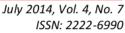
The Need for Accounting Information System to facilitate BMT

By Rifqi Muhammad





The Need for Accounting Information System to Facilitate Partnership Contracts in Islamic Microfinance Institutions: The Case of *Baitul Maal wa Tamwil* (BMT) in Indonesia

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Abstract

The development of Small and Medium Enterprises (SMEs) in Indonesia showed a tendency has increased along with improvement of the national economy. Indonesia together with India and China are the three countries in the world who have the highest economic growth within the last 3 years. However, SMEs are still confronted with basic problems such as the limited access to the sources of financing from formal financial institutions, particularly from the banks. This problem causes them to rely on informal sources of financing. Currently, the informal financial institutions are more striking among SMEs because it is more flexible, for example in terms of requirements and the amount of loans that are not as tight as banking. This makes informal financing institutions increasingly popular among small and medium entrepreneurs. One of them that is quite close with SMEs is Islamic Microfinance Institutions or commonly known as Baitul Maal wa Tamwil (BMT). However, both the BMTs and SMEs have difficulties in cooperating each other mainly related to the mastery of information technology to improve efficiency in managing transactions under Shariah (islamic law)-based business contracts. Therefore, the authors urge that the need for accounting information systems to facilitate the contracts. This paper aims to discuss the urgency of drafting a framework for information systems for BMTs to support the operations of partnership contracts. This paper proposes the use of Open Source Software (OSS) as the basis for developing a system that is technically cheaper, more efficient and easy to implement.

Keywords: Accounting Information Systems, Small and Medium Enterprises (SMES), Islamic Microfinance Institution, Open Source Software (OSS)

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1. INTRODUCTION

The last decade, the Small and Medium Enterprises (SMEs) becomes the new prima donna in Indonesia especially after the economic crises 1997-1998 ago where unemployment increased significantly. BPS data for 2008 shows the number of SMEs develop into 51.26 million and capable of providing national contributions amounting to 52.7% or about IDR 2,609.4 billion of a total of IDR 4,954 trillion. The sector is able to provide employment for 90.9 million people or 94.4% of the total national workforce.

As the form of support for the existence and development of SMEs, the government passed the SME Act number 20 year 2008. Article 7 of that act specifically gives a mandate to the Central Government and Local Government to grow the business climate by menetepkan legislation and policies related to the following aspects: (a) funding, (b) facilities and infrastructure, (c) business information (d) partnership, (e) licensing business, (f) opportunities, (g) trade promotion, and (h) institutional support.

Although the role of SMEs strategic enough in the Indonesian economy, but business competition and the dominance of large companies that use high-tech and modern infrastructure, making the position of SMEs is not easy to expand the business (Wahid and Indarti, 2007). Wahid and Indarti (2007) further explained that the majority of SMEs in Indonesia are still run their business by traditional means including in the areas of production, administration, and marketing.

The problems faced by SMEs actually are not limited to the things mentioned above. More than that, SMEs also face a complex challenge includes limited access to capital, access to market information, availability of raw materials, low quality of human resources, low quality financial management, and the weak of institutional support from government, and low community commitment to consume/use the products of SMEs.

However, this paper is focus on two things: limit 15 access to capital and the low quality of financial management. The limited access 17 capital faced by SMEs is usually happen since the absence/lack of collateral. Therefore, the financial institutions, both banks and non-banks, are reluctant to provide financing because the business risks that could not be predicted. The other reasons for the financial institutions are that the SMEs do not have adequate financial administration due to factors such as: (a) weak procurement of technology, (b) felt no need to administer business because of the small-scale enterprises, and (c) cost / high investment for financial management and use of technology (See Wahid and Iswari, 2007).

McChlery et al. (2003) argued about the factors that determine the acceleration of the implementation of a financial management system in the SME sector includes: (a) a computerized accounting system so as to produce periodic financial reports; (b) there is a strong commitment from the owner/manager to perform technological transformation, (c) adequacy of qualifications of the internal accounting staff, (d) proactive attitude from external accountants, and (e) of the pressure from finance providers (banks or financial institutions, non-bank).

