



## Metal and Machine MSMEs Penetrate The International Market (Case Study On MSMEs. Andi Welder, West Nusa Tenggara)

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**Abstract.** *Objective:* This study aims to reveal the strategies used by Metal and Machinery MSMEs in West Nusa Tenggara in competing and expanding their products to foreign markets or international markets. *Design/methodology/study approach:* The method used in this study is research with a case study method with interviews at MSMEs Andi Welder who process metals and produce coffee processing equipment. *Conclusion:* MSMEs Andi Welder uses Canva's analysis strategy in innovating its products which aims to see the market response of what products are most sought after by consumers then the products are refined so that they can be accepted by the international market. *Limitations/implications of research* – This research can not only limit the product innovation strategies that are acceptable to consumers, then for future research can expand on other strategies such as brand strategy and product quality. *Originality/value:* This research is a case study research that raises the strategy of metal and machinery MSMEs to enter the international market.

**Keywords:** Product Innovation Strategy, Metal, Machine MSMEs

**Abstrak.** *Tujuan:* Penelitian ini bertujuan untuk mengungkap strategi yang digunakan UMKM Logam dan Mesin di Nusa Tenggara Barat dalam bersaing dan memperluas produknya ke pasar luar negeri atau pasar internasional. *Pendekatan desain/metodologi/kajian:* Metode yang digunakan dalam penelitian ini adalah penelitian dengan metode studi kasus dengan wawancara pada UMKM Andi Welder yang mengolah logam dan memproduksi alat pengolahan kopi. *Kesimpulan :* UMKM Andi Welder menggunakan strategi analisis Canva dalam melakukan inovasi produknya yang bertujuan untuk melihat respon pasar terhadap produk apa yang paling banyak dicari oleh konsumen kemudian produk tersebut disempurnakan agar dapat diterima oleh pasar internasional. *Keterbatasan/implikasi penelitian* – Penelitian ini tidak hanya dapat membatasi strategi inovasi produk yang dapat diterima konsumen, kemudian untuk penelitian selanjutnya dapat memperluas strategi lain seperti strategi merek dan kualitas produk. *Orisinalitas/Nilai:* Penelitian ini merupakan penelitian studi kasus yang mengangkat strategi UMKM logam dan mesin untuk memasuki pasar internasional.

**Kata Kunci :** Strategi Inovasi Produk, UMKM Logam, Mesin

## INTRODUCTION

Businesses in the field of metals and machinery have long been the backbone of the Indonesian economy. Amid the dominance of large companies, MSMEs (Micro, Small and Medium Enterprises) in this sector have shown great potential to compete in the global market. With creativity, innovation, and perseverance, Indonesian metal and machinery MSMEs are increasingly attracting the attention of the international market (Kemenprin, 2020).

The Indonesian Ministry of Industry released data on the metal and machinery MSME sector which continues to grow by 10-15% every year (Kemenprin, 2020). This is not only driven by strong domestic demand, but also by demand from export markets. Indonesian MSME products began to be known in various countries, bringing a good name to the Indonesian manufacturing industry as a whole.

The growth of metal and machinery MSMEs in Indonesia is impressive. Despite having to compete with large companies, MSMEs have been able to find market gaps and utilize technology to improve the quality of their products. From automotive parts manufacturing to industrial equipment, metal and machinery MSMEs have provided competitive and innovative solutions. According to the Central Statistics Agency (BPS), the number of micro and small enterprises (MSMEs) in Indonesia in 2020 was 4,209,817 businesses, while in NTB there were 104,588 MSMEs with various businesses. The West Lombok Regency Government, through the Department of Industry and Trade, fostered 110 MSMEs in the metal and machinery sector.

The key to the success of Indonesian metal and machinery MSMEs in international expansion is a combination of traditional expertise, adaptation to new technologies, and a focus on quality (Hardi A.P., 2020). These MSMEs often utilize digital technology to improve production processes and increase efficiency. They are also actively developing networks and collaborations with local and international stakeholders (Putrie et al. 2023).

In addition, support from the government and financial institutions is an important factor in facilitating the growth of these MSMEs. Mentoring and training programs, as well as easier access to financing, have helped Indonesian metal and machinery MSMEs to develop and compete in the global market (Sedyastuti, K., 2018).

Despite the successes that have been achieved, Indonesian metal and machinery MSMEs in general and in West Nusa Tenggara still face various challenges in international expansion. One of the main challenges is in terms of product certification and meeting international standards. However, with the support of the government and related institutions, many MSMEs have succeeded in overcoming these obstacles by obtaining the necessary certifications.

