# Understanding the Effect of Sustained Use of Cloud-Based Point of Sales on SMEs Performance During Covid-19 Pandemic

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# Understanding the Effect of Sustained Use of Cloud-Based Point of Sales on SMEs Performance During Covid-19 Pandemic

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# ABSTRACT

This study examined the effect of sustained use of cloud-based point of sales on SMEs' performance during COVID-19 pandemic. In this study, both quantitative and qualitative approaches were employed. The sample included the food and beverage industry from Small and Medium Enterprises (SMEs) located in Malang City, Indonesia. The quantitative data which succeeded to collect 91 responses was taken from the questionnaire distribution of the sample SMEs and it was analysed by using SPSS 21 with the multiple linear regression method, which indicated there is a relationship between sustained-use of cloud-based point of sale on SMEs non-financial performance during COVID-19 pandemic. 9 SMEs representatives, the owner, or the manager, were also interviewed to gain further insights and to confirm the quantitative findings. Technology Continuance Theory (TCT) was used to explain the link between the sustained use of cloud-based point of sale on SMEs' performance during the COVID-19 pandemic. However, the results from both approaches found that there is a positive relationship between sustained use of cloud-based point of sale on SMEs non-financial performance during COVID-19 pandemic and the relationship between sustained use of cloud-based point of sale on SMEs financial performance is negative.

### ABSTRAK

Penelitian ini menguji pengaruh penggunaan berkelanjutan aplikasi kasir berbasis cloud terhadap kinerja UKM selama Covid-19 Pandemic. Kedua pendekatan kuantitatif dan kualitatif digunakan. Sampel adalah makanan dan minuman Usaha Kecil dan Menengah yang berlokasi di Kota Malang, Indonesia. Data kuantitatif diambil dari distribusi kuesioner sampel UKM dan dianalisis dengan menggunakan SPSS 21 dengan metode regresi linier berganda, yang menunjukkan ada hubungan antara penggunaan berkelanjutan titik penjualan berbasis cloud pada kinerja non-keuangan UKM selama pandemi covid-19. Beberapa perwakilan UKM, pemilik atau manajer, juga diwawancarai untuk mendapatkan wawasan lebih lanjut dan untuk mengkonfirmasi temuan kuantitatif. Technology Continuance Theory (TCT) digunakan untuk menjelaskan hubungan antara penggunaan aplikasi kasir berbasis cloud pada kinerja UKM selama pandemi Covid-19. Namun, hasil dari kedua pendekatan tersebut menemukan bahwa ada hubungan positif antara penggunaan berkelanjutan dari titik penjualan berbasis cloud pada kinerja non-keuangan UKM selama pandemi covid-19 dan hubungan antara penggunaan berkelanjutan dari titik penjualan berbasis cloud pada keuangan UKM kinerja negatif.

# 1. INTRODUCTION

The world is currently facing a global health crisis causing a large-scale loss of life and severe human suffering. The COVID-19 pandemic or the novel coronavirus, has a wide reaching effect

on e-commerce, technology, business, and the economy (Waliul Hasanat et al., 2020). Moreover, every country carries out the lockdown and social distancing procedures as a means of preventing more severe outbreaks.

The fact is unavoidable and influence the macroeconomy as a whole and also cut off the supply chain of the business (Reeves, Swartz, & Carlsson-Szlezak, 2020). The small business faces difficulties to sell their products offline and online, which could decline their sales and threaten their business sustainability.

Based on the survey conducted by The Organization for Economic Cooperation and Development in February, reports on China showed that a third of SMEs only had enough cash to cover fixed expenses for a month, with another third that running out within two months, putting millions of Chinese SMEs at risk. While in the United States, nearly half of small businesses have already experienced reduced customer demand for their products and services (OECD Secretary General, 2020). In conclusion, those surveys and other related surveys on different about how COVID-19 countries pandemic affects small business show a dramatic and sudden loss of demand and revenue for SMEs severely influence their ability to function, and causes severe liquidity shortages. More generally, SMEs tend to be more susceptible to being affected because of social distancing than other levels of industries.

SMEs need to adapt to the situation where COVID-19 pandemic is threatening their business. One of the ways that keep small businesses still survive in this situation is to use technology. Even though based on the survey conducted by Asia Pacific Foundation of Canada Entrepreneurs and MSMEs Indonesia, it is found that small business owners are likely to be interested in utilizing support services such as in-person or online business support services, 94% respondents in the survey have not

accessed online platform, which showed that Indonesian SMEs have lack digital infrastructure. of Moreover, Information Communication and Technology (ICT) adoptions are still a challenge for small scale businesses due to lack of capability and resources in adapting to significant improvement technology.

The inherent issue regarding security and privacy on technology utilization is also a major concern for small businesses to adopt technology. Specifically, Cloud-Based Business Service, which is a dynamic service provisioning of resources over the internet which could emerge threats, such as data theft, data loss/leakage, organization privacy, and malicious attack. Another issue includes cost increment on internet capacity and hardware procurement. That is still an undeniable challenge for SMEs considering that SMEs are also facing challenges on their funding and access to credit (Mahajani, Pandya, Maria, & Sharma, 2019).

