

Implementation of Accounting Information System and *E-Marketing* in increasing MSME income in Kota Pari Village

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Abstract— This study aims to analyze the application of accounting and e-marketing information systems in order to increase the income of micro, small, and medium enterprises (MSMEs), especially palm sugar business actors in Kota Pari Village. The research method used is a case study with a qualitative approach. Data collection is carried out through observation, interviews, and documentation. This study aims to analyze accounting information systems and *e-marketing* for MSMEs in Pari Serdang Bedagai City Village. This type of research is descriptive using a qualitative approach. The data analysis techniques used in this study include observation, interviews, and documentation. The results of the study show that the application of accounting information systems helps MSMEs in recording and managing finances in a more structured manner. Based on the analysis of marketing events for brown sugar production, it is generally still running traditionally, namely from word of mouth, the marketing channel is carried out only from producers to collectors. Their obstacle is the lack of knowledge about *e-marketing* due to the level of education and lack of socialization about the *e-marketing system*. The implementation of e-marketing allows MSMEs to expand their marketing reach and increase online sales. The integration of these two components has proven to be effective in increasing MSME income in Kota Pari Village. This research provides practical implications for MSMEs to continue to develop information technology and digital marketing capabilities to support business growth. For local governments, the results of this research can be used as input in developing information technology-based MSME empowerment and development programs.

Keywords— *Accounting_Information_System; E_marketing; MSMEs; Community_income.*

I. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) have a vital role in Indonesia's economy, including in rural areas such as Kota Pari Village. One of the mainstay MSME sectors in the village is the brown sugar industry, which has been an integral part of the local economic and cultural identity for generations.

The brown sugar industry in Kota Pari Village, which is mostly run by local farmers and artisans, faces various challenges in an increasingly competitive digital era. Although brown sugar products from this village are known to have good quality, brown sugar MSME actors are experiencing difficulties in optimizing their business potential due to limitations in financial management and marketing strategies.

Based on initial observations, most brown sugar producers in Kota Pari Village still rely on the manual financial recording method. Traditional record-keeping systems are prone to errors and inefficiencies, making it difficult for entrepreneurs to monitor cash flow, manage raw material inventories (such as coconut sap or sugarcane), and make informed financial decisions. The absence of a structured accounting information system also hampers brown sugar MSMEs' access to financing from formal financial institutions, which often require standardized financial statements.

In terms of marketing, brown sugar producers in Kota Pari Village generally still rely on conventional methods and limited distribution networks. The majority of sales are made through local middlemen or traditional markets, limiting the market reach and added value of the product. In an era where consumers are increasingly digitalized, limitations in adopting e-marketing strategies make it difficult for brown sugar MSMEs to expand the market, especially to urban areas or even export markets, where the demand for organic and high-quality brown sugar is increasing. The implementation of e-marketing can expand market branding, increase demand and which has an impact on increasing people's income [1], [2], [3], [4].

The phenomenon of the digital divide is also a factor that aggravates the situation. The limited information and communication technology infrastructure in Kota Pari Village, as well as the lack of digital literacy among brown



sugar producers, create significant obstacles in the adoption of technology that can improve production efficiency, product quality, and market expansion, so training is urgently needed to improve human resources in the village [5], [6].

The implementation of accounting and e-marketing information systems offers potential solutions to overcome the above problems [7], [8]. Accounting information systems can help brown sugar MSMEs manage their finances more accurately and efficiently, increase transparency, and facilitate better decision-making, including in terms of pricing and stock management. E-marketing provides a wide range of opportunities and opens up opportunities for brown sugar producers to expand market reach, increase product visibility, and interact directly with end consumers which has an impact on increasing profit margins.

Technology implementation is not without challenges [9], [10], [11], [12], [13]. A holistic approach is needed that takes into account the unique characteristics of brown sugar MSMEs in Kota Pari Village, including the seasonal nature of production, limited resources, low levels of digital literacy, and the local socio-economic context experienced. In its implementation, the accounting information system needs to be adjusted to the brown sugar production cycle that depends on the coconut or sugarcane harvest season, while the e-marketing strategy must consider the branding aspect of local products and the cultural value of traditional brown sugar.