On the other hand, very few businesses can operate without the assistance or cooperation with the banking sector (Perry and Coetzer, 2009). Similarly, SMEs are in need of access to capital from the banking sector. Nevertheless, the banking sector has a very strict system that not infrequently make it difficult to meet the requirements of SME management in particular guarantee the availability of data assets and business prospects. The consequence,

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sometime the SMEs try to hire consultants to make their business analysis and business prospects that are far from reality. This action could detriment of both the banking and the SME sector itself due to over-estimation.

Ennew and Binks (1996) revealed that many SMEs are not satisfy with the banking services because of convoluted, therefore they decided to look for the alternative of financial institutions that have procedures that are simpler and easier, although a consequence of high interest. This also happened in Indonesia and other developing countries. One of the alternative financial institutions in Indonesia are Islamic microfinance institutions that commonly known as *Baitul Maal wa Tamwil* (BMT). In concept, BMT offers financing system more equitable and rewarding with profit sharing schemes with *Mudharabah* and *Musharakah* contracts.

Until 2007, it was noted that there were more than 1.5 million micro and small entrepreneurs under BMT (BMT Congress, 2009). This fact illustrates that the alternative financial institutions have been given the easier access opportunity for SMEs. However, BMT has an obstacle in the cooperation with SMEs particularly due to the weakness of information transfer among them LKMS thereby inhibiting the process of calculating of profit sharing. Thus, it is not impossible that finally BMT takes shortcut to do the calculation on the results of one-sided because of the lack and the weakness of the data validity provided by SME management.

In the national context, the government of Indonesia has also strengthened BMT through the State Minister of Cooperative and SME of the Republic of Indonesia Number: 91/Kep/M.UKM/IX/2004 on the Implementation of Cooperative Activities on Islamic Financial Services. The government has seen the significance of SME role in the empowerment of SMEs so that was the synergy between BMT and SMEs will have a positive effect on economic development of national economy.

Therefore it is right presumably if both institutional synergies can be realized with a strategic step that is more real through the interconnection of software that enables the transfer of information between the two business units that are expected to improve the efficiency and validity of the information that ultimately improve both profitability and competitiveness of SMEs business. This paper proposes the accounting information system to facilitate the partnership contracts in the BMTs. This system could be developed with the software application based on Open Source Software (OSS), which can facilitate BMTs in providing financing schemes for SMEs through profit sharing schemes (*Mudharabah* and *Musharakah*).

2. THE CHARACTERISTICS OF ISLAMIC PARTNERSHIP CONTRACTS

Islamic finance in many aspects refers to socially conscious investing. The main purpose of this investment is utilizing the money in the real sector. Therefore, Islamic partnership contracts could be more the popular schemes in order to promote the efforts of Islamic microfinance institutions in utilizing the money for real sector development.

There are at least two modes of financing to facilitate real sector investment as follows:

1. Mudharabah Financing

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Mudharabah is a partnership between an economic agent with capital and another economic agent who has expertise in deploying capital into real economic activities with an

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agreement to share the profits. This is based on a profit sharing at a pre-agreed ratio. In the case of losses, the losses are borne by the provider of the funds. The Islamic microfinance institutions will not interfere with the business but rather give the partner the independence to run it. Figure 1 illustrates *Mudharabah* finance project.

Mudharabah partnerships performed an important economic function by combining the three most important factors of production — capital, labor, and entrepreneurship. Typically, the contract Mudharabah involved an arrangement in which the capital-owner entrusted his/her capital or merchandise to an agent (mudharib) to trade with it and then return to the investor the principle plus the previously-agreed-upon share of the profits. As a reward for the agent's labor and the entrepreneurship, the agent (mudharib) received the remaining share of the profit.

Mudharabah practices in Islamic microfinance usually put the BMT as the provider of the funds and the entrepreneur as the party which runs the business. BMT is purely as the funds' provider (rabbul-mal) and it is not involved in the management rather than monitor from outside as control mechanism. The capital from the provider should be given to the mudharib in cash or in kind of production goods that can be calculated in units of money. If the capital is gradually handed over, it must be explained and mutually agreed.

