THE EFFECT OF BUSINESS AGE, FINANCIAL MANAGEMENT, POTENTIAL INVESTMENT AND INFORMATION TECHNOLOGY ON THE FINANCIAL PERFORMANCE OF SMEs

Theresia Dwi Hastuti¹, Ridwan Sandjaya², Freddy Koeswoyo¹

¹Faculty of Economics and Business, Department of Accounting, Soegijapranata Catholic University, Semarang, Indonesia.
²Faculty of Computer Science, Department of Information System, Soegijapranata Catholic University, Semarang, Indonesia

Abstract.
The development of information technology that is increasingly widespread is very influential on the development of SMEs businesses. A good financial management system enables the company to get big picture about financial performance. Financial statements as a tool for analyze financial performance can provide information about financial position, business development, business performance and company cash flow and can be used as a basis for making economic decisions. Understanding of accounting standards specifically for SMEs can help SMEs in making business decisions. Information technology support and potential investment in SMEs are important factors that can help improve the financial performance of SMEs. Potential investment can be seen from the development of market tastes and reflection on the development of SMEs businesses. Potential investment is also obtained by innovating in production and marketing. The development of the SMEs business is in line with increasing business age. This shows the ability to survive batik business in facing the times and business competition.

This study examines the factors that influence the financial performance of SMEs. using a sample of Lasem batik craftsmen. The development of written batik is strongly supported by local governments which often help its development by promoting the business potential of SMEs batik through exhibitions, and improving the quality of batik produced. Data analysis was performed using multiple regression program which are currently widely used by researchers to test the research model that they formulate.

Keywords: Financial Management, Potential Investment, Information Technology, Financial Performance, SMEs.

1. Introduction

SMEs function as growth engines for national development for most developing countries. Data from the Indonesian Central Statistics Agency shows that, after the economic crisis in Indonesia in 1997-1998, the number of small and medium enterprises (SMEs) did not
decrease, instead it continued to increase, even able to absorb 85 million to 107 million workers until 2012. In that year, the number of companies in Indonesia is 56,539,560 units. Of these, the Small and Medium Enterprises (SMEs) amounted to 56,534,592 units or 99.99%. The rest, around 0.01% or 4,968 units are big companies. The data shows that, SMEs is a very potential market for the financial services industry, especially banks to give financing. That is because about 60 - 70% of SMEs do not yet have access to bank financing.

The government and legislative bodies have proven their concern for SMEs by launching Law No. 20 of 2008 concerning SMEs. With regulations that form the basis of law, SMEs are growing fast. This is because the Law regulates the expansion of funding and facilities by banks and non-bank financial service institutions. However, there are many other problems faced by SMEs and require good managerial skills to overcome various forms of problems. The problem of financial reporting is one of the main factors that inhibits the development of SMEs.

Financial reporting is the process of communicating financial information useful for making investment, credit, and other business decisions (Chiappetta et al., 2009). Financial reporting must be able to ensure information provided to users has good qualitative characteristics including timeliness, accuracy, comparability, reliability, relevance, and understanding. Rapid changes in the business world as a result of increased competition, globalization, and the rapid rate of technological change, making manual systems inadequate in tracking the information needed in the era of competition. On the other hand to improve business performance in the world today, the majority of SMEs engaged in the manufacturing, supplier, retailer, and financial institutions sector have adopted business strategies such as information technology (IT) in achieving their goals. In developing countries where business failure rates are very diverse and high, it may require a coordinated strategy, and IT adoption. Technology, innovation and knowledge have been the main drivers of economic growth. Therefore business organizations must pay considerable attention to these factors.

The financial condition of SMEs is very dependent on the ability of management to manage their finances, therefore the managerial ability of SMEs is very important to maintain business continuity. The management of SMEs is demanded to be able to make

2. Literature Review

2.1 Small and Medium Enterprises (SMEs)

Law No. 20 of 2008 issued by the Indonesian government states that a small company is a business established by individuals or companies that are not subsidiaries or not a branch of a company that is owned and controlled directly and indirectly by the Medium Enterprise. Medium Enterprises is a business that are established by individuals or companies that are not subsidiaries or branch company that is owned, controlled, directly and indirectly by Big Enterprise.

In general, small and medium businesses (SMEs) is a type of business that is privately-established. Including small and medium enterprises are all small and medium traders, small and medium service providers, small and medium farmers and breeders, small-scale
handicrafts and small industries, etc. Classification of companies based on assets and sales value can be seen in the table below.