The awareness of adopting technology as an investment that boost their business competitiveness is still quite fair. Based on the survey conducted by UOB Bank, only 48% of Indonesian SMEs recognize the importance of investing more in Information Communication and Technology to drive their business performance (Kan, 2018). It shows that nowadays Indonesian SMEs are highlighting the greater emphasis on technology investments but need more shifting to digital in order to increase their performance business productivity. The other main problem faced by SMEs is about the access of Indonesian funding, based on Financial Services Authority (OJK), there are still 49 million SMEs units that are still un-bankable (Kan, 2018).

The main reason why so many SMEs are un-bankable is because there is no proper financial management that is transparent and lack of ability to record any financial activities. Thus, its so hard for SMEs to get access to financial services, especially funding.

One of the forms of technology that will be highlighted is the Cloud-Computing that specified for business, entitled Cloud-Based Business Services. Since the emergence of cloud computing in 2008, this phenomenon has shown rapid growth. Even though the cloud-computing phenomenon is still in its infant stage, more SMEs are considering utilizing Cloud-Based Busines Services (Mangula, Van De Weerd, & Brinkkemper, 2012). One branch of Cloud-Based Business Services that also highlighted in this study is Point of Sales (POS), which is integrated with cloud-computing technology. This form of technology allows SMEs to improve their sales activity, payment method, stock monitoring, and report analysis (Bruce, 2013).

Most Cloud-Based Point of Sales is also integrated with several systems, including accounting, procurement, inventory management, table management, until employee management. SMEs do not need to spend millions of rupiah to be able to utilize such advanced technology. Thus it makes the cloud-based point of sales are possible to small businesses.

# 2. THEORETICAL FRAMEWORK AND HYPOTHESIS

# Small Medium Enterprise (SME)

Definition of small medium enterprises varies among researchers. Tambunan (2008) describes small medium enterprises, specifically in Indonesia, is the firms with less than 100 workers which have been historically the main player in domestic economic activities. Most researchers agreed that small medium

enterprises has been proven to be the leading contributors to the national and even global economies. As stated by Anwar, Djawad, & Ridwansyah (2019), global statistics that around 95% of all businesses are small and micro-business.

Small medium enterprises generate growth, development, and opportunities such as employment as compared to other levels of industries (Al-Sharafi et al., 2019). The important roles of SMEs could be shown by poverty alleviation through job creation. Despite how SMEs contribute to the global and domestic economies, several researchers found that SMEs in developing countries are faced with a low level of performance due to the technological constraint, unskilled human resource, entrepreneurial capabilities management systems, lack of technology adaption and low quality products (Lo, Wang, Wah, & Ramayah, 2016).

### **Organizational Performance**

Organizational performance refers to the concept of measuring a firm's position in the marketplace and the firm's ability to meet its stakeholders' needs (May-Chiun, Mohamad, Ramayah, & Chai, 2015). According to Tariq, Mumtaz, Ahmad, & Waheed (2014), organizational performance connotes how well an organization achieves the objectives of an organization and the social capital that combines the overall performance of the organization. It is reviewed from past researchers who normally highlight organizational performance only on financial ratios or only based on the financial performance, such as the ratio of profitability, return on assets (ROA), and return on investments (ROI).

Financial performance highlights a measurement of how well a firm operates their assets from its primary mode of business to generate revenues (Chen et al., 2009), in which the business process should have a quality to produce benefits regarding profit, cost savings, and market

share, for example how well firm have a delivery process or service quality that could achieve superior competitive advantage will relate positively to the sales which it is one of the forms of financial performance. In this study, considering from the previous studies, there are five different indicators used for measuring the financial performance, they are profitability, sales growth rate, market share, productivity, and operational costs.

Non-financial performance valued more on the sustainability of the firm, how well the firm increases customer loyalty, attracting new customers, and emphasizing the brand image of the firm. As stated by Chen et al., (2009), a well managed operation and a well-structured service in business will enhance better non-financial performance, for example, how the firm provides easier buying process, clearer communication of deliverable and outcomes, and increased ability to meet the customer needs will result on a superior competitive advantage. In this study, considering from the previous study that there will be several constructs on measuring nonperformance, financial including efficiency, inventory operational management efficiency, customer relation management efficiency, and employee management efficiency.

### **Cloud-Based Point of Sales**

Information and Communication Technology (ICT) played an important role in the global economy in recent years and progressively integrated into daily tasks of public and private sector businesses worldwide (Al-Sharafi, Arshah, & Abu-Shanab, 2017). One of the recent technologies that provide larger opportunities for small and medium enterprises to scale up their business and compete with larger companies via methods that aid the delivery of services, reduce costs, and ultimately increase profitability is cloud computing. Thus, embracing this new form of technology

will empower SMEs to avoid high cost, which involved in setting up ICT infrastructure as well as the costs of servicing and maintaining the infrastructure. If organizations adopt cloud computing services, meaning that they will lower the IT cost because they can receive value over time (Alshamaila, Papagiannidis, & Li, 2013).

