Application of Good Logistics Practices to Export-Oriented SMEs through Export Regulation Applications

Penerapan Good Logistics Practices kepada UKM Berorientasi Ekspor melalui Aplikasi Regulasi Ekspor

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ABSTRACT

In penetrating exports, SMEs players are often faced with obstacles such as their unpreparedness in preparing the documents needed in exports. This problem is a classic problem considering that the ability to prepare export documents is a way to successfully export. Also, SMEs actors need to implement Good Logistic Practices (GLP) such as product processing activities, packaging, storage and shipping management in order to become a resilient SMEs in line with the increasing understanding of export documents. The approach used in this study is quantitative research methods with a study survey approach and normative empirical studies. Data analysis uses a correlation approach between variables. This study used data from 210 SMSs in the KUB Cilongok, with a sample of 71 respondents. The results of the study showed that 71.5% of SMEs players in penetrating the export market were still constrained in understanding export documents. So to achieve export capability, it is necessary to create a comfortable and balanced supply chain.

Keywords: Export, Application, Regulation, SME’s

ABSTRAK

Dalam melakukan penetrasi ekspor, pelaku UKM seringkali dihadapkan pada kendala seperti ketidaksiapannya dalam menyiapkan dokumen yang dibutuhkan dalam ekspor. Permasalahan ini merupakan masalah klasik mengingat kemampuan menyiapkan dokumen ekspor merupakan salah satu cara agar berhasil melakukan ekspor. Selain itu, pelaku UKM perlu menerapkan Good Logistic Practices (GLP) seperti kegiatan pengolahan produk, pengemasan, penyimpanan dan manajemen pengiriman agar menjadi UKM tangguh sejalan dengan meningkatnya pemahaman dokumen ekspor. Pendekatan yang digunakan dalam penelitian ini adalah metode penelitian penelitian kuantitatif dengan pendekatan survei studi dan studi empiris normatif. Analisis data menggunakan pendekatan korelasi antar variabel. Penelitian ini menggunakan data dari 210 UKM di wilayah KUB Cilongok, dengan sampel sebanyak 71 responden. Hasil penelitian menunjukkan bahwa 71,5% pelaku UKM dalam menembus pasar ekspor masih terkendala dalam memahami dokumen ekspor. Sehingga untuk mencapai kemampuan ekspor, perlu diciptakan rantai pasok yang nyaman dan seimbang

Kata Kunci: Export, Application, Regulation, SME’s

1. INTRODUCTION

The opening of the world economy in recent years has become an interesting study. The most basic thing about the issue is about international trade. Ini because the boundaries between countries have become borderless (Bojnec & Fertö, 2012). Every resident of a country can carry out the import export process as long as it meets the criteria that have been set. International trade occurs due to several factors such as the advancement of production, Information Technology, transportation and, and politics of a country. International trade is
able to encourage economic growth but depends on the number of exports carried out by the country because exports act as a driver of a country's economy, so that the more a country exports outside its country, the country will experience high economic growth progress (Manickam et al., 2021). In a global economy, sooner or later the business world is faced with competition at the international level. In addition, international trade plays an important role in a country's economy because it can increase the country's foreign exchange and overcome the trade balance deficit and balance of payments deficit (Viljoen, 2019). The economic path reaches almost every corner of the world, international trade is now not only carried out by giant companies, but also carried out by Small, and Medium Enterprises (SMEs). The empowerment of Small and Medium Enterprises (SMEs) is an integral part of national development that aims to create a prosperous society. The number of SMEs in Indonesia is very large. Based on data from the Ministry of Koperasi and SMEs, there was an increase in the number of SMEs by 1.98% between 2018 and 2019 from 65.2 million units to 65.5 million units with a total value of non-oil and gas exports of 339.2 billion rupiah in 2019 as in table 1. This development also includes the number of MSMEs in Cilongok district, Banyumas Regency, which are registered in the KUB (Joint Business Activities) MERCI with a total of 2 SMEs 11 members with various business fields. The support of the Cilongok District Government and the increasing development of Islamic boarding schools in the Cilongok area have made SME businesses in this region develop well.

However, the increase in the number of SMEs has not been balanced with broader marketing efforts, especially the marketing of products that have export potential that can contribute directly to increasing economic growth and the welfare of SME's themselves. SME's players knowledge of export products, opportunities and procedures is still very lacking. Even though some of the products produced by SMEs are worthy of export and already have potential buyers abroad. SMEs have not dared to open export product opportunities because they consider that export products are synonymous with natural commodities or exclusive products and require a lot of documents that must be taken care of (Gerschewski et al., 2020; Rakhmwati et al., 2018). This has led to the need to accelerate diffusion and digitization of export economic activities. Given the lack of government efforts in providing information related to products, regulations and export procedures.