Table 1: Criteria for MSMEs & Large Enterprises Based on Assets and Turnover

<table>
<thead>
<tr>
<th>BUSINESS SIZE</th>
<th>ASET (Rp)</th>
<th>SALES VALUE (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro Business</td>
<td>&lt;= 50 million</td>
<td>&lt;= 300 million</td>
</tr>
<tr>
<td>Small Business</td>
<td>&gt; 50 million - 500 million</td>
<td>&gt; 300 million – 2.5 billion</td>
</tr>
<tr>
<td>Medium Business</td>
<td>&gt; 500 million – 10 billion</td>
<td>&gt; 2.5 billion – 50 billion</td>
</tr>
<tr>
<td>Big Business</td>
<td>&gt; 10 billion</td>
<td>&gt; 50 billion</td>
</tr>
</tbody>
</table>

Source: Ministry of Cooperatives and Small and Medium Enterprises, 2012

2.2 Business Age

Companies that have been established for a long time certainly have the ability to prepare financial statements better compared to a company that was recently founded. The age of the company shows how long the company has existed, able to compete and take advantage of business opportunities in an economy (Istanti, 2009).

A company that has long been established, probably has a lot of experience gained. In addition, long-established companies certainly have better strategies for staying survive in the future. From the description above, it can be concluded that the age of the company is a period of time for the operation of a company starting from the date of establishment and stated in years. The age of the company can be determined from the date of establishment of the company.

Small businesses tend to perform very well but up to a certain size where they become sluggish. These businesses if they are entrepreneurial tend to perform well and if not, they are more likely to fail than older businesses who are more experienced and better resourced endowed (Urban, 2004). A longitudinal study found that entrepreneurial orientation has positive long-term effects on the growth and financial performance of small firms.

(Alasadi and Abdelrahim, 2007) pointed in their study where business performance was measured in terms of size (number of employees) and sales growth, indicated that when size of firm is used as performance measure, accounting, technology and purchasing were proved significant influential factors. Their study concluded that older firms have poor performance when compared with younger firms. But, (Takahashi, 2009) pointed that bigger businesses can enjoy economies of scale as they are able to exploit available resources better than smaller business. Achieving economies of scale means bigger businesses can produce a larger quantity of outputs with low costs because they have the capacity to access critical resources like business finance. This leads to competitive advantage and better performance.

2.3 Financial Management

Financial management may be defined as planning, organising, directing and controlling the financial activities of an organisation. Financial management also means, the activity concerned with the planning, raising, controlling and administering of funds used in the
business. It is the processes and procedures used by an organisation’s management to exercises financial control and accountability. These measures include recording, verification and timely reporting of transactions that affect revenues, expenditure, assets and liabilities. (Diamond & Khemani, 2005). Most SMEs experience losses and negative cash flows during their startup period. Financial management is very important during this time. Owner must make sure that they have enough cash on hand to pay employees and suppliers even though they have more money going out than coming in during the early months of the business. A good financial management system enables the company to get big picture about financial performance.

2.4 Potential Investment

Investment can be interpreted as investing in an activity that has a relatively long period of time in various business fields. Investments that are invested in a narrow sense in the form of certain projects, whether physical or non-physical, such as factory construction projects, roads, bridges, building construction and research projects, and development. (Kasmir & Jakfar, 2012). Two main classes of investment are (1) Fixed income investment such as bonds, fixed deposits, preference shares, and (2) Variable income investment such as business ownership (equities), or property ownership. In economics, investment means creation of capital or goods capable of producing other goods or services. Expenditure on research and development in intellectual capital.

2.5 Information Technology

Information technology is a set of tools that help you work with information and perform tasks related to information processing. (Haag & Keen, 1996). According to Williams and Sawyer, that the notion of information technology is technology that combines computing (computers) with high-speed communication lines that carry data, voice, and video. (Williams & Sawyer, 2003). Data processing into information can be done manually or by using electronic equipment such as computers. Advances in computer technology have had a tremendous impact on all aspects of business activities. Accounting, of course, is inseparable from these impacts. In a manual accounting system, data as input is processed into information as output by hand. In a computerized accounting system or more commonly called Electronic Data Processing, data as input is also processed into information as output. The advantage that can be clearly seen from the use of this computer is the speed, accuracy, and ease in processing data into accounting information. Computerization has enabled automation of the accounting information systems of business organizations to help streamline processes and brought improvement in efficiency and communication.

2.6 Financial Performance
(Murphy et.al., 1996) examined 51 published entrepreneurial studies using performance as the dependent variable and found that the most commonly considered dimensions of performance were related to efficiency, growth and profit. Efficiency comprises some financial measures like return on investment and return on equity; growth focuses on increase in sales, employees or market share; and profit includes return on sales and net profit margin.

