DETERMINANTS AFFECTING SURVIVAL OF SMES
DURING COVID-19 PANDEMIC IN MANADO

FAKTOR-FAKTOR YANG MEMPENGARUHI KEBERLANGSUNGAN HIDUP UMKM
SELAMA PANDEMI COVID-19 DI MANADO

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Abstract: Food and Beverage industry right now hold the biggest share within SMEs sectors including in Manado; Food and Beverage industry as a whole is always evolving because of the trends within this industry. In the current situation; these businesses need to compete in an unprecedented condition. Not only they need to compete with each other but they also need to survive during the Covid-19 pandemic that already spread all across the world; it includes Indonesia and moreover Manado in this particular case. The purpose of this study is to find out the determinants that affect the survival of SMEs during the Covid-19 pandemic. This study uses a quantitative method and multiple linear regression as the tool of the research. The findings of this study show that the independent variables which are Business Resilience and Financial Technology simultaneously and independently affect the Survival of SMEs in Manado during COVID-19 Pandemic. From the results; there are several solutions offered for the problem such as Business incubator and the utilization of financial technology such as internet platform and e-commerce from leading company can act as one of the primary ways for the business to survive.

Keywords: business resilience, financial technology, covid-19, survival of SMEs

Abstrak: *Industri makanan dan minuman memiliki bagian terbesar di umkm yang ada di Manado; bisnis industry dan makanan terus berubah dikarenakan tren dari industry yang ada. Pada saat ini bisnis-bisnis yang ada sedang menghadapi situasi yang mengejutkan, tidak hanya harus bersaing dengan bisnis lain namun mereka juga harus bertahan di saat pandemic covid-19 terjadi diseluruh belahan dunia. Hal ini termasuk di Indonesia terlebih di Manado, tujuan dari penelitiaan ini adalah untuk menemukan faktor yang mempengaruhi keberlangsungan hidup umkm di masa pandemic covid-19 ini. Penelitian ini menggunakan metode kuantitatif dan liniear regresi berganda sebagai alat ukur di penelitian ini. Penelitian ini menemukan bahwa variabel independent yakni ketahanan bisnis dan teknologi finansial dapat mempengaruhi keberlangsungan hidup umkm di Manado selama pandemic covid-19. Dari hasil ini, ada beberapa rekomendasi yang dapat dilakukan seperti membuat incubator bisnis dan penggunaan fintech seperti platform internet dan e-commerce dari perusahaan ternama agar bisnis bisa tetap bertahan.*

Kata kunci: ketahanan bisnis, teknologi finansial, covid-19, keberlangsungan hidup umkm

INTRODUCTION

Research Background
Small Medium Enterprises prove to be a new business that not only acts as a mere trend but it keeps increasing year by year. According to Badan Pusat Statistik (BPS), the number of SMEs from year 2000-2017 keeps increasing year by year. The number of SMEs in 2000 is around 39 million and on 2017 approximately around 59 million also it will still increase in the later tears, this fact show that SMEs now keep increasing and act as one of the most favorable type of business that people want to create. With the kind of development and needs that keep increasing, it can be assure that the number of SMEs will keep on increasing in years to come. According to Organization for Economic Co-operation and Development (OECD) stated that small and medium enterprises are "non-subsidiary, independent firms which employ less than a given number of employees. This number varies across countries. The most frequent upper limit designating an SME is 250 employees, as in the European Union." The definition describes the main difference of SMEs which is the number of employees, which relatively small compare than the conventional type of businesses. With the efficiency and advantages of SMEs trend, it surely makes a good path for people who want to open business and pursue this new type of businesses. However the fact of SMEs having these types of advantages, it opens up opportunities for all people thus creating intense competitions from one and another. Survival of SMEs is essential because it is the main objective for the businesses, to keep it sustainable and relevant as long as possible.

