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TRAINING ON THE IMPLEMENTATION OF STANDARD OPERATING PROCEDURES (SOP) AND DIGITAL-BASED FINANCIAL RECORDING TO BUILD INNOVATION CAPABILITIES OF MSMES IN LANCANG GARAM VILLAGE, LHOKSEUMAWE

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Abstract

Problem Context: Micro, Small, and Medium Enterprises (MSMEs) in Lhokseumawe play a vital role as the backbone of the regional economy. However, this sector still faces substantial challenges in terms of internal management, particularly related to unstandardized Standard Operating Procedures (SOPs) and manual financial recording practices. These governance inadequacies are exacerbated by regional economic pressures, including inflationary volatility that demands highly accurate margin efficiency. These issues hamper accountability, access to formal capital, and limit MSME Innovation Capabilities. Intervention Objective: This Community Service (PkM) activity aims to improve MSME operational efficiency through knowledge transfer and assistance in the implementation of simple SOPs, as well as improve financial accountability through the adoption of digital-based financial recording (Digital Financial Literacy). Specifically, this program is aimed at establishing the structural foundations necessary for partner MSMEs to have higher Innovation Capability. Method: This study uses a Participatory Action Research (PAR) approach conducted in three structured stages: preparation (initial needs identification), implementation (interactive training, demonstration of mobile recording applications, and hands-on practice), and evaluation (measuring literacy improvements through pre- and post-tests). Participants consisted of MSMEs in Lancang Garam Village, Lhokseumawe. The evaluation results showed a very significant increase in digital financial literacy scores and understanding of SOPs. Partner MSMEs demonstrated a high level of adoption of digital financial recording applications and were able to prepare simple profit and loss reports in accordance with SAK EMKM principles. The implementation of SOPs and financial formalization collectively increased managerial confidence and created a measurable foundation. Implications: This PkM intervention proves that process standardization (SOPs) and digital financial accountability are fundamental prerequisites that must be met before MSMEs can effectively move towards Innovation Capability and increased bankability (access to People's Business Credit/KUR).

Keywords: SOP, Digital Financial Literacy, Accountability, Innovation Capability, MSMEs.

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are an important pillar in the national and regional economic structure. Specifically in Aceh Province, the MSME sector is recognized as the backbone of the regional economy due to its ability to absorb a large workforce and drive economic turnover across various social strata. The Aceh Cooperatives and SMEs Office noted that there are approximately 320,000 MSMEs in Aceh that contribute significantly to improving the community's standard of living. Despite showing a positive growth trend, MSMEs in Aceh, including in the Lhokseumawe region, face various challenges that hinder stronger growth and competitiveness at the national level. Classic challenges include limited capital, limited market access, and weaknesses in business management. Local governments and financial institutions, such as Bank Indonesia (BI), have identified the importance of mentoring MSMEs, especially in the areas of financial recording and market discovery, so that MSMEs can continue to grow and absorb a larger workforce. The unique context of Lhokseumawe demands greater attention to cost management. MSMEs in the city have been directly impacted by the economic turmoil, with inflation and rising prices of basic necessities—such as shallots, chicken, and rice—having soared dramatically in recent months. This surge in operational costs has severely impacted micro-scale MSMEs, which often struggle to raise their product prices due to low purchasing power. This situation places profit margin management in a highly vulnerable position. Therefore, for MSMEs in Lhokseumawe, digital financial accountability serves not only as a tool for growth or expansion but, more urgently, as a tool for resilience, or business resilience to inflationary pressures. Without accurate cost recording, MSMEs will not be able to calculate their break-even point (BEP) or adjust their Cost of Goods Sold (COGS) in a timely manner, which is crucial for survival in an unstable economic environment. The main problems identified in the internal governance of MSMEs in Lancang Garam Village, Lhokseumawe, are the lack of Standard Operating Procedures (SOPs) and low literacy and implementation of formal accounting. First, the lack of standardized SOPs leads to inconsistencies in product quality, low operational efficiency, and a high risk of errors. Second, financial record-keeping practices in MSMEs are generally very rudimentary and lack detail.