In addition, the products produced by SMEs have good properties to the environment, packaging and packaging materials. Therefore, it is necessary to handle export goods from the beginning of the handling process to commodities to consumers, both domestic and foreign consumers. So it is necessary to maintain the quality and safety of the product or commodity to be exported. One of the strategies that can be taken by implementing Good Logistic Practices (GLP). The importance of GLP in (Lazarova, 2021) needs to be carried out in an integrated manner starting from production planning, packaging and packing, inventory management, purchase order processing, transportation, and information management throughout the supply chain, with the aim that products can be available to consumers quickly, economically and reliably (Rahayu & Adhi, 2015).

This study explains how the level of understanding of SMEs in the process of preparing export documents is related to Good logistics Practice in preparing their export products in an application. The purpose of this study is to shepherd export regulation applications to assist SMEs in understanding export procedures and preparing export documents.

2. Methods

Logistics research in this decade is very much done in real terms because it will be a way to achieve a competitive advantage for the company. Logistics will manage the flow of products from upstream to downstream. Logistics helps develop the company to be responsible for the entire set of processes ranging from inventory, storage, transportation, location, distribution to distributor centers, wholesalers, customer service, small merchants, retailers, payment processing, and up to the final consumer (Hao et al., 2018; Winkelhaus & Grosse, 2020). The logistics context is synonymous with the organization, movement, and storage of
The domain of logistics activities themselves is to provide a system with the right product, in the right location, at the right time (right product, in the right place, at the right time) by optimizing the performance measurement given, for example minimizing total operational costs and meeting the qualifications given in accordance with the capabilities of the client and in accordance with the quality of service provided (Ghiani et al., 2013).

In everyday life, it cannot be separated from logistical affairs. At the smallest level as in domestic life, it will always deal with logistical problems. That is why at every purchase (on the scope of the company is procurement) it will end up on logistics matters. Logistics is the heart of the modern economy (Ghiani et al., 2013).

No shipping, No shopping, becomes an adagium of the essence of logistics management in the success of an Industry. If you want to dominate the market, then master logistics management well (Jans, 2013). Goods are produced in a country, can be enjoyed by the public with logistics. From port to port, airport to airport, point to point anywhere in the world, will face the same problem, how to deliver the right product, in the right quality, the right quantity, the correct delivery location, at the right time and at the right cost, which is commonly referred to as 6R (Moreira, 2018).

### Table 1. Development of Micro, Small, Medium Enterprises Data

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Unit</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>Share %</td>
</tr>
<tr>
<td><strong>BUSINESS UNITS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- MicroEnterprise (UMi)</td>
<td>(Unit)</td>
<td>63,350,222</td>
<td>98,68</td>
</tr>
<tr>
<td>- Small Business (UK)</td>
<td>(Unit)</td>
<td>783,132</td>
<td>1,22</td>
</tr>
<tr>
<td>- Medium Enterprises(UM)</td>
<td>(Unit)</td>
<td>60,702</td>
<td>0,09</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>(Unit)</td>
<td>64,194,057</td>
<td>99,99</td>
</tr>
<tr>
<td><strong>WORKFORCE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- MicroEnterprise (UMi)</td>
<td>(People)</td>
<td>107,376,540</td>
<td>89,04</td>
</tr>
<tr>
<td>- Small Business (UK)</td>
<td>(People)</td>
<td>5,831,256</td>
<td>4,84</td>
</tr>
<tr>
<td>- Medium Enterprises(UM)</td>
<td>(People)</td>
<td>3,770,835</td>
<td>3,13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>(People)</td>
<td>116,978,631</td>
<td>97</td>
</tr>
<tr>
<td><strong>TOTAL NON-OIL AND GAS EXPORTS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- MicroEnterprise (UMi)</td>
<td>(Rp. Billion)</td>
<td>25,006.4</td>
<td>1,22</td>
</tr>
<tr>
<td>- Small Business (UK)</td>
<td>(Rp. Billion)</td>
<td>47,099.7</td>
<td>2.3</td>
</tr>
<tr>
<td>- Medium Enterprises(UM)</td>
<td>(Rp. Billion)</td>
<td>221,734.8</td>
<td>10,85</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>(Rp. Billion)</td>
<td>293,840.9</td>
<td>14,37</td>
</tr>
<tr>
<td><strong>INVESTMENT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- MicroEnterprise (UMi)</td>
<td>(Rp. Billion)</td>
<td>290,840.2</td>
<td>6,85</td>
</tr>
<tr>
<td>- Small Business (UK)</td>
<td>(Rp. Billion)</td>
<td>996,666.1</td>
<td>23,48</td>
</tr>
<tr>
<td>- Medium Enterprises(UM)</td>
<td>(Rp. Billion)</td>
<td>1,277,043.2</td>
<td>30,09</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>(Rp. Billion)</td>
<td>2,564,549.5</td>
<td>60,42</td>
</tr>
</tbody>
</table>