Sustainability in business need to be achieve because of the competition that will be faced by the business; it is generally believed that many of these SMEs do not survive their first years in business (Liu and Pang, 2006). This is a common thing because opening a new business also means finding customers that willing to buy the product, considering the numbers of established SMEs and also other emergence of new business it means that the new business need to find a way to fit in the current competition. Sustainability need to be achieved not only by the new businesses but also by the other business that already established; if this cannot be fulfilled it can impacted the business as a whole and lead into bankruptcy. Food and Beverage industry right now hold the biggest share within SMEs sectors including in Manado; Food and Beverage industry as a whole is always evolving because of the trends within this industry. The main product of this industry always improve in a rapid pace because the idea of having food as a main need keep on shifting; people are not easily satisfied anymore with the current stale product. Because of this trend lots of food and beverage businesses within SMEs need to evaluate and even change the whole concept of the restaurant; this creates a disadvantage for the owners and every entities that work within the food and beverage industry. Currently the number of SMEs of Food and Beverage sector in Manado is 11341 according to the latest data from BPS; the number keep on increasing as time goes buy thus showing the uptrend of SMEs in Manado especially in Food and Beverage sector in Manado.

In the current situation; these businesses need to compete in an unprecedented condition. Not only they need to compete with each other but they also need to survive during the Covid-19 pandemic that already spread all across the world; it includes Indonesia and moreover Manado in this particular case. All types of businesses got the impact from the pandemic because it affects all part of the society in the end, SMEs are among the hardest hit by the Covid-19 crisis. Many are shuttered, and far more face cash flow constraints, rising questions about just how many will survive this recession (Baker and Judge, 2020). The government already gives many types of solution in order to help these businesses to survive; however; it is not enough because in the end the numbers of consumers decrease from time to time. Because of this situation survival become the only objective for the SMEs currently; it is hard for the businesses to try to improve and growing right now and therefore they can only do their best to survive. In terms of improvement; it can happen later after the pandemic; but for the current situation many of SMEs need to survive.

Research Objective
The research objectives are:
1. To identify if business resilience and financial technology affect the survival of SMEs during Covid-19 pandemic in Manado simultaneously.
2. To identify if business resilience affect the survival of SMEs during Covid-19 in Manado partially.
3. To identify if financial technology affect the survival of SMEs during Covid-19 in Manado partially.

THEORETICAL REVIEW

Small Medium Enterprises

According to World Trade Organization (WTO) Small and Medium Enterprises are businesses whose personnel numbers fall below certain limits. The abbreviation "SME" is used by international organizations such as World Bank, the United Nation, and WTO as well. The number of SMEs at the end in terms of employee are much smaller compare to bigger companies; it's because the nature of SMEs which is still going to be below the production of bigger and established companies. Small and Medium Enterprises are different within countries. In developing countries, smaller (micro) and informal firms, have a larger share than in developed countries. SMEs are also said to be responsible for driving innovation and competition in many economic sectors. Although they create more jobs, there is also a majority of job destruction/contraction (Aga, 2015). SMEs statistical definition usually varies per country. However, most of time the consideration of SME criteria is based on the number of employees, value of assets or value of sales. Typically; there are three categories of SMEs: The first category is made up of small stall-holders that operate mostly in traditional markets. Most of these enterprises are still run by the founders/owners as their children are not really interested in continuing the business and prefer to work in other fields. The second categories of SMEs are those that are part of the supply chain or the ecosystem of the existing large corporations. These enterprises are more professional which means the quality of the goods and services deliver are quite good following the standard of the large corporate served, so that the continuity of the enterprise is more secure.

Covid-19 Pandemic

Coronavirus Disease 2019 or referred as Covid-19 is an infectious disease caused by a severe case of breathing that first happened in China; from there the virus spread all across the globe in a span of 4 months into 2020. The severity of Covid-19 thus making it into a global pandemic; almost every nation eventually got hit with this disease. The main affect from this virus is not only in terms of health but in term of society as well; to reduce the number of the infection many countries create regulations such as doing lockdown within the countries or city. The number of people and the business activities that usually take outside also being reduced significantly because the government also create a regulation to do work from home; meaning that there will be no physical contacts with other workers at the office because everyone will work from home using electronic devices to help them work. Many are shuttered, and far more face cash flow constraints, raising questions about just how many will survive this recession (Baker and Judge, 2020). The government has responded with a critical forgivable loan program, but for many of these businesses, this program alone will not provide the cash they need to retain workers, pay rent, and help their business come back to life when people are no longer sheltering in place. The current situation shows how the business got a significant impact because of the Covid-19 outbreak; businesses shut down permanently because the lack of customers and economic world as a whole need to consider many options in order to survive during the unprecedented situation.