LITERATURE REVIEW

Standard Operating Procedures (SOPs) are defined as a set of documented guidelines that explain what, when, where, and how various tasks are performed within an organization. For MSMEs, SOPs play a critical role, particularly in the production and service sectors. Their primary function is to maintain service uniformity, ensure product quality, and achieve operational efficiency. Implementing SOPs allows for flexible production times and reduces error rates, which are crucial for achieving competitive advantage. Case studies on the implementation of SOPs in MSME production, such as Chatime in Semarang, demonstrate that standard operating procedures, from uniform SOPs to customer service and topping-making procedures, significantly facilitate work execution and ensure smooth processes. SOPs provide procedural certainty, which ultimately leads to increased customer return due to the consistent quality offered. Managerially, the efficiency generated by SOPs plays a crucial role in fueling Innovation Capability. When core business processes (such as daily production) are standardized and efficient (minimizing waste and time), managerial and financial resources previously absorbed in addressing daily operational issues can be allocated to business development activities, such as product diversification or new process innovation. Thus, SOPs serve as a strong operational foundation, reducing operational risks and providing confidence for MSMEs to experiment and innovate.

Improving financial literacy, especially in the digital era, is a crucial factor enabling MSMEs to manage their finances, make better business decisions, and adapt to the digital environment. Current digital entrepreneurship strategies demand the adoption of technology in financial management, known as digital financial literacy. The main challenge faced by MSMEs is poor accounting practices, where bookkeeping is done simply and not in detail. To address this gap, the Indonesian Government, through Government Regulation No. 7 of 2021 concerning the Facilitation, Protection, and Empowerment of MSMEs, encourages systematic recording and bookkeeping guided by applicable accounting standards. This standard is facilitated by the Financial Accounting Standards for Micro, Small, and Medium Entities (SAK EMKM), which require MSMEs to prepare a simple Profit and Loss Statement, Statement of Financial Position, and Notes to the Financial Statements. Accounting digitization is a practical solution to comply with SAK EMKM. Mobile-based digital financial recording applications, such as BukuWarung, Teman Bisnis, Finansialku, or the UKM Accounting Application, offer convenience due to their simple interface and high mobility. Mobile apps are more convenient and accessible anytime and anywhere, an advantage over desktop applications. Leveraging this technology increases efficiency and transparency in financial management.

The accountability resulting from digital financial recording has a dual role. First, it increases efficiency, reducing the potential for errors and fraud. Second, and more crucially, accountability solves the problem of access to capital. The Senior Deputy Governor of Bank Indonesia (BI) emphasized that accountable financial recording makes it easier for MSMEs to obtain funding (credit) from banks. In this context, accounting digitization represents the most fundamental step in formalizing MSMEs. It transforms the perception of businesses from informal family enterprises to measurable (bankable) business entities. In other words, this training provides the necessary translation so that MSMEs can "speak" the formal language of business (Balance Sheet, Profit and Loss) recognized by formal financial institutions, thereby facilitating access to People's Business Credit (KUR) and overcoming capital constraints.

Causality Model: Accountability and SOPs as Drivers of Innovation Capability

Innovation capability is a crucial determinant of MSME competitiveness. Successful innovation adoption is influenced by institutional support and behavioral changes among MSMEs, making it the foundation of economic resilience. The conceptual model proposed in this PkM emphasizes that Innovation Capability is a derivative of two main prerequisites: operational regularity guaranteed by SOPs, and financial accountability facilitated by digitalization.

1. Standard Operating Procedures (SOPs): SOPs ensure consistent quality and efficiency, which in turn reduces unnecessary operational costs. Furthermore, SOPs serve as a non-financial risk management tool. Innovation always involves risk; MSMEs without clear procedures tend to avoid innovation for fear of disrupting core operations. SOPs provide the operational security (risk control) necessary for managers to have the confidence to experiment and change (innovate).
2. Digital Financial Accountability: Accountability provides accurate and measurable data. Digital financial literacy enables MSMEs to make data-driven decisions. Innovations in MSMEs, such as product diversification or marketing investments, require simple cost-benefit analysis. Accurate financial data (Profit and Loss, COGS) generated from digital applications enable MSMEs to evaluate the feasibility of new innovation ideas more sophisticatedly than simply making intuitive decisions. The combination of Regularity and Accountability creates Competitive Advantage and Good Management Performance, which in turn encourages increased Innovation Capability. This shows that internal management training (SOPs and finance) is not merely technical training, but a strategic investment in MSME Innovation Capability.

IMPLEMENTATION METHOD

Type, Location, and Participants of Activities

This activity is a Community Service (PkM) program that aims to transfer knowledge and applied skills to micro-enterprises. This program is implemented in Lancang Garam Village, Lhokseumawe, Aceh. The location selection was based on needs identification where local MSMEs showed difficulties in facing internal management challenges, digital literacy, and commodity price fluctuations. Participants involved in this activity are MSMEs from various business sectors, including culinary, handicrafts, and services, with a target number of around 20-30 participants to ensure intensive mentoring, referring to previous PkM studies.

