FACTORS INFLUENCING THE PERCEPTION OF TECHNOLOGY FIT IN MSMEs' TECHNOLOGY ADOPTION PROCESS

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ABSTRACT

This study aims to understand how micro, small, and medium enterprises perceive technology to decide whether or not to adopt it in their business. An in depth exploratory interview is conducted with each of the 12 participants. The results are then interpreted to understand them entirely while the findings are then categorized into a framework. This study finds that word of mouth, observations of peers, personal knowledge, and cross-generational interaction influence the perception on whether or not certain technology is fit for adoption. Meanwhile, safety, time, automation, opportunity, reliability, risk of malfunction, and ease of use are factors that are mostly perceived by users. This research is limited to understanding what the variables in the perception process are. Further research to test the validity in a large scale quantitatively is recommended for subsequent research.

Keywords: *Micro Small and Medium Enterprises (MSMEs); Digital Technology; Technology Adoption Process; Perception Factors; Technology Fit*

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INTRODUCTION

Micro, Small, and Medium Economies (MSMEs) are significant elements in the Indonesian economy and, by putting more than 7,034.1 trillion Rupiah into the economy, has contributed at least 61% of Indonesia's GDP in 2020 (Bank Indonesia [BI], 2020). These 3 categories make up 99.99% of the total number of Indonesian enterprises, absorbing more than 96% of employment in the country as reported by Asian Development Bank (ADB, 2022). According to the Ministry of Cooperatives and SMEs of The Republic of Indonesia (Kementerian Koperasi dan UKM, 2019), the government recorded 63.4 million micro businesses, 783.1 thousand small businesses, and 60.7 thousand medium businesses. Over the years, this number continues to grow. With such large numbers, the successfulness and continuity of these MSMEs are vital to the country's economic development and stability (Bank Indonesia [BI], 2020). Most businesses operate from Java. 37.5% F&B followed by woodwork and craft, followed by clothing.

The Central Bank states in a 2020 report that digitalization plays an essential role in accelerating the development of MSMEs. Some advantages that businesses may obtain through digitalization include access to markets, strengthened supply chain, access to financing and payment systems, and flexibility of operations during times of crisis such as the COVID-19 pandemic (BI, 2020). Studies have also shown that technological assistance benefits businesses by increasing productivity in ways such as reducing workload and costs, reducing time needed to perform tasks, giving aid in decision making, and allowing for integration (Surya et al., 2022).

Despite their advantage, the Center for Statistics (Badan Pusat Statistik [BPS], 2021) shows that only 25.92% of businesses in Indonesia utilize digital technology in their business operation, 75% of which are in the island of Java. The numbers are dominated by conventional businesses using mainly messaging services and social media in their operation (BPS, 2021). With more than 53% of the population connected to the internet, the number of businesses utilizing the internet of things are considerably low. With such reality, understanding how technologies are adopted and used by MSMEs are essential to ensure that existing and emerging technologies can effectively be adopted.

Studies that have been done, such as those by Pingali et. al. (2023), Telukdarie et. al. (2023), and Lee et. al. (2020) has attempted to explain the driving factors behind technology adoption and readiness among MSMEs. However, these studies have yet to explain the compatibility between technologies and their users, and how these affect each other. To understand compatibility, an understanding of how business operators perceive technology is essential. The task technology fit model explains that there are elements or factors known as the precursors of utilization which depend on users' perception of their surroundings, including the technology they use or intend to use (Goodhue and Thompson, 1998 as cited in Purnomo, 2011).

Perception plays a significant role in decision making, especially in a business or economic context. Although many different approaches differ in their explanation on how perception works in affecting action, its importance is shown in all their framework (Creem-Regehr & Kunz, 2010). A comparison of all Response Hierarchy Models – the AIDA Model; the Hierarchy of Effects Model; the Innovation Adoption Model, and the Communications Model (Kotler, 1984; Lavidge et al., 2000; Rogers, 2010; Vakratsas and Ambler, 1999) – shows a similarity in how they all conveyed that people's perception are part of their decision making process (Kotler, 1984; Lavidge et al., 2000; Rogers, 2010; Vakratsas and Ambler, 1999, as cited in Montazeribarforoushi et al., 2017). In fact, many researches, such as those by Akwang (2021) and Amadi-Echendu (2015), use perception to understand technology acceptance in many situations. Understanding individual

perceptions of business owners towards the technology they use or not use may unlock a clearer understanding of how they view their business and how technology may or may not help them.