Business Resilience

Business Resilience can be described as the way of the business to still being relevant regardless of the time; most business that can stand by many years are the type of business that have high resilience. Restaurant franchises and sports apparel are some of the example of businesses that have high business resilience; these examples are backed up with the time frame in which they can still compete and even become the leader of the competitions after many years and even decades. Business resilience also focuses on the main aspects within business that differentiate it between competitors; one of the most important layers of it is about the products and the innovations within the products. There are 4 main aspects that can determine the business resilience which are product excellence, people behavior, process reliability and digital transformation (Marques, 2017). Product excellence focus more about the improvement and innovation of the product; it is about to make the best product that cannot be imitated or even be the standard of others competitor. People behavior is about how the customers react toward certain products of businesses; it focuses around advertising and the way of gaining people attention or admiration toward a certain brand. Process reliability is the way of the business in creating a certain product or services; the business needs to create products according to the standard operation procedure and need to be safe for the users as well. Last one is digital transformation; it focuses on the business integration with digital platform such as the internet. The business needs to take advantage of the digital improvement nowadays in order to survive the competitors; can be a competitive advantage against other businesses.

Financial Technology

Financial Technology mainly speaks about the integration of business with electronic devices; these electronic devices also integrated with the digital perspective of the technology. The main goal of financial technology is improving the financial services through the inclusion of technology such as mobile phones and other devices. Financial technology in current days is important and impartial in the status of business itself; most of businesses take advantage of financial technology to make things easier. The current situation also shows how the financial technology even take over the conventional type of finance; it can be seen with the stock market and also other that use technology to make things available and also accessible for everyone that use electronic devices. Financial technology focus on 3 major aspects which are innovativeness, solution through technology and overall improvement (Schuffel, 2016). Innovation in this case talks about how the technology integration can help innovated the business; the business can be better because of the sense of innovation. Solution provided by technology is mainly focus on how technology solves the problems within the business that cannot be done in a conventional way; advertising and other are the examples of how financial technology solves one of the problems within the business which is about the brand recognition. The last one is about overall improvement; meaning the improvement of not only the business but also the provider of technology itself. It is a mutualism condition between the business and the technology provider; which in the end give good impact to both sides.

Previous Research

Fitriasari (2020) in how do small and medium-sized enterprises survive the COVID-19 outbreak found that there is a linkage between business resilience and SMEs. "Three important elements of business resilience are product excellence, people behavior, and process reliability, Business resilience is supported by digital transformation. Digital transformation exists when new digital skills emerge and digital tools are adopted. The right digitalization strategy is needed in achieving business goals and developing SME products or services to be more competitive."

Bartik (2020) in how are small businesses adjusting to COVID-19 also founds that financial technology affect the SMEs. "Several main themes emerge from the results. First, mass layoffs and closures have already occurred. Second, consistent with previous literature, we find that many small businesses are financially fragile. Third, businesses have widely varying beliefs about the likely duration of COVID related disruptions. Fourth, the majority of businesses planned to seek funding through the CARES act."

Baker and Judge (2020) in how to help small businesses survive Covid-19 shows that financial technology associated with SMEs. "This finding found that regulators need to find new and creative ways to work with existing intermediaries, including banks and online lenders, who have the infrastructure and tools needed to help small businesses get the additional loans they need to survive and thrive. Leveraging existing institutions could enhance the speed, scale, and scope of the government's response, all critical virtues in the efforts to support small business."
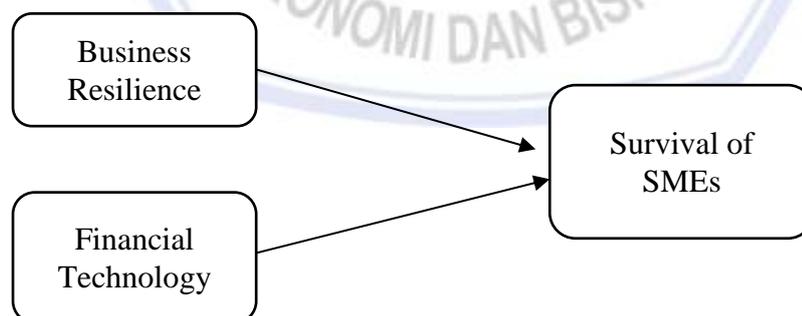
Conceptual Framework