(Source: kemenkopukm, 2022)

### Table 2. Percentage of MSE Actors' Understanding of export regulations

<table>
<thead>
<tr>
<th>Metode payments in exports</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>51,6</td>
<td>13,0</td>
<td>22,1</td>
<td>11,4</td>
<td>1,9</td>
<td></td>
</tr>
<tr>
<td>Terms of export to Customs</td>
<td>63,6</td>
<td>9,0</td>
<td>14,4</td>
<td>10,8</td>
<td>2,2</td>
</tr>
<tr>
<td>Export quarantine requirements</td>
<td>49,0</td>
<td>13,7</td>
<td>13,1</td>
<td>22,5</td>
<td>1,7</td>
</tr>
<tr>
<td>Prosedur export</td>
<td>50,9</td>
<td>9,8</td>
<td>22,9</td>
<td>11,5</td>
<td>4,9</td>
</tr>
</tbody>
</table>
But in the industrial era 4.0, consumers turned into prosumen (active consumers). So that in the logistics context, it changes to 7R with the last R is the right customer. “The right customer” means that on any supply chain will always end on, the customer (Jimenez et al., 2019; Rubio et al., 2019).

Logistics for export, representing the entire supply chain channel which includes order handling, transportation, inventory management and handling, storage, packaging, and export. Efficient export logistics management by entities can give them a competitive advantage through better order handling and product cycle reduction (Tijan et al., 2019).

In the case of delivery of export products to the destination, various parties are involved in the process. In addition to exporters, there are buyers, banks on both sides of the transaction, insurance companies, shipping export goods, customs house agents, customs, customs authorities, port authorities, transportation providers, and shipping companies (Jans, 2013).

2.1. Data Collection Techniques

The data collection process is carried out using interview techniques to explore information on SME actors’ understanding of exports, export procedures, export documents and preparation of export documents. In addition to in-depth interviews, this research conducts documentation studies, such as agency reports, laws and regulations, important archives, and others.

To determine the minimum size to be used for a statistical sample size (Lachenbruch et al., 1991) is used:

\[ N \geq \frac{z^2 \pi (1-\pi)}{e^2} \]  

With the normal distribution value is 1.96, the error rate is 5%. While the proportion of the number of questionnaires that are considered valid is 98% and the proportion of the number of questionnaires that are considered invalid is 4.7% so that the number of samples needed is 70.77 or equivalent to 71 samples.

From the results of the Bernolli test, it can be concluded that the minimum limit that must be taken in this study is ≥ 24 questionnaires while the data that has been collected and considered valid is 71 questionnaires, so it can be concluded that the data in this study is considered sufficient.

2.2. Time of Research

This research was conducted in Banyumas Regency, Central Java. The reason for choosing cilongok sub-district as a sample of this study is based on two aspects, namely (1) the potential for SME development is very large, considering that the natural resources available are very supportive and (2) the availability of places to exit SME products such as ports, airports, and so on which will affect transportation costs to the destination country for exporting SME products.

2.3. Data Analysis Methods

This research uses a qualitative-descriptive approach that presents a detailed picture of a situation, social phenomenon or relationship. This aims to provide an overview of the strategy of increasing exports of SME products in the research area. In addition, this study will also outline the factors that cause low exports of SME products.

3. Results and Discussion

3.1. SME’s understanding of export procedures and requirements

The process of exporting goods is not just an ordinary buying and selling activity but the implementation of trade activities between countries, so SMEs need to understand what and how the process of handling goods to be exported. In the export process, there are several documents that must be understood by SMEs, namely 1) Invoices or invoices (proforma invoices, commercial invoices, and consular invoices), 2) Packing list 3) Bill of lading (B / L) or air waybill 4) Insurance policy 5) Barang Export Notification (PEB) 6) Shipping Instruction (SI) 7) Additional documents: (a) Certificate of Origin (COO) or Certificate of Origin (SKA), (b) Certificate of Analysis (COA), (c) Phytosanitary certificate, (d) Fumigation certificate, (e) Veterinir certificate, (f) Scale description, (g) Measurement list.