This research aims at understanding what factors lead to MSMEs' perception of fit between their business and the adoption of technologies.

LITERATURE REVIEW

In trying to understand how the technology adoption process works, theories tracing back to Goodhue and Thompson's (1995) task-technology fit (TTF) model can be used. However, through time, this model has been refined into forming a unified theory of fit, as addressed by Davern (2007). Davern's Unified Theory of Fit provides a foundational framework of analyzing the process of technology adoption.

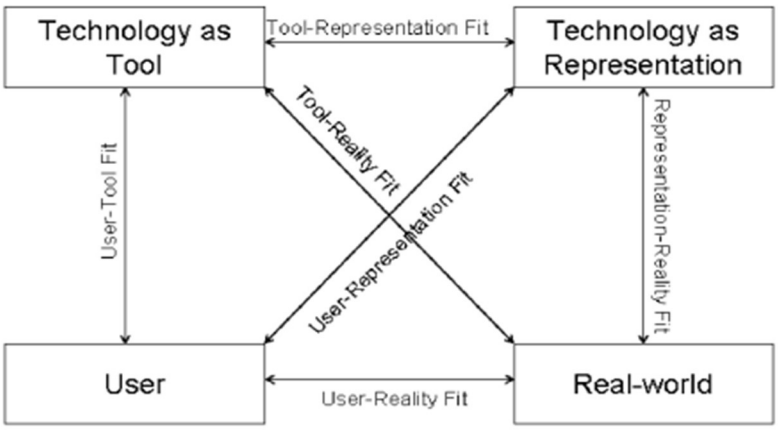
Fit is defined here by Goodhue in his 1995 theory (as cited in Davern, 2007) as having a match between task requirements and individual abilities. While there are various factors involved in relating those two aspects, 3 core components are consistently present. These 3 components are the task, the technology, and the individual characteristics.

Task is defined in the unified theory following Wood's 1986 theory (as cited in Davern, 2007). Task consists of ends, which are called products, as well as means that consist of required acts and information cues. The required acts and information cues are 2 elements which lead to the fulfillment of the products. Meanwhile, the task itself can be further categorized into 3 hierarchical categories. The fundamental goal and condition of a certain task is known as the substantive task. This is the first category. Making a part of the substantive task are a set of objectives, which when completed, will fulfill the substantive task. These are known as modeling tasks, the second category. In order for each modeling task to be completed, sets of procedures are required to be completed. These make up the third category known as operational tasks (Davern, 2007).

Technology is defined in the unified theory following Wand and Webber's 1990 theory (as cited in Davern, 2007) which defines it in two perspectives. The first definition views technology as a 'tool', meaning that technology acts as an interface when manipulating tasks. On the other hand, the second perspective defines technology as 'representation'. This views technology as the model that can be used to resolve a certain task.

The individual user is defined as the agent in relation to the task and technology. Newell's 1982 research (as cited in, Davern, 2007) focuses specifically on the individual behavior of the agent. How an agent interacts with tasks and technology will be discussed further later in the section.

Going back to the definition of fit, Davern (2007) constructed a dichotomy between the user, the technology, and the world (task). The model is visualized as follows.