This study aims to examine the implementation process of accounting and e-marketing information systems in brown sugar MSMEs in Kota Pari Village, identify factors that affect the success of implementation, and analyze their impact on increasing the income of brown sugar producers. This study uses case studies on brown sugar producers that represent various production scales and levels of technological readiness.

This study will not only make a theoretical contribution in the development of technology implementation models for MSMEs in the rural agro-industry sector, but also provide practical insights for policy makers and brown sugar MSME actors in designing effective digitalization strategies. This research can be a digital transformation of brown sugar MSMEs in Kota Pari Village, encouraging an increase in the competitiveness of local products, and this condition is directly proportional to sustainable local economic growth and the preservation of traditional culinary heritage.

II. LITERATURE REVIEW

Accounting Information Systems (SIA) has become a significant research focus in the context of MSME development. Various studies have shown the crucial role of

SIA in improving operational efficiency and competitiveness of MSMEs as shown in the following literature review:

No.	Year	Research method	Purpose
1.	2024 [14]	Quantitative method. The research sample was 249 MSMEs in Pangkalan Karawang Sub-district of Software SmartPLS	Information Systems and the Use of Accounting Information Systems have a positive and significant effect
2.	2024 [15]	Teknik purposive sampling	The influence of e-marketing and product innovation on the competitiveness of MSMEs in Taro Gianyar Village
3.	2024 [16]	Quantitative approach by obtaining 97 respondents using the Purposive Sampling technique with the lameshow formula and measured using the Likert scale	The Influence of Social Capital, Business Digitalization, and the Implementation of E-Marketing in Predicting the Sustainability of MSMEs in Malang City
4.	2024 [17]	The research method consists of literature analysis, integration of accounting information systems with artificial intelligence for more accurate financial analysis.	Analyze the potential, benefits, challenges, and implications of this integration in the context of modern business.

The conclusion of the above research objective is to analyze how important the influence of Accounting and E-marketing Information Systems is on the sustainability of MSMEs and increase MSME income in various regions in Indonesia with various existing approach methods. So that this research is important to study and conduct analysis for MSMEs in Pari Serdang Bedagai City Village, especially for brown sugar artisans.

The various studies above have made a theoretical contribution in the development of technology implementation models for MSMEs, especially in the rural agro-industry sector, the results of the research provide practical insights for various parties involved in the progress of MSMEs in Indonesia.

III. METHODS

The research was conducted using a qualitative method with a descriptive type of research. Researchers collect data through interviews or surveys to respondents so that they

produce data. The material in this study is about the analysis of accounting and *e-marketing information systems* for MSMEs in Pari Serdang Bedagai City Village. Then the data is processed and then produces conclusions and suggestions.

1. Research Approach:
 - a. The mixed method combines qualitative and quantitative approaches.
 - b. A qualitative approach to deeply understand the implementation process and the challenges faced.
 - c. A quantitative approach to measure the impact of implementation on MSME income.
2. Research Design:
 - a. Multiple case studies on several brown sugar MSMEs in Kota Pari Village.
 - b. Action research to implement Accounting Information Systems and E-Marketing.
3. Population and Sample:
 - a. Population: All brown sugar MSMEs in Kota Pari Village.
 - b. Sample: Select 5-10 brown sugar MSMEs using the purposive sampling method, considering variations in business size and technological readiness.
4. Data Collection Techniques:
 - a. In-depth interviews with MSME owners and related stakeholders.
 - b. Participatory observation during the implementation process.
 - c. Questionnaire to measure the perception and readiness of MSMEs.
 - d. Analysis of MSME financial documents before and after implementation.
 - e. Focus Group Discussion (FGD) with MSME actors and related parties.
5. Research Instruments:
 - a. Semi-structured interview guide.
 - b. Observation sheet.
 - c. Structured questionnaires.
 - d. Document checklist.
 - e. FGD Guide.
6. Research Stages:
 - a. Preliminary and preparatory studies.
 - b. Baseline data collection.
 - c. Implementation of Accounting Information System and E-Marketing.
 - d. Monitoring and evaluation of implementation.
 - e. Post-implementation data collection.
 - f. Data analysis
 - g. Result
7. Data Analysis:
 - a. Qualitative analysis:
 - Thematic analysis for interview and observation data.
 - b. Quantitative analysis: Descriptive and inferential statistics (e.g., paired t-tests) to compare revenue before and after implementation.
 - c. Triangulation of data to increase the validity of research results.
8. Validity and Reliability:
 - a. Using the triangulation method (data sources, methods, and researchers).
 - b. Conducting member checking with participants.
 - c. Using standardized instruments for quantitative data collection.