Figure 1. Conceptual Framework
Source: Data Processed, 2020

RESEARCH METHOD

Research Approach
This is a quantitative research that emphasizes objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques. Survey method used as the source of primary data by distributing questionnaire to find out the direct influence of independent variables (X) which are business resilience and financial technology on dependent variable (Y) which are the survival of SMEs.

Population, Sample, and Sampling Technique
The population of this research are SMEs that run in food and beverage industry in Manado. The sample size of the research will be 100 respondents which are owners of SMEs in Manado that already have at least 6 months of experience in the current business. Sample method that can be used for this research is purposive sampling. Purposive sampling can be define as identifying and selecting individuals or groups of individuals that are especially knowledgeable about or experienced with a phenomenon of interest.

Data Collection Method
To collect the research data, primary data collection was used through questionnaires. A questionnaire is a research instrument consisting of a series of questions (or other type of prompts) for the purpose of gathering information from respondents.

Operational Definition of Research Variables
Table 1. Variable Definition

Variable	Definition	Indicators
Business Resilience (X_1)	Business resilience, main aspects within a business that differentiate it between competitor and can keep up with the current condition of the competition in a long term	-Product Excellence -Process Reliability
Financial Technology (X_2)	Financial technology, the way on improving the financial services through the inclusion of technology such as mobile phones and other devices	-Innovative -Technology Solutions
Survival of SMEs (Y)	The business survivability as a whole is about how the business manages to stay within the competition or the capability to withstand hostile business environment, without significant impairment of its normal operations.	-Firm Performance -Financial Performance

Source: Author's Note, 2020

Validity and Reliability
Validity test use to measure the obtaining data are in line with the research concept. In other words, the instrument items used to obtain the data is correct and related with the concept of the research that will be conducted. Scale validity uses content validity where content validity shows the extent to which the items in the test cover the entire area of the object to be measured or to what extent the contents of the test reflect the characteristics of the attributes to be measured. Reliability test use to measure the consistency of instrument items. Reliability test defined as an index that showed how far instrument items can be trusted or dependable. Another definition if a set of the same object is measured many times with the same measuring instrument will get the same result.

Multiple Linear Regression
Multiple Linear Regression is used in this research. Multiple linear regression (MLR), also known simply as multiple regression, is a statistical technique that uses several explanatory variables to predict the outcome of a response variable. The goal of multiple linear regression (MLR) is to model the linear relationship between the explanatory (independent) variables and response (dependent) variable. Multiple Regression is a correlation coefficient indicates the strength of relationship between two variables, it gives us no idea of how much of the variance in the dependent or criterion variable will be explained when several independent variables are theorized to simultaneously influence it. This analysis is adopted when the researcher has one dependent variable which is

presumed to be a function of two or more independent variables. The objective of this analysis is to make a prediction about the dependent variable based on its covariance with all the concerned independent variables.

RESULT AND DISCUSSION

Result
Validity and Reliability

The validity test of business resilience (X1), financial technology (X2), and survival of SMEs (Y) are all valid. The variable is reliable because the value of Cronbach's Alpha is 0,775 bigger than 0,6.

Result of Multiple Linear Regression
Table 2. Case Processing Summary

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	5.148	1.474		3.492	.001
	Business Resilience (X1)	.271	.091	.329	2.979	.004
	Financial Technology (X2)	.139	.049	.315	2.853	.003

Source: Data Processed, 2020

Multiple regression analysis is used to determine the effect of the independent variables on dependent variable. The multiple linear regression equation can be interpreted as the followings. Constant value of 5.148 means that in a condition of ceteris paribus, if all independent variables equal to zero, then Survival of SMEs (Y) as dependent variable will be 5.148. X1' s coefficient value of 0.271 means that if there is one unit increase in Business Resilience (X1) then the Survival of SMEs (Y) will improve and increase by 0.271. X2's coefficient value of 0.139 means that if there is one unit increase in Financial Technology (X2) then the Survival of SMEs (Y) will improve and increase by 0.139.