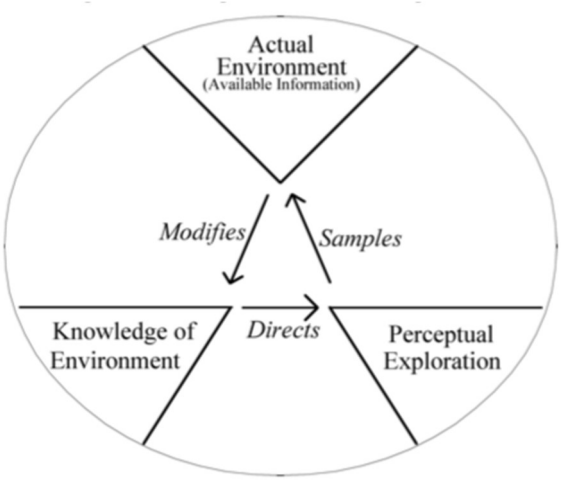


Source: Davern, 2007

Figure 1
Taxonomy of Fit

Positioning the user as the subject agent, 3 relations of fit are formed, namely user-reality fit, user-representation fit, and user-tool fit. User-reality fit exists when the substantive real world tasks and the user's knowledge and abilities correspond. This means that there is no necessary need for technological assistance in achieving the task.

While this gives a framework on how agent, task, and technology interact, it lacks the explanation of how the agent makes the decision. To answer that, Neisser's 1976 perceptual cycle model (as cited in Davern, 2007) is used to allow the exploration of the decision making process. Neisser's model explains that 3 elements interact in the agent's decision making process. Through perceptual exploration, the agent samples the actual environment. At the same time, knowledge of the environment directs perception, while available information regarding the environment modifies the knowledge of the environment.



Source: Neisser, 1976, as cited in Davern, 2007

Figure 2
Neisser's Perceptual Cycle Model

The question remains on how agents derive certain perceptions, or in Neisser's terminology, where this 'available information' comes from. The theory of reasoned action (Hafer, 1980, as cited in Peter & Olson, 2010) provides an explanation that relevant referents are key sources of information that impact judgment. These relevant referents

may come from various sources including personal beliefs, observations of others, word of mouth, and the social environment. In the context of MSMEs in Indonesia, the word-of-mouth factor and generational influence are worth discussing. The former is a common concept used mainly in marketing argued to have great impact on awareness and purchase (Peter & Olson, 2010). The latter, meanwhile, have a significant impact for businesses (Poza, 2010). This is especially true in an ecosystem such as Indonesia, where cross generational family businesses are common.

The concept of word of mouth emerged as early as the 1950s with experts such as Brooks (1957) explaining how 'word of mouth' plays an important role by enabling potential buyers to substitute the process of trial by experience in their decision making process. Aarikka-Stenroos & Makkonen (2014) discusses further this decision making process. According to their research, experience-based information is an essential part of a customer decision making process. However, this information can be difficult to obtain from sellers. In order to obtain sufficient information for buyer's decision making, word of mouth becomes their key source of reference for such information. The credibility of the sender of information, combined with the receiver's prior knowledge, the strength of their relation, the strength of the message, as well as the situation the subjects are in, all play a key role in influencing the receiver into making a decision (Sweeney et al. 2008).

While most research mainly focuses on three themes: generation, usage, and reference marketing (Ishii & Kikumori, 2023), no research regarding word of mouth has specifically discussed situations in the context of technology adoption. Moreover, it has also not discussed the possibility of a consumer-to-business and employee-to-business relation, which may become a possibility in a technology adoption in business context.

In regard to generational influence on agents' perception, research has shown that past generations do influence the behaviors of future generations, including in the context of technology adoption. This becomes more significant in businesses that have gone through multigenerational changes in management. Every generation holds different perceptions on values and knowledge, which then affects decisions to whether or not adopt certain technologies (Magrelli et al., 2022).

Studies have also found that intergeneration perception differs in several ways, namely, perception of value, relevance to past experiences, and lifestyle fit tends to affect earlier generations most. On the other hand, younger generations tend to be more concerned with value, compared to others (Lee & Coughlin, 2015).