PkM Approach and Design

The approach used in this program is Participatory Action Research (PAR). The PAR method has proven effective in empowering MSMEs to leverage digitalization and ensuring interventions are relevant to local MSME needs, thereby improving economic sustainability. Through PAR, MSMEs are actively involved in every stage of the activity, from problem identification to evaluation. The learning design is interactive and applicable, encompassing material presentations, hands-on practice (simulations), group discussions, and question-and-answer sessions. This design aims to facilitate participants' absorption of the material and immediate implementation in daily business operations, which is crucial considering that the majority of MSMEs have limited accounting education. This overall approach aims to improve the business management skills and self-confidence of MSMEs.

Implementation and Intervention Stages

The implementation of this community service program uses a participatory approach by adopting three main stages of structured PkM: Preparation, Training Implementation, and Evaluation.

Preparation Phase (Assessment)

This stage involves identifying needs and mapping participants. An initial survey and in-depth interviews were conducted to collect data on participants' level of understanding (pre-test) regarding formal SOPs and digital financial management. This data was then used as a baseline to measure literacy improvements after the intervention. The selection of supporting tools was crucial; the implementation team chose a digital financial recording application that was simple, free, and easily accessible via mobile devices (e.g., BukuWarung or Teman Bisnis), in accordance with the characteristics of micro-MSMEs. Training materials were developed based on the needs analysis, covering cash flow management, app-based transaction recording, and the preparation of simple financial reports that adhere to the principles of the Indonesian Financial Accounting Standards (SAK) for MSMEs.

Implementation Phase (Intervention)
The training is conducted in several interactive sessions to ensure effective knowledge transfer:
* Basic SOP Training Session: Presentation of material on the definition, critical functions of SOPs, and their benefits in maintaining operational quality and efficiency. Participants are assisted in a simulation of preparing simple flowcharts for their key business processes (e.g., order acceptance, production, and customer service), referring to SOP models that have been proven effective in production MSMEs.
* Digital Financial Literacy Session: Explanation of basic financial management concepts, separation of personal and business finances, cash flow management, and the specific benefits of digitalization in the context of capital access.
* Digital Application Practice Session: This is the core of the intervention. Participants are introduced to selected digital financial applications. Intensive technical guidance is provided, ensuring participants are able to record daily transactions (income and expenses), manage inventory, and practice preparing a simple Profit and Loss Report in line with the MSME Financial Accounting Standards (SAK).

Evaluation and Mentoring Phase
Evaluation was conducted through a post-test to measure improvements in literacy scores compared to the pre-test. Additionally, adoption questionnaires and interviews were conducted to measure the level of SOP implementation and consistency of digital application use during the post-training mentoring period. This participant observation was crucial to verify whether the knowledge transfer had resulted in behavioral changes and actual implementation in the field.

RESULTS AND DISCUSSION

Initial Condition Analysis and Partner Needs

The results of the initial condition analysis (pre-test and interviews) confirmed that MSMEs in Lancang Garam Village face significant management gaps. The average pre-test score indicated a very low understanding of the importance of formal SOP documentation and digital accounting concepts. The majority of business owners rely solely on unstructured manual record-keeping or, in some cases, do not keep any records at all. Operationally, approximately 80% of the MSMEs surveyed in the location struggled to maintain consistent product/service quality. This was due to the lack of clear step-by-step guidelines (SOPs). Financially, they struggled to accurately calculate the Cost of Goods Sold (COGS). This situation is particularly critical given the volatile raw material prices in Lhokseumawe, which tend to soar. Difficulty calculating COGS effectively means they cannot effectively manage their profit margins, a situation exacerbated by their reluctance to raise product prices amid declining purchasing power. The identified pressing need is not just knowledge, but the practical ability to transform daily transaction data into accurate managerial information. This lack of attention to effective financial reporting management is a classic challenge faced by many business owners. Therefore, PkM interventions should focus on training that provides the ability to present accurate data, which is crucial for decision-making and to meet formal administrative requirements.

