Information Technology-Based Financial Administration Training for Waste Bank Management

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ABSTRACT

Background: Currently there are many movements to support the government related to improving people's welfare by processing waste. Since the Covid-19 pandemic, the price of used waste has decreased. This community service is carried out at the “Gemi Nastiti” Waste Bank. The recap of activities and finances carried out at the “Gemi Nastiti” Waste Bank is done manually, this is because members do not yet have the knowledge and ability to do administration. Therefore, this community service aims to provide assistance in preparing technology-based administration.

Contribution: Providing knowledge, understanding, and financial administration skills to Waste Bank Managers "Gemi Nastiti" through the use of Microsoft excel and can input and apply Microsoft excel in processing their waste bank financial administration work.

Method: Providing material theoretically microsoft excel, demonstrating how to use microsoft excel, training and assistance in inputting financial transaction data, case solving from the field.

Results: The knowledge of the waste bank management "Gemi Nastiti" about Microsoft excel is approximately 10% at the time of the pre-test, while the work done is administration which has been done manually. For this reason, in the activities in the community that are currently carried out, namely financial administration training using Microsoft Excel, after the completion of the training, the post-test value obtained is on average 77%.

Conclusion: The administrators of the "Gemi Nastiti" waste bank can use Microsoft Excel in recording financial administration as evidence and information from the running of waste bank activities.

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INTRODUCTION

According to the Regulation of the State Minister of Environment of the Republic of Indonesia Number 13 of 2012 the Waste Bank is an economic institution that makes waste as a transaction tool so that currently the Waste Bank is looked at as an alternative way to overcome excess
waste from daily life to be later turned into something of economic value. Land fill management is seen as an alternative way where at first someone just throws garbage and then we turn it into something of economic value or additional income in the household. Communities need to break away from the old methods of waste disposal, by educating and familiarizing the community with the classification, selection, assessment, and development of the waste economy through the development of waste banks [1]. Especially for community-based household waste management, because household waste sources need to be managed independently [2].

In other words, a waste bank is an economic institution where waste becomes a trading tool used for its activities. This is because waste banks focus on waste management, have a managerial system that all activities in the Waste Bank system are carried out from, by, and for the community can be done individually or in groups, which will certainly be beneficial for group members, unlike traditional banks that use money as their main tool [3]. The benefits of the Waste Bank are (1) helping to maintain the cleanliness and health of the environment from waste, (2) serving the needs of residents through Waste Bank products, (3) improving the welfare of residents, (4) stunning the next generation who care, and (5) maintaining environmental sustainability [4] [5].

The Waste Bank management group must have knowledge about managing the Waste Bank correctly. Then it has a place to sell its recycled products, has good distribution channels, and has the knowledge of managing financial management. In addition, transaction recording to good financial statements so that the Waste Bank production cycle can run well and the benefits are felt by members of the group [6]. Because an organization can run well and optimally if managed properly as well. Good management in an organization, one of which is related to administration. Activities related to record records, simple bookkeeping, correspondence and other activities of a corporate nature are narrow definitions of administration. This needs to be done so that the goals of the organization can be achieved as stated by William Leffingwell and Edwin Robinson that administration is a part of management science related to the efficient implementation of office work [7]. The purpose of administration in managing the organization is to secure data or records owned by the organization. The data or records will later function as information about what has been done in an activity as a form of accountability to other members of the organization [8].

This financial data management is also known as accounting. According to [9], Accounting can be viewed as an information system that processes financial data into financial information that can be used as a basis for decision making. One of the tools that can make this accounting job easier is Microsoft Excel [10]. As many already know that this Microsoft Excel application is very helpful in terms of data management work. In addition, to secure data from damage or loss, users can store this data on various media such as drives, USB, or computer folders as backups or backups. As stated by [11], That Microsoft Excel has several advantages including:

1. Has the ability to hold a large enough data with 1 million rows and 16,000 columns in 1 sheet.
2. Microsoft Excel has the most popular and flexible format, so most data entry software has a conversion facility to excel format or other formats that excel can read. Or if needed we can reverse convert from excel to other statistical software.
3. Microsoft Excel has a very complete formula usage program that makes it easier to process numbers to produce a better document.

