

DIGITALIZATION OF ACCOUNTING INFORMATION IMPACT ON MSMEs' PROFITABILITY AND PRODUCTIVITY

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ABSTRACT

This study aims to examine the impact of digitalization of accounting information on MSMEs profitability and productivity. The population in this study was MSMEs in Semarang which were registered at the Cooperative and UMKM Agency of Semarang as of October 2019 totaling 17.010 units. There are 300 cases selected using purposive sampling method with the criteria that the companies use computerize transaction recording and/or utilize smart devices for business communication. The primary data were collected from MSMEs' manager through questionnaire that was distributed in several public events such as exhibition and seminars. The study took the simple regression analysis utilizing SPSS 22.0 software. The findings show that that digitalization of accounting information has significant impacts on increasing profitability. Another finding shows that digitalization of accounting information does not affect the companies' productivity. This research is based on the Technological Acceptance Model (TAM) theory and the Schumpeterian theory. In practice, the results of this study can be socialized to the MSMEs managers so that they can use this to evaluate the implementation of accounting information in their business. This study can also be used by government and others related parties to consider in providing business assistance for MSMEs to improve the impact of digitalization of accounting information

Keyword : Digitalization, Profitability, Productivity

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ABSTRAK

Penelitian ini bertujuan untuk menguji pengaruh digitalisasi informasi akuntansi terhadap profitabilitas dan produktivitas UMKM. Populasi dalam penelitian ini adalah UMKM di Semarang yang terdaftar pada Dinas Koperasi dan UMKM Kota Semarang per Oktober 2019 yang berjumlah 17.010 unit. Terdapat 300 kasus yang dipilih dengan menggunakan metode purposive sampling dengan kriteria perusahaan menggunakan pencatatan transaksi secara komputerisasi dan atau menggunakan perangkat pintar untuk komunikasi bisnis. Data primer diperoleh dari pengelola UMKM melalui kuisioner yang disebarkan di beberapa acara publik seperti pameran dan seminar. Penelitian ini mengambil analisis regresi sederhana dengan menggunakan software SPSS 22.0. Hasil penelitian menunjukkan bahwa digitalisasi informasi akuntansi berdampak signifikan terhadap peningkatan profitabilitas. Temuan lain menunjukkan bahwa digitalisasi informasi akuntansi tidak mempengaruhi produktivitas perusahaan. Penelitian ini mendasarkan pengujian dengan mengaplikasikan teori Technological Acceptance Model (TAM) dan teori Schumpeterian. Dalam prakteknya, hasil penelitian ini dapat disosialisasikan kepada pengelola UMKM agar dapat dimanfaatkan untuk mengevaluasi penerapan informasi akuntansi dalam usahanya. Kajian ini juga dapat dimanfaatkan oleh pemerintah dan pihak terkait lainnya untuk dipertimbangkan dalam memberikan bantuan usaha bagi UMKM guna meningkatkan manfaat dari digitalisasi informasi akuntansi.

Kata Kunci : Digitalisasi, Profitabilitas, Produktivitas

Introduction

The needs the era of the industrial revolution 4.0 provides significant opportunities and challenges to the growth of tje Micro, Small, and Medium

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Enterprises (MSMEs) industry in Indonesia. On one hand, marketing activities is more effective and efficient in order to meet costumers in a wider area with the help of advance technologies (Raymond et al.,2013, and Taipaleenmäki and Ikäheimo 2013). However, it also opens up broader competition among businesses (Raymond et al., 2013). The expanding market and sharp demand fluctuations also requires the companies to prepare its products in any conditions. The above issues challenge MSMEs to improve its performance which includes profitability and productivity. Profitability is needed to convince potential creditors and investors to provide funding, whereas productivity is needed to manage the sales efficiency in order to avoid cost overruns while keeping the product availability in the significant ups and downs of demands.

Along with the technological advancement, efforts have been done by MSMEs managers in increasing performances. Several MSMEs managers decide to switch their conventional way into modern technological system to build information including digitalize the accounting information. Accounting information in MSMEs activities is very important to support business development (Grande et al.,2011). Systematic bookeping and transaction records that bring in a good preparation of financial statement can help managers in making decisions (Alnajjar 2017 and Napitupulu 2018). Accounting information also helps managers in controlling business operation so that it prevents fraud or cost wasting. In addition, creditors and investors also need information of companies' profitability (Margaretha and Supartika 2016, and Yazdanfar 2013) to assess whether a business is feasible to obtain loan and potential to provide expected returns. Clear and complete financial records can be a reference for managers to find out whether all business activities have been carried out effectively and efficiently so that business productivity can be achieved (Sihombing 2018).