IV. RESULT AND DISCUSSION

Based on the results of interviews and observations on MSMEs in Kota Pari Serdang Bedagai Village, especially brown sugar MSME actors in the use of accounting and *e-marketing information systems*, there are several obstacles experienced, namely:

MSMEs in the village of Pari Serdang Bedagai City, especially brown sugar MSME actors, are still carrying out bookkeeping using notebooks whose content is only receipts and expenses, they experience obstacles in bookkeeping as a result of low educational background and lack of socialization about accounting information systems. Educational background is the main obstacle factor why MSMEs in Kota Pari Pantai Serdang Bedagai Village do not implement the accounting information system correctly, because most of them only have elementary and junior high school education. So MSME business actors feel that it is not so important to record financial statements in accordance with the accounting information system.

The marketing of brown sugar to MSMEs in the village of Pari Serdang Bedagai City has also not used *the e-marketing* system, the marketing of brown sugar production is generally still running traditionally, namely by word of mouth, the marketing channel is carried out only from producers to collectors. Their obstacle is the lack of knowledge about *e-marketing* due to the low level of education and lack of socialization about the E-marketing system.

The solution to the obstacles of the MSME Accounting Information System in Pari Serdang Bedagai City Village, especially brown sugar MSME actors, is as follows:

The solution of the MSME Accounting Information System in Pari Serdang Bedagai City Village is to hold socialization about the Accounting Information System such as the application of *accounting* Information System software that is widely circulated, ranging from free and some paid for example *Accurate, Zahir*, Cash Book applications and others. That way, the MSME accounting information system in Pari Serdang Bedagai City Village can be carried out in a computerized manner such as cash sales, for example, customer orders, inventory, customer history, product feasibility. There is *an update* on the status of brown sugar inventory, sales invoices, and sales overviews. In addition, a more detailed payroll accounting information system is also needed from the calculation of working cost hours and the recapitulation of personnel activities.

The solution of *e-marketing* in terms of marketing MSMEs in Pari Serdang Bedagai City Village, especially brown sugar MSME actors by providing socialization about *creative and innovative* e-marketing, for example such as Shopee, Instagram, Tokopedia, Lazada, Gomar and many other applications to increase sales and make it easier for customers to access or buy brown sugar in MSMEs in Pari Serdang Bedagai City Village.

The impact of the implementation of the Accounting and E-Marketing Information System in Kota Pri Serdang Village on the increase in income can be seen from the following picture:



Figure 1. Revenue Increase Percentage

V. CONCLUSION

MSMEs in the village of Pari Serdang Bedagai City, especially brown sugar MSME actors, are still carrying out bookkeeping using notebooks whose content is only receipts and expenses, they experience obstacles in bookkeeping as a result of low educational background and lack of socialization about accounting information systems. Education background is the main obstacle factor why MSMEs in Kota Pari Pantai Serdang Bedagai Village do not implement the accounting information system correctly, because most of them only receive elementary and junior high school education. So MSME business actors feel that it is not so important to record financial statements in accordance with the accounting information system.

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