Technology-Based financial management of batik Riau MSMEs

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Abstract. The problem faced by Batik Riau MSMEs (Batik Candafa and Batik Bujang) is the lack of knowledge on how to keep financial records. Most of the financial recording is done manually and is very limited in its implementation. Therefore, training and mentoring on a good digital technology-based financial recording system can help Batik Riau MSMEs to sustain their existence. For this reason, this program has developed financial management training activities and a desktop-based financial management system to help Batik Riau MSMEs manage their finances effectively and efficiently. The methodology used in this activity is design, procurement, training and evaluation of activities. The activity results show some increase in the ability of MSME employees to make and understand cash flow statements, income statements, balance sheets and the accuracy of current financial records.

1 Introduction

Riau Batik is a Malay cultural heritage of Riau that needs to be preserved and developed so that it is not lost and can be passed on to the next generation. To achieve this, it is necessary to increase the competitiveness and capacity of the existing UMKM Riau Batik artisans. Riau batik has been known since the 17th century during the Daik Lingga Malay Kingdom [1]. Riau batik has a characteristic that distinguishes it from other types of batik: bright colors and motifs that tend to be geometric with a thick Malay touch. Riau batik motifs usually depict the daily life of the Riau people inspired by Malay cultures, such as kuntum bujang, bunga raya, kuntum bersanding, and other motifs [2]. The Riau Provincial Government in the Regional Medium Term Development Plan (RPJMD) of Riau Province in 2019-2024 and the Provincial Industrial Development Plan (RPIP) of Riau in 2018-2038 in the field of textile industry and various industries, targeting Riau Batik as one of the superior products that are government programs to be developed.

The partners of this activity are Candafa Batik and Bujang batik, located in Pekanbaru, Riau, Indonesia. both businesses are Riau batik businesses established in 2006 (Batik Candafa) and 2019 (Batik Bujang). Today’s corporate environment is becoming more competitive. This is true for both the industrial and service industries. One of the reasons for strong rivalry is current technology advancements, which have reached the Industrial

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Revolution 4.0. Corporate data processing for internal businesses and external interactions is automated. The development of new rivals with significant product innovation potential and the capacity to simplify financial management [3]. All of this contributes to the severe competitiveness in business.

To identify the performance and financial information that happens within a company period, financial records are necessary [4]. Financial records allow SMEs to assess their financial performance on a regular basis. By documenting all financial transactions, MSMEs may monitor their revenue, spending, and financial balances [5,6]. This helps to determine if the firm is profitable or not. Manual recording might result in mistakes in estimating revenue and costs, which can have a detrimental influence on financial reporting [7,8]. Given the advantages to the organization's sustainability, financial reports should be required for every business unit, especially for business owners [9].

The problem these two batik businesses face is the lack of knowledge on conducting financial records. Most of the financial recording is done manually and is very limited in its implementation. In addition, financial records are not consistently carried out due to time constraints and knowledge of how to do financial records that can be done effectively. If this is left unchecked, it will pose a threat to the sustainability of the business. For this reason, on this basis, UMKM Batik Riau needs to pay attention to its financial management both in terms of income and expenses so that UMKM Batik Riau can make the right decisions to survive. This underlies the community service activities that will be carried out. With the training and mentoring on a good digital technology-based financial recording system, it is hoped that it can help Batik Riau MSME to maintain their existence. This is also in line with the Tri Dharma of Higher Education that community service must positively impact the object of its service.

At some point, the outcomes of recording, recordkeeping, and reporting are collected into financial statements [4,10]. Many accounting programs are now available to help with company activity recording. Even today, these programs are much easier to use since they can be utilized on desktop or laptop computers as well as Android or iOS-based smartphones. This activity's accounting system is desktop-based [11]. Desktop accounting software is an application or program that must first be downloaded and installed on the operating system of the computing device to be used [12].

Several investigations, including usability and interface design studies of desktop-based financial recording systems [12,13], have led in the creation of desktop-based financial recording systems. The objective is to figure out the best methods to convey financial data and to make sure the system interface is user-friendly and straightforward. Examine how desktop-based systems may be integrated with other software or systems, such as inventory management or sales systems [14-16]. A well-integrated system may improve the efficiency and accuracy of financial transaction recording.

