

# Determination of Ginger Simplicial Marketing Strategy in Madura with EFE and IFE Matrix Approach

Ernaning Widiawanti<sup>1\*</sup>, Rika Yunitarini<sup>2</sup>, Retno Indriartiningtias<sup>3</sup>

<sup>1,3</sup>Department of Industrial Engineering, Faculty of Engineering, Trunojoyo University, Bangkalan, Indonesia

<sup>2</sup>Department of Informatic Engineering, Faculty of Engineering, Trunojoyo University, Bangkalan, Indonesia

**Abstract.** Ginger plants have the potential for business to be developed. Part of the ginger plant that is commonly utilized is rhizome. Zingiber rhizome is processed first before storing or selling, one of the ways is in the form of simplicia. Ginger simplicia is often used as a basic ingredient of herbal medicine. Madura Island has a reputation as one of the herbs that have been tested by the National empirical use. Many herbal medicine industries in Madura use ginger simplicia as their raw material. In Madura, ginger simplicia is majorly produced by SMEs. The problems faced by SMEs in Madura are the distribution channels that are not well ordered, lack of venture capital, technology is still very simple, competition with similar businesses both from within and outside the region, and changes in raw material prices. The aim of this research was to formulate a priority marketing strategy for ginger simplicia that can be carried out by SMEs in Madura. The analytical methods used are IFE matrix, EFE matrix, IE matrix, and SWOT matrix. The results of the analysis show 4 priority strategies that can be applied

**Keywords.** EFE matrix, ginger simplicia, IFE matrix, marketing strategy

## 1 Introduction

Ginger is one of the spices that is widely known by the public. Apart from being a producer of flavor in various food products, ginger is also known to have properties to cure various diseases such as colds, coughs, and diarrhea [1]. Various studies have shown that ginger has antioxidant properties. Some of the main components in ginger such as gingerol and shogaol have very strong antioxidant activity with an IC50 value of 10.35 g/mL [2]. The part of ginger that can be used is the rhizome. Zingiber rhizome is processed into simplicia in order to have a higher economic value [3]. Ginger simplicia is the most widely used product form as a raw material in the manufacture of traditional herbal and herbal medicines [4].

Madura as one of the national herbal medicine producers, has used ginger simplicia as raw material for making traditional herbal medicine. Ginger simplicia is mostly produced by micro, small and medium enterprises in Madura. Ginger simplicia SMEs in Madura are currently faced with competitors who produce similar products. The emergence of new companies with the same product has become increasingly fierce business competition in fighting over consumers and market share. In addition to the emergence of threats from newcomer companies, ginger simplicia industry in Madura are also faced with

problems, including: the distribution channels that are not well ordered, technology is still simple, product packaging is not attractive, weather factors, lack of business capital, human resource capabilities, lack of promotion, and changes in raw material prices. Ginger simplicia marketing channels are no different from other agricultural commodities (Figure 1). In domestic marketing, producers sell their products to intermediaries' agents. The constraints on the marketing of ginger simplicia in Madura are due to the weak bargaining position of entrepreneurs and the limited marketing reach in the country [5].

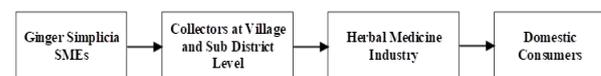


Fig. 1. Ginger simplicia marketing channels in Madura.

Marketing strategic planning is very necessary for ginger simplicia industry in Madura as an effort to achieve company goals, set targets, and face competition with competitors [6]. Strategic planning is based on a thorough analysis of the influence of the company's external and internal environmental factors [7]. The method used in determining the marketing strategy is to use the IFE and EFE matrices [8]. The purpose of this study is to identify internal and external factors that can influence the marketing of ginger simplicia, and determine the priority of marketing strategies that are effective in developing SMEs that

\* Corresponding author: [erna.widiawanti@gmail.com](mailto:erna.widiawanti@gmail.com)

produce ginger simplicia in Madura. The remainder of this paper is organized as follows. In the next section provides a summary of the theory of IFE matrix, EFE matrix, IE matrix, and SWOT matrix. Section 3 discuss about result and discussion. Finally, the conclusion is given in section 4.

## 2 Research Method

The data used in this study is primary data in the form of data obtained from interviews with the research sample. The samples in this study were ginger simplicia industry, and the Department of Industry and Trade in Madura. The method of determining the sample used is by using the purposive sampling method, which is taking non-random samples by determining special characteristics that are in accordance with the research objectives [9]. Primary data includes internal data and external data. Internal data includes HR capabilities, sales growth, strategic business location, production technology, marketing strategy, product packaging, weather, business legality management, and business capital. External data include raw materials, customers, market opportunities, government policies, lifestyle, business competition, new entrants, low promotional activities, raw material prices.