Factors that affect perception towards technology are value, accessibility, usability, experience, affordability, social support, and emotion (Lee & Coughlin, 2015). These are consistent with what has been explored in businesses. Factors relating to the tasks and user can be classified into two distinct categories: internal factor and external factor (Dholakia & Kshetri, 2004). Internal factors are factors relating to the firm's or operator's capabilities in the given context. In the context of technology, this means the ability to understand and utilize technology in such manners that is beneficial to the business (Taiminen & Karjaluoto, 2014). Resource-related factors can be included in this category. However, resource related factors specifically touch on the matters of human resources, financial resources, and technological resources (Karjaluoto & Huhtamäki, 2010). Adding to these factors are external factors. These are factors which the firm or operators are not able to control. However, they play a role in affecting the behaviors and actions of businesses. This may include factors such as competition and markets (Taiminen & Karjaluoto, 2014). In much more detail, these factors may include business factors, marketing factors, constraint factors, entrepreneurial factors, and firm factors. As

mentioned in the research by Martini et al. (2023), these factors play a role in whether or not technology adoption fits the business.

It is also worth mentioning that there are several significant perceived things that impact the decision of individuals and businesses to or not to adopt technologies into their system. These factors, as pointed out in Ghobakhloo and Tang's 2013 study (as cited in Utami et al., 2019), are perceived benefits, perceived compatibility, perceived risks, perceived costs, and perceived innovativeness. Their definitions are self-explanatory. Perceived ease of use is another significant factor in technology acceptance. Defined as the degree to which a person believes that using a particular system would be free of effort, the function between perceived ease of use and the perceived benefits received from adopting certain technology is argued to be the determinant of technology adoption (Davis, 1989 as cited in He et al., 2018). In essence, agents' perception plays a significant role in determining whether or not businesses adopt technologies. Understanding these factors can be beneficial in understanding how agents' perception is formed and how it leads to technology adoption.

METHOD

Research Design

This research employs the qualitative methodology which, in Jennings' (2005) definition, uses interpretative social sciences approaches to study the business-related phenomenon in their entirety and complexity. The interpretive social science approach focuses on description and understanding the human interactions and processes that constitute real-life organizational settings (Gephart, 2004). We use this method to better understand how business operators perceive digital technology as fit to their tasks and decide to adopt them into their operations.

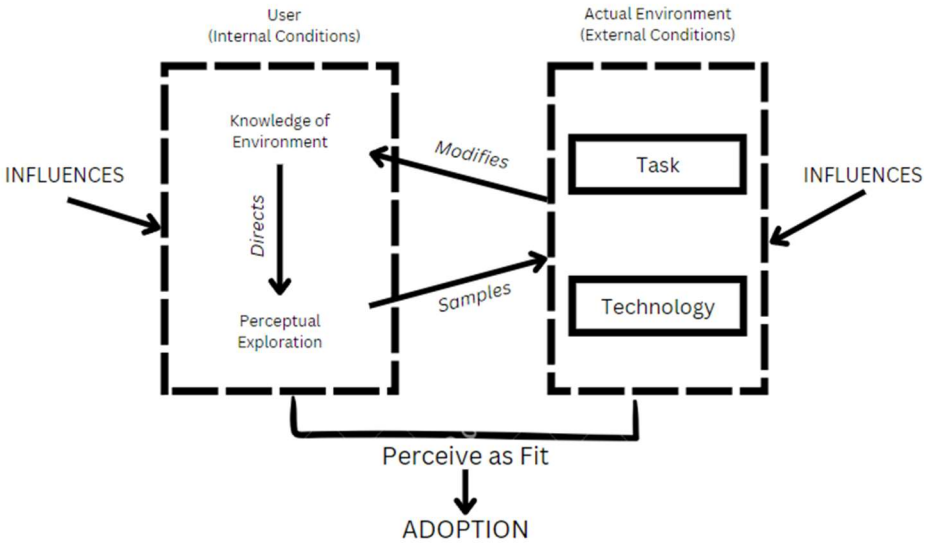


Figure 3
Research Framework

Existing theories have given us the framework to understand the interaction between users, technology, and tasks that build up the concept of Fit. Using that framework, we intend to investigate specifically the user's knowledge and perception in order to find factors that influence their decision to or not to adopt technology.

In order to categorize our findings, we use the classification by Dholakia & Ksheri (2024) which categorize factors influencing adoption into external and internal factors. We further detail the categorization by looking into factors classified by Martini et. al. (2023).

Our main goal is to understand the perception and decision making process of business owners regarding tasks and technology that, if deemed fit, would result in adoption. We categorize those findings as influences in this framework.

