Information Technology Dynamic: Potraying Indonesian SMEs for Quality Financial Report

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Abstract

The study explores how Indonesian SMEs generate their financial statements through the use of information technology. Observations on locally-wisdom SMEs and in-depth interviews with sources of SME financial managers are used to reveal the dynamics of SMEs compiling financial statements with information technology. We found interesting findings that the adoption of locally-wisdom SME information technology implements innovation diffusion theory (IDT) for relative advantage, compatibility, complexity, and trialability and does not implement the UTAUT model. SME with local wisdom adopting information technology does not start from the owner's intention to adopt but rather the intention of financial managers in the application of psychology in the form of pressure from him. The difficulty of managers in obtaining accurate financial information is able to encourage SMEs to apply information technology to help them compile financial statements. Due to the limitations of this study, researchers were unable to conduct Focus Group Discussion (FGD) on the grounds that it is difficult to unite the adoption of
information technology because locally-minded SMEs have their own characteristics and knowledge of different information technology adaptations, so they have a tendency to see the answers of other informants in FGD. This research explores the exploration of SME manufacturing with local wisdom, and further research can explore the adoption of technology in SMEs in the fields of services and trade. Literature on the application of technology in the context of presenting SME financial statements is very rare. Most focus on large businesses and the standard presentation of SME financial statements. This research explores the dynamics of Indonesian SMEs applying technology to produce quality financial statements. The need for information technology to produce quality SME financial statements is the focus of this study.

**Keywords:** SMEs, Financial Report, Information System, Digitalization

1. Introduction

Indonesian SMEs dominate 99.9% of the number of large businesses in Indonesia. SME with local wisdom as one of the characteristics of Indonesian SMEs is very closely related to the culture of the Indonesian nation. The SME uses the cultural wealth and potential of its region in its business. So it has great potential in the global market because its products highlight the richness of local culture by utilizing the potential of their respective regions. To develop their businesses, SMEs need quality financial statements to keep their businesses running well.

Not a few SMEs have difficulty compiling quality financial statements. Limitations of human resources, especially in the field of accounting (Binh et al., 2020; Damak-Ayadi, 2016), in SMEs have become an obstacle, so many Indonesian SMEs consider financial statements not too important (Hasan et al., 2019). To minimize the problem of human resource limitations, SMEs need simpler standards (Scagnelli, 2013) in order to compile financial statements according to their capabilities. The Indonesian Accountants Association (IAI) simplified the standards in 2016 by compiling and issuing Financial Accounting Standards for Micro, Small, and Medium Enterprises (SAK EMKM) to help SMEs compile financial statements that present financial information and SME performance. SAK EMKM regulates general transactions conducted by SMEs on the basis of pure measurement using historical costs. SAK EMKM is also equipped with an illustration example that presents the application of SAK EMKM to make it easier for SMEs to implement SAK EMKM.

However, human resource limitations are still an obstacle for SMEs to compile their financial statements in practice. So that the financial statements produced by SMEs have not met the standards and are prepared based on their internal needs and those of stakeholders. While the importance of compiling quality financial statements is crucial for the sustainability of SMEs, especially during this pandemic where various challenges must be faced by SMEs, even able to endanger the sustainability of their business (Adam et al., 2021). Previous research revealed that human resource competence, regulation (Haliah, 2018), accounting socialization, and information technology (Nuramalia Hasanah et al., 2020) affect the quality of SME financial statements.
Information technology adaptation has increased rapidly due to the COVID-19 pandemic. The number of restrictions to overcome the impact of pandemics makes the development of information technology experience significant progress. Currently, SMEs are required to adapt to technology to save the business economy quickly. Investing in information technology can increase productivity. Before the pandemic, 41.6% of SMEs in Central Java Province adopted information technology (Astutie, 2016) to provide quality financial statements (Damak-Ayadi, 2016). Although there are Indonesian SMEs that do not apply information technology due to financial borders, knowledge, or the availability of information systems that suit their needs (Restianto et al., 2019), this proves that the intention of SMEs to adopt technology has been around for a long time and is becoming stronger. Niat UKM adopting information technology in financial reporting supported by government policies and technological competence (Gusaptono et al., 2012) will be able to spur the economic growth of Indonesian SMEs (Mukhtar et al., 2020) through the performance of SME management and finance (Ardiansah et al., 2021). However, it will not affect financial performance (Hastuti et al., 2021).

Regarding its effect on the quality of financial statements, the use of information technology must be efficient. Inefficient technology with poor quality and reliability (Musa et al., 2019) is becoming an information technology adoption challenge for SMEs. The process of information technology adoption is an individual stage for SMEs in deciding the use of technology. During this time, research on the adoption of information technology in financial reporting discusses technology adoption at the organizational level or technology owned by the organization. Previous research discussed the impact of computer accounting information systems (CAIS) through balanced scorecards (A. S. S. Abdulle et al., 2019), cloud-based accounting information systems (Pramuka et al., 2020a), the information technology (IT) adoption process, and e-readiness to use (Gusaptono et al., 2012).