The data analysis method uses the EFE matrix, IFE matrix, IE matrix, and SWOT matrix. The initial stage is to analyze the IFE and EFE matrices, by first determining the internal variables that become strengths and weaknesses, as well as external variables that become opportunities and challenges, by selected experts. Then determine the weights with the criteria according to [10], namely: 0.20 = very strong, 0.15 = above average, 0.10 = average, 0.05 = below average. The next step is to determine the rating ranging from 1, 2, 3, and 4. After the weight and rating are obtained, the score can be calculated by multiplying the weight by the rating.

The next stage is determining the position of MSMEs in the IE matrix, which consists of 9 cells, where companies can be grouped into three main strategies consisting of:

- Growth and Build strategies in cells I, II and IV are described by appropriate intensive strategies in the form of (market penetration, market development and tourism development) or integrated strategies (backward integration, forward integration and horizontal integration).
- The strategy to maintain and maintain (Hold and Maintain) which is in cells III, V and VII can be managed in the best way including strategies to maintain and maintain market penetration and product development
- Harvest or Divestiture strategies that are in cells VI, VII and IX can use divestment and liquidation strategies.

Determination of SWOT is a further analysis stage. In SWOT, company positions are grouped into 4 categories, namely:

1. Quadrant I: the company has opportunities and strengths that can be exploited, so the recommended

strategy recommendation is an aggressive strategy that must be implemented by supporting growth policies. It is better to focus on the SO strategy with existing strengths used to take advantage of opportunities with the aim of increasing the company's growth and achieving progress.

2. Quadrant II: is the company's strategy in dealing with threats that still have internal strength. So the recommended strategy is diversification. The best strategy is to use strength to take advantage of long-term opportunities to anticipate external threats by diversifying products/services.
3. Quadrant III: the company has great opportunities but also has weaknesses that threaten the company so that the recommended strategy is turn around, which means the company must change its previous strategy, it is feared that the old strategy is not enough to capture opportunities while improving organizational performance. Things that must be done by reducing / suppressing internal problems so as to achieve broad market opportunities / improvement strategy.
4. Quadrant IV: the company is faced with various threats and weaknesses, so a defensive strategy is recommended which means utilizing internal performance this performance must be maintained while continuing to improve itself [7].

Based on the IE matrix and SWOT analysis, marketing strategies can be formulated that can be carried out by SMEs that produce ginger simplicia in Madura.

## 3 Results and Discussion

Based on the results of data analysis in the field, internal factors (strengths and weaknesses) were identified, which were found in the ginger simplicia SMEs in Madura, which were contained in the IFE and EFE matrix

**Table 1.** Internal Factor Evaluation (IFE) Matrix

Internal Factors	Weight	Rating	Score
<b>STRENGTH</b>			
Availability of sustainable core raw materials	0,125	3	0,375
Efficacy possessed	0,095	3	0,285
Long business experience	0,176	4	0,704
Strategic location of product marketing	0,184	4	0,736
Smaller business risk	0,164	3	0,492
<b>WEAKNESS</b>			
Limited working capital	0,077	2	0,154
Low quality of human resources	0,050	1	0,050
Low marketing strategy	0,057	1	0,057
Very simple product packaging	0,032	1	0,032
Simple technology being used	0,040	1	0,040
<b>Amount</b>	<b>1</b>		<b>2,925</b>

Based on Table 1, it is known that the marketing of ginger simplicia in Madura has 10 internal factors which are divided into 5 strength factors and 5 weakness factors. In this matrix there is a power factor with the

highest score of 0.736. The factor is the strategic location of product marketing, with the existence of the Suramadu bridge further facilitating access in the agricultural sector from upstream to downstream [11]. The weakness factor with the highest score of 0.154 is limited working capital. This is because all production costs to marketing use personal costs. The limited capital is reflected by the production process still using manual tools and the product packaging equipment used is still very simple

**Table 2.** External Factor Evaluation (EFE) Matrix

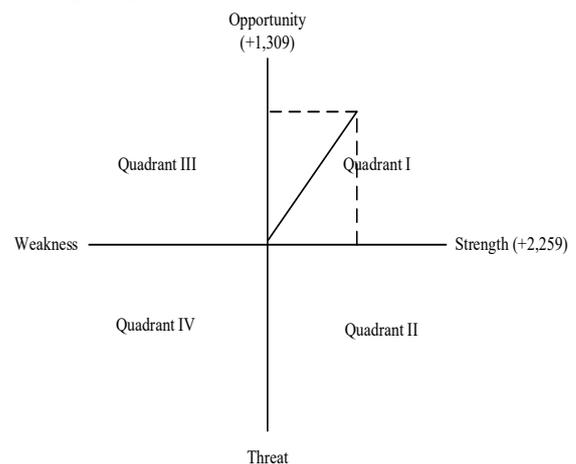
External Factors	Weight	Rating	Score
<b>OPPORTUNITY</b>			
Good market opportunity	0,150	4	0,600
Public awareness of natural products	0,080	3	0,240
Easy-to-find raw materials	0,091	3	0,273
Having regular customers	0,152	4	0,608
The role of local government	0,086	3	0,258
	0,080	1	0,080
<b>THREAT</b>			
Unpredictable weather	0,122	2	0,244
Number of competitors with similar businesses	0,107	2	0,214
Difficult to penetrate the global market	0,063	1	0,063
Changes in raw material prices	0,069	1	0,069
Low activity and promotional ability			
<b>Amount</b>	<b>1</b>		<b>2,649</b>

