Simple Bookkeeping Model Using Microsoft Excel for Culinary Micro-Business in East Nusa Tenggara Indonesia

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\textbf{Abstract}

The aim of the current research was to build a simple bookkeeping model using Microsoft Excel on culinary micro-businesses. It was applied research that was conducted in Kupang city, Indonesia. The sampling technique used was a saturated sample. The data analysis technique used was qualitative descriptive. The results of the study have shown that the problems faced by micro-businesses in Indonesia are related to business location, human resource, and capital. All the problems, cannot be denied, are related to financial records. The micro-entrepreneurs in Indonesia, in general, do not have good financial statements that can be used as a consideration for third parties who are willing to provide capital assistance. The current research presents the simple bookkeeping model created with the Microsoft Excel program that will greatly help micro-entrepreneurs this culinary in doing financial records properly and completely.

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1. \textbf{Introduction}

Today, the Indonesian government is facing the competition of economic growth that is so rapid from several neighboring countries (Shahbaz \textit{et al.}, 2013). One way to boost people’s economic growth is through Micro, Small and Medium Enterprises (MSMEs). The existence of MSMEs is very helpful for government programs, that are prioritized to alleviate poverty and improve people's lives (Agyapong, 2010). In addition to reaching the broader goals of MSMEs, the government needs to create jobs for people. Related to the thought, on a smaller scale, MSMEs itself is effective in helping people’s lives in any community. Through MSMEs, people become more independent and confident in entrepreneurship, so that it directly impacts on improving the standard of living of the community (Berry \textit{et al.}, 2001).

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The development of MSMEs has been more constrained by internal aspects, namely related to funding or business capital, human resources, and marketing. Although there are many capital assistance services from financial institutions, that is a bank and non-bank financial institutions, MSME still has less opportunity for having funding assistance because of the incompleteness of administrative requirements that requested by fund providers. Micro-entrepreneurs, especially culinary businesses, generally keep records in a simple and traditional manner (Wijaya et al., 2016). Therefore, they always experience problems when they apply for loans from financial institutions. Any financial institutions need to see their complete financial reports/statements in the bookkeeping, while the micro-entrepreneurs do not have complete financial reports, even, they have bookkeeping.

Simple bookkeeping with the help of computers will be beneficial for micro-entrepreneurs, especially in creating their financial statement. Based on what has been stated above, we conducted the current research to build a simple bookkeeping model, that is, to help culinary micro-entrepreneurs in Indonesia. The research was conducted in Kupang City, East Nusa Tenggara Indonesia. In the city, there are many micro businesses, especially culinary businesses such as food stalls, meatball soup stalls, as well as ice stalls, etc. As the city is a low economic income city in Indonesia, we assume that culinary micro-entrepreneurs of Kupang city need to be assisted in order to increase lives quality in Indonesia. One aspect that needs to be assisted is related to bookkeeping activity. We believe the result of the current research will be a valuable simple mode of bookkeeping for the micro entrepreneurs.

2. Materials and Methods

According to the Law of the Republic of Indonesia Article No. 20 of Year 2008, micro-business and medium businesses are (1) the business that owned by an individual and / or an individual business; (2) a ‘stand-alone productive’ economic enterprise, and carried by individuals that is not a subsidiary or non-branch company owned; and (3) not a subsidiary or branch of a company (Bellefleur, 2012). The micro business, as well as the medium business, cannot be denied, need a clear financial statement that record in bookkeeping.

Bookkeeping is a process of recording that is carried out regularly to collect financial data and information which includes assets, liabilities, income capital and costs as well as the amount of acquisition and delivery of goods or services (Vollmer, 2003). The recording of financial transactions is made to meet the objectives as follows. (1) Provide information relating to economic resources, capital and company obligations. (2) Provide detailed information about changes in economic sources due to business activities carried out to obtain profits. (3) Disclose information relating to the company’s financial statements that are relevant to report users. (4) Providing financial information that can help companies to estimate the potential of the company to gain future profits (Lerner, 1987).