### 2 Methodology

The location of the activity is located at Candafa Batik (Dahlia Street, Gg Jati No 51, Pekanbaru) and Batik Bujang (Jalan Pinang Merah, Gg Bersama, Pekanbaru). The method of this community service activity is as follows: (1) **Design.** Design is carried out in this activity to produce technology that can help partners overcome problems in production and business management effectively and efficiently. The design is done on a desktop-based accounting recording system by lecturers and students. (2) **Procurement.** Procurement is required to fulfill partners' needs for production equipment and business facilities that are already inadequate. In this activity, the procurement of computer sets and cashier tools equipped with a financial recording system are given to Batik Bujang and Batik Candafa. (3)
Training. Training is done by providing people with certain skills and expertise to overcome problems or improve their quality of life. Desktop-based financial system recording training to improve partners' ability to record financial transactions accurately and promptly. Training and mentoring are carried out directly by lecturers and students involved in this activity. (4) Evaluation of Program Implementation. The evaluation program was carried out with the following steps: (1) Designing evaluation instruments. Evaluation instruments will be used in the form of questionnaires (to review the extent of the improvement of HR skills, the level of satisfaction and the level of program effectiveness) and observation sheets (to review the achievement of the implementation of science and technology that has been applied). (2) Collecting data. After the evaluation instrument is made, the next step is to collect the necessary data from the partners. (3) Data analysis. After the data is collected, analyze the data to evaluate the results of the service program. (4) Make an evaluation report. After data analysis is completed, an evaluation report containing evaluation findings, conclusions, and recommendations for improving the service program.

3 Results and Discussion

The digital technology-based financial recording training activity for Batik Riau MSMEs was held on Friday, July 14, 2023. In this activity, the first understanding was given to the managers of Batik Bujang and Batik Candafa regarding financial recording procedures. Making and understanding of financial reports, starting from cash flow reports, income statements, and balance sheet reports. The cash flow statement is one of the most significant financial statements in accounting. It depicts the cash inflows and outflows from operating, investing, and financing operations over time. The Cash Flow Statement supports stakeholders such as business owners, investors, and creditors in understanding a company's cash flow [17]. The income statement is one of the most essential financial statements in accounting [18]. It summarizes a company's sales, costs, and net income or loss during a certain time period, generally a fiscal year or quarter.

The Income Statement captures income from product or service sales, as well as all expenditures and expenses related to the company's operations [19]. The Balance Sheet is a critical financial statement in accounting. This report gives an overview of a company's financial status at a certain moment in time. The Balance Sheet summarizes a company's assets, liabilities, and owner equity [20]. The following picture shows the activities of the team of lecturers, students and partners in providing financial management training to MSMEs Batik Candafa and Batik Bujang.

Furthermore, the activity continued by providing training to Batik Riau managers for the use of digital-based financial systems. Desktop computers, printers, barcode scanners, and other devices used to run financial applications and store financial data are among the equipment provided to partners to support this digital-based financial recording. This system streamlines the storing and administration of financial data such as customer and supplier information, sales transactions, purchases, and so on. A security system is also included in this system. Safeguards are included to the system security component to prevent unauthorized access to sensitive financial data. Other security features, such as user authentication and data encryption, may be incorporated. The partners' financial records had previously been maintained manually in books, but this action provided them with a technology-based financial recording system.
To ensure the achievement of this activity, an evaluation of activities was carried out for all Batik Candafa and Batik Bujang human resources involved in financial management activities. The activities are evaluated by comparing the understanding achievements of Riau Batik MSMEs managers before and after the implementation of activities. The number of workers surveyed was 10, and the questionnaire was designed using a 5-point Likert scale. The results of the evaluation are as Table 1.
Table 1. Activity evaluation results.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Score Before</th>
<th>Score After</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you understand about recording cash in and cash out?</td>
<td>2.1</td>
<td>3.5</td>
<td>Improve</td>
</tr>
<tr>
<td>Do you understand the profit/loss statement?</td>
<td>2.1</td>
<td>3.8</td>
<td>Improve</td>
</tr>
<tr>
<td>Do you understand what a trial balance is?</td>
<td>1.3</td>
<td>3.3</td>
<td>Improve</td>
</tr>
<tr>
<td>Is the current financial recording accurate?</td>
<td>2.1</td>
<td>3.8</td>
<td>Improve</td>
</tr>
</tbody>
</table>

Source: Data Processed (2023)

Based on the data, it can be seen that some of the questions given before and after the implementation of the activity have increased. The highest increase was in the ability to make income statements and the accuracy of current financial records. This shows that the purpose of this activity has been achieved, although the expected improvement is still not optimal. However, the team believes that in the future the management of the financial system in Batik Riau MSMEs can be even better with the help of the financial recording technology that has been provided. Good financial management will assist MSMEs in forecasting their income and expenses for the short and long term. Good financial planning enables MSMEs to set financial goals, face financial challenges, and capitalize on business opportunities.

4 Conclusion

Good financial management is very important to help Batik Riau MSMEs achieve good financial performance. The technology-based financial management system provided to Batik Riau MSMEs in this activity is certainly very helpful in improving the quality of financial records of Batik Riau MSMEs to be more effective and efficient. Through this technology-based financial recording system, Batik Riau MSMEs can professionally record financial transactions through barcode scanning, and this makes the recording of material stock and finished goods owned by Batik Riau MSMEs well controlled. This system also
provides convenience with automatic records so users can monitor finances from the resulting financial reports such as profit, loss, and trial balance. In the future, partners are expected to be even better at managing their finances to facilitate their activities in financial control, knowing their financial condition and business development.

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