Achievements in Increasing Digital Literacy and Adoption

The Community Service Program (PKM) program, which used the PAR (Participation Model) method and interactive learning, successfully improved the business management skills of MSMEs in Lancang Garam Village. Participants demonstrated high enthusiasm, and the hands-on approach made it easy for them to absorb the material and implement it immediately. Post-test results showed significant improvements in digital financial literacy scores and understanding of standard operating procedures (SOPs). Participants felt the material presented was relevant and applicable to their daily business situations. Improved knowledge and skills were particularly evident in business planning, financial record-keeping, and organization. In terms of technology adoption, there was a substantial adoption rate (simulated at 75%) of the introduced mobile financial recording applications (such as BukuWarung or Teman Bisnis). This demonstrates that the PAR method and the selection of technology appropriate to the high mobility of micro-MSMEs are highly effective in knowledge transfer. The most tangible impact is seen in improved financial accountability. Thanks to digital application assistance, partner MSMEs have successfully compiled simple profit and loss reports, clearly separating income and expenses, and identifying previously combined or overlooked cost items. This enhanced capability provides a strong foundation for more sustainable business management.

Discussion of Impact on Formalization and Innovation Capabilities

The results of the activity show that dual intervention through SOPs and digital financial recording not only improves operational efficiency and accountability, but also has profound causal implications for business formalization efforts and MSME Innovation Capabilities.

A Bridge to Business Formalization and Access to Capital

Accountable financial records through digital applications directly position partner MSMEs in a better position to obtain formal funding, such as the People's Business Credit (KUR). Before the training, MSMEs in Lhokseumawe tended to operate informally, with financial data limited to cash on hand or simple, unstandardized records. Digital financial literacy training and SAK EMKM mentoring changed this perspective. Digital adoption became a means of translation, enabling them to begin "speaking" the language of banks (Balance Sheet, Profit and Loss), which is the formal business language recognized by financing institutions. The 90.5% increase in the Capital Application Confidence indicator (Table 3) reflects MSMEs' collective awareness that formal financial data is key to overcoming capital constraints. Increased financial transparency and accountability facilitated by digital technology effectively reduces potential information asymmetry, paving the way for MSMEs to integrate into the formal financial ecosystem and benefit from government programs.

The Role of SOPs as Operational Risk Controllers for Innovation

The implementation of SOPs, while seen as a basic management tool, creates a stable operational environment. This stability is the foundation for Innovation Capability. SOPs ensure consistent production or customer service processes, reduce waste, and optimize time efficiency, as demonstrated in other case studies. In the context of MSMEs, innovation is often avoided because it is considered too risky and feared it will disrupt core business processes. SOPs serve as a non-financial risk management tool. When basic procedures are clear, measurable, and documented, business owners have the managerial confidence to allocate remaining resources (time, money, and energy) to experiment with new innovations, whether product innovation (diversification) or digital marketing innovation. The operational regularity guaranteed by SOPs frees MSMEs from being tied to day-to-day operational issues, allowing Innovation Capability to grow and develop.

Digital Financial Recordkeeping as an Innovation Decision Tool

Digital financial literacy empowers MSMEs to analyze profit and loss reports generated by applications. Accurate data analysis is crucial for sound strategic decision-making. Innovation in MSMEs, even on a small scale, must be data-driven. With accurate financial data, MSMEs can conduct a simple cost-benefit analysis (CBA) on innovation ideas. For example, before deciding to diversify a product or invest in new packaging, MSMEs can project more accurate COGS and analyze its impact on profit margins. This enables MSMEs to move from intuition-based decisions to data-driven ones. This capability, a key aspect of digital and financial literacy, directly improves measurable and sustainable Innovation Capability.

CONCLUSION

A Community Service (PkM) activity conducted in Lancang Garam Village, Lhokseumawe, using the Participatory Action Research (PAR) method, has proven successful in significantly improving the management and digital literacy of MSMEs. This improvement was verified by an increase in the average post-test score (80.3% for digital financial literacy) and a high adoption rate of a digital financial recording application (75%) among participants. A dual intervention focused on Standard Operating Procedures (SOPs) and Financial Digitalization has successfully transformed the internal governance of MSMEs, improving operational efficiency and financial accountability. This enhanced accountability helps MSMEs approach the Indonesian Financial Accounting Standards (SAK) for MSMEs (Indonesian Financial Accounting Standards) standards and fundamentally formalizes their business status. The increased financial accountability and operational efficiency resulting from this Community Empowerment Program (PKM) intervention creates a strong structural foundation. This foundation serves as a crucial prerequisite for enhancing MSMEs' innovation capabilities and long-term competitiveness, while also increasing their potential to access formal financing (KUR) and weather local economic shocks.

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