Certainly, financial records must be accompanied by a receipt that will be used as a form of accountability for transactions that have been carried out both receipt of internal transactions and external transactions. Receipt of internal transactions can be (1) Proof of cash in, as evidence that indicates if the company has received cash; (2) Proof of cash out, as evidence that the company has spent cash; (3) Memo as proof of recording between parts of the company (Cole & Slade, 1998); While proof of external transaction can be the invoice as a proof of a financial transaction in the event of a purchase or sale made on credit, receipt, notes as a proof of purchase made in cash, debit note as proof if the company has sent back the items that have been purchased due to damage, credit note as proof of receipt of returned goods before they have been sold through credit, check which is a warrant issued by the party that has a bank account, so that the bank can pay a sum of money to the party, and biljet giro which is a warrant issued by a customer to the bank concerned to the cash transfer.

The purpose of financial records in bookkeeping conducted by a company is to find out the condition of the business finances that are run, to prevent businesses from dying, and as document/material used for submitting loans to financial institutions. To start recording financial transactions, according to Winarni & Sugiarso (2006), two main steps must be conducted, namely preparing all transaction proof and input all the transactions into the daily journal. The Daily Journal is a record that is arranged systematically and is based on the chronology of transactions carried out. The function of the daily journal is to record all transactions. The recording has (1) a historical function, so that recording transactions in accordance with the chronological time of occurrence, (2) an analysis function, so that each transaction recorded in a journal could be analyzed, and (3) an instructive function, that is to record that all business activities are conducted as planning instruction. Bookkeeping system has to become a vital means in a company. Through the bookkeeping system, the company can calculate, control and manage all financial transactions that occur within the company. Accounting information can be a reliable basis for making economic decisions in the management of micro-enterprises. All of them are related to financial statements in bookkeeping.
According to Sutrisno (2003), a financial statement is a report that describes the results of the accounting process that is used as a communication tool for parties interested in financial data or company activities. According to the Indonesian Accounting Standards, the financial statement is a part of a complete financial reporting process that is usually covering balance sheets, profit, and loss statements. It also records changes in financial position reports. It can be presented in various ways such as cash flow statements, funds flow reports, notes, and other reports as well as explanatory material. The Financial statements itself is the final product of a series of records in business transaction data (White et al., 1998). The purpose of financial statements is to provide financial information, financial performance, and cash flow statements of a business.

In the current research, we build a mode of bookkeeping for financial statement through Microsoft Excel. Microsoft Excel itself is a program or application that is part of the Microsoft Office installation package that functions to process numbers using a spreadsheet consisting of rows and columns to execute commands (Fylstra et al., 1998). Microsoft Excel has become the best data processing software or number in the world. It uses spreadsheets to manage information better. The advantages of Microsoft Excel are (1) easy to be understood and used by the users, (3) compatible with various platforms or operating systems, (4) has got the most popular extensions for spreadsheet software, (5) can read standard spreadsheet extension, (6) has got pivot feature to simplify managing data, and (7) has got large spreadsheets that can be used as SQL alternatives.

The current research was applied research that described a situation systematically, factually and accurately about any facts, and applied the research to impact community (Brown, 2014; Lambert, 2012). The population of this study was all culinary microbusinesses of meatball soup stalls in Kupang City, Indonesia. The sampling technique used was a saturated sample (see O’reilly & Parker, 2013). We collected data through observation on micro-businesses and conducting interviews with culinary micro-entrepreneurs, especially meatball stall business. Referring to qualitative research, the data analysis technique was applied using descriptive qualitative which described conditions as it was (Lambert, 2012).

3. Results and Discussions

The micro-culinary business in Kupang city, Indonesia is very diverse consisting of business food stalls, meatball stalls, ice stalls, coffee shops, and grilled fish. All of these culinary efforts spread in the city. All of these culinary endeavors, include micro-culinary businesses, are open only in the morning or at night, or from the morning to the late afternoon or evening. In the current research, We focused on the micro-business of meatball soup (a kind of culinary food in Indonesia) culinary business.