Therefore, it is necessary to have a computerized system for managing the finances of waste bank customers so that their performance improves and the institution can develop more. In today's digital age, it is impossible not to come into contact with technology in everyday life. It is
undeniable that the presence of technology is very helpful in human daily activities, including in managing an organization [12] [13]. For the ease of the administrative process, currently there is computer technology that can help with administrative work. The computer technology can be in various forms such as Personal Computers (PCs), tablets, notebooks, laptops and also smartphones.

The Waste Bank "Gemi Nastiti" has participated in supporting the government to improve community welfare and advance the economic structure and protect the environment, namely the use of waste in the community environment, but unfortunately since the Covid-19 Pandemic in early 2020, the price of used goods waste has decreased continuously. This caused the Waste Bank Management Mothers "Gemi Nastiti" to have difficulties in terms of financial operations. This difficulty also causes the Mothers of the Waste Bank Management "Gemi Nastiti" to often do financial patchwork and do not record so that financial administration becomes messy, even the Mothers of the Waste Bank Management "Gemi Nastiti" lack the knowledge and ability to manage financial administration related to record records, simple bookkeeping, correspondence and other activities that are administrative in nature based on information technology, they only have financial administration that still uses manual records that are less orderly and neat, by recording in a large Folio book so that accuracy and accuracy are very lacking. The management does not have a copy of the data (back up data) so it is prone to customer transaction data being lost [14-16]. So far, the management only has one book, namely the customer savings registry held by the director of the waste bank. Even in August, this customer’s savings record book lost time stored in the house of the director of the waste bank, finally a review was carried out based on the passbook brought by the customer. Waste Bank customers who save at the waste bank can only find out how much deposit is deposited when the passbook is distributed at the PKK meeting in the 2nd week of the following month which customers bring again to the waste bank activity once a month which is held every 4th week. There are incidents of customers saving but the management forgets not to record in the passbook so that records are carried out according to this customer report. Moreover, these "Gemi Nastiti" Waste Bank Management Mothers have other main jobs besides being administrators which also results in a lack of focus on waste bank management.

Therefore, it is very important for the management of the waste bank "Gemi Nastiti" to record financial administration as evidence and information from the running of waste bank activities through the Microsoft Excel application, unfortunately not all waste bank administrators familiar or skilled in using microsoft excel. Either because you have never studied, have no learning opportunities, or even have studied but because you haven't touched for a long time, you forget how to use it. Even if they have a smartphone, they only use it for communication or entertainment needs [17].

Based on the description above, the problems faced by the Waste Bank include:
1. Lack of knowledge and implementation of the management regarding financial management /management of every financial transaction that occurs.
2. Lack of knowledge and implementation of the administrators regarding the recording and preparation of financial statements.
3. Still manually in making transactions such as recording and maintaining customer savings, which risks making many discrepancies between customer balances and data in the bank (transparency and accountability)
4. Financial administration and bookkeeping that is done manually makes financial reporting not accurately reflected and vulnerable to loss as shown in figure 1.

![Figure 1. Manual Record Keeping.](image)

Seeing the condition of the "Gemi Nastiti" Waste Bank management, assistance will be made to the waste bank management to make administrative changes which have been done manually towards the use of applications for Microsoft Excel offices that will facilitate and order recording. Therefore, a monthly contribution report format will be made, make a monthly report format to DLH Sukoharjo, make a monthly financial report for the management to be used for reports to members, the Chairman of the RT, and kelurahan. The use of the Microsoft Excel application was also originally a request from the management of the Waste Bank "Gemi Nastiti". Administrators said that they had long wanted to put financial records in order using the Microsoft Excel application but were constrained by the ability of administrators who could not use the application. With this information, the required report format is prepared for training and assistance in the implementation of data input. Microsoft excel in which there are formulas and formulas in its worksheets will help users to minimize errors in calculations [18-20].

In general, this community service program aims to provide literacy, training, and assistance to improve initial knowledge about financial administration and skills in recording financial transactions and preparing simple financial statements at the "Gemi Nastiti" Waste Bank. With reference to the formulation of existing problems, the objectives of this study are:

**a. General Purpose :**

1. To find out the extent to which waste bank administrators understand the importance of knowledge about financial management / financial administration using Microsoft Excel.
2. To find out the skills of waste bank administrators in recording financial transactions and preparing simple financial statements at the Waste Bank using Microsoft Excel.