In addition, competition with manufacturers from other countries is also a real challenge. However, Indonesian MSMEs, particularly in West Nusa Tenggara, have learned to take advantage of their competitive advantages, such as lower production costs and flexibility in meeting customer demands.

Based on the above background, we can formulate the following reasons:

1. How can Metal and Machinery MSMEs in West Nusa Tenggara expand sales abroad?
2. What is the government's support for Metal and Machinery MSMEs in West Nusa Tenggara in expanding the market?
3. How do Metal and Machinery MSMEs in West Nusa Tenggara carry out product certification and standardization?
4. How Metal and Machinery MSMEs of West Nusa Tenggara compete with foreign products.
5. What is the strategy of Metal and Machinery MSMEs to maintain the quality of their products?

## **METHOD**

This research uses the case study method. Research with case studies is a method that seeks to explain a series of decisions: why the decision was made, how the decision was implemented and what consequences resulted from the decision (Yin, 1994). In addition, case study research is also focused on understanding the current dynamics in an event or occurrence being analyzed (Eisenhardt, 1989).

This research raises the case of Metal and Permesianan MSMEs in West Nusa Tenggara, especially MSMEs. List of Welders Andi Terong Tawah Village, Lapuapi District, West Lombok Regency, West Nusa Tenggara Province. In this study, data and information were obtained directly from CV. Emperor Coffee Roster is then processed and adjusted to the literature.

The method carried out is to directly interview MSME actors as owners of MSME MSMEs. Welder related to the Coffee Emperor Roster product and interviewed with West Lombok Regency Office Industry and BRIDA. In-depth interviews have several stages in the data collection process, these stages are as follows:

### **a) Preliminary preparation**

In the initial preparation stage, the researcher makes an appointment with the informant, namely to determine the location and time of the interview in order to obtain accurate and accountable data. Before determining the location and time of the interview, the step taken is to first conduct surveys and interviews with MSMEs. Andi Welder, as a machine tool maker.

### **b) Interview process**

At this stage, the researcher conveys the problem that is the topic of research. Then the researcher gave the intention to come as an opening in starting the interview process regarding some key questions that had been prepared in advance to facilitate the researcher in the

interview process. An interview is a meeting of two people to exchange information and ideas through question and answer, so that meaning can be constructed in a particular topic. (Esterberg, 2002). The interview in this study was an interview with an informant.

Documentation: According to Hermawan (2019) documents are records of past events. In addition to interviews, the process carried out is to conduct a survey of several customers regarding their responses regarding the products ordered, with indicators of price, product quality and distribution channels.

### **Types Of Research Data**

Primary Data: primary data in the form of interviews with MSME owners. Welder and customer impression survey in West Lombok Regency area.

Secondary Data: Secondary data in this study is in the form of a report on the growth of MSME activities. Welder is taken from the MSME performance report. Welder Andi.

### **Place And Time Of Study**

This research was conducted in MSMEs. Andi Welder, Metal and Machinery MSME Actor, is located in Terong Tawah Village, Labuapi District, West Lombok Regency, West Nusa Tenggara, starting from March 2024 until completion.

### **Data Collection Methods**

Observation: According to Hermawan (2019) states that observation is the basis of all knowledge. The observations in this study are observations in MSMEs. Andi Welder, Terong Tawah Village, Labuapi District, West Lombok Regency, and the West Nusa Tenggara Regional Research Agency (BRIDA NTB).

### **Test Data Credibility**

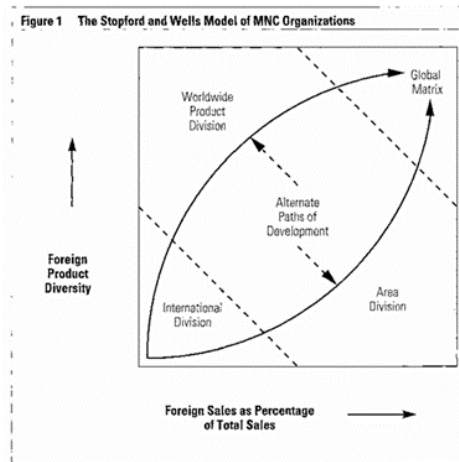
Source triangulation: researchers compare and re-examine the level of trust an informant gained through different times and tools in qualitative research (Moleong, 2011).