Therefore, linking technology and accounting information to be implemented in the MSMEs sector is an interesting issue. As MSMEs criteria that have lower asset value compared to large industries, investment in information technology by MSMEs should be managed appropriately. This research raises the existing phenomena in recent decades faced by MSMEs in various countries, including Indonesia in terms of the implementation of accounting information system. Relying on some previous research, this research tries to develop them with different areas of respondents at different levels and geographic cultures. In addition, differences also occur in the number of respondents and the methods used. In 2010 Research by Grande et al., (2011) have been done through an empirical test toward 74 MSMEs in Spain, that is included as developed countries. They search the relationship between the use of the Accounting Information System and the improvement of company performance and productivity of SMEs in Spain. The results obtained from ANOVA statistic test indicated that there is a positive relationship between the used of AIS by SMEs on performance indicators. However, Grande et al., (2011) did not find the same relationship with productivity. Research related to the implementation of AIS by SMEs in developed countries was also carried out by (Alnajjar, 2017). This study tries to analyze the impact of accounting information systems on management performance and organizational performance. With a total of 74 MSMEs in the

UAE data obtained from the trade, service and manufacturing sectors, regression analysis tests were applied for data analysis. Alnajjar (2017) found that the accounting information system had a significant impact on management performance and organizational performance.

Adebisi and Adekola (2016) and Arendt et al.,(2019) in their research on MSMEs in Nigeria point out that the companies experience serious obstacles in the application of digital accounting due to lack of IT infrastructure, human awareness and human resources. According to Kinitzki et al., (2018), MSMEs managers faced a difficult situation and experienced the significant impact of the digital revolution due to lack competencies in facing the challenges of digital transformation. However, many other companies obtained huge benefits of the use of technology in accounting system as previous studies done by Margaretha and Supartika (2016), Nurhayati and Susanto (2017), Raymond et al., (2013). They found that accounting information systems that have been run comprehensively by large industries are very helpful to generate profits and control production activities more effectively and efficiently. Lim (2013) stated that computerized accounting information systems improve business performance as the result of simplified transaction processes and efficient operations.

Theoretically, this study rely on the theory of Technology of Acceptance Model or known as TAM (Davis 1986) and the theory of schumpeterian (Schumpeter 1939) . In connection with the TAM theory, this study deals with the application of ICT in the MSME accounting system based on the perceived usefulness and ease of use. The more significant the impact of digital accounting on financial performance, the more this technology is utilized. Besides that, the easier it is to use, the more MSMEs implement it (Ogundana et al., 2017). While related to Schumpeterian theory, this study involves one of the innovations supported in the theory related to the application of technological processes in digital accounting at MSMEs. Soininen, (2013) argued that Schumpeterian theory supports the creation of new ideas, novelty, experimentation, and creative processes that can produce new products, services, or technological processes.

As the above explanation, this study aimed to analyze whether digitalization of accounting information has an impact on MSMEs profitability and productivity. Even in the realm of globalization, the advancement of technology and digitalization issue has been existing for so long, still becomes ongoing challenge for MSMEs (Abate, 2019, and Arendt et al., 2019) that need to be discussed more. Consequently, this study is important to add the insight for MSMEs managers and governments as well as other related parties in the effort to keep MSMEs are struggling to face digital revolution era. This study specifically relates the digitalization of accounting information towards ROE and ROE as the benchmark of profitability as well as productivity of MSMEs. Different to the previous study this study was applied to MSMEs in Semarang Indonesia and focused on the digitalization of Accounting Information. In this city, the amount of MSMEs is huge, however the awareness and capability the company that utilizing digital accounting is still very limited. Moreover, there has been very limit study as well that focus on this area related to the digitization of accounting information for MSMEs. The results of this study are expected to contribute to the

development of MSMEs. Practically, MSMEs managers can use this study in order to improve their implementation of digital accounting information. In addition, stakeholders such as government and other related parties can also utilize this study to consider in providing business assistance on technology management for MSMEs so that it can be used more effectively then gives more impact on the performance improvement.