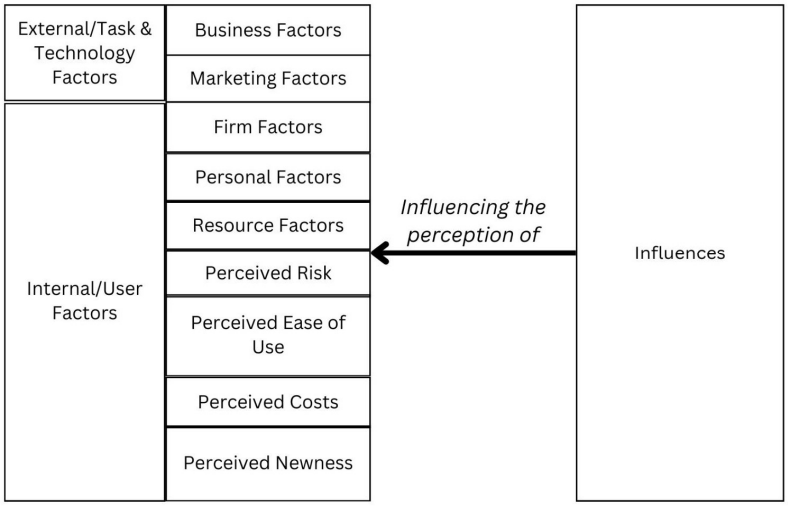


Figure 4
Research Design

Case Selection

Exploratory interviews are conducted with 12 informants whose businesses are classified as micro, small, or medium. MSMEs were chosen based on the business sector they run, that is the food and beverage sectors and the textile and clothing sectors – two sectors with the highest percentage of business share among MSMEs in Indonesia (Lembaga Pengembangan Perbankan Indonesia & Bank Indonesia, 2015). We expect that by focusing on these sectors, the selected MSMEs can represent the situation of MSMEs in general.

The businesses chosen are businesses which the researchers have direct access to the product, as well as direct interactions with the business' operators. We also ensure the validity of the businesses by looking at their shop site business contact. Of all the businesses chosen for this research, we select both, businesses that have adopted certain technology into their operations, as well as those that have not yet done so. This is done specifically to ensure that the data collected represents all elements and point of view, reducing the possibility for bias. Table 1 provides information regarding the businesses.

Table 1
Business Information

Business	Interviewee Position	Product Sector	Business Classification	City/Region	Year
BTT	Owner	Textile & Clothing	Medium	Jakarta	2022
GB	Owner	Textile & Clothing	Medium	Jakarta	2021
RH	Co-Founder	Textile & Clothing	Micro	East Nusa Tenggara	2021
RC	Manager	Food & Beverage	Small	Jakarta	2021
BKC	Owner	Food & Beverage	Micro	Jakarta	2017
JD	Owner	Textile & Clothing	Micro	Bandung	2018
RBW	Employee	Food & Beverage	Medium	Jakarta	1992
CCG	Owner	Food & Beverage	Small	Solo	2021
KI	Administrator	Food & Beverage	Medium	Bandung	2019
LH	Owner	Food & Beverage	Small	Jakarta	2019
ST	Owner	Textile & Clothing	Medium	Bandung	2000
OMC	Owner	Food & Beverage	Medium	Bogor	2020

Data Collection

We conduct these interviews beginning by asking informants to explain their daily operations. We then continue by asking open questions regarding the details of their operation and their relationship with technology use. We probe informants with further questions when an interesting statement is found. Interviews last on average around 45 minutes – 1 hour. The interviews are conducted directly onsite or via video conference. All conversations throughout the interview are recorded and transcribed verbatim to ensure all the data and findings are recorded as they are.

Data obtained from interviews are explored to look for emerging patterns. These patterns are reflected with existing theories to understand the factors that play a role in the technology adoption process among MSMEs. The findings from this research are discussed in the findings and discussion section of this paper.