Cloud based point of sales provider in Indonesia such as Moka, Pawoon, and Qasir are providing a uniform interface with highlighting one stop system that could generate several results, such as cash flow report, financial reports, customer flow rate and daily activity tasks in a business. In the other hand, several challenges in Cloud based POS system is on security, privacy and trust, bandwidth and data relocation, data administration and synchronization, energy effectiveness, and heterogeneity (Al-Janabi et al., 2018). Those kinds of challenges could be limited by a new understanding of IT by the business owners; it turned out believed as a factor that an initial adoption could result in a sustained-adoption (Paramita, 2019).

# **SMEs during Covid-19 Pandemic**

The novel coronavirus or the COVID-19 is considered as one of the most infectious diseases that mainly occurs after contaminating the human with the acute respiratory syndrome and also known as the cause of an outbreak of the infectious respiratory disease in Wuhan, Republic of China (Setiati & Azwar, 2020). Indonesia has also affected by the COVID-19 disease, which by early May 2020, there have been 10.843 confirmed positively as COVID-19 patient. Therefore, with the rise of Covid-19, Indonesia is facing immense issues. So that, the economy is also affected, especially SMEs on both the supply and demand sides.

As mentioned by OECD Secretary General (2020), two ways the coronavirus pandemic affects the SMEs on both supply and demand sides are companies experience a reduction in the supply of labor and movements of people are restricted due to the quarantine mechanism. On the demand side, a dramatic and sudden loss of demand and revenue for SMEs severely affects their ability to function and to continue their business. Moreover, consumers experience loss of income, uncertainty, which in turn reduces their spending and consumption.

Countries react differently and have put measures in place to support SMEs. Specifically, many countries are started to deploy measures to support SMEs and the self-employed with a strong focus on initiatives to sustain short-term liquidity (OECD Secretary General, 2020). In Indonesia, Bank Indonesia cuts its benchmark interest rate by 25 basis points and lowered its deposit facility rate to 3.75%, and also lowered the rupiah reserve requirement ratio by 50 bps for banks involved in financing small and middle businesses (OECD Secretary General, 2020).

# Technological Continuance Theory (TCT)

Due to the growth of information system and technological research over the years, researchers have started to focus on post-adoption behaviors such as continuance or the sustained-use of the technology. Bhattacherjee (2011) defines Information Communication Technology (ICT) continuance as the sustained use of an IT by users over the long-term after their initial acceptance. This theory is important for the research because the expected benefits of a given technology could not be realized and its implementation could not be considered successful if its usage is not sustained over the long-term by the users who are expected to benefit from its usage (Bhattacherjee & Barfar, 2011). This theory based on Expectationthe Confirmation Theory (ECT), which further refined using empirical findings from the

prior ICT use research (Bhattacherjee, 2011).

H1a: Sustained use of cloud-based point of sales has positive effect on SMEs financial performance.

H1b: Sustained use of cloud-based point of sales has positive effect on SMEs' non-financial performance.

H2a: Covid-19 Pandemic has negative effect on SMEs financial performance.

H2a: Covid-19 Pandemic has negative effect on SMEs' non-financial performance.

### 3. RESEARCH METHOD

The population of the study consisted of all food and beverage service SMEs who are the main users or adopters of POS in Indonesia, specifically in Malang City, East Java. However, the challenge in getting the actual number of POS adopters is quite difficult. Thus the way to be relevant with the research about technology adoption is by quantifying that food and beverage small medium enterprises that utilized mobile application of food delivery service, such as Gojek and Grab mobile apps. The justification of this approach is when SMEs adopt the mobile app for food delivery service, they are potentially adopting to other technology because they already acknowledged the utilization of technology could emphasize their business performance.

The total active small medium enterprises in Malang city are 4096, and there are 2328 food and beverage service SMEs actively operating in Malang city (BPS Kota Malang, 2018). From the total active food and beverage SMEs, the number that adopt to technology based on utilizing mobile application for food delivery service are only 327 SMEs, because the micro sector of the business is eliminated, therefore, 327 becomes the population of this research.

The independent variable used in this study is sustained use of cloud-based point

of sales and Technology Continuance Theory (TCT) model was chosen to measure the continuance behavior because compare to the prior research that uses TAM and TOE model was irrelevant because those models highlight the pre behavior. adoption Technology Continuance Theory (TCT) model is proposed in this current research to measure the sustained use of cloud-based point of sales. TCT model implies several ideas; they have perceived usefulness and perceived ease of use, which resulted in satisfaction and could lead to continuance intention (Bhattacherjee, 2011).

Since this research is conducted during the COVID-19 pandemic, the author would like to get in-depth the research by adding a new perspective on how SMEs maintain their business during COVID-19 pandemic. The questions of the questionnaire are still linked to the utilization of cloud-based point of sales, which is the main point of this research.