**b. Special Purpose :**

1. Carry out training programs and assistance in recording financial transactions and preparing simple financial statements using Microsoft Excel for Waste Bank administrators.

To achieve the objectives of this research, the solutions that will be offered to partners are:

1. It provides an understanding of the importance of knowledge about financial administration in an information technology-based Waste Bank.
2. Providing training and assistance in recording financial transactions and preparing simple financial statements using Microsoft Excel for Waste Bank administrators.
**METHOD**

The implementation of this Community Service (PKM) activity program goes through several stages that have been implemented, including being able to be described in the following flow:

1. **Preparatory Stage**
   a. Observation and Licensing Activities
      In this community service activity at Sahid Surakarta University in Makamhaji Village, Kartasura District, Sukoharjo Regency, it began with an activity to identify potentials and problems owned by the Waste Bank Management Mother of 17 people. After obtaining data on potential and problems, then the activities and solutions of these problems are determined. In the licensing stage, coordinate with related parties, namely the Chairman of the RT, and the Director of the Waste Bank where PKM activities will be carried out.
   b. Preparation of RAB
      The Budget and Expenditure Plan is prepared in terms of purchasing shopping for materials such as: souvenirs / plaques: pendrive, consumption, materials.
   c. The submission of the PKM activity proposal was submitted on November 21, 2022 and approved by the Chairman of LPPM Widiyono, S.Kep., Ns., M.Kep on November 25, 2022.
2. Implementation phase of activities

<table>
<thead>
<tr>
<th>No</th>
<th>Time</th>
<th>Material</th>
<th>Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>09.00 – 09.15</td>
<td>Training Opening</td>
<td>Village head</td>
</tr>
<tr>
<td>2.</td>
<td>09.15 – 10.00</td>
<td>Theoretical presentation of material Microsoft Excel</td>
<td>Presenters</td>
</tr>
<tr>
<td>3.</td>
<td>10.00 – 10.30</td>
<td>Demonstrate how to use microsoft excel</td>
<td>Presenters</td>
</tr>
<tr>
<td>4.</td>
<td>10.30 – 12.00</td>
<td>Data input training and assistance</td>
<td>Presenters</td>
</tr>
<tr>
<td>5.</td>
<td>12.00 – 12.30</td>
<td>ISHOMA</td>
<td>-</td>
</tr>
<tr>
<td>6.</td>
<td>12.30 – 13.00</td>
<td>Case Resolution from the Field and the giving of mementos</td>
<td>Presenters</td>
</tr>
</tbody>
</table>

Table 1. Schedule of Technology-Based Financial Administration Training Activities

The following is a sequence of activities carried out during the community service process:

a. Coordination with the Head of the Makamhaji Village RT, Kartasura District, Sukoharjo Regency.

b. Coordination with the Director of the Waste Bank "Gemi Nastiti" Makamhaji Village, Kartasura District, Sukoharjo Regency

c. Prepare the necessary work sheets for logging

d. Training on the use of microsoft excel applications

e. Data input assistance in microsoft excel application

Methods Used:

1. The nature of providing material theoretically microsoft excel
2. Demonstrate how to use microsoft excel
3. Data input training and assistance
4. Case Resolution from the Field

Training activities are held using survey methods, lectures, training practices and discussions. The survey was conducted with a 'user need assessment' interview with the Mothers of the Waste Bank Management "Gemi Nastiti" to obtain data, types and needs in recording financial transactions and preparing financial statements.

Lecture methods, training practices and consultations are carried out during training activities. In detail the methods performed are as follows:

1. Talk
   Explanations were given to participants in terms of how to properly and correctly manage the financial administration of the waste bank using the microsoft excel application so as to improve their well-being.

2. Explanation - Socialization
   Accompanied directly by the practice of waste bank financial administration using the microsoft excel application

3. During the training participants are facilitated
   In conducting consultations to discuss problems that arise, participants are given training in turning on laptops, opening Microsoft excel programs, using menus in excel, making reports in the form of charts.

