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## **Dynamics of small and medium industries (IME): Analysis of the index of IME concentration in Bali Province (2018 – 2023)**

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**Abstract**---The strategic role of small and medium industries (SMEs) in strengthening the industrial structure and contributing to national economic growth, because the SME sector contributes in terms of labor absorption, equitable distribution of welfare and poverty alleviation. The development of SMEs in Bali Province shows a decline and has not been properly classified due to the right SME development strategy. This research aims to produce SME cluster patterns and strategies and development of Small and Medium Industries in Bali Province. **The research method** used is a concentration index calculation technique, based on secondary data from the Central Statistics Agency and the Bali Provincial Department of Industry and Trade. **The results** of the study show that Bangli district and Denpasar City have the highest absorption of labor by SMEs. The recommended SME development strategy model is digital marketing training, business capital, number of business actors, and institutional alternatives.

**Keywords**---Development strategy, SMEs, concentration index.

## Introduction

The economic growth of a country reflects the process of changing the country's economy for the better. The country's economy is said to be growing as seen from the indicators of increasing national income, increasing per capita income, and labor absorption. Factors that affect a country's economic growth include natural resources (SDA), human resources (HR), capital accumulation, managerial personnel, technology, government administration (Rosyda, 2021).

The indicator that to indicate the level of prosperity of an area is GDP (Gross Domestic Product) on a constant price basis. Indonesia's economic growth in the last 10 years according to the Central Statistics Agency (BPS) in 2023 of 5.05% is smaller than in 2022 of 5.31%, this figure is higher than economic growth in 2021 which only reached 3.70 percent. Indonesia's economic growth in 2022 is the second highest achievement since 2013 which reached 5.56%, The high economic growth in 2022 is supported by an increase in the percentage of exports (16.28%) and imports (14.75%) (Central Statistics Agency, 2023).

The positive economic growth illustrates the initial success of economic development that had an impact due to the pandemic. Indonesia's economic growth in the midst of global economic turmoil can still be a growth rate (GDP) of 4.84% (Central Statistics Agency, 2023). Although it slowed down compared to the previous period, Indonesia is one of the countries with relatively strong economic growth performance. This shows that the State Expenditure Government Budget (APBN) functions to protect the people of Indonesia and strategies that can increase economic growth. Economic growth will have an impact on people's welfare. The Government of Indonesia seeks to increase economic growth by conducting sustainable and equitable development. Indonesia's economy based on GDP on the basis of effective prices in the first quarter of 2024 reached Rp5,288.3 trillion and on the basis of constant prices in 2010 Rp3,112.9 trillion. Indonesia's economy in the first quarter of 2024 compared to the first quarter of 2023 grew by 5.11%. In terms of production, the Government Administration, Defense and Compulsory Social Security Business Field experienced the highest growth of 18.88%. Meanwhile, in terms of expenditure, the consumption expenditure component of non-profit institutions serving households (PK-LNPRT) experienced the highest growth of 24.29%. Indonesia's economic growth in the first quarter of 2024 compared to the previous quarter contracted by 0.83%, in terms of production. The deepest growth contraction occurred in the education services business field of 10.34%. Meanwhile, in terms of expenditure, the Government Consumption Expenditure Component (PK-P) experienced the deepest growth contraction of 36.69%. During the first quarter of 2024, the provincial group on the island of Java still showed its spatial influence in Indonesia's economy by recording a role of 57.70 percent, despite experiencing a slowdown in growth of 4.84 percent compared to the first quarter of 2023.

Small and medium industries (SMEs) play an important role in job creation (Riana et al., 2023). In various countries, small and medium-sized industries play a role in maintaining economic growth and generating employment (Rudhumbu et al., 2020). According to (Ondiba & Matsui, 2021), SMEs are a source of growth for

companies in developed countries. SMEs are key to a country, such as economic growth and can help reduce poverty, improve family and community health, increase knowledge, and education levels.

SMEs are included in the manufacturing sector as one of the sectors contributing to the economy, which plays a very important role. The manufacturing sector indicator is the sector that contributes the most to economic growth in Indonesia. The positive impacts arising from SMEs are the opening of job opportunities, local economic development, cultural preservation and creativity. The existence of SMEs in Indonesia is around 4.19 million business units or around 99.7% of the total industrial enterprises in Indonesia. SMEs can create jobs and of course this will have an impact on reducing the number of unemployed in Indonesia. Several types of SMEs in Indonesia include culinary, convection, and handicrafts (Waluyo, 2023).

The results of the research Sari & Fisabilillah, (2021) stated that the total population has a significant negative influence on economic growth while labor and inflation have no effect on economic growth. The more workers, the more SMEs can produce large quantities of goods and services (Muli, 2023). Rapid population growth will result in an abundance of labor, the needs for the population will also increase as the population increases. The government must be able to empower high human resources because this can be a good potential if its management is carried out effectively and sustainably (Azulaidin, 2021). This is not in line with the results of research by Desmawan et al., (2023), which stated that an increase in population will cause obstacles to economic growth.