SME actors must understand the export procedures and conditions well. Understanding of procedures and conditions is the key for SMEs to be able to export properly. Most (50.9%) answered not knowing, 9.8% of whom answered neutral 22.9%, and finally answered 11.5%. From the level of understanding regarding export quarantine requirements, most SMEs, 49.0% said they did not know. Meanwhile, those who answered...
neutrally were only 1.3.1% and those who answered were 22.5%. Meanwhile, the understanding of the requirements at Customs was 63.6% who answered not knowing, while those who answered neutral and understanding with percentages of 14.4% and 10.8%, respectively. In contrast to the question of export payment methods (L/C), SME players who answered very ignorantly were 51.6%, followed by those who answered neutral by 22.9% and understanding by 11.5%. A complete picture of the understanding of SMEs is presented in Table 1.

The low contribution of the SME sector to total exports in this research area is due to several factors. First, an understanding of the procedures for carrying out export activities that are still very lacking or even tend not to care. Second, the weakness in finding market opportunities so that the products produced can be sold more. Third, most SMEs in carrying out export activities are not carried out directly to the destination country, but through intermediaries. This means that there are institutional and business barriers that must find solutions so that SMEs can continue to support the national economy. The weakness in the capital structure and the limitations of obtaining pathways to sources of capital can be provided solutions through financing institutions or local governments.

Another problem found in this study is that most (76.2%) of SMEs have an average level of education is junior high school, and 12% of high schools and the rest are college graduates. The implications of low levels of education can have an impact on low awareness to develop marketing abroad, focusing only on the local market. Table 2 gives an idea of the lack of knowledge and information regarding access to international markets. Another thing obtained from this study is that the ability of SMEs to develop mass production is still low. Often the product when made in small quantities has good quality, but when getting a large order, it often has difficulties, both from the production, packaging and quality of the product. In addition, there is a lack of technical mastery of
the application of product quality in the production process. This will have an impact in achieving an international market that has high product quality.

3.2. Identify Criteria for Good Logistics Practices

In increasing sales of SME products and by minimizing costs and providing positive value for customers, it is necessary to improve the ability to manage logistics in an integrated manner to provide high profitability value for SMEs. The measurement of good logistics practices is based on 3 factors with 110 SMEs. The results of the measurements can be summed up in table 3.

This provides an indicator that SMEs in managing their logistics still need improvement so that good logistics practices can have an impact on SMEs in managing their products. In other words GLP (Rahayu & Adhi, 2016) covers everything from production planning, packaging and packing, transportation, inventory management, purchase order processing and information management throughout the supply chain, with the aim of making products available to consumers quickly, economically and reliably.

Well-managed logistics will help lower costs on the product. The resulting research shows that SMEs have not been able to manage logistics properly, and provide more opportunities for brokers to take care of everything in the export process. This will lead to a decrease in the profit of SMEs that can be obtained.

Most SMEs today see logistics as the last step in the process as something that happens after design, manufacturing, and sales. This approach will have an impact on the lack of conducting customer analysis. In customer analysis, it is used to find out who the buyer is, what is purchased, the position of the buyer, what payment they choose. This can help identify customer needs appropriately as a business target by doing marketing appropriately. SMEs in GLP to optimize delivery through the right product pricing strategy for same-day, next-day and regular.

![Data Flow Diagram](figure1.png)

**Figure 1.** Data Flow Diagram
delivery options, packaging costs, warehousing and storage costs, etc.

3.3. Export Regulation Application (AREX)

The acceleration of SMEs in Cilongok district so that they can penetrate exports has been carried out gradually to maximize the potential of products produced by SMEs. From the research, it was found that 64% of products have export potential but cannot be maximized because they still lack information and guidance related to marketing and export processes, especially regarding export regulations and document requirements from the Ministry of Trade as well as customs affairs and export destination countries.

To increase the export potential of SME products, create an AREX platform (Export Regulation Application) that can help overcome these problems. Overall, the AREX platform works on the scope of product marketing, export procedure information, HS Code information and product-related details, information in accordance with HS Code regulations and export destination countries and provides export product feasibility verification services for SMEs. AREX profits are obtained from users, application rentals, and socialization of export.