The Prospects

The business of meatball soup has got a good prospect in Indonesia. The minimum average sales per day that can be sold by the business owners were 5 to 20 kilograms of meat, with an estimated 1 kilogram of meat can produce up to 18 bowls of meatballs. The price per bowl of meatballs is sold for around 13,000 IDR to 15,000 IDR. Even though it has a good prospect, the business has its own problem. The first obstacle was the location of the business. Mostly, sellers need a good location. However, they have not got enough capital. The second is human resources. Most of the local people in Kupang city have not got the ability in cooking the food. The problem of financial statement has also been a part of human resources problem. Our finding has shown that all financial records are only carried out by stall owners with a simple and manual recording of limited flow cash. The recording cannot be used as a reference or standard in submitting loan funds to third parties.

The Capital

Capital is the most common problem faced by micro-entrepreneurs in Indonesia. Related to the situation, micro-entrepreneurs need to have financial support (Vial, 2011). A way to obtain larger financial support (for increase capital), is through loans to third parties, both in the bank and non-bank financial institutions. Unfortunately, while financial records carried out by the small entrepreneurs are too simple and that is not in accordance with the rules of actual financial recording required by banks or non-banks, then the micro-entrepreneurs could not be helped in having a loan for increasing their capital.

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Bookkeeping carried out by micro-entrepreneurs in Kupang City, Indonesia

The bookkeeping activity conducted by micro-entrepreneurs in Indonesia was only limited to the recording of income and expenditure. For the income recording, the micro entrepreneurs just calculated profit and loss include sales of meatballs and drinks. For the expenditure recording, the micro entrepreneur's calculated only costs of raw materials, costs for purchasing raw materials include purchasing transportation costs, labor wage costs, electricity cost, etc. All the recording and calculation were conducted manually through the calculator. As a result, the recording system was only limited to knowing profit or loss in general. In the other side, the recording conducted manually caused a low control system, and not effective. Related to the problems, the current research has constructed the simple bookkeeping model using Microsoft Excel. The construction was built to help micro-entrepreneurs in Indonesia.

The simple bookkeeping model using Microsoft Excel

Recording financial statement in bookkeeping using Microsoft Excel could be started by giving a code for each account. After that, a daily cash journal both cash-in and cash-out must be coded based on the account code. Furthermore, based on daily journals, cash groupings are made based on three types of cash flow. It will input an income statement and balance sheet automatically. To make this simple bookkeeping model, a sample of the transaction was taken in the first two weeks of September 2018.

3.1 Account Number and Naming

The number and the name of the account refer to the type of transaction that occurs every day. It will be used along with its function in making a financial statement model. The type of account number and how to name them is described in the following table.

<table>
<thead>
<tr>
<th>No</th>
<th>Account Name</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Cash</td>
<td>To record the value of the transaction, receipts, expenses, and cash balances</td>
</tr>
<tr>
<td>12</td>
<td>Business Receivables</td>
<td>To record the value of credit sales transaction and receipt of bills</td>
</tr>
<tr>
<td>13</td>
<td>Material Inventory</td>
<td>To record the final value of food and beverage supplies</td>
</tr>
<tr>
<td>14</td>
<td>Prepaid Leases</td>
<td>To record the value of lease payments (if any)</td>
</tr>
<tr>
<td>15</td>
<td>Equipment</td>
<td>To record value of equipment purchase</td>
</tr>
<tr>
<td>16</td>
<td>Building</td>
<td>To record the value of purchase/ manufacture of business buildings</td>
</tr>
<tr>
<td>17</td>
<td>Land</td>
<td>To record the value of the land purchase</td>
</tr>
<tr>
<td>21</td>
<td>Business Debt</td>
<td>To record the value of food purchase</td>
</tr>
<tr>
<td>22</td>
<td>Bank / Union Debt</td>
<td>To record loan value from bank / other financial institutions</td>
</tr>
<tr>
<td>31</td>
<td>Bank / Union Debt Institution</td>
<td>To record loan from banks / other financial institutions</td>
</tr>
<tr>
<td>32</td>
<td>Capital</td>
<td>To record deposit / additional capital</td>
</tr>
<tr>
<td>41</td>
<td>Private</td>
<td>To record the value of capital withdrawal conducted by owner (that is for personal purposes)</td>
</tr>
<tr>
<td>42</td>
<td>Business Income (Food)</td>
<td>To record the value of food sales (meatballs)</td>
</tr>
<tr>
<td>45</td>
<td>Business Income (Beverages)</td>
<td>To record a cash sales value</td>
</tr>
<tr>
<td>46</td>
<td>Purchases</td>
<td>To record the value of food/drinks purchases</td>
</tr>
<tr>
<td>51</td>
<td>Transportation Costs</td>
<td>To record the value of cash expenditure for payment of transportation purchases</td>
</tr>
<tr>
<td>52</td>
<td>Salary Cost</td>
<td>To record expenditure value for payment of workers' wages</td>
</tr>
<tr>
<td>53</td>
<td>Electricity Costs</td>
<td>To record cash disbursement for electricity bills</td>
</tr>
<tr>
<td>54</td>
<td>Water Costs</td>
<td>To record cash disbursement for payment of water bills</td>
</tr>
<tr>
<td>55</td>
<td>Rental Costs</td>
<td>To record cash disbursement value for business rent payment</td>
</tr>
<tr>
<td>56</td>
<td>Communication Costs</td>
<td>To record cash disbursement for payment of credit fees/telephone</td>
</tr>
</tbody>
</table>
57 Other operational costs To record cash disbursement value for payment of operating costs other than those identified above
58 Interest of Costs To record cash disbursement value for installment payments of loans from other banks/financial institutions
59 Income Tax To record the value of cash balance for payment of income tax