RESULTS AND DISCUSSION

The result of our analysis of the interview conducted in this research can be seen in Table 2 What is found is that certain factors are perceived to be significant in the decision making process of technology adoption. It also turns out that 4 influences play a great role in influencing these perceptions. Specifically, word of mouth and peer observation influence perception of factors relating to the external environment. Meanwhile, cross-generational influence and individual abilities influence the perception of factors that are internally related.

Table 2
Findings

Impact Towards	Perceived Factors	Quotes	Influences	Quotes
External Conditions	Safety	Q1, Q2	Word of Mouth	Q16, Q17, Q18, Q19
	Time Savers	Q3		
	Automated Work	Q4, Q5	Peer Observation	Q20, Q21
	Opportunity	Q6, Q23		
Internal Conditions	Reliability Issue	Q11, Q12	Lack of Knowledge	Q24, Q25
	Risk of Malfunction	Q10, Q13, Q14, Q15, Q32		
	Ease of Use	Q7, Q8, Q9, Q27, Q30, Q31	Cross-Generation	Q26, Q28, Q29

We find that safety, time saving, and automation are mentioned repeatedly among businesses as benefits perceived in technology. This is similar to findings by Ghobakhloo and Tang's 2013 findings (as cited in Utami et al., 2019).

The interviews show that businesses that perceive safety as a needed benefit are eager to find technologies that help prevent loss caused by discrepancies between reports as well as corruption by employees, as shared by these business owners:

> ".....what I fear when using the manual method is that your employee can take your cash. When everything is done with the system where they must scan every item outflow, and when you check the inventory everything can be known and nothing is skipped, it's much easier to leave and let it work." Q1

> "That day the income was like this, was the income really like this or not? .... The hope is that if we use the Mokapos, we can really check that day, the behavior is like that, you know." Q2

Businesses view technology as a reliable tool to directly check conditions without having to wait for manual reports from employees. This is due to the ability of technology to provide a system that does not allow fraudulent changes to be made without accountability.

From those quotes, we infer while helping businesses operations be safer, technology is also perceived as time savers or time efficiency. This allows businesses to focus on other aspects of their business, otherwise be impossible due to the time-consuming task of data recapitulation and synchronization, or automation of data, as shown by these quotes:

> "And it's very time-consuming, you know, whereas if for example you can use the system, you can... be able to use that technology, it's really less-time consuming, it's really good," Q3

> "Now that we have this machine, we do not need to recap income anymore for those who eat on the spot because everything is immediately recorded with the machine, so it makes it easier." Q4

> "That's it, everything is there and can be seen, without having to double check it again, so I want it to be automatic." Q5

Technology adoption also allows this efficiency to happen without significant additional cost, compared to having new hires. This relationship between time and money is also apparent in how, not only does technology save time, but it also allows expansion without extra cost, e.g., opening an online restaurant through a digital app.

> "We are thinking about making a place but specifically only for delivery or take away. We have a difficult time serving people at the restaurant, there are many plates, and it must be finished right away. We need to clean everything, and it must be perfect for the next people to come to eat. Meanwhile if it's online only for delivery, we only need to provide the food and it is so much easier." Q6

Although these perceived benefits have contributed much to their workflow, for some others, more requirements are needed and they face several difficulties in integrating report data. These business owners, for example, mentions that:

> "...if there was a sale from Lazada, the stock from Tokopedia and Shopee does not change. They don't change automatically. There's no seamless technology that connects it..." Q7

> "...it's so complicated! There are so many things to fill, what is to fill, aaa I'll just do it later ...." Q8

Having to face complicated steps and limitations in the process are found to make users hesitant on continuing adoption of the technology. However, the technology itself would still be something they would consider adopting. One apparent reason is that this would allow businesses less time and cost. It would also allow business owners to work remotely.

While we found that these factors are positively perceived by business owners in deciding whether or not to adopt technology, several factors are also found to make people and businesses hesitant in adopting new technology. Human error, validity of information, and hardware or software systems error are the most prominent perceived risks.