The results of the research by Saputra et al., (2019), stated that Small Industries and Handicrafts are part of SMEs, but the industry still faces several obstacles such as obstacles in SMEs in general. Some of the obstacles faced include access to capital, access to technology and information, access to markets and marketing, access to human resource professionalism, and access to company management (Riana et al., 2023). The island of Bali, with its rich culture and natural resources, has become the center of growth of Small and Medium Industries (SMEs). However, without a deep understanding of SME sector diversification, challenges related to sustainability, development inequality, and economic efficiency may not be optimally identified.

The urgency of this research is regarding the concentration index of SMEs in Bali Province for the period 2018 – 2023 and how the SME development strategy must be carried out. According to Malyana & Khoiriyah, (2021), the classification of SME technology readiness is still very low. According to Tortora et al., (2021) SMEs' knowledge about technology 4.0 is still limited to compete in the international market. Many SMEs have a basic level of knowledge about technology 4.0. competitive strategies have an important role to support the transformation of SMEs towards industry 4.0 (Thahira et al., 2023). This study seeks to produce some findings that have not been explained in previous studies. The study seeks to analyze the dynamics of Small and Medium Industries (SMEs) and analyze the concentration index of SMEs in Bali Province in 2018 - 2023.

## Research Methods

This study uses a type of quantitative research. (Sugiyono, 2017), This research was carried out in the Regency/City of Bali Province in 2018-2023 consisting of Denpasar City, Jembrana Regency, Tabanan Regency, Badung Regency, Gianyar Regency, Bangli Regency, Karangasem Regency, Klungkung Regency, and Buleleng Regency.

This research focuses on the distribution of the number of SME business units, the distribution of SME labor, and the distribution of investment value, based on manufacturing in each Regency/City in Bali Province in 2018-2023. The population in the study is all SMEs in Bali Province. The data analysis technique used is descriptive analysis with an approach to two methods, namely: Concentration Index is one of the measuring tools to test geographical concentration patterns and in this study, the researcher uses SWOT analysis. The first stage is the input stage using the IFAS (Internal Factors Analysis Summary) matrix to identify the factors that the company is facing strengths and weaknesses. The EFAS (External Analysis Summary) matrix is used to identify the opportunity factors and threats faced by the company. The second stage is matching, which is matching internal and external factors to create a strategy.

## Research Result

### a. (Concentration Index, CI)

Table 1. Development of the Number of Business Units in Bali Province 2018-2023

Regency/City	Bali Provincial Business Unit 2018-2023					
	2018	2019	2020	2021	2022	2023
Badung	1.230	1.230	1.230	1.254	1.291	1.211
Bangli	4.213	4.558	4.623	4.670	4.678	4.652
Buleleng	993	1.012	1.061	1.100	1.135	1.125
Gianyar	994	1.082	1.104	1.117	1.125	1.147
Jembrana	1.775	1.793	1.815	1.844	1.885	1.778
Karangasem	522	522	543	573	603	525
Klungkung	489	547	580	608	651	655
Tabanan	926	926	926	946	955	923
Kota Denpasar	4.074	4.214	4.261	4.273	4.327	4.859
Number of Business Units	15.216	15.884	16.143	16.385	16.650	16.875

*Source: District/City Trade and Industry Office Directory Data*

The development for the number of Business Units has increased from year to year, the perfection of all districts and cities of Denpasar has increased, although There was a Covid 19 outbreak, the number of business units still grew, which gave rise to bar business actors The number of SME business units shows an increase every year, except in 2020 it shows a decline in Economic Growth. The decline due to the impact of COVID 19 greatly affected economic conditions, especially SMEs in Bali The Central Statistics Agency (BPS) of Bali Province in

early July stated that the performance of goods exports from Bali in May 2020 declined again and reached the lowest point in the last four years, or during 2017 to 2020. According to the calculation of BPS Bali Province, Bali's export performance cumulatively during the January-May 2020 period fell by 27.41% compared to the January-May 2019 period, but Bali Province experienced Economic Growth of 5.35% in 2022 above Indonesia's average Economic Growth of 4.94%. It is known that the mean CI is 1.083 and the standard deviation of CI is 0.683 so that the following categories are obtained Very High =  $x \geq 1,706$  Height =  $1,365 \leq x < 1,706$  Medium =  $0.681 \leq x < 1.365$  Low =  $x < 0.68$

The results of the analysis were obtained that Regency Bangli is the most both in efforts to absorb labor by SMEs, as well as the City of Denpasar, but the City of Denpasar experienced a decline in 2020. The areas that have the lowest absorption of SME labor are Buleleng and Karangasem Regencies, which are characterized by the years 2018-2022 being included in the low category. Based on the results of the CI calculation, the CI classification is obtained with the following conditions: It is known that the mean CI is 0.837 and the standard deviation of CI is 1.273 so that the following categories are obtained: Very High =  $x \geq 2,109$  Height =  $1,473 \leq x < 2,109$  Medium =  $0.201 \leq x < 1.473$  Low =  $x < 0.201$

Based on the calculation of the classification, it was obtained that Gianyar district and Denpasar City were included in the very high category. In Badung, Gianyar, Tlabanan regencies are in the medium category, while in Badung, Baling and Buleleng districts are in the low category.