3.2 Design of Record Models

Micro-entrepreneurs generally want to create financial statements immediately, without going through a long recording procedure. This means that making financial reports through the process/stage of the accounting cycle manually will be very tedious for micro-entrepreneurs. For this purpose, the recording model designed in this study is attempted as simply as possible and can be run on Microsoft Office Excel programs. This will help micro-entrepreneurs in bookkeeping. The program enables creating simple bookkeeping. The intended model has a template resembling a cash book. It can be shown in the following figure.

![Figure 1. Model of recording the micro business](image)

The explanation of the functions of each field in the model is described in the following table:

<table>
<thead>
<tr>
<th>Column</th>
<th>Formula</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>- / Medium Date</td>
<td>It inputs the transaction date. It can also be used to display the type and value of transactions for a date or a specific date group.</td>
</tr>
<tr>
<td>Number of Evidence</td>
<td>- / Text</td>
<td>It inputs the transaction receipt number. It can also be used to display the type and value of transactions for evidence.</td>
</tr>
<tr>
<td>Receipt Description</td>
<td>- / Text</td>
<td>It inputs a brief description of the transaction.</td>
</tr>
<tr>
<td>Description</td>
<td>- / Number</td>
<td>It input the code/account number. It can be used to display the number of values from a particular account or a certain group of accounts. This field replaces the posting activity to the ledger in making financial reports manually. This field is useful in grouping accounts for financial reporting.</td>
</tr>
<tr>
<td>Account Code</td>
<td>- / Number</td>
<td>It inputs the cash flow code. It can be used to display the value of cash flow based on the group. This field is useful in presenting cash flow statements.</td>
</tr>
<tr>
<td>Cash Flow Code</td>
<td>- / Text</td>
<td>It inputs cash transfer code. Code “D” is for receipt and code is “K” for cash disbursement. This field is useful in making a cash book to find out how much cash receipts and expenditures in a given period.</td>
</tr>
<tr>
<td>Mutation</td>
<td>- / Number</td>
<td>It inputs transaction value</td>
</tr>
</tbody>
</table>

Code Number Balance = IF (G8 = "D", I7 + H8, IF (G8 = "K", I7-H8, ") / Number

It inputs the final value/cash ending balance of each transaction automatically. Useful for displaying the cash balance at any time. This field is very useful for cash monitoring (comparing the final cash balance according to bookkeeping and physical cash amount).

Having built the program on the trial model using transaction data, the bookkeeping in Microsoft Excel displayed types and dates of the transaction. As an example, the following picture was a kind of transaction in the first two weeks of September 2018. First, as can be seen, it specifically displays the type and value of transactions in a date, such as the date of transactions September 10th, 2018. It can be seen in the following figure.