A fear of human error in the business process is one of the concerns businesses have when they are considering adopting certain technologies. There is an uncertainty of what the full integration with technology would turn out like and there are fears that it will become a barrier to the business activities they already carry out daily, as shared by these business owners:

> "The fear is that it is confusing or awkward for them, something like that." Q9

> "Technology if used by many hands, I'm afraid there's damage or something, so.. yeah I prefer to use just pen and paper pencils" Q10

Another hindrance towards technology adoption is user's mistrust in the validity of information, especially regarding technologies that offer data based insights. Informants found that data in such a marketplace are deemed invalid due to the ease of manipulating those data. This case touches on specifically the use of online marketplace platform data. This results in businesses relying more on traditional real-world interaction to gain market information.

> "Finding the data itself is easy, from Tokopedia or e-commerce, but the problem is that they may not be valid.... I prefer asking information from people at the market. Data from Tokopedia can be manufactured." Q11

> "Yes, for accuracy, I prefer offline. So if we're doing it online, yeah that's just to get a big picture." Q12

Other things, some of them find that hardware, software, and network accessibility must be sufficient as crucial things for technology adoption to happen. Disturbance in one of these three components will create a hindrance in business operations. Even when all except one component are in optimal condition, having one aspect in substandard condition can result in technological failures. These are perceived as risk when operating business with technology, as these business owners mention:

> "..it can be accessed via the iPad. That's its, the problem is the tablet. When you use it, it is often what it is... Hang.. The queue then becomes long." Q13

> ".. there are many, for example errors or must be updated. Later when updating, some of the data was not saved." Q14

> "need a connection right... So, if there is really no connection, yes... cannot run the program." Q15

> "….there was this one friend, whom I forgot her name, she recommended to me this app…." Q16

> "..because it was a franchise business, they suggested we apply to Grabfood and Gofood." Q17

Word of mouth as source information, such as advice and recommendation, turns out to play a great role in technology adoption. Many of the informants admit receiving recommendations, be it from salespeople, customers, or peers. This has sparked interest in some operators or business owners adopting certain technology.

In the case of payment methods, for instance, businesses adopt certain payment technology based on inputs from their customer. In some cases, customer knowledge is much better than the business' knowledge of technology, allowing the business to learn and adopt technology advised by their customer, as this quote mentions:

> Maybe it's easier for them, I don't know. 'Sir may I pay by scanning?'..... In the end we made the system." Q18

One case proves that customers can act as far as making a website for a business without the request from the business itself.

> "….I think It was a customer who made it…. yes, it means they also helped with the marketing." Q19

This type of relationship is not often found in many business practices. However, this turns out to be more common than not to happen among business owners. While Brooks (1957) explained how word of mouth substitutes the 'trial by experience' process for users, the findings suggest that the experience of customers during the selling process serves their customer better.

Apart from direct recommendations, peer observation is shown to also influence businesses in adopting technology. Through direct observation, users and businesses are able to perceive for themselves through real-life examples the benefits that they may obtain if they use certain technologies.

> "...yesss, I want it because I saw the others use it!" Q20

> "That time I did it because.. Hmmm... I don't think there's a specific reason for that, I use it because I saw others using social media for their branding activity, so I just follow it." Q21

Such influences mostly affect business owners' perceptions regarding external factors, such as the market, the business ecosystem, and gainable opportunities. In some occasion, not adopting technologies they see beneficial for their peers are viewed as opportunities that would be missed, as shared by the businesses:

> "it's a loss of opportunity if you don't explore both of them." Q22

> "...use it mainly for advertisement purposes..." Q23

Through the knowledge they gained from peer observation and word of mouth, agents then process that information and decide whether or not the task and technology fits. External factors, such as the mentioned above, are mostly perceived through these methods.

On the other hand, internal factors such as personal factors are mostly influenced by individual knowledge and organizational condition. Not using certain technologies are the effects of not knowing the technology exists or, due to the lack of knowledge, fears that technology use may turn out to be too difficult.

> "Even if there was something, I did not know." Q24

> "Because I only use the application for inventory, so I do not know yet about the system for accounting. Because I don't use it, I do not know" Q25

A finding that must be emphasized is that the difference in perceived values and behavior regarding technology appears to be influenced by the cross-generational things. This adds to the findings of Magrelli et al. (2022) regarding the difference values that are held through cross-generational. Every generation holds different perceptions on values toward technology, which then affects perceptions whether or not they see the technology as something that is fit to the task. Due to that reason, some generations are also much harder to adopt newer technologies.