In addition, the acceptance and use of information technology in the organizational context is mandatory, while involuntary behavior is not. Lacking a review of the adoption of information technology to produce quality financial statements at the individual level, this research uses qualitative methods to find out the dynamics of SME information technology adoption to produce quality financial statements. Based on the description above, the question arises about how the dynamics of individuals in SMEs respond to information technology. The focus of this research is to find out the dynamics of the adoption of locally wise SME information technology in producing quality financial statements because its business products are closely related to the culture of the Indonesian nation.

2. Literature Review

SMEs Local Wisdom

Local wisdom is basic knowledge related to cultural heritage (Nakorntap et al., 1996). Historical investigations show that Indonesia has a wide range of cultural heritages reflected in various local wisdom. Local wisdom is formed by the cultural advantage of the local community as well as general geographical conditions. Local wisdom produces a past cultural product that SMEs can utilize to develop local potential.
SME products with local wisdom can control local culture, which is an advantage. SMEs can be flexible but not easily absorb outside influences and combine indigenous culture with outside culture. Excellent market response is found in locally-wisdom SMEs. So that locally-wisdom SMEs are required to enter the digital ecosystem in their business processes. The value of local wisdom in SMEs provides positive value for individuals in them and the development of SMEs. With Indonesia's richness of local culture and regional potential, business opportunities are still wide open for MSMEs. Mastery of digital technology and expertise in managing business are two critical aspects of successfully developing business in the pandemic era. Indonesia has local wisdom, a hereditary culture attached to the local culture.

**Adoption of Technology**

Information technology's adoption and diffusion behavior refer to the Theory of Reasoned Action (TRA) developed by Fishbein and Ajzen in 1975. TRA explains that intention influences a person's decision to adopt information technology. In 1989, Davis developed a TRA called the Technology Acceptance Model (TAM). TAM adds two constructs, perceived ease of use and usefulness, as determinants of a person's attitude towards intention and use behavior. Then TRA is improved through the Theory of Planned Behavior (TPB) (Ajzen, 1991), which provides constructs of perceived behavioral control as a determinant of one's behavior in adopting information technology.

Innovation Diffusion Theory (IDT) is a model used to measure the acceptance of technology based on the absorption of innovation. This model has the following main variables (Karahanna et al., 1999), namely: a) Relative Advantage, which shows the acceptance of innovation based on its function, namely that new technology is more valuable than the previous technology; b) Image, i.e., the use of technology or innovation because it can improve a person's status; c) Compatibility, which is the use of technological innovation because it is the work of the person; d) Complexity. The use of technological innovation is based on the level of ease in the use of technology; e) trialability is the extent to which the user can try technological innovation until the user determines whether to use or reject the technology; f) visibility is the use of technology because the technology is available in the company; and resulting demonstrability is the acceptance of technology that shows the extent to which technology can be communicated to others.

The following review was conducted to produce the Unified Theory of Acceptance and Use of Technology (UTAUT) with four key constructs of the intention to use technology, namely performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh et al., 2003). Although UTAUT is quite reliable in understanding the acceptance and use of technology by employees, it is still an important factor in consumer use of technology. So that three constructs that modify the concept of UTAUT by adjusting the context of consumer use called the UTAUT model (Venkatesh et al., 2012) include hedonic motivation, price value, and habit.
In the Musa et al. (2013) study, the UTAUT model was used to test the intent of using cloud accounting in SMEs in Malaysia. The study combined perceptions of security with UTAUT because it found that data security was the main problem preventing SMEs from adopting cloud accounting. Furthermore, the perception of usability, ease of use, and credibility positively influence the attitude of SMEs towards cloud-based accounting information systems until SMEs intend to adopt information technology (Pramuka et al., 2020).

**Accounting Information Technology**

SMEs are considered significant to the economy, and they are encouraged to improve their business performance to maintain their business development by improving accounting information systems (Ibrahim et al., 2020). Accounting information systems play an essential role in operational processes and business activities (Lipi et al., 2015) to improve performance (Alshirah et al., 2021). The critical role of accounting information systems in operational processes is realized in presenting financial statements to support SME decisions. Due to the critical role of accounting information systems, SMEs require a thorough evaluation before using them. This is intended so that SMEs can use critical information systems. Attitudes towards the use of accounting information systems will determine the intention of SMEs to adopt them (Pramuka et al., 2020).