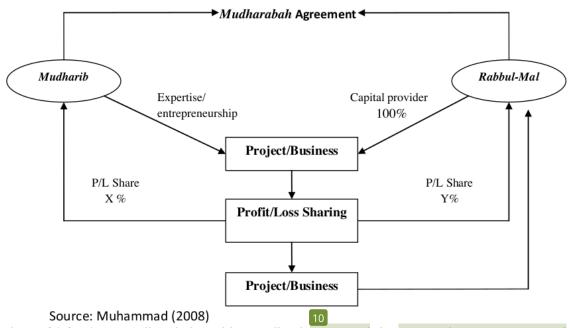
Some distinct features of Mudharabah as follows (Khir et al., 2008):

- a. Control. The investor designates the mudharib as an agent and therefore does not have any right to control, or participate in, the decision making of the mudarib as to the placement of funds. In other words, the investor does not have any management rights over the mudharib, who is free in selecting the projects in which to invest, or the manner in which to invest. However, in some cases, the investor may impose some upfront restrictions on the agent to participate in a particular project. If the mudharib acts contrary to such conditions or restrictions, they are deemed to have acted beyond their power and, therefore, by virtue of trust that was place in them, they have to liable for any resulting loss or damage.
- b. **Profit and Loss Sharing**. One of the most significant features of *Mudharabah* is that the profits are shared between the investor and the agent, any loss in the investment or business is borne solely by the capital provider, unless such loss is caused by the misconduct or negligence of the *mudharib*. In the absence of misconduct or negligence, the *mudharib* is not responsible for any loss in the venture. In cases where the agent acts in good faith, and prudently, but still the investment results in loss, the capital owner loses portion of the capital, but the agent loses time and effort deployed during business venture.
- c. **Profit Distribution**. In the *Mudharabah* agreement, both parties enjoy absolute freedom in the determination of the division of profit. Hogever, Some critical points as follows:
 - The division of profits among the parties must be in the forms of proportions and ratio rather than in absolute numbers
 - The profit-sharing formula itself must be made specific and certain beforehand and must be clearly indicated in the agreement for profit distribution
 - The ptio of profit distribution may differ from that of the capital contribution
 - The distribution of profits can only take place after the capital-owner has retrieved his capital



 Any interim or periodic distribution before the closing of the accounts is considered tentative and subject to final review and revision and has to be made good on any loss of capital.

Figure 1. Mudharabah Project Financing



- d. **Multiple Tiers**. *Mudharabah* enables *mudharib* to expand the partnership to create a pool with a large number of cational providers as passive partners and, on the other hand, it allowed a *mudharib*. This flexible structure of different tiers has become the basis of modern Islamic microfinance institutions.
- e. Credit Risk and Defaults. Since there may not be any tangible asset which can be used as collateral against potential losses, management of credit and defaults often becomes an issue in the case of Mudharabah. In order to minimize such risk, the capital provider or investor should perform due diligence in respect of the past performance and reputation of the mudharib.

2. Musharakah Financing

The *Musharakah* contract is a partnership between two or more parties in a business or a venture whereby each party may actively contribute the capital and expertise in running the business or venture. The parties agree to contribute the capital and the risks would be borne in accordance with the agreement. Consequently, the profits would be shared in accordance with the agreement based on the composition of capital and expertise and any losses would be shared in accordance with capital contribution. Figure 2 illustrates *Musharakah* financing project.

This partnership 2ntract is a pre-Islamic contract and widely accepted and promoted by the Prophet (pbuh). Musharakah is a hybrid of Shirkah (partnership) and Mudharabah,



combining the act of investment and management. In general, the term *Musharakah* is commonly used to refer to partnership, but there are further sub-classifications of partnerships with respect to the levels of the partners' authority and obligations, and the type of their contributions, i.e., management skills, intangible assets such as patent or goodwill, trading assets, property, equipment, credit worthiness, etc.

Both or more partners choose the business or venture that suitable for their capacity and ability. The partners determine each contribution either capital or other potential contributions in order to a significant the ratio of profit/loss sharing. Before assigning the contract, they must agree with all rights and obligations among the parties in order to avoid the contract disputes. Therefore, the legal contract is very important to regulate the actions that should and should not be done as long as the contract lasts.