## **RESULTS AND DISCUSSION**

### **Internationalization Process Theory**

The theory of internationalization was first put forward by Stopford and Wells (1990) as outlined in their book *Managing The Multinational Enterprise*. This theory is better known as the International Structural Stages Model. Specifically, this theory explains the evolutionary process of a company entering the internationalization phase with reference to the organizational structure. The variables used are the diversity of foreign products and the level of foreign sales of the total percentage of assets.

The model developed by Stopford and Wells is shown in Figure 1 as follows:



**Figure 1.** Theory of Stages of Internationalization Process (Stopford & Wells, 1990)

According to SME Observatory, the main motivation behind the internationalization of MSMEs is the desire to increase the competitiveness of their companies, especially by gaining access to new, larger markets. This motivation can come from a variety of factors. One of the key aspects, as highlighted by many theoretical approaches, is the assumption that the internationalization process of companies is driven by the desire for business growth (Sohilauw, M. I., 2018).

### **The Internationalization Process of MSMEs in Indonesia**

Internationalization of MSMEs in Indonesia must be accompanied by the development of human resource (HR) competencies. The capabilities that must be possessed in human resource development include managerial and technical capabilities for MSME owners through training, technical guidance, and special assistance that have been carried out in Indonesia similar to implementation in the regions, especially for aspects of financing, providing information, and competency development (Ariyani L., 2022). Some export training in Indonesia is also possible to obtain a certificate as a form of recognition of the expertise that has been acquired. The implementation of MSME internationalization in Indonesia is strengthened by several government policies that strongly support the growth and internationalization process of MSMEs (Yantos Y., 2016). Process of Innovation and Exploration of Metal MSME Products in NTB

### **Strategy Canvas**

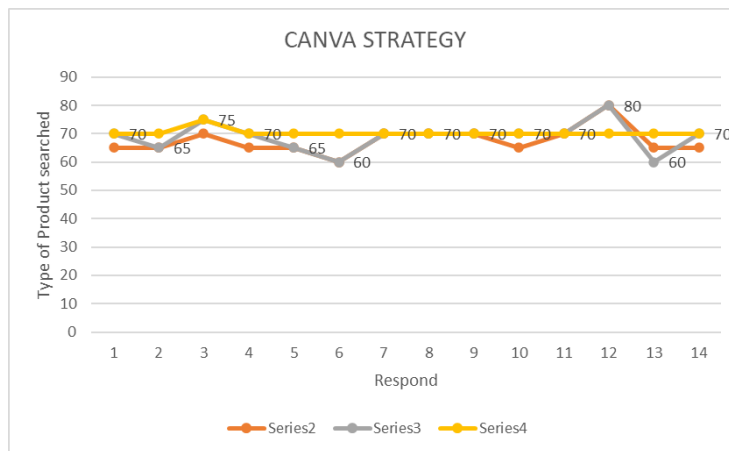
Canvas analysis of product innovation development strategies is a graphical picture of the relative performance of the company regarding the factors of product innovation received

by customers. Strategy canvas on MSMEs, MSMEs. Andi Welder shows that Andi Welder's MSME products that are most in demand by customers are shown in Table 1 below

The value in the table is a scale of 1 to 100 receipts of products that are most in demand by customers. 70,36

RESPONDENTS	PRODUCT TYPE		
	PALM SUGAR MACHINE	GARBAGE PROCESSING MACHINE	COFFEE ROASTING MACHINE
1	65	70	70
2	65	65	70
3	70	75	75
4	65	70	70
5	65	65	70
6	60	60	70
7	70	70	70
8	70	70	70
9	70	70	70
10	65	70	70
11	70	70	70
12	80	80	70
13	65	60	70
14	65	70	70
	67.5	68,93	70,36

**Primary Data Sources: data processed by 2024**



**Figure 2. Most Ordered Product Canvas**

Based on table 2. and picture 2 can be seen that Coffee Roasting Machine products are most ordered by customers. Coffee Roasting Machine is produced by MSMEs. Andi Welder is branded Emperor Roasting Coffee. After seeing the market response, MSME players increased their product innovation by adding exhaust gas filters to make products more environmentally friendly.

Innovations made by MSMEs. Welders in making environmentally friendly Coffee Roasting Machine received a response from a Korean company that placed an order for 12 (twelve) units of machines per month. To support this order. Andi Welder collaborates with

Metal MSMEs in West Nusa Tenggara, including MSMEs Mataram Teknik and Andika Teknik.