Table 3. Table of R and R Square

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.587[a]	.345	.332	1.827

Source: Data Processed, 2020

The coefficient of determination (R2) measures the ability of a model in explaining variation of dependent variable. The value of coefficient of determination is between 0 and 1. The coefficient of determination (R) according to the table 3 is 0.587 which shows that the variation of all independent variable explains 58.7% of variation in the Survival of SMEs (Y), while the remaining 42.3% is explained by other factors outside the model or not discussed in this research.
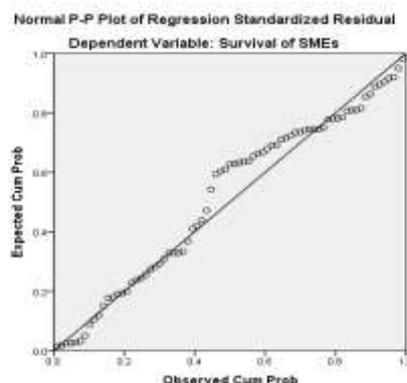
Normality Test

Figure 1. Normality Test
Source: Data Processed, 2020

Figure 1 shows that the dots are spreading near to the diagonal line and follow the direction of the diagonal line. Therefore, the normality test is accepted which means the data of this research is normally distributed.
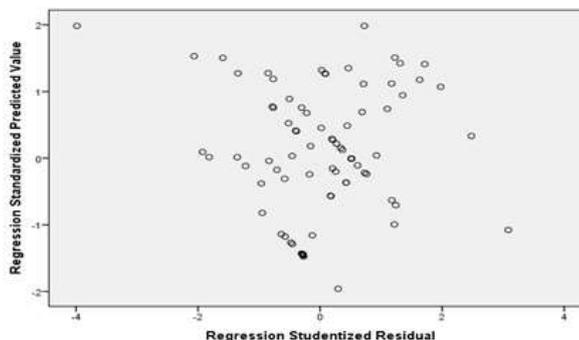
Heteroscedasticity Test

Figure 2. Heteroscedasticity
Source: Processed Data, 2020

Figure 2 shows that the dots are spreading above and below the number zero (0) in the Y axis. This proves that there is no heteroscedasticity in this regression.

Table 4. Multicollinearity Test Result

Model	Collinearity Statistics		Status
	Tolerance	VIF	
Business Resilience	0.347	1.223	No Multicollinearity
Financial Technology	0.347	1.223	No Multicollinearity

Source: Data Processed, 2020

Table 4 shows that the tolerance value of Business Resilience is 0.347, and Financial Technology is 0.347 meaning that the tolerance value of each variable is more than 0.1. The VIF value of Business Resilience is 1.223, and Financial Technology is 1.223 meaning that the VIF value of each variable is less than 10. Since all the tolerance values are more than 0.1 and VIF value of each independent variable is less than 10, this research is free from multicollinearity.

Table 5. F-Test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	170.626	2	85.313	25.562	.000[b]
	Residual	323.743	97	3.337		
	Total	494.360	99			

Source: Data Processed, 2020

Table 5 shows the value of Fcount is 25.562. The value of Ftable is found on the F Distribution Table by determining the degree of freedom 1 (numerator) is 2 and degree of freedom 2 (denumerator) is 97 with level of significance is 0.05 ($\alpha = 0.05$) and the level of confidence is 95% then Ftable is 3.09. The result is Fcount (25.562) > Ftable (3.09) with the level significant of 0,000. Therefore, since Fcount is greater than Ftable and the significant is 0.000<0.05, Hypothesis 3 is accepted which means the independent variables simultaneously influence the dependent variable significantly.