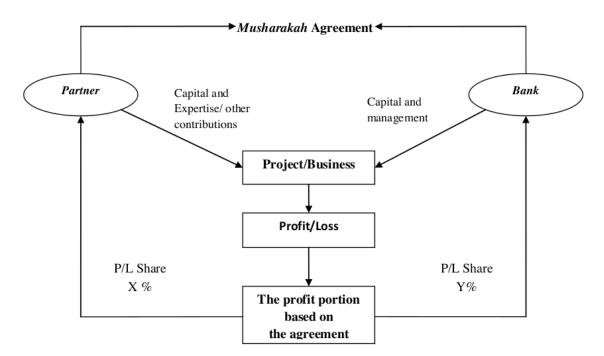


Figure 2. Musharakah Project Financing

Source: Muhammad (2008)

Some distinct features and conditions of *Musharakah* as follows (Khir et al., 2008):

- a. The partnership agreement need not necessarily be formal and written; it can be informal and oral
- b. Every partner is an agent of and for the other, as all the partners benefit from the *Musharakah* business
- c. Every partner enjoys equal rights in all respects, in the absence of any condition to the analysis of the absence of any condition to the absence of any co
- d. Every partner has a right to participate actively in the fairs of *Musharakah* if they so wish. However, in case of formal legal entities such as limited companies and cooperative

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societies, partners delegates their rights to participate in the management to professional managers

- e. The share of every partner in the profits is to be determined as a proportion or percentage and no fix amount can be pre-determined. The ratios or percentage of sharing profits should be pre-determined.
- f. In the case of losses, it shall be borne by the partners according to their contributed capitals. The *Shariah* is very clear that if a party has not invested any capital in the partnership, they are not liable for the loss. This implies that any capital investment is subject to the risk of capital, but any investment of labor or time is limited to the loss of the time invested and the loss of capital is not required to be shared by such.
- g. The Shariah recognizes the limited liability of shareholders in a Mugarakah-based legal entity, such as a joint stock company or a corporation. Shareholders cannot be held liable for more than their share of capital invested
- h. Whereas a partner can withdraw from a partnership after discharging their liabilities as agreed by the partners, a shareholder in a company cannot withdraw from the partnership. Therefore, they can exit the partnership by selling their share to another interested party
- i. The loss during one period is allowed to be carried forward to the next period and to be offset against the profits of the next period, if any. However, until the total losses have been written off, any distribution of profit will be considered as an advance to the partners. Therefore, it is recommended to provide building reserves from profits against the potential future losses

Comparison between Mudharabah and Musharakah

It has to be noted that there are huge differences between *musharakah* and *mudharabah* contracts and they are summarized in the following points (Khir et al., 2008):

- a. Investment: The investment under musharakah comes from all the partners, while under mudharabah, investment is the sole responsibility of the rabbul-mal (investor) and the mudharib (entrepreneur) only offers his skill to run the business.
- b. **Participation in Management:** In *musharakah*, all partners can participate in the management of the business and can work for it, while in *mudharabah*; the *rabbul-mal* has no right to participate in the management which is carried out by the *mudharib* only.
- c. **Profit and Loss Sharing:** In *musharakah*, all partners share the loss to the extent of the ratio of their investment while in *mudharabah*, the loss if any, is suffered by the *rabbul-mal* only, because the *mudharib* does not invest anything. The *mudharib's* loss is restricted to the fact that his labor has gone in vain and his work has not bore any fruits for him. However, the principle is subject to a condition that the *mudharib* has worked with due diligence which is normally required for the business of that type. If he has worked with negligence or has committed dishonesty, he shall be liable for the loss caused by his negligence or misconduct.
- d. **Partner's Liability:** The ability of the partners in *musharakah* is normally unlimited. Therefore, if the liabilities of the business exceed its assets and the business goes into liquidation, all the exceeding liabilities shall be borne pro rata by all the partners. However, if all the partners have agreed that no partner shall incur any debts during the course of business, then the exceeding liabilities shall be borne by that partner alone who has