### 1. Swot Analysis

The presentation of the general overview of the SWOT analysis of the Trade and Industry Office (DPP) in fostering SMEs in Bali Province can be seen that in coaching SMEs still experience quite complex problems so that a more in-depth analysis is needed. These factors include the following:

- a. The strengths of the Bali Provincial Department of Industry and Trade make valid data for recipients of assistance both from the government, both in the form of funds and in the form of equipment. APBD funds contribute to IKM development activities. With the policy of the regional head regarding the development of SMEs, entrepreneurial actors can develop their businesses well. Providing complete facilities for SMEs. Facilitating SMEs about exhibitions and promoting print and electronic media.
- b. Weakness Factor Lack of human resources is still inadequate and professional in fostering SMEs in Bali Province. The budget allocation in conducting coaching is not optimal. Lack of information regarding HR training
- c. The opportunities factor of the Bali Provincial Department of Industry and Trade has not recorded all SMEs properly. It is necessary to re-collect data in each region so that each IKM is recorded
- d. Threat factors (threats) The obstacles that are often faced will pose threats. The IKM group does not propose coaching through activity proposals that can result in difficulties in providing assistance. The number of SMEs in Bali Province is quite large, while the number of functional personnel who

overcome it is less, resulting in the data on SMEs owned by the agency is still lacking.

Based on the results of the analysis of the IFAS and EFAS matrix for human resource development, it is known that the total score of internal factors is 3.00 and the total score of external factors is 2.68. This proves that both have a balanced value to develop future strategies in improving the quality of development. This value is greater than the weakness factor score with a score of 0.90 which means that the strength factor is greater than the company's weakness factor. As for external factors, the score value for the opportunity factor of 2.25 is also greater than the threat factor of 0.43. From this analysis, the company can take advantage of the strength and opportunity to determine future strategies in improving the quality of human resource development at the Bali Provincial Department of Industry and Trade. SWOT analysis is used in overcoming the problems faced and the steps that must be taken in the development of Human Resources of entrepreneurial actors in increasing the competitiveness. The way to develop industries is by:

- a. Carry out coachings that include growth, improvement and monitoring. It is carried out by selection according to the potential of business actors. Training, improving design quality, product diversification, and business legality. Business legality can be from licensing, namely the existence of IUI, SIUP, HAKI, etc.
- b. Conduct training on export procedures.
- c. Training on promotion and information procedures

The solutions that can be used to overcome the obstacles to the development of human resources for entrepreneurial actors obtained from the SWOT analysis are:

- a. SO Strategy
  - 1) With budget support, IKM coaching can be carried out evenly
  - 2) Can promote SMEs outside the region
  - 3) Providing equipment assistance for technology transfer
- b. WO Strategy
  - 1) Conducting periodic data collection of SMEs
  - 2) Activating the role of SMEs to report on their business development
  - 3) Addition of functional personnel
- c. ST Strategy
  - 1) Establishing a new center
  - 2) Sharing to SMEs
- d. WT Strategy
  - 1) Conducting effective communication with SMEs on a regular basis
  - 2) Strengthening the partnership between SMEs and the agency in reporting business development

## Conclusion

Based on the results of the research on the dynamics of small and medium industries (SMEs) with an analysis of the concentration of SMEs in Bali Province 2018 – 2023, the following conclusions can be given:

1. Spatial concentration pattern of SMEs in Bali Province for the 2018-2023 period It was obtained that Bangli district and Denpasar City have a fairly similar concentration pattern, namely these two regions both in efforts to absorb labor by SMEs and the concentration of SMEs in their classification are included in the very high and high categories. Then Badung Regency, Gianyar Regency, Jembrana Regency, and Klungkung Regency have the same concentration pattern, namely this area is quite good in efforts to absorb labor by SMEs but needs to be improved again and the concentration of SMEs in its classification is included in the medium category. Then Buleleng Regency and Karangasem Regency, and Tabanan Regency show a pattern of low concentration in efforts to absorb labor by SMEs so that it needs to be increased again and the concentration of SMEs in their classification is in the low category.
2. SME development strategy
  - a) Valid data recording for aid recipients. The availability of valid data, for the target group of aid recipients. SMEs will have a strong basis when they will submit a budget plan through the APBD for IKM development activities.
  - b) Anticipating obstacles in terms of developing human resources. Coaching which includes growing, improving and monitoring as well as holding training on export procedures.

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