Based on Table 2, it is known that the results of the EFE matrix have 10 external factors, which are divided into 5 opportunity factors and 5 threat factors. In this matrix there is an opportunity factor with the highest score of 0.608. The factor is having regular customers. The customers came from Madura, Surabaya, Jakarta, and Medan. Initially the buyers came from Madura who worked in almost all parts of Indonesia, thus indirectly introducing the ginger simplicia product. In addition, it is also a subscription to several government agencies to be included in various events to introduce and launch the culture of drinking herbal medicine derived from ginger simplicia. The threat factor with the highest score is the number of competitors with similar businesses. These competitors come from inside and outside the region

**Table 3.** IE Matrix.

		IFE Score		
		Strong 3,00-4,00	Average 2,00-2,99	Weak 1,00-1,99
EFE Score	High 3,00-4,00	I Grow and Build	II Grow and Build	III Hold and Maintain
	Medium 2,00-2,99	IV Grow and Build	V Hold and Maintain	VI Harvest or Divestiture
	Low 1,00-1,99	VII Hold and Maintain	VIII Harvest or Divestiture	IX Harvest or Divestiture

Based on the results of the IE (Internal External) matrix analysis, the position of SMEs that produce ginger simplicia in Madura is in cell V. In cell V, it is more about maintaining what is there and maintaining it, the appropriate strategy in this case is market penetration and product development. Market penetration is a strategy used by companies in an effort to better maintain and maintain cooperation with stakeholders. Product development is a strategy used by companies to develop existing products by improving product quality.



**Fig. 2.** Cartesian Diagram SWOT Analysis.

From Figure 2, it is found that the point of intersection of the diagonals is in quadrant I, indicating that the position of SMEs that produce ginger simplicia in Madura is in a growth oriented strategy position. In this position the company can take advantage of existing opportunities and strengths. The right strategy to implement is aggressive growth.

From the IE matrix and the Cartesian SWOT diagram, there are 4 alternative marketing strategies that can be carried out by SMEs that produce ginger simplicia in Madura, namely:

1. Develop products by creating product innovations, especially in packaging to make it more attractive. The results of the study are in line with the research of [12], which resulted in a product development strategy for design and innovation.
2. Maximize the support provided by the government such as capital assistance and production facilities, as well as the ease of obtaining business legality. A trading business license (SIUP) functions as a license to conduct trading business activities throughout Indonesia, as long as the company is still running its business, it must be re-registered every 5 years and the issuer of this license is free of retribution [13].
3. Maintain the quality of ginger simplicia and ensure that the raw materials used are of the best quality.
4. Carry out various promotions both online and offline. Offline promotions can be done by participating in exhibitions to introduce Madura ginger simplicia products. According to [14] promotional activities are important in an effort to develop a business.

## 4 Conclusion

The internal factors of the ginger simplicia SMEs in Madura that have high scores are the company's strategic location, long business experience, limited capital, and low marketing strategy. Meanwhile, external factors include raw materials that are easy to obtain, have many customers, and the level of competition is quite heavy. Based on the IE matrix, ginger simplicia SMEs in Madura are in the category of SMEs that are in a Hold and Maintain position, while based on a SWOT analysis, they are in a growth oriented strategy position. Based on these conditions, the suggested strategies that can be developed are developing product packaging innovations, maintaining the quality of ginger simplicia, increasing marketing through various media, and making maximum use of support from the government both in terms of capital, assistance and business legality management.