One of the applications and adaptations of accounting information systems is made through computers. The application and adaptation of the enabling accounting system in SMEs enable management and owners to improve decision-making, internal control, and financial information, and enable financial reporting processes to be designed and processed according to standards and on time. The inefficient use of information to support financial decision-making and the poor quality and reliability of financial information are two of the main challenges facing SMEs (A. S. Abdulle et al., 2019). Security accounting information systems affect the quality of financial data, but inputs from accounting information systems do not affect financial data quality (Al-Dalabih, 2018).

**3. Method**

Through every stage of John Creswell's qualitative research (2008), this research has problem identification, literature review, determination of research objectives, data collection, data analysis, and reporting. This research began by identifying problems related to the financial reporting of locally knowledgeable SMEs and implementing information technology in their preparation. This is important because researchers did not find research related to exploring the dynamics of the application of information technology in locally wise SME financial statements with qualitative approaches.

Therefore, this study selected sources based on the internal and external business and technological environment, organizational readiness and trading partner support, financial impact, and workflow productivity (Khazanchi, 2005). Naturalistic approaches are used to learn about the processes of SMEs in the social world derived from human intentions, interpretations, and meanings (Tomkin and Groves, 1983). This research aims to understand how SME financial
reporting practices are structured using interpretive paradigms to support information technology. The subjective experience of SME financial managers makes this study adopt inter-subjective epistemology and ontological beliefs under socially constructed reality (Wiyarni, 2017).

The total population of MSMEs in Banyumas Regency is 8,555 MSME units. In qualitative research, the number of samples is not too large because it aims to analyze a phenomenon or event more deeply. In addition, it is also due to the data collection method, which requires a long time, so it is not possible to take too many samples. This is in accordance with the opinion of Basri (2014) that in qualitative research, the number of samples is small, does not represent the population, and is idiosyncratic, which is unique and individual. The determination of the research sample was carried out based on the availability of SMEs because the research topic was related to accounting and financial fields, which were considered confidential information from the company.

A financial manager became a source in this study because he understood finance in SME batik Banyumas, who have local wisdom. Semi-structured interviews start with the issues covered in the interview guidelines (Holloway & Wheeler, 1996) within two hours, five times at work, so that the interview is natural and effective. Question sequences depend on the interview process and the respondent's answers. Interview guidelines include: How did it start before adopting information technology? How is the state of financial records applied before using information technology? How do you implement information technology? How, after using information technology? What motivates you to use information technology? Is there any development felt from implementing this IT? How is information technology implemented here? Data analysis is done by organizing, coding, synthesizing, and looking for emerging patterns. This analysis aims to find what SMEs need for the implementation of digital financial reporting.

4. Results
The participant was a locally-wisdom SME financial manager in Banyumas Regency, Indonesia. The financial manager has the best understanding of finance, according to the owner of SMEs, and the dynamics of the application of information technology to financial reporting in SMEs. Financial managers also act as users of information technology. Researchers interact directly with financial managers at their workplaces to conduct interviews and create comfortable conditions for informants.

The results of interviews with participants explain how SMEs were before adopting information technology in preparing financial statements.

At that time, the owner was still using traditional methods and had not used any applications in preparing financial reports because he did not want to bother. So they still use notes; if there are goods in and goods out, they don’t count. In addition, those who are related to suppliers of goods in and out know only the warehouse.

The process of preparing financial reports is still done traditionally using notes, without utilizing digital applications or systems. There are obstacles to recording incoming and outgoing goods,
causing inaccuracies in calculations. In addition, information about incoming and outgoing goods and relationships with suppliers is only known by the warehouse department, indicating limited access to information between departments. This suggests there is potential for errors or a lack of control in inventory management and financial recording due to the use of traditional methods.

The next aspect that emerged from the interviews was the application of Information technology by finance managers.

I slowly gave input that we need barcodes, need to count the stock of goods, and how goods go in and out. The preparation of financial reports is done in general first, then additional additions are included.

There is an awareness and understanding that improved record-keeping systems are needed. The finance manager is trying to improve efficiency and accuracy in inventory management and financial statement preparation by considering the use of barcodes and improved recording processes.

The impact of using information technology in preparing financial statements further emerged from the interview results.

Now that there is a system, I can control why and where items are lost. The work that I am responsible for has also become easier to do. For recording incoming goods, there is already a barcode, and daily sales records are automatically generated; I only need to print them.

The implementation of information technology has provided tangible benefits in optimizing inventory control, simplifying work, and increasing efficiency in recording and reporting, especially in terms of recording daily sales and inventory using barcode technology. This finding supports research (Legina & Sofia, 2020), which shows that the application of information technology in the form of accounting software provides significant benefits for SMEs, especially in aspects of security, data accuracy, time efficiency, and data accessibility.