In this study, the sample used is micro and small companies that do not understand accounting standards, and do not have proper accounting records, therefore information about financial statements is not available. The most probable measure for assessing financial performance can only be based on average sales value per year. Average Sales Value per year was measured through the following categories: less than 120 million, less than 300 million, less than 1.2 billion, less than 2.5 billion, more than 2.5 billion.

2.6. Research Model and Hypothesis Development

2.6.1. Research Model

The model in this study can be described in the following scheme:

Fig.1: Research Model

![Research Model Diagram]

Figure.1 describes research model. This study will examine the factors that influence financial performance. We want to test whether the factors of age of the company, financial management, potential investment and information technology affect the financial performance of batik small and medium enterprises in Lasem.

2.6.2. Hypothesis Development
Literature on small business survival suggests that younger businesses in their formative years are more likely to be concerned with survival than growth if they do not fail within the first few years of starting up (Cowling, 2006). Therefore, growth should be observed in more matured businesses which have passed the ‘survival mode’. On the other hand, older firms may also suffer from ‘liabilities of age’, such as the owners’ lower commitment and involvement compared to young firms (Churchill & Lewis, 1983), and a firm’s performance is usually found to be diminishing as the firm ages (Chandler & Hanks, 1993); 1994; (Durand and Coeurderoy, 2001); (Nunes, 2013); (Yasuda, 2005). From a learning perspective, however, business performance is likely to improve as both the firm and entrepreneurs become more aged and thus experienced (Vassilakis, 2008). In this study business age was measured through the following categories: less than 25 years; 26-40 years; 41-55 years; and more than 55 years. Based on the explanation above, we have following hypothesis:

*H1: Business age has a positive effect on the financial performance of Lasem batik SMEs*

Financial Management

In the prior study showed that there is a weak positive relationship between working capital management as a proxy of financial management and financial performance. Good working capital management was demonstrated by the fact that majority of the SMEs studied had bank accounts; use cash budgets to make decisions; have internal control on cash; separates cash duties from other duties; have their management trained on working capital management; and the sales are reconciled with inventory. (Nthenge & Ringera, 2017).

Based on the explanation above, we have following hypothesis:

*H2: Financial management has a positive effect on the financial performance of Lasem Batik SMEs*

Potential Investment

It is a commonly held view that R&D makes a vital contribution to firms’ sales performance, productivity and profit (Griliches, 1988); (Geroski et al., 1993); (Jones, 1995); (Reenen, 1997). Firms invest in R&D in order to enhance their competitiveness and capability to earn profits. (Hesmati and Loof, 2008) found the level of R&D is a good predictor of financial performance of firms, they are far from being able to establish the nature of causal relationships between the key investment and performance variables. R&D is found to be a good predictor of future growth in profit and employment. Batik business is a type of creative business. For creative businesses, continuous innovation is needed to be able to find new colors, new patterns, new production techniques. Therefore the batik business in Lasem needs to invest in research and development

Based on the explanation above, we have following hypothesis: *H3: Potential investment has a positive effect on the financial performance of Lasem batik SMEs*

Information Technology
The relationship between the use of IT and firm performance has widely researched over the recent years. The results have shown a significant and positive correlation between IT and firm performance. (Fouad, 2013) concluded to sum up the constraints of the SMEs sector are often confronted with problems that are uncommon to the larger companies and multi-national corporations. These problems include (1) The difficulty of SMEs to attract good IT personnel. Moreover, good IT personnel are expensive and may not be affordable by most SMEs. (2). Lack of Formal Procedure and Discipline. (Olusola and Oluwaseun, 2013) stated Iinformation technology plays an important role in the increase of productivity and economic activities. IT does not only help in increasing productivity but also quality and make the way business operate less complicated, give time saving, and disclose the new trends of business.

(Tuanmat and Smith, 2011) suggested that SMEs should invest in implementing accounting information systems to be able to compete in a changing environment as market becomes more competitive. Thereby, businesses in different sectors have different information processing needs and different levels of sophistication in their information systems needs (Thong, 1999). Based on the explantion above, we have following hypothesis:

\[ H4: \text{information technology has a positive effect on the financial performance of Lasem batik SMEs} \]

3. Research Methods

3.1. Population and Samples

The population in this study are Lasem batik craftsmen. The sample selection uses a purposive sample method with the criteria: (1) The Craftsmen already have a small or medium-sized company and (2) They are willing to be respondents of this study. The number of samples in this study were 78 Lasem batik craftsmen.