4. Place of Devotion
   At the Makamhaji Village Hall, Kartasura District, Sukoharjo Regency

5. Companion Speaker one student from the S-1 Business Administration Level.
3. The financial control stage is carried out by evaluating for 3 months

In order for the implementation of this community service to be achieved as expected, the evaluation process of the activity is carried out, namely by determining the criteria and setting success indicators as follows:

**Table 2. Success Indicators.**

<table>
<thead>
<tr>
<th>No</th>
<th>Before Community Service</th>
<th>After Community Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Lack of knowledge and ability regarding financial administration of every financial transaction that occurs.</td>
<td>Have knowledge and ability regarding financial administration.</td>
</tr>
<tr>
<td>2.</td>
<td>Proof of transaction not documented</td>
<td>able to document proof of financial transactions stored on a flash drive</td>
</tr>
<tr>
<td>3.</td>
<td>Make a manual recording of customer transactions and financial statements in the logbook</td>
<td>able to record transactions and financial statements with Microsoft Excel</td>
</tr>
<tr>
<td>4.</td>
<td>Input financial transaction data manually in the logbook</td>
<td>able to input financial transaction data into Microsoft Excel using formulas and formulas in its worksheet</td>
</tr>
</tbody>
</table>

**RESULTS AND DISCUSSION**

This service activity begins with observation and licensing, after obtaining permits and problems faced by waste bank managers, it starts at socialize the program that wants to be implemented by presenting the activity program to Pak RT and the Director of the waste bank by conducting financial administration training through the Microsoft excel application at the Makamhaji Village Hall, Kartasura District, Sukoharjo Regency for 17 "Gemi Nastiti" Waste Bank Management Mothers. This community service activity was carried out on Sunday, November 27, 2022 in Makamhaji Village, Kartasura District, Sukoharjo Regency at 09.00 – 13.00 after waste bank activities by customers. This Waste Bank activity is held every month on the 4th week. The flow of this activity began with members of the waste bank "Gemi Nastiti" who wanted to be sold to the bank place to the village hall, then they handed over the waste bank savings card to the management which had been distributed to the members during the pkk meeting, after that filled out the guest book provided by the waste bank management. The Mothers of the Waste Bank Management "Gemi Nastiti" then weighed the waste sold after that sorting the waste. The waste sold by members is then valued by the management according to the purchase price given by the collector 3 days before the waste bank activity then the collected waste will be sold to the collector.
During the implementation of the activity, an evaluation is carried out which includes pre-test and post test through question and answer and discussion both before training and mentoring (figure 4) as well as direct observation of mastery of the practice as shown in figure 5.

Figure 3. Flow of Activities of Waste Bank Members Selling Their Waste.

Figure 4. Ask Answer and Discussion

Figure 5. Training and Assistance in The Use of Microsoft Excel Applications
The information technology-based financial administration training for waste bank management "Gemi Nastiti" has been completed with satisfactory results. This can be seen and shown the interest of participants to attend the training activities. There is an increase in knowledge about Microsoft Excel which can be measured from the pre-test and post test as in table 3 and the list of questions given (table 4).

**Table 3. Pre Test and Post Test Results Through Questions Provided.**

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Pre Test</th>
<th>Post Test</th>
<th>Observations At The End Of The Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Warismi Rahayu</td>
<td>10</td>
<td>90</td>
<td>GOOD</td>
</tr>
<tr>
<td>2</td>
<td>Sri Mulyani</td>
<td>10</td>
<td>80</td>
<td>GOOD</td>
</tr>
<tr>
<td>3</td>
<td>Marlina</td>
<td>10</td>
<td>90</td>
<td>GOOD</td>
</tr>
<tr>
<td>4</td>
<td>Yayuk Tarto</td>
<td>10</td>
<td>90</td>
<td>GOOD</td>
</tr>
<tr>
<td>5</td>
<td>Parini Hotels</td>
<td>10</td>
<td>90</td>
<td>GOOD</td>
</tr>
<tr>
<td>6</td>
<td>Ngatini</td>
<td>10</td>
<td>90</td>
<td>GOOD</td>
</tr>
<tr>
<td>7</td>
<td>Annis</td>
<td>10</td>
<td>90</td>
<td>GOOD</td>
</tr>
<tr>
<td>8</td>
<td>Mini</td>
<td>10</td>
<td>80</td>
<td>GOOD</td>
</tr>
<tr>
<td>9</td>
<td>Wiwit</td>
<td>20</td>
<td>90</td>
<td>GOOD</td>
</tr>
<tr>
<td>10</td>
<td>Eny Renowati</td>
<td>10</td>
<td>90</td>
<td>GOOD</td>
</tr>
<tr>
<td></td>
<td>Sum</td>
<td>110</td>
<td>880</td>
<td></td>
</tr>
</tbody>
</table>