The next aspect of motivation to apply Information technology emerged from the interviews.

Because owners usually want real-time reports. Application providers also update continuously if there are improvements. In addition, because the warehouse is managed by the head of the warehouse, Suppliers have a lot of contact with the warehouse department; the flow of goods in and out is known only to the warehouse department, so without my system, the management does not have access control.

The need for a system that can present information quickly and accurately and can improve management control and visibility of warehouse operations is a motivation for financial managers to implement information technology.

All of the data from this study is outlined based on the initial focus before and after adopting information technology. The results of observations and literature studies obtained interesting findings: before adopting information technology, the characteristics of SME owners are reflected in their attitudes toward risk, causing SMEs not to adopt information technology. The owner said, “I don’t want to be dizzy,” which meant he did not risk adopting information technology. So that the adoption of locally resourced SME technology is not initiated, but the
owner of SMEs does not have a carrying capacity factor that is human resources that can support the adoption of technology.

Furthermore, the application of psychology is the direct pressure on the mental process SME owners go through to accept technology adoption. The stages of mental processes that SME owners go through, from hearing something to accepting technology adoption, include awareness, interest, and adoption (Sudarno & Rietveld, 1987). The financial manager stated, “So slowly I gave input that we need barcodes, need to calculate the stock of goods, goods in and out.” Financial managers are trying to raise the owner’s awareness of the need for technology to calculate the stock of goods. Based on the input given by his financial manager slowly, locally-wisdom SME owners felt interested and decided to adopt information technology.

The adoption of Information technology has led to the ease of use of information technology (expectancy), one of the constructs in UTAUT. The financial manager stated, “Yes, the important thing now is that my job is easier to work on. The entrance item has a barcode, and there is a sale. I live-printed the design of the sale today; the missing goods can be controlled by why and where.” With the adoption of information technology, financial managers feel helped because reports on sales transactions become presented effectively and efficiently and can control goods so that there is no difference between stock recording and reality.

On the side of the SME owner, he stated that with the application of information technology, “I do not want to bother; just ask for a report from my financial manager only.” Ease of adoption of financial information technology, implemented in the ease of accessing financial statements in real-time to financial managers without SME owners needing to implement the technology. So it is concluded that the owner is not affected by his business environment to use the technology. The social influence aspect developed in UTAUT (Venkatesh et al., 2003) does not support SME owners in adopting information technology.

Inequality means the adoption of information technology by financial managers and SME owners occurs due to inequality in terms of the age of both. The context of adoption by financial managers is information technology and ease of work due to the adoption of information technology. However, for older SME owners, the adoption of technology is only meant by the ease of access to data it receives when asking for real-time financial statements, and the use of information technology can improve the quality of life (Francis et al., 2019).

5. Discussion
We found an interesting finding: the adoption of locally informed SME information technology only begins with the intention of financial managers to adopt information technology. In addition, the study further implemented innovation diffusion theory (IDT) on variables of relative advantage, compatibility, complexity, and trial ability (Karahanna et al., 1999) and did not implement the UTAUT model. Relative advantages show that adopting information technology is more beneficial compared to traditional technology. In addition, the owner chose compatibility in the adoption of information technology because there is a conformity to the expansion of financial information technology that financial managers will use. Complexity is applied to the ease felt by financial managers in the adoption of information technology.
The decision to determine the choice of technology is influenced by individual factors (the personalities of SME owners), carrying capacity factors, and situational factors. It can be concluded that the adoption of information technology is influenced by: business scale, characteristics of SME owners (age and attitude toward risk of financial capability), and psychological factors of recipients of technology adoption, in this case, financial managers. The role of SME financial managers influences the use of information technology to produce quality SME financial statements. The difficulty managers have in obtaining accurate financial information can encourage SMEs to apply information technology to help them compile financial statements. The value of the local wisdom of SMEs contributes significantly to the adoption of information technology to produce quality financial statements. The dynamics of information technology adoption in locally resourced SMEs require the role of human resources in finance. The difficulty of compiling financial statements can encourage SMEs to adopt the technology.

Due to the limitations of this study, researchers were unable to conduct a focus group discussion (FGD) because it is difficult to unite the adoption of information technology because locally-minded SMEs have their own characteristics and knowledge of different information technology adaptations, so they tend to see the answers of other informants in FGD. This research explores the exploration of SME manufacturing with local wisdom, and further research can explore the adoption of technology in SMEs in the fields of services and trade.

The makers of information systems (consultants) can help SMEs gain various knowledge by using various knowledge-sharing mechanisms. Since consultants are an essential part of the SME knowledge creation process, SMEs should strive to form long-term relationships with consultants and use these interactions to develop IT knowledge in SMEs (Bradshaw et al., 2015).

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