### **West Nusa Tenggara Government Support**

West Nusa Tenggara Province through the Regional Research Agency (BRIDA NTB) intervenes in fostering Metal and Machinery MSMEs by providing incubation programs and business guidance so that metal MSMEs and West Nusa Tenggara MSMEs can expand products abroad. West Nusa Tenggara Province initiated an industrialization program to foster MSMEs in West Nusa Tenggara. This industrialization program began by creating a business incubation center, business assistance, design and packaging assistance, and providing access to capital through regional banking.

### **MSME Product Certification Metal and Machinery**

Metal and Machinery MSMEs assisted by the West Nusa Tenggara Industrial Office carry out product certification in collaboration with the National Standard Agency (BSN). Obtaining SNI is an important step for manufacturers because it indicates that their products have met the standards set by the National Standardization Agency (BSN). The following are the general processes that must be passed to obtain SNI: Identification of Standard Needs, Understanding of SNI Requirements, Preparation of Documentation, Product Testing, Certification Registration, Audit and Evaluation, Audit and Evaluation, and Maintenance of Certification.

Obtaining SNI requires commitment and patience from manufacturers to ensure that their products meet the standards set by the National Standards Agency (BSN). By having SNI certification, manufacturers can increase consumer confidence, increase product competitiveness, and expand their markets both at home and abroad.

West Nusa Tenggara metal and machinery MSMEs provide assistance and facilitation in the process of obtaining Indonesian National Standards. The SNI process for Metal and West Nusa Tenggara MSME products will be carried out in 2022. Through the SNI process, MSMEs. Welder gained consumer trust, as evidenced by the many orders from home and abroad.

### **Overseas Sales Development Strategy**

MSMEs. Welder, as the owner of the Kaisar Roasting Coffee brand, always innovates in product development. One of the innovations made in Coffee Roasting equipment products is to make environmentally friendly tools. Coffee Roasting Tools that are commonly circulated on the market are roasting tools that use LPG gas as fuel to cook coffee beans so that they can produce CO<sub>2</sub> gas, so products like this are less in demand in the international market. Coffee

Roasting Tool with Emperor Roasting Coffee Brand develops the concept of Green or pollution-free.

Innovations made by MSMEs. Welder by adding a filter device that functions to process exhaust gas not directly wasted into nature but converted into O<sub>2</sub> gas which is safe for human breathing. This product development innovation strategy received the attention of overseas consumers by ending in a business memorandum of agreement with a product order agreement of 12 (twelve) units per month.

### **Product Quality Maintenance and Development Strategy**

Maintaining and developing product quality is a must for every company, especially MSMEs that want to succeed in a competitive market both at home and abroad. The main thing is to focus on understanding customer needs. MSMEs. And Welder always innovates and continues to develop its products. In addition, with the application of high quality standards by always participating directly in controlling the products made.

MSMEs. Welder also conducts strict production process control, employee training, and HR development by providing time for employees to improve themselves through various trainings so that employees can use technology always make continuous improvements. Become MSMEs. Andi Welder can ensure that their products remain relevant, and competitive, and satisfy customers in the long run.

### **CONCLUSION**

MSMEs. Andi Welder, which is located in Terong Tawah Village, Labuapi District, West Nusa Tenggara, is engaged in metal processing and machinery by producing coffee processing equipment, waste processing machines, as well as sugar processing machines and other processing machines. The best-selling product that can penetrate the international market is the environmentally friendly Coffee Roasting Machine. The strategies carried out in order to penetrate the international market are:

1. Always innovate and develop products: products that can enter the international market are environmentally friendly products, so the best innovation strategy is to make environmentally friendly coffee processing products.
2. Conducting National Standardization: to gain consumer trust is to implement the Indonesian National Standard (SNI).
3. Employee coaching: by always cooperating with the government and providing opportunities for employees to improve themselves so that employees are technologically literate and the production process will always experience continuous improvement.



4. Maintain and always improve product quality: UD leader. Andi Welder in production always checks and participates in the production process based on existing standards so that product quality can always be maintained. This is what makes customer trust increase.
5. By producing environmentally friendly coffee roasting equipment, Emperor Roasting Coffee products can penetrate the international market.

## **SUGGESTIONS FOR IMPROVEMENT**

The improvement for further research is more in-depth research with cutative methods, especially lifting the strategy of Metal and Machinery MSMEs to compete in the global market.

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