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incurred a debt on the business in violation of the aforesaid condition. Contrary to this case of *mudharabah*. Here the liability of *Rabbul-mal* is limited to his investment, unless he has permitted the *mudharib* to incur debts on his behalf.

e. **Ownership of Assets:** In *musharakah*, as soon as the partners mix up their capital in a joint pool, all the assets of the *musharakah* become jointly owned by all of them according to the proportion of their respective investment. Therefore, each one of them can benefit from the appreciation in the value of the assets, even if profit has not accrued through sales. The case of *mudharabah* is different. Here all the goods purchased by the *mudharib* are solely owned by the *rabbul-mal*, and the *mudharib* can earn his share in the profit only in case he sells the goods profitably. Therefore, he is not entitled to claim his share in the assets themselves, even if the value has increased.

The Competitive Advantages of Synergy between BMT and SME

Figure 3 illustrates how the synergy between BMTs and SMEs can be done by developing integrated information system between these two sectors that might be implemented either by direct integration (real time and online) or indirectly (off-line). The initial process begins with the starting of *Mudharabah/Musharakah*, where this contract is a form of commercial cooperation based on profit/loss sharing either entirely in capital borne by financial institutions (BMT) or there is sharing of funds from perpetrators of SMEs (Muhammad, 2008).

This partnership requires the commitment of the parties to make sharing information openly and fairly where SME needs to provide periodic reports to BMT. The contrary, BMT has the right to perform confirmation, supervision, and/ consolidation of the financial statements of the business partners of SME. The process is the primary focus in this paper where it will be done digitally through Open Source Software (OSS) that can do important things such as: (a) the calculation of income and expenses are borne by SMEs according to the characteristics of its business; (b) preparing the financial statements of SMEs that can be transferred digitally to BMTs; (c) do business forecasting process in a certain time so that it can be used as a reference for BMT to make up grade/down grade financing, (d) to anticipate risks of business failure SMEs on the characteristics of its business, (e) calculating profit/loss sharing between the two sides that can be directly integrated in BMTs' information systems so that it will result the more valid and reliable information.

Some of the above features are expected to provide a positive impact on institutional development of these two sectors in terms of efficiency, profitability, increase business competitiveness, and particularly the function of BMTs' intermediation would be more effective because more funds are absorbed into the productive sector than consumptive sector. This paper suggest that the SMEs will be more easy to access the capital because the BMTs are becoming trust to the SMEs' management with a real time information. Therefore, the components of collateral are no longer the most important factor in the financing. However, this requires a strong commitment from both parties to conduct technological transformation and improving the quality of human resources.

3. THE NEED FOR ACCOUNTING INFORMATION SYSTEM FOR BMT

SMEs have become an important history in the journey of Indonesian economy because it was able to show toughness in helping this nation out of economic crisis (Rachel, 2009). There

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are at least four (4) the facts to prove this: Firstly, the contribution of SMEs to Gross Domestic Product is able to move and spur the growth of national economy with a contribution of 52.7% or about IDR 2,609.4 billion (BPS, 2008). Secondly, the value of exports of SMEs is increasing because the products of SMEs have local character and culture (Rachmad, 2009). Thirdly, the SMEs have a flexible character, performed by variety lower and middle layers of society due to the ease of access and start up of business. Fourthly, the flexibility of the business with minimum capital that has fueled the spirit of most small and medium-sized communities to attempt to enter the world of SMEs with different variations.