3.2. Descriptive Statistic

Table 2 describe the average age of the respondent's business is in number 2 its means that the respondent's business age is in the range of more than 25 years-40 years. The average value of Financial management is 1.3974 which means that respondent have financial management but it is still very simple. The average potential investment value of 1.3590 means that the potential investment owned by respondents is at a moderate level. The average value of information technology is 1.8846 meaning that respondents have not applied information technology much in their business.

\[ Table2: \text{Descriptive Statisti} \]
4. Result and Discussion

4.1. Coefficient of Determination Analysis

Table 3: Coefficient of Determination

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.606*</td>
<td>.368</td>
<td>.333</td>
<td>.42006</td>
<td>1.856</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), TI, BA, FM, PI
b. Dependent Variable: FP

Source: Processed Secondary Data, 2019

Based on the table above it can be seen that the coefficient of determination shows the Adjusted R Square value of 0.333. This means that variations in business age, financial management, potential investment and information technology on the financial performance of small and medium enterprises are able to explain the changes in the financial performance of SMEs by 33.3%. While the rest can be explained by other variables not examined in this study.

4.2. Fit Test

Model fit test uses the F Statistical Test to examine the effect of business age, financial management, potential investments and information technology on the financial performance of small and medium businesses. It was obtained the F test result of 10.610 with a significance of 0.000, that’s means this research model was fit, it could be used to test the effect of the independent variable on the dependent variable.
4.3. Multiple Regression Testing

The results of multiple regression tests to see the effect of business age, financial management, potential investments and information technology on the financial performance of small and medium-sized businesses can be seen in the table 5. The results of multiple regression tests show that BA (Business Age) and PI (Potential Investment) significantly influence the company's financial performance. While the IT (Information Technology) and FM (Financial Management) variables do not significantly influence the company's financial performance.

These results indicate that the longer a company is established it usually has better financial performance. This is because they have a better understanding of the market and they have a brand that is already well known by the market.

The results also show that companies that are willing to invest in R&D and production machinery will have better financial performance. The results of the production of batik cloth will be easily absorbed by the market. This is because the production of batik cloth is a type of creative business that is largely determined by the colors, patterns, production techniques.

FM (Financial Management) variable does not significantly influence the company’s financial performance, because from the sample data used in this study, most of the batik small entrepreneurs in Lasem have not done financial management and do not have good accounting records. They only record the incoming and outgoing money. Most of them do not even know how to calculate the cost of goods manufactured, gross profit and net profit.

IT variables do not affect the company's financial performance. This is because almost all respondents have not used information technology as a tool in managing their business activities. They still use the manual system in running their business.
Table 5: Multiple Regression Testing

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.726</td>
<td>.169</td>
<td></td>
<td>4.297</td>
<td>.000</td>
</tr>
<tr>
<td>BA</td>
<td>.274</td>
<td>.045</td>
<td>.581</td>
<td>6.140</td>
<td>.000</td>
</tr>
<tr>
<td>FM</td>
<td>-.086</td>
<td>.076</td>
<td>-.118</td>
<td>-1.130</td>
<td>.262</td>
</tr>
<tr>
<td>PI</td>
<td>.227</td>
<td>.081</td>
<td>.310</td>
<td>2.805</td>
<td>.006</td>
</tr>
<tr>
<td>TI</td>
<td>-.119</td>
<td>.079</td>
<td>-.163</td>
<td>-1.505</td>
<td>.137</td>
</tr>
</tbody>
</table>


5. Conclusion and Implications

5.1. Conclusion

The conclusions that can be drawn from this study are: (1) for small and medium-sized enterprises (SMEs), the company's age and willingness to make potential investments greatly affect the company's financial performance. (2) IT support and good financial management in small and medium enterprises (SMEs) do not affect the company's financial performance. This is because most of them have not yet implemented IT support and good financial management. Different research results might be obtained if some of the respondents already use IT support and apply good financial management.

5.2. Implication

The next research can take a more varied sample of companies in terms of utilizing IT support and financial management capabilities. The results of this research can also be the basis for the government or decision makers to start encouraging SMEs to use information technology support in conducting their business, as well as fostering small and medium entrepreneurs in managing their company's finances to become more professional.

Acknowledgment

This paper is the output of research that received funding from the Ministry of Research, Technology and Higher Education of the Republic of Indonesia (abbreviated RI Ministry of Research and Technology). This funding is given to increase the research interest and scientific work of lecturers as one of the three responsibilities of higher education.
References