![Input transaction date](image)

Figure 2. Input transaction date

Next, after the implementation is shown in figure 2, there will appear the result as can be seen in the following figure.
Furthermore, it also displays the type as well as the transaction value for a particular receipt number or group of receipt numbers. As for example, receipt numbers 01 / K. It is shown in the other figure as follows.

Next, it displays the number of values in a particular account or group of specific accounts as shown in the following example of the income account group, which is shown in figure 5.

**Figure 3.** Information Model Types and Value of Transactions Based on a specific date

**Figure 4.** Types of Information Model and Transactions Values Based on Certain Groups of Receipt Numbers
Information generated through certain code/name of account or group of codes / specific account names is very useful as a basis in presenting financial statements, and at the same time check the truth of the values listed in the financial statements with the data generated through the recording media. Furthermore, it displays the number of values of a particular account or a certain group of accounts, for example, the cost of the account group. It can be seen in the following picture.

The program also displays information about cash mutations, which include the initial of cash balance, the total of cash receipts, a total of cash disbursement and the final cash balance. The information is useful for presenting cash values in the balance sheet, and at the same time making the bookkeeping and the cash flow reports. The information is generated by removing the check mark in the “blank” option in the "date" column of the Recording Media as shown in the following figure.
After removing the check mark in the “blank” option in the "date" column of the Recording Media, as a result, the following figure will appear.

![Recording Media](image)

Figure 8. Information on cash end balance

Figure 8 displays the total cash end balance in September 2018. The total is IDR 7,090,000.00. The final cash balance is the same as the cash flow statement and balance sheet.

3.3 Report Model

There are 3 main types of financial reports generated from the recording model, namely Profit / (Loss) Report, Balance Sheet Report, and Cash Flow Statement. The Balance Sheet report provides an overview of the company’s financial position at a certain time. It includes the condition of assets, debt, and capital. The Cash Flow Report provides information about cash transfers from various types of activities and cash balances at any time. The following is an explanation of each type of report.

a) Report Model of Profit / (Loss)

The report summarizes income and costs over a certain period. Following is the figure of profit/ (loss) report model.

![Profit / (Loss) Report Model](image)

Figure 9. Profit / (Loss) Report Model
b) Balance Sheet Report Model

The balance sheet provides an overview of financial position (assets, debt, and capital) at a given time. Balance sheet model is shown in the following figure.

![Balance Sheet Report Model](image)

**Figure 10**
Balance Sheet Report Model

c) Cash Flow Statement

The cash flow statement describes changes in cash. The changes include terms of revenue and expenditure side of three types of activities, namely operational activities, investment activities, and funding activities.

![Model of the Cash Flow Statement](image)

**Figure 12.** Model of the Cash Flow Statement
3.4 The Application of The Simple Bookkeeping Model on the Micro-business Culinary in Kupang City Indonesia

In operating the bookkeeping model with the Microsoft Excel program, undeniable, it requires an appropriate approach. Most of the micro entrepreneurs did not understand computer programs. They had several reasons namely; (1) had no understanding about accounting, (2) had no understanding on how to operate Microsoft Excel applications, (3) had no understanding the terms of accounting and computer, (4) had no guidelines in accounting for their business. As the solution to this case, we provided guidance as well as trained them on how to operate the program. After having guided and trained, their response was different. It has turned from negative into a positive response.

4. Conclusion

Micro-businesses, especially on culinary businesses in Kupang city Indonesia have faced some problems. One of the problems was about to have a loan for strengthening business capital. Unfortunately, almost all micro-entrepreneurs could not get a loan since they had no bookkeeping to be examined by banks or other financial organization. Related to the problem, bookkeeping mode using Microsoft Excel was built to help the micro entrepreneurs in Indonesia. Having guided and trained on how to operate the bookkeeping using Microsoft Excel program, the micro entrepreneurs have experienced and found that the program was simple and helpful for their micro business.

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The authors declare that they have no competing interest. The study was financed by Politeknik Negeri Kupang.

Statement of authorship
The authors have a responsibility for the conception and design of the study. The authors have approved the final article.

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