## References

- [1]. A. J. A.-A. Najim, "Potential Health Benefits and Scientific Review of Ginger," *J. Pharmacognosy Phytother.*, vol. **9**, no. 7, pp. 111–116, (2017), doi: 10.5897/JPP2017.0459.
- [2]. E. Ahmadifar, N. Sheikhzadeh, K. Roshanaei, N. Dargahi, and C. Faggio, "Can dietary ginger (*Zingiber officinale*) alter biochemical and immunological parameters and gene expression related to growth, immunity and antioxidant system in zebrafish (*Danio rerio*)?," *Aquaculture*, vol. **507**, pp. 341–348, (2019), doi: 10.1016/J.AQUACULTURE.2019.04.049.
- [3]. M. Tetti, "Ekstraksi, Pemisahan Senyawa, Dan Identifikasi Senyawa Aktif," *Jurnal Kesehatan*, vol. **7**, no. 2, Art. no. 2, (2014), doi: 10.24252/kesehatan.v7i2.55.
- [4]. R. Farrel, T. Aulawi, and A. Darmawi, "Quality Analysis of Simplicia Red Ginger (*Zingiber officinale* Var. *Rubrum*) Rhizome with Different Drying Temperature," *Jurnal Pertanian Tropik*, vol. **7**, no. 1, Art. no. 1, April, (2020), doi: 10.32734/jpt.v7i1, April.3866.
- [5]. I. Hidayat and B. Supartoko, "Agribisnis Tanaman Obat Dan Penerapan Good Agricultural Practice Di Pt. Sido Muncul," *Prosiding SEMNASTAN*, Art. no. 0, 2017.
- [6]. J. B. Barney and W. S. Hesterly, *Strategic Management and Competitive Advantage: Concepts and Cases*, 6th ed. Pearson, (2018). Accessed: Jul. 21, 2022. [Online]. Available: <https://www.pearson.com/en-us/subject-catalog/p/Barney-Strategic-Management-and-Competitive-Advantage-Concepts-and-Cases-6th-Edition/P200000005821>
- [7]. F. Rangkuti, *Analisis SWOT: Teknik Membedah Kasus Bisnis*, 1st ed. Jakarta: Gramedia Pustaka Utama, (2015). Accessed: Jul. 21, 2022. [Online]. Available: [https://mizanstore.com/Analisis\\_Swot:\\_Teknik\\_Membedah\\_Kasus\\_Bisnis\\_\(Cover\\_Baru\)\\_55864](https://mizanstore.com/Analisis_Swot:_Teknik_Membedah_Kasus_Bisnis_(Cover_Baru)_55864)
- [8]. F. R. David, *Konsep Manajemen Strategik*, 15th ed. Jakarta: Salemba Empat, 2016. Accessed: Jul. 21, (2022). [Online]. Available: <https://www.tokopedia.com/mahasakastore/manajemen-strategik-konsep-edisi-15-fred-r-david-salemba-original>
- [9]. Sugiyono, *Metode Penelitian Pendidikan Pendekatan Kuantitatif, kualitatif, dan R&D*, Alfabeta, Bandung, Cet ke-19, 2014, Hlm. 3 2 - PDF Free Download, 19th ed. Bandung: Alfabeta, (2014). Accessed: Jul. 21, 2022. [Online]. Available: <https://adoc.pub/sugiyono-metode-penelitian-pendidikan-pendekatan-kuantitatif10565ff6ea5cec7f00a9decc376995df81672.html>
- [10]. H. Umar, *Strategic Management in Action Konsep, Teori. dan Teknik Menganalisis Manajemen Strategis Strategic Business Unit berdasarkan Konsep. Michael R. Porter, Fred R David, dan Wheelen-Hunger*. Jakarta: Gramedia Pustaka Utama, (2001). Accessed: Jul. 21, 2022. [Online]. Available: <https://gpu.id/book-detail/76482/strategic-management-in-action>
- [11]. H. B. A. Safrizal and N. Kurriwati, "Peningkatan Kinerja Usaha Kecil Jamu Madura: Pemanfaatan Teknologi Informasi," *Competence: Journal of Management Studies*, vol. **10**, no. 1, Art. no. 1, (2016), doi: 10.21107/kompetensi.v10i1.3422.
- [12]. R. D. Munica, M. Ulya, and M. Fakhry, "Analisis Strategi Pengembangan Industri Jamu Tradisional Di Kabupaten Bangkalan - Madura," *Agrointek : Jurnal Teknologi Industri Pertanian*, vol. **11**, no. 2, Art. no. 2, (2017), doi: 10.21107/agrointek.v11i2.3057.
- [13]. A. M. Wahida, M. Primyastanto, and T. N. Utami, "Pengembangan Usaha Kerupuk Ikan Payus (*elops Hawaiensis*) Pada Ud. Sumber Rezeki Kelurahan Gunung Anyar Tambak, Kecamatan Gunung Anyar, Kota Surabaya, Jawa Timur," *ECSOFiM (Economic and Social of Fisheries and Marine Journal)*, vol. **3**, no. 1, Art. no. 1, (2015).
- [14]. R. Aliyah, I. Gumilar, and I. Maulina, "Strategi Pengembangan Usaha Pengolahan Abon Ikan (Studi Kasus Rumah Abon Di Kota Bandung)," *JPK*, vol. **6**, no. 2, p. 124882, (2015).