analysis development, which only involves internal and external parties (industrial practitioners). Existing and potential customers are expected to be involved in further research to gain a more comprehensive understanding of the company's SWOT results. External parties are only considered when weighting factors and sub-factors from a SWOT analysis, and interactions and dependencies between listed factors and sub-factors are not taken into account. Further study should be capable of developing SWOT-MCDM integration utilizing a method that considers the interaction of these factors, notably the Analytic Network Process (ANP). Future research is also expected to explore recommendations for implementing other business improvement strategies (which are not prioritized in this study) and their impact on improving the business of ERP provider companies.

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