Literature Review

Theory of Technology Acceptance Model (TAM)

The Technology Acceptance Model or known as TAM (Davis 1986) is a derivative of the Theory of Reasoned Action which was first developed by Fishbein and Azjen's (1975). TAM is concerned with predicting the acceptance of a device and the modifications required to make a system acceptable to its users (Davis, 1986, and Davis, 1989). There are two perceptions that become the principle of acceptance in this theory, namely the perception of usefulness and the perception of convenience. The definition of usability in this case is the extent to which a person believes that the use of information systems will improve performance whereas the definition of convenience refers to the extent to which one believes that the use of the system will be easy to follow.

According to Taherdoost (2018), TAM is used in connecting Information and Communication Technology with the MSME Accounting system, in this case, namely the application of digitizing accounting information. Based on the perception of the usefulness of MSMEs to adopt the digitalization of accounting information only if they believe that the decision is useful enough to improve their activity and financial performance. Meanwhile, based on the perception of convenience, the integration of ICT in the accounting information system will be carried out if they think its use will be very easy and at a minimum cost. In Ogundana et al. (2017) observation towards SMEs in Nigeria, most SMEs feel very comfortable using traditional methods of recording accounting so that they do not want change and feel they do not need to adopt the digitization of accounting information

Theory of Schumpeterian

According to Lee et al., (2014), innovation is an important component that reflects the trends of Schumpeterian Theory. This theory supports new ideas, novelty, experimentation, and creative processes that can produce new products, services, or technological processes (Schumpeter 1939) . The implementation of Schumpeterian resulted in the replacement of old components with new, more efficient versions. It is possible that there will be a decrease in demand when the investment in innovation has not been implemented. a decrease in demand will have an impact on the company's balance sheet and the availability of internal finance. As a result, companies that are weak and less efficient in innovating will be forced to lose in the market (Mehmood et al., 2019, and Soininen 2013). The Schumpeterian theory of the MSME industry is applied in all aspects of business activities including the digitized accounting information system. Lee et al., (2014) stated that innovation in an accounting information system that is digitized opens-

up opportunities for information efficiency in every company transaction. With a more efficient flow of information, company staff will receive information more quickly so that performance will be more productive, and more requests will be served.

Digitalization of Accounting Information System

Higher level of uncertainty in the competitive market today challenges company to improve the information system and data processing capacity to survive and deal with competition in the digital era. Such improvement includes digitalizing business information which can provide great benefits on the company's strategies (Taipaleenmäki and Ikäheimo 2013). Nguyen and Nguyen (2020) describes the accounting information system as a system in collecting, recording, storing, and processing data to create information that is useful for making decision. The accounting information system involving people and tools which are designed to convert data both financial and non-financial into information that can be communicated to any type of decision makers (Romney and Steinbart, 2015). While, in terms of digitalization accounting information, Alnajjar (2017) stated that many companies applied online and digital information in their accounting information system for better decision-making.

As MSMEs have limited asset criteria, not all MSMEs are able to implement the digitalization of accounting information in their whole company's activity. Investing in sophisticated digital devices requires a huge cost (Arendt et al., 2019, and Ulas, 2019). Simpler digitalization of accounting information can be applied by MSMEs in any way. Such digitalization can be applied by utilizing company websites/blogs or online technology to distribute information and archive document (Lim 2013, and Taskinsoy 2019). Ulas (2019) explain that utilizing smart devices as the company's Standard Operating Procedure for systemized financial transactions is also one of the implementation of simple digitalization that can be applied with a limited budget. However, it does not rule out the possibility that MSMEs with proficient human resources in utilizing computers or other smart devices will help MSMEs to increasingly develop in this digitalization era (Alnajjar 2017). Investing in accounting information technology will strengthen companies in facing continuous changes.

Profitability

Many researchers discussed the MSMEs profitability in various points of view. It is one of the ratios in measuring business performance and knowingly becomes primary aspect of financial reporting. Margaretha and Supartika (2016) connected the profitability with the company's ability in resulting profit of certain period. Profitability is often used as a judgment consideration to convince investors that the business will continue to survive. Abate (2019) mentioned that poor accounting records and practices were the factors that largely subverted the profitability of MSMEs in Ethiopia.

Managers need to understand the determinant of profitability to develop an effective profitability strategy (Gitman and Zutter 2012). Some determinant such as lagged profit rate, productivity level, firm size and sector effects are considered