![Figure 2. Display Home and HS Code on mobile apps](image1)

![Figure 3. Home display and HS Code on the website](image2)
regulations, as well as product marketing. In addition, profits are obtained from the SME database and SME products owned by the platform so that it can become big data that can be used as a mapping of the potential of each SME. Marketing is also carried out by maximizing digital technology through social media and market places as well as through forwarder companies and trader companies. Harmonized system (HS) Code is a nomenclature of classification of goods that is used uniformly throughout the world. This application is based on the International Convention on the Harmonized Commodity Description and Coding System and is used for tariff purposes, statistics, rules of origin, supervision of import/export commodities, and other purposes.

The value of innovation and uniqueness of the AREX platform lies in the availability of verification applications for export feasibility of SME products by providing features to find out 1) whether the SME products are export-worthy or not. 2) Verify the required export preparation documents, for example NIB ownership, BPOM certificates or other documents that are export requirements. In addition, the AREX platform also integrates all features in one dashboard, namely (1) marketplace features to find potential buyers of SME products that are ready for export, (2) HS code information from SME products along with (3) detailed features of related regulations and also adjusted to the export destination country, (4) Learning features related to export processes and procedures including required export preparation documents and (5) eligibility verification submission features export of SME products that can identify the completeness of SME documents to carry out export activities. With this feature, SMEs can find out what documents must be completed. While on platforms that already exist today, as shown in the table above, each feature is created separately (partially). Unlike the AREX platform, which integrates all features in one dashboard, and this has become a solution and makes it easier for SMEs to penetrate the export market through checking the completeness of export preparation documents in one dashboard.

The AREX platform has helped accelerate SME members to be able to use the features provided and conduct consultations in the form of verification of the feasibility of export products. This platform has also begun to be developed into mobile applications and websites by having several features that are in accordance with export-related business activities.

In the mobile version display above, it can be seen on the home page, there is information about SME product categories and advanced features in the top right menu bar which if clicked will provide the desired feature choice. At the bottom of the application there is also a menu bar for HS Code search, notifications and profile search. In addition, there is also a display of the HS Code feature on the AREX mobile apps which if clicked on the details will provide detailed information related to product regulations according to the HS Code.

The AREX platform has also been developed on the website version with the appearance as shown above. In the menu bar, there is a choice of features provided according to the needs of SMEs related to information on export activities. The our service feature is an application for verification of the feasibility of export products to check whether SMEs have met the requirements and documents of export products. The features of the AREX platform above have been adjusted to the needs of SMEs as users.

3.4. Measurement of Usability

Usability becomes an important parameter in assessing the quality of software. Usability is a reference to assess user satisfaction, ease of use and ergonomic aspects of the device used. The higher the usability indicates a high satisfaction over the software used and the more

<table>
<thead>
<tr>
<th>Types of Respondents</th>
<th>Usefulness</th>
<th>Ease Of Use</th>
<th>Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; junior high school</td>
<td>3.66</td>
<td>4.59</td>
<td>4.58</td>
</tr>
<tr>
<td>Junior-Senior High School</td>
<td>4.85</td>
<td>3.40</td>
<td>3.20</td>
</tr>
<tr>
<td>&gt; Senior High School</td>
<td>2.93</td>
<td>3.94</td>
<td>3.30</td>
</tr>
</tbody>
</table>
it becomes the top choice for use in various activities. On the other hand, systems that have a low level of usability will be abandoned by users because they are considered uncomfortable and useful.

So it becomes important to assess a software by knowing the level of usability. From the assessment of its usability, it is used as input for application developers to improve the system in the future. One of the tools that is often used is the USE Questionnaire with 3 main parameters, namely Usefulness, Satisfaction and Ease of Use. Where each respondent will be asked to answer questions. Respondents in the usability measurement are SMEs who have been using the AREX application for approximately one month since they installed the application. Each SME answers questions that are worth 1-5 where the value is 1 'strongly disagree' and the value is 5 if it is 'strongly agreed'. Table 5 shows there is a strong correlation between usefulness and ease of use. The results of measuring the usability of the AREX application show that this application in general can be well received by users, is considered useful, can help work, although the level of user satisfaction is still lacking.

4. Conclusion

The development of technology in fact greatly affects human life from socializing, working, and in business. One of the technologies that have an impact on major changes is digital technology. For many companies, business digitization is becoming an essential factor behind business growth. Based on the research above, conclusions can be drawn:

a. The understanding of SMEs in the logistics process still needs to be improved in order to provide better conditions in the future
b. The use of the AREX application even though it is felt that it has not helped SMEs much in preparing export documents, the AREX application is still acceptable and easy to use
c. Good Logistics Practices will assist SMEs in preparing everything related to logistics, from optimize delivery through the right product pricing strategy for same-day, next-day and regular delivery options, packaging costs, warehousing and storage costs, etc.

Reference