The dependent variables used in the current research are financial performance and non-financial performance of SMEs in Malang City that utilized cloud-based point of sales. Each of the dependent variables is tested independently in the same research instruments, which is administering the questionnaire. Financial performance was measured by sales growth and profitability since the research object in this current study is small medium enterprises that do not acquire a complicated accounting system.

On the other hand, non-financial performance acquires more complicated elements that subtracted from the cloudbased point of sales main features. The elements for non-financial performance are operation efficiency, inventory management efficiency, customer relation management efficiency, and employee management efficiency. Each element requires several questions to be the questionnaire instruments, and measurement of each question are using 5

Likert scale, from strongly agree to strongly disagree.

4. DATA ANALYSIS AND DISCUSSION The demographic characteristics in this research consist of the name of the business, year of establishment of the business, the respondent's position within the business, and the cloud-based point of sales that are currently used. The author has summarized the demographic characteristics in Table 2. The author distributed the questionnaire to 154 food and beverage SMEs in Malang City, and received 94 responses, but three of them are invalid.

As stated above in Table 2, most of the SMEs were established since 2019, with the percentage of 41,8%. The majority of the respondent that answer the questionnaire were the business owner, shown by 54,9% of the total respondents, and the rest are manager by 22% and the staff by 22%. The dominant cloud-based point of sales in the questionnaire that is utilized by the SMEs are MOKA POS which was 36,3% of the respondents are MOKA POS user, and the least used cloud based point of sales are Square Up, Bakoel POS, and KAWN, for only 1,1% each.

Descriptive statistics explain the primary characteristics of quantitative data acquired during the data collection process to summarize the data (Hair et al. 2003). Multiple Regression Analysis was used to understand the effect of each independent variable, which X1 represents a sustained used cloud-based point of sales, and X2 represents Covid-19 pandemic towards the dependent variables specifically Y1, which represents financial performance. In processing data by using multiple linear regression analysis, several stages are carried out to look for the influence between the independent variable on the dependent variable. Beforhand, the classic assumption test is conducted before the hypothesis testing.

Table 1
The Summary of Multiple Linear Regression Analysis on Financial Performance

Descriptive Statistics			
	Mean	Std. Deviation	N
Y1 (Financial Performance)	8.3187	2.09698	91
Y2 (Non-Financial Performance)	26.7253	3.27640	91
X1 (Sustained Use of Cloud Based Point of Sales)	46.2088	4.43851	91
X2 (SMEs during Covid-19 Pandemic)	20.8901	2.50089	91

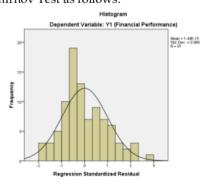
# Classical Assumption Test Normality Test

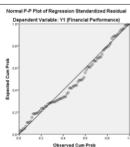
The regression model can be said to meet the assumption of normality if the residual (ei) obtained from the regression model is normally distributed. The hypothesis used in this testing is:

H0: The distribution of residuals is normally distributed

H1: The distribution of residuals is not normally distributed

In order to test this assumption, the author used histogram charts, normal P-P plots, and One-Sample Kolmogorov-Smirnov Test as follows:





# **Multicollinearity Test**

The Multicollinearity test is a test that is shown to test whether the regression model found a correlation between the independent variables. A good regression model should not occur multicollinearity. One method used in testing the existence of multicollinearity is by using the Variance Inflation Factor (VIF). If the VIF value > 10, it indicates the presence of multicollinearity. If VIF value < 10, then the multicollinearity does not occur.

It is shown that all the VIF value from each independent variable are less than 10 with tolerance rate more than 0.1. It means each independent variable do not have any strong correlation, or there is no multicollinearity (the assumption is fulfilled).

Table 2 Hierarchy Variable Data Multicolinearity Test Results

Variables	Tolerance	VIF
Sustained		
Use of		
Cloud-	0.766	1.305
Based Point		
of Sales		
Covid-19	0.766	1.305
Pandemic	0.700	1.505

Source: Processed data

Multiple Regression Analysis

Dependet Variable: Financial

Performance

The next step after conducting the classic assumption tests, the author proceeds to

regression analysis. It is used to understand the effect of each independent variable, which X1 represents sustained used a cloud-based point of sales, and X2 represents Covid-19 pandemic towards the dependent variables specifically Y1 which represents financial performance.

In processing data by using multiple linear regression analysis, several stages are carried out to look for the influence between the independent variable on the dependent variable. Based on the results of data processing using software named SPSS version 25, a summary is obtained in Table 2.