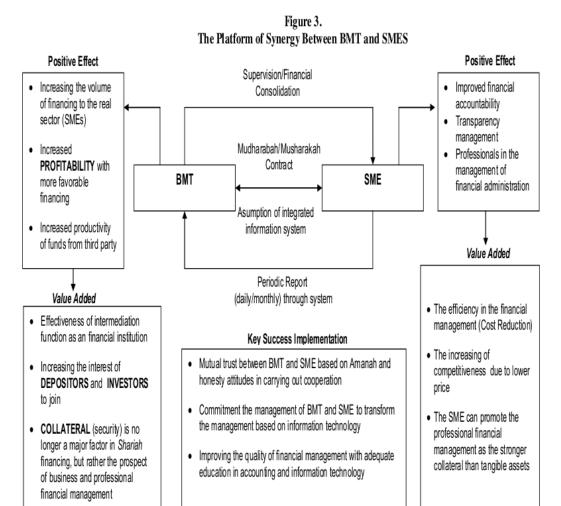
However, Setyari (2007) argued that SMEs are also have problems that very susceptible for their existence in Indonesian economic system, among others: (a) the low quality of human resources who work on SME sector, (b) the low labor productivity has impact to the low salaries and wages, (c) The quality of goods produced is relatively low, (d) the industries employ more women workers than men, (e) the weaknesses of capital structure and lack of access to strengthen their capital structure, (f) the lack of innovation and adoption of new technologies, and (g) the lack of market access to potential markets.

The final two factors that are associated with aspects of capital and technology adoption is a constraint that needs to be solved with the help of other parties such as financial institutions that are responsible for providing funds professionally. Setyari (2007) revealed that the banking professionalism often associated with the provision of funds to bankable SMEs. However, the facts showed that almost 99% of SMEs in Indonesia are not bankable. Thus, the credit analysis could be done by using qualitative methods.

Rachmad (2009) also revealed that up to now, the SMEs are still difficult to access the capital from the financial institutions although the government has promoted the special credit for small and medium entrepreneurs. Another problem is the bank administration procedures and collateral requirements that have been weakened access to capital for SMEs. Even worst that some of them do not have a clear legal entity in which the bank usually makes it into one of the conditions. Finally, the alternative financial institution such as BMT becomes the right choice to solve their problem.

BMT has attracted entrepreneurs of SMEs because it offers financing products that do not use interest rates as its main instrument. BMT uses partnership contracts such as *Mudharabah* or *Musharakah* (Muhammad, 2008). However, those contracts are not easy to implement because its require some conditions that support such as: (a) the orderly process of financial and programs in activities of SMEs to calculate the results of operations, (b) the honesty and mutual trust to reveal the true conditions in the business activities of SMEs; (c) the flexibility to access for BMT into the bookkeeping process of SMEs as a vehicle for financing monitoring, and (d) the discipline to prepare periodic reports.





Some of the things that over burden the SMEs managements such as financial administration because sometime they are accustomed to mix between private and business properties. Thus, it is difficult to identify the real assets of SMEs. Difficulty in obtaining valid information from SMEs make BMT converts the results into a return with a fixed rate. Therefore, it seems that no different than conventional bank interest. This could make a bad effect for Islamic financial institutions since basically they have to promote justice, honesty, and most importantly is the fair calculation of profit and loss based on the real activities.

Therefore, this paper formulates the problems faced by SMEs and BMTs as capital access problems which rely on the weaknesses on the administrative process of financing and financial management by SMEs. One of the reasons is the low level of technology adoption in business processes. In a market survey done by Telkom Indonesia Corp. revealed that recently there are more than 30 million SMEs that still use manual system to handle business processes (Rakyat Merdeka, 19 May 2010). In line with these facts, a research that was done by Wahid and Iswari (2007) found that only 59.6% of SMEs in Yogyakarta have a computer to manage the

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process of business administration. SMEs who have computers use it for typing reports and correspondence (69%), perform simple calculations (66.7%), running the information systems (58.6%), designing the product (43.7%), accessing internet (34,5%), and presentation (20.7%).

4. OPEN SOURCE SOFTWARE (OSS) AS AN ALTERNATIVE SOLLUTION

This paper will offer an alternative solution of developing Accounting Information System (AIS) to facilitate Islamic partnership contracts through the establishment an application based on Open Source Software (OSS) that can be accessed and executed by BMTs and SMEs with easy, relatively cheap and provide more benefits for the institutional development. This solution could be implemented through several steps. *Firstly*, the project officer should prepare the preliminary study to determine the level of technology adoption by SMEs. The results are expected to contribute to the preparation of information system platforms. *Secondly*, the platforms of an information system should be built based on the characteristics and the ability of human resources in BMTs and SMEs. Finally, the information system could be developed by using open source platform with some alternative network architecture such as: Stand-Alone Offline Connection, Client-Server Full-Online Connection, or Web-Based Connection.