For instance, older businesses with first generation owners that belong to an older generation – such as boomers – tend to feel more comfortable using manual methods of record keeping.

> "My father, he is quite old, I mean he is older. To them, why they choose not to change systems, well, they are used to using the manual method." Q26

> "So, Mr. Widodo does not want things to become complicated" Q27

The difference in value seems to be an apparent cause in their resistance towards adopting new technologies. One business owner from an older generation even finds that having technological assistance would hinder direct interaction and service to the customer, which is one of the business' core value, as shown by this quote:

> "It may be possible that it could prevent him from interacting with his guests, because he will not be able to talk and serve directly. Even if his cashier made it (the system) for him, he would not want it. He prefers to work as it is. He doesn't want it to be complicated. Maybe that is why this business runs this far." Q28

Despite having their second generation (children) assisting in business operations, a difference in the value business owners hold creates distrust regarding new technology adoption. While the ability to integrate technology within business operations is a possibility, the significance of a different generation in the business causes a difference in their preferred method of doing things. Even when the younger generation in the business suggest adopting certain technologies that may help to their operations, the old ways of doing things are always preferred by the older generation, resulting in the technology not being adopted.

> "...it's because he still plays a key role. Well, if it was up to me, I really want to change to a simpler process. We can take advantage of technology now. But my father still prefers the manual method." Q29

> "...they feel better using the manual method, maybe because they are used to it and they feel weird using technologies." Q30

A negative tendency towards perceived ease of use is generally found in the older generations of business owners, while the younger generation tends to hold positive views. The younger generation seem to be more open to learning with the hope of gaining advantage in their business operation. Also, newly operating businesses with younger

generations operating them have mostly adopted technology since the beginning of their business endeavor.

> "In my view, to call it difficult, it's not. Instead, it is actually easy to learn, in my opinion. Learn it step by step, not long after we can already use the basic functions, to make receipts, update inventory, or input new items. Its easy in my opinion to use such programs. It makes things easier." Q31

With such things, manual methods of bookkeeping and transactions, such as those with pen and paper, are beginning to be left behind. This is replaced with digital spreadsheets and other digital applications.

Newer generations perceive manual record keeping on paper is deemed riskier and more complicated than using digital technology, unlike the case with older generations which perceive manual method more trustworthy. Such distrust in technology increases the perception of risk in adopting technology, resulting in a tendency to refuse adoption of certain technology for older generations. These are inferred by these quotes shared by business owners from different generation:

For the newer generation, refer to Q1.

> "I usually have a note with me, to take notes. So I double my notes, on WhatsApp and in the book. My fear is that, because it is electronic, like in my phone, I'm afraid the data may suddenly disappear. So I made a copy." Q32

In general, the comfort of operating the business hinders older generations to see the added value new technologies can bring for the business. Meanwhile, younger generations can perceive potential benefits of technology adoption, making them more open to integrating technology into the business operation.

CONCLUSION AND SUGGESTION

By examining and understanding the decision making process business operators went through in determining whether or not technology adoption fits their needs, this study finds that word of mouth, observation of peers, personal knowledge, and cross-generational influences influence the decision maker's perception. While word of mouth and observation of peers tends to affect perception of external factors, internal factors tend to be affected by personal knowledge and cross-generational influences. Furthermore, safety, time, automation, and opportunity that certain technology offers are prominent external factors that business operators look at when considering their decision. On the other hand, ease of use, reliability, and the risk of malfunction in using technology are the internal factors prominently observed by users in the technology adoption process. These findings may help technology developers in understanding what businesses look for and what influence their perception. By doing so, developers may develop technology that fits better and perceived positively resulting in better adoption.

While this research offers an understanding of perception influences and factors that leads to technology adoption, it is limited by the scale that is possible through an exploratory study. In order to validate these findings in a broader context of the business environment, a quantitative approach towards the same research question is suggested for subsequent research.

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