Based on Table 2, obtained a regression model as follows:

Y = 13.449 + 0.069 X1 - 0.398 X2 + ei

Table 3
The Summary of Multiple Linear Regression Analysis on Financial Performance

Variable	В	tcal	P-value t	Not
Constant	13.449			
X1 (Sustained Use of Cloud- Based Point of Sales)	0.069	1.324	0.189	Not Significant
X2 (Covid-19 Pandemic)	-0.398	-4.305	0.000	Significant
α		= 0.050		
Coefficient Determination (R2)		= 0.180		
F-cal		= 9.644		
F-table (F <sub>2,88,0.05</sub> )		= 3.100		
P-value F		= 0.000		
t-table (t <sub>88,0.05</sub> )		= 1.987		

 ${\bf Table~4} \\ {\bf The~Summary~of~Multiple~Linear~Regression~Analysis~on~Non-Financial~Performance} \\$ 

Variable	В	tcal	P-value t	Notes
Constant	6.348			
X1 (Sustained Use of Cloud- Based Point of Sales)	0.292	3.933	0.000	Significant
X2 (Covid-19 Pandemic)	0.329	2.490	0.015	Significant

α	= 0.050
Coefficient Determination (R2)	= 0.316
F-Calculate	= 20.323
F-table (F <sub>2,88,0.05</sub> )	= 3.100
P-value F	= 0.000
t-table (t <sub>88,0.05</sub> )	= 1.987

# Sustained Use of Cloud Based Point of Sale on Financial Performance

Partially, the independent variable X1, which represents Sustained Use of Cloud-Based Point of Sale has no significant effect on the dependent variable Y1, which represents Financial Performance. Shown by the partial effect test with a p-value of 0.189 is greater than 0.05. There are several studies also found there was no significant effect between cloud-based point of sale on financial performance (Pérez-Méndez & Machado-Cabezas, 2015).

Sustained Use of Cloud-Based Point of Sales has positive and not significant effect towards Financial Performance. Shown statistically by t test with tcal is smaller than ttable (1.324 < 1.987), and the p-value t is bigger than  $\alpha$  (0.189 > 0.050). This test decided that H0 is accepted. The regression coefficient that obtained positive shows that the escalation of Variable X1 or Sustained Use of Cloud-Based Point of Sales could escalate the Variable Y1 or Financial performance but not significant.

This statement had been supported by the argument about IT capabilities exhibited sustained firm performance, which the financial indicators are should only be related to profit ratios and cost ratios (Anand, Wamba, & Sharma, 2013). Thus, it could be concluded that cloud-based point of sale is just a tool that presents financial reports but could not produce benefits such as profit, market share, and revenues.

# Covid-19 Pandemic on Financial Performance

Covid-19 has negatively and significant effect towards variable Y1 or Financial Performance. Shown statistically by t test with tcal is smaller than ttable (4.305 <

1.987), and the p-value t is bigger than  $\alpha$  (0.000 > 0.050). This test decided that H0 is rejected. The regression coefficient that obtained negative shows that the escalation of Variable X2 or Covid-19 could bring down the Variable Y1 or Financial performance significantly.

Partially, the independent variable X2, which represents Covid-19 has a significant effect on the dependent variable Y1, which represents Financial Performance. Shown by the partial effect test with a p-value of 0.000 is greater than 0.05. To measure financial performance, the author asked the respondents regarding the sales and costs incremental that arose during the Covid-19 pandemic. Several studies that also deployed a survey on the research process found that during Covid-19 pandemic, SMEs faced a decrease in sales drastically, which also resulted in liquidity issues (Fairlie, 2020). These limited levels of cash on hand help to shed light on other problems such as layoffs, shutdowns, and mobility restrictions (Fabeil, Pazim, & Langgat, 2020).

Several studies found the reason why sales drastically decreased in SMEs during Covid-19 pandemic despite the virus itself. It is also because of consumption and purchasing power of the people, this pandemic causes more labor to decrease which increases in the level of consumption and people's purchasing power in the category of informal workers and day laborers (Pakpahan, 2020). Therefore, Covid-19 has negative effects on SMEs' financial performance.

# Sustained Use of Cloud Based Point of Sale on Non-Financial Performance

Sustained Use of Cloud-Based Point of Sales has positive and significant effects

towards variable Y2 or Non-Financial Performance. Shown statistically by t test with tcal is bigger than ttable (3.933 < 1.987), and the p-value t is bigger than α (0.000 > 0.050). This test decided that H0 is rejected. The regression coefficient that obtained positive shows that escalation of Variable X1 or Sustained Use of Cloud-Based Point of Sales could escalate the Variable Y2 or Non-Financial performance significantly Partially, the independent variable X1, represents Sustained Use of Cloud-Based Point of Sales has a significant effect on dependent variable Y2, which represents Non-Financial Performance. Shown by the partial effect test with a pvalue of 0.000 is greater than 0.05. Prior studies supported that ICT continuance usage can positively impact organization non-financial performance by enhancing clients' satisfaction, through gaining a competitive edge, producing products, and getting accurate data (Al-Sharafi et al., 2017, 2019). Likewise, findings from prior studies also suggested that the impact of ICT can lead to sales increase growth rate, profitability, productivity, and lessen operational cost (Hendrik et al., 2018; Paramita, 2019; Survaputra & Wiradinata, 2016).