**Table 4. List of Pre Test and Post Test Questions Before and After Training.**

<table>
<thead>
<tr>
<th>No</th>
<th>List of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What is Microsoft Excel and its functions?</td>
</tr>
<tr>
<td>2</td>
<td>How do I open and close Microsoft excel?</td>
</tr>
<tr>
<td>3</td>
<td>How to save a document in microsoft excel?</td>
</tr>
<tr>
<td>4</td>
<td>How to add, subtract, multiply in Microsoft excel?</td>
</tr>
<tr>
<td>5</td>
<td>How do I input financial transactions in Microsoft excel?</td>
</tr>
</tbody>
</table>

Note: each question is worth 10

Based on data from table 3, an average increase of 77% was obtained. The existence of service in the form of financial administration training with Microsoft Excel provides manfaat in improving knowledge and skills in using computers for financial administration for waste bank administrators "Gemi Nastiti" and can be taken as much as possible to improve kualitas of waste financial administration management services to customers, Heads of RT, district, and reports to DLH Sukoharjo. The success of this training was due to the high motivation of the participants so that during the training process a lot of questions were raised in order to meet the understanding of the administrators of this application, and the sufficient number of computer /laptop devices owned by the sons / daughters of the waste bank administrators who Available so that training on this community service runs with fluent.

And what needs to be used as an example of what the Sukoharjo district government is doing in supporting progress and playing a role in helping the development of waste banks in the future in the sukoharjo environment including waste banks "Gemi Nastiti" "It is an intense socialization to the community to understand the existence and benefits of the Waste Bank, the provision of
grants or capital loans, and the involvement of the private sector, through Corporate Social Responsibility (CSR).

There is one of the previous community service that can be used as a good comparison or the best of the good, which will be the benchmarking partner for a particular process on this Community service.

**Table 5. Comparison of the community service**

<table>
<thead>
<tr>
<th>No</th>
<th>Servant Name</th>
<th>Year</th>
<th>Title of Devotion</th>
<th>Results of Service</th>
<th>Equation</th>
<th>Difference</th>
</tr>
</thead>
</table>

To fulfill the ultimate goal of this community service, the final stage of this process is to provide assistance to the Mothers of the Waste Bank Management "Gemi Nastiti" to input data in the Microsoft Excel application. In this process, it can be seen the development of the results of the training given earlier as in figures 6, 7, 8. The existence of shortcomings and errors in the data input process is normal for people who are just learning [21] [22]. Here the service team continues to strive to provide understanding so that the administrators can be more skilled.

**Figure 6. Worksheet for Recording Dues.**
The results of recording financial statements through Microsoft Excel can later be used for accountability reporting to all members of the "Gemi Nastiti" Waste Bank as well as to the village and DLH (Environmental Agency) Sukoharjo to be used as a reference or reference in the development of village waste banks. This reporting is also used to apply for operational funding assistance to the village and to members for an increase in monthly dues because the funds obtained from member dues and the proceeds from the sale of waste are still insufficient to meet the operational costs of the waste bank.
CONCLUSION

Training and assistance in recording financial transactions and preparing simple financial statements using Microsoft Excel for waste bank administrators produces excellent responses / feedback, because they understand it is very useful to know the importance of knowledge about financial management / financial administration, have skills in recording financial transactions and preparing simple financial statements at the Waste Bank so that transparency, accountability, and are not vulnerable to being lost because they have been stored on a flash drive. Administrative Training activities run smoothly, both at the time of presenting theoretical and practical material. All materials presented can be carried out according to a predetermined schedule and according to the needs of the participants. The obstacle experienced in the implementation of this training activity was the lack of knowledge of participants about financial administration so that the delivery of the material was carried out repeatedly with some emphasis. However, through discussions, questions and answers, and practice, participants can slowly understand, make records and input their own financial transactions, and make financial reports using Microsoft Excel.

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REFERENCES


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