Stand Alone Offline Connection is a software development model is only intended to work on the workstation only. Software that is made is not connected between the BMT's computer and Specific somputer, or in other words not integrated programs are made with either through LAN (Local Area Networking), WAN (Wide Area Networking), or MAN (Metropolitan Area Networking). The advantage with this model is the cost of infrastructure provision of cheap because it only requires each computer with a standard qualification and using programming languages like Java OSS. However, the weakness of this model is not dynamic because it still requires a data transfer media such as Flash Disk or Email. Simply put, both individual operators from BMT and SME need to do process partially. After that, they need to consolidate many kinds of data such as financial statements or the performance of SMEs. This is certainly less efficient in his way if the volume is large and complex transactions.

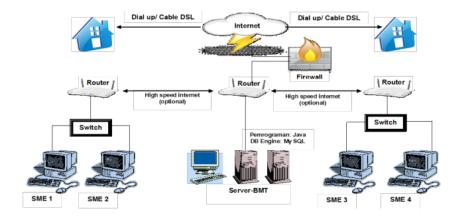
Client-Server Full-Online Connection is a software development model by considering that the BMT's computer and SME's computer will be connected to a network where the BMT's computer as a server and the SME's computer as a client. In this network, the server computer is function as a service center and other client computers requesting service function. As the name implies, Client-Server is a data management division of labor between client and server. Currently, most of the network system is using Client-Server model. Programming language used may be Java and Database Engine is using My SQL. The advantage with this model is the system integration process can be run with dynamic and real time. BMT's computer as a server can control the path to better data exchange and SME's computer as a client computer is able to provide information in real time to BMT's computer. This model technically is the most ideal given the process of information exchange can take place dynamically, safer and easier on the backups because it uses a closed network such as LAN, WAN, or MAN. However, in the provision of necessary infrastructure is a high cost, especially for BMT because the computer server needs special qualifications particularly for the data storages and the operating system NOS (Network Operating Software) such as UNIX, Novell or Windows NT. Another drawback is



the need for human resources with special qualifications to run this system and perform periodic maintenance.

Web-Based Connection is the last possible alternative that creates software which could be uploaded to the internet (Figure 4). The software provider will create a website to facilitate the operators of BMT's and SMEs in the process of information exchange. The website will provide access to the operators of BMTs and SMEs to obtain Open Source Software (OSS) and then installed in each computer. With this model, between BMTs and SMEs make a process of information exchange through the ID given at the time of login in the website. This model enables the operators of BMTs and SMEs to join in a higher level of interaction. Programming language is Java with the Database Engine of My SQL. The advantage of this model is that the cost for manufacturing and procurement portal infrastructure is cheaper than previous model. In addition, The BMTs and SMEs need internet connection to make online interaction process. However, this model has weaknesses in terms of data security since the use of the Internet network will be vulnerable to hacker interference. Another weakness that may occur is if the volume of data more and more in line with the increase of users, it would require a larger storage in the long term.

Figure 4.
The Illustration of Accounting System Framework for BMT under Web-Based Connection



5. CONCLUSION

The development of SMEs in Indonesia has contributed to the national income and the efforts for alleviating the social problems particularly the poverty and unemployment. However, the SMEs are facing so many problems such as the difficulty in accessing capital from the financial institutions. BMTs are the alternative solutions for them to replace the roles of the banks as formal institutions. Both parties could cooperate each other by utilizing partnerships contracts such as *Mudharabah* or *Musharakah*. The main problem in doing that partnership is lacking the administrative documentation and the difficulties in providing valid and reliable financial information from the SMEs due to the low level human resources. This paper propose to develop accounting information system for BMT in order to facilitate the partnership

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contracts by using OSS platform that is more reliable, easy to use, and applicable. However, this concept should be implemented with the strong commitment of management of both sectors to increase their capacity through information technology solution. OSS to facilitate this partnership could enhance the quality of data transfer between them and also the reliability and the validity.

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