Referring to the technological continuance theory (TCT) that perceived usefulness, perceived ease of use, satisfaction, continuance intention, and working effectivity constructs can be influenced through the formation of habit, which can enhance the non-financial performance (Bhattacherjee & Barfar, 2011; Bhattacherjee & Lin, 2015). It is also proven that SMEs would have the highest benefit from having a faster time to market and improved access to highly scalable technologies such as cloud-based point of sale. Moreover, SMEs need to enrich their performance by implementing suitable technology to survive due to the recent unsettled business market, which is categorized with fast-changing

technology, shorter product life cycle, and rapidly changing customer preferences.

# Covid-19 Pandemic on Non-Financial Performance

Covid-19 has negative and significant effect towards variable Y2 or Non-Financial Performance. Shown statistically by t test with tcal is smaller than ttable (4.305 < 1.987), and the p-value t is bigger than  $\alpha$  (0.000 > 0.050). This test decided that H0 is rejected. The regression coefficient that obtained negative shows that the escalation of Variable X2 or SMEs during Covid-19 could escalate the Variable Y2 or Non-Financial performance significantly.

Partially, the independent variable X2, which represents Covid-19 has a significant effect on the dependent variable Y2, which represents Non-Financial Performance. Shown by the partial effect test with a p-value of 0.015 is greater than 0.05. During the Covid-19 pandemic, most major industries faced large drops financially and operationally. Due to the large-scale social distancing policy that restricts the mobility of SMEs is one of the main reasons of how Covid-19 pandemic negatively impacts food and beverage SMEs non-financial performance. Not to mention lockdown itself, many food and beverage SMEs are facing shortages in reaching their customers, since customers prefer to create their own dishes at home and not to risk themselves to be transmitted by the virus which could potentially be received from ordering food and beverage from their local restaurants (Hassan et al., 2020; Meyer, 2020).

Moreover, the SMEs operational hours are being restricted, and the number of customers is limited to come in place, which they have to enhance their sales through online platforms. At the same time, other studies found that a time of crisis can create market opportunities that can best be addressed with innovative and proactive postures. An SME's potential for more flexible decision-making and

closeness to its customer base is beneficial in this regard (Eggers, 2020).

# 5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

Based on the results of research and discussion on the effects of sustained-use of cloud-based point of sale on SMEs' financial and non-financial performance during the Covid-19. The formulated conclusions are:

First, it was found that the sustained use of cloud-based point of sale has insignificant effect on SMEs' financial performance due to the cloud-based point of sale is just a tool and system to record their daily business transactions and also as a display of financial reports and business activities information. The function of cloud-based point of sale was the main reason why SMEs continuously using the technology that adopts cloudbased business service technology. Cloudbased point of sale simplifies the accounting process, tracking the business financial and operational activities, providing qualified information for decision making within the food and beverage service SMEs, which leads to continuance intention.

Second, sustained-use of cloudbased point of sale affected non-financial performance significantly and can be used since the feature of point of sale nowadays are becoming more complex with more enhanced features from cloud-based technology. Cloud-based point of sale provides a well manage and wellstructured operation for the SMEs. Such as, providing an easier transaction process, more effective procurement clear communication deliverables and outcomes, and increase the ability to meet the customer needs which those define non-financial performance.

Third, it was found that Covid-19 pandemic has significant effect on both SMEs' financial and non-financial

performance. Most of the food and beverage service SMEs face a drastic sales downturn from the usual sales during the Covid-19 pandemic. Additionally, there are several things that SMEs have to comply with regarding the health protocols such as hand sanitizer, face masks, gloves, and face shield. Those things were affecting their revenues since their expenses were followed to increase.

Moreover, the government implied that SMEs must obey the large-scale social distancing. Thus, the government limits the operational hours and the number of people who come to the store. It became the mobility issue which restricts the SMEs to meet the market needs. Food and beverage SMEs found that even though during the Covid-19 pandemic, they became more productive and enhanced their non-financial performance by producing new products, applying discounts, and selling through online platforms in order to generate revenues.

TCT believed to be important for the research because the expected benefits of a given technology could not be realized and its implementation could not be considered successful if its usage is not sustained over the long-term by the users who are expecting the benefit from its usage (Bhattacherjee et al., 2008). From the findings of the research, implementation of cloud-based point of sales is successful on SMEs' non-financial performance since its usage from the SMEs was more than a year. Thus, the findings are not debunking the theory and even confirming the theory.

One of the aims in this study was to address the lack of research evidence on how sustained use of cloud-based point of sale affects financial and non-financial performance, especially during the Covid-19 pandemic. Accordingly, the first major practical contribution of the present research is that it provides much needed empirical data on the food and beverage service SMEs that would like to adopt

cloud-based point of sale and also those who would like to continue its usage.

This study expects to give empirical evidence about how important SMEs utilize technology in a daily basis. By utilizing cloud-based point of sale to their business, they will improve their business performance, especially on their operational performance, which could result in their revenues and meet customer preferences and needs. In this matter, the policymakers expected to be aware on this issue and to support more SMEs' development for sustainability of the nation.

The research limitations are that the results in this study can only be applied to the SMEs in the sample and in this period and not to other firms or outside of the time spans considered in this study. Moreover, the sample consists of different type of cloud-based point of sale (MOKA POS, Qasir, Pawoon, Beepos, Majoo, Bakoel POS, et cetera). Each type of cloud-based point of sale has its own feature and characteristics, which may influence the final research results. However, this issue was recognized early during the research.

Furthermore, the effect sustained use of cloud-based point of sale on firm performance should be explored further in future research because there is a possibility that it may be different when the Covid-19 pandemic is over. Future research is suggested to answer the insignificant effect between sustained use of cloud-based point of sale and financial performance since this study resulted in the insignificant between those variables.

# REFERENCE

- Adane, M., & Piderit, R. (2019). Online Storage: Are Small Businesses Facing a Dilemma in Developing Economies? 08(02).
- Akerejola, W. O., Okpara, E. U., Ohikhena, P., & Emenike, P. O. (2019). Availability of Infrastructure and Adoption of Point of Sales of Selected Small and Medium Enterprises

- (SMEs) in Lagos State, Nigeria. International Journal of Academic Research in Business and Social Sciences, 9(1), 137-150. https://doi.org/10.6007/ijarbss/v9i1/5370
- Al-Janabi, S., Al-Shourbaji, I., Shojafar, M., & Abdelhag, M. (2018). Mobile Cloud Computing: Challenges and Future Research Directions. Proceedings -International Conference on Developments in ESystems Engineering, DeSE, 62-67. https://doi.org/10.1109/DeSE.2017.
- Al-Sharafi, M. A., Arshah, R. A., & Abu-Shanab, E. A. (2017). Factors affecting the continuous use of cloud computing services from expert's perspective. IEEE Region 10 Annual International Conference, Proceedings/TENCON, 2017-Decem, 986-991. https://doi.org/10.1109/TENCON.2 017.8228001
- Al-Sharafi, M. A., Arshah, R. A., Abu-Shanab, E. A., & Alajmi, Q. (2019). The Effect of Sustained Use of Cloud-Based Business Services on Organizations' Performance: Evidence from SMEs in Malaysia. 5th International Conference on Information Management, ICIM 2019, 285-291. https://doi.org/10.1109/INFOMAN. 2019.8714699
- Alshamaila, Y., Papagiannidis, S., & Li, F. (2013). Cloud computing adoption by SMEs in the north east of England: A multi-perspective framework. Journal of Enterprise Information Management, 26(3), 250-275. https://doi.org/10.1108/1741039131
  - 1325225
- Bhattacherjee, A. (2011). Understanding Information Systems Continuance: An Expectation-Confirmation Model. MIS Quarterly, 25(3), 351-370.
- Bhattacherjee, A., & Barfar, A. (2011). Information Technology Continuance Research: Current State and Future Directions. Asia Pacific Journal of

- *Information Systems*, 21(2), 1–18. https://doi.org/10.2307/3250921
- Bhattacherjee, A., & Lin, C. P. (2015). A unified model of IT continuance: Three complementary perspectives and crossover effects. *European Journal of Information Systems*, 24(4), 364–373.
- https://doi.org/10.1057/ejis.2013.36 Bhattacherjee, A., Perols, J., & Sanford, C. (2008). Information technology continuance: A theoretic extension and empirical test. *Journal of Computer Information Systems*, 49(1), 17–26. https://doi.org/10.1080/08874417.20 08.11645302
- BPS Kota Malang. (2018). Kota Malang Dalam Angka 2018. 178.
- Bruce, 2011. (2013). 済無No Title No Title.

  Journal of Chemical Information and

  Modeling, 53(9), 1689–1699.

  https://doi.org/10.1017/CBO978110

  7415324.004
- Cameron, R. (2011). Mixed methods in business and management: A call to the 'first generation.' *Journal of Management & Organization*, 17(2), 245–267. https://doi.org/10.1017/s183336720 0001644
- Chen, J. S., Tsou, H. T., & Huang, A. Y. H. (2009). Service delivery innovation: Antecedents and impact on firm performance. *Journal of Service Research*, 12(1), 36–55. https://doi.org/10.1177/1094670509 338619
- Chen, J. S., Tsou, H. T., & Huang, A. Y. H. (2009). Service delivery innovation: Antecedents and impact on firm performance. *Journal of Service Research*, 12(1), 36–55. https://doi.org/10.1177/1094670509 338619
- Davis, F. D. (2013). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. Computer and Information Systems Graduate School of Business Administration, 13(3), 319–340.

- Deloitte Access Economic. (2015). SMEs Powering Indonesia's success: The Connected Archipelago's Growth Engine. *Deloitte Access Economic*, 3. https://doi.org/10.3389/fpsyg.2017. 01262
- Fabeil, N. F., Pazim, K. H., & Langgat, J. (2020). The Impact of Covid-19
  Pandemic Crisis on MicroEnterprises: Entrepreneurs'
  Perspective on Business Continuity
  and Recovery Strategy. *Journal of Economics and Business*, 3(2).
  https://doi.org/10.31014/aior.1992.0
  3.02.241
- Fairlie, R. W. (2020). The Impact of Covid-19 on Small Business Owners: Evidence of Early-Stage Losses From the April 2020 Current Population Survey. *NBER Working Paper Series*, (June). Retrieved from http://www.nber.org/papers/w273
- Hassan, T., Hollander, S., van Lent, L., & Tahoun, T. (2020). Firm-Level Exposure to Epidemic Diseases: Covid-19, SARS, and H1N1. Institute for New Economic Thinking Working Paper Series, 1–46. https://doi.org/10.36687/inetwp119
- Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-Based Nursing*, *18*(3), 66–67. https://doi.org/10.1136/eb-2015-102129
- Hendrik, Vitra Paputungan, I., Budi Susilo, T., & Setiaji, H. (2018). Designing a Cloud-Based System for Small and Medium Enterprises with Multiple Branches. 2018 3rd International Conference on Computer and Communication Systems, ICCCS 2018, 268–272. https://doi.org/10.1109/CCOMS.20 18.8463343
- Indarti, N., & Langenberg, M. (2004).
  Factors affecting business success among SMEs: empirical evidences from Indonesia. *Second Bi-Annual European Summer ...*, (August), 1–15. Retrieved from

- http://www.utwente.nl/mb/nikos/archief/esu2004/papers/indartilang enberg.pdf
- Lancaster, G. A., Dodd, S., & Williamson, P. R. (2004). Design and analysis of pilot studies: Recommendations for good practice. *Journal of Evaluation in Clinical Practice*, 10(2), 307–312. https://doi.org/10.1111/j..2002.384. doc.x
- Liao, C., Palvia, P., & Chen, J. L. (2009).
  Information technology adoption
  behavior life cycle: Toward a
  Technology Continuance Theory
  (TCT). International Journal of
  Information Management, 29(4), 309–320.
  https://doi.org/10.1016/j.ijinfomgt.2
  009.03.004
- Mangula, I. S., Van De Weerd, I., & Brinkkemper, S. (2012). Adoption of the cloud business model in Indonesia: Triggers, benefits, and challenges. ACM International Conference Proceeding Series, 54–63. https://doi.org/10.1145/2428736.2428749
- March, J. G., & Sutton, R. I. (1997).
  Organizational Performance as a
  Dependent Variable. *Organization Science*, 8(6).
  - https://doi.org/10.1287/orsc.8.6.698
- May-Chiun, L., Mohamad, A. A., Ramayah, T., & Chai, W. Y. (2015). Examining the effects of leadership, market orientation and leader member exchange (LMX) on organisational performance. Engineering Economics, 26(4), 409–421. https://doi.org/10.5755/j01.ee.26.4.7
- OECD Secretary General. (2020). Covid-19: SME Policy Responses. (March), 1–55. Retrieved from https://oecd.dambroadcast.com/pm\_7379\_119\_119680 -di6h3qgi4x.pdf
- Pakpahan, A. K. (2020). Covid-19 Dan Implikasi Bagi Usaha Mikro, Kecil, Dan Menengah. JIHI: Jurnal Ilmu Hubungan Internasional, 20(April), 2-

- o. https://doi.org/https://doi.org/10. 26593/jihi.v0i0.3870.59-64
- Paramita, A. S. (2019). Cloud Computing-Based Point-of-Sales Readiness for Surabaya's Small Medium Enterprises. 8, 1–12. https://doi.org/https://doi.org/10. 30534/ijatcse/2019/5581.52019
- Part, R. C. (2010). Inventory Management in Small and Medium Enterprises: A Study of Machine Tool Enterprises in Bangalore. (Unit 07), 1–5.
- Pérez-Méndez, J. A., & Machado-Cabezas, Á. (2015). Relationship between management information systems and corporate performance. Revista de Contabilidad-Spanish Accounting Review, 18(1), 32–43. https://doi.org/10.1016/j.rcsar.2014. 02.001
- Tambunan, T. (2008). SME Development in Indonesia with Reference to Networking, Innovativeness, Market Expansion and Government Policy. *ERIA Research Project Report*, (March), 99–131. Retrieved from http://www.eria.org/publications/research\_project\_reports/smes-in-asia-and-globalization.html
- Tariq, U., Mumtaz, R., Ahmad, H. M., & Waheed, A. (2014). Impact-of-Leader-Member-Exchange-on-Organizational-Performance2014IJSciEngRes. 5(12), 92–100.
- Venkatraman, N., & Ramanujam, V. (1986). Measurement of Business Performance in Strategy Research: A Comparison of Approaches. *Academy of Management Review*, 11(4), 801–814. https://doi.org/10.5465/amr.1986.42 83976

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