Table 6. T-Test

Variable	Tcount	Ttable	Description
Business Resilience	2.979	1.984	Accepted
Financial Technology	2.853	1.984	Accepted

Source: Data Processed, 2020

The t-test is used to see the partial influence of each independent variable on the dependent variable. The value of t-count of X1 is 2.979 with the level significant of 0.000. Since the value of tcount = 2.979 > ttable = 1.984 meaning that H1 is accepted. Sig <0.05 means that the confidence of this prediction is above 95% and the probability of this prediction errors is below 5% which is 0.000. The result of this declares that X1 (Business Resilience) partially has a significant effect on Survival of SMEs (Y). The value of t-count of X2 is 2.853 with the level significant of 0.000. Since the value of tcount = 2.853> ttable = 1.984 meaning that H2 is accepted. Sig <0.05 means that the confidence of this prediction is above 95% and the probability of this prediction errors is below 5% which is 0.000. The result of this declares that X2 (Financial Technology) partially has a significant effect on Survival of SMEs (Y).

Discussion

With businesses types that keep on evolving every days, so does the needs and wants from the customers. In this current situation the emergence of SMEs came as a new type of business and the trend of this particular business is still on a good track. SMEs offers different type of business that eventually brings advantages to 2 main entities in this case the customers and also the owners of SMEs. The current problem now is related with the COVID-19 Pandemic that happen; all types of business especially SMEs need to survive the current wave of pandemic in order to keep the business going for the foreseeable future. For this reason, the major contribution of this study is to explore the effect of Business Resilience and Financial Technology as the independent variable on Survival of SMEs as the dependent variable. This research was analyzed using multiple linear regression analysis. In the multiple regression method, regression procedures must divide the variables into two types which are dependent variable and independent variables. To get an accurate result from multiple linear regression method the purpose of this research is to analyzed the effect Business Resilience (x1) and Financial Technology (x2) as the independent variables towards Survival of SMEs (Y) as the dependent variable. The result of this research shows that based on hypothesis testing by using F-test, it is proven that there is linear relationship between independent and dependent variable simultaneously. It is also shows that based on hypothesis testing using t-test, from the significance value it can be seen that all variables individually have a significant effect. This result is the same with theories and previous researches that stated that Business Resilience and Financial Technology do have positive effect on the Survival of SMEs. The hypothesis about Business Resilience does have positive relationship and significant effect on SMEs Survival in Manado, then hypothesis regarding Business Resilience is accepted.

This result is in line from theories that stated that there is important effect of Business Resilience toward SMEs; business resilience tends to be included in SMEs' business model canvas and thus making it an important factor to be included for the business to survive (Fitriasari, 2020). Through product excellence and also process of creation for the product will make a more sustainable business; especially with the ongoing COVID-19 Pandemic which seems to stay for a long time. The research proves further point that Business Resilience can give impact to the survival of SMEs especially during the current pandemic; it can happen because with a sustainable business SMEs can manage their way during the pandemic. Current conditions are full with uncertainty; resilience of SMEs in this case in Manado is very crucial. The hypothesis about Financial Technology have a positive relationship and significant effect toward the Survival of SMEs shows that the hypothesis is accepted. The results of previous researches are also the same with this result that the Financial Technology can affect the Survival of SMEs especially during the COVID-19 Pandemic. The utilization of financial technology and other internet users increase the chance of survival for businesses including SMEs (Baker and Judge, 2020). This shows that by capitalize the existence of financial technology; SMEs may very well have the chance to survive during the ongoing pandemic. It can happen because the pandemic cause problem regarding purchasing process; everything needs to be done at home and thus financial technology will be the main solution.

CONCLUSION AND RECOMMENDATION

Conclusion
1. The independent variables which are Business Resilience and Financial Technology simultaneously affect the Survival of SMEs in Manado during COVID-19 Pandemic.
2. Business Resilience as one of independent variables partially has positive relationship and significant effect on Survival of SMEs as dependent variable.
3. Financial Technology as one of independent variable has positive relationship and significant effect on Survival of SMEs as dependent variable partially.

Recommendation

Business incubator can act as the best way for the new and the current business because it acts as the "training facilities" for these businesses to improve and maintain their current quality; thus creating a more resilience type of business regardless of the condition. With this training facilities SMEs can learn to improve the Business Resilience according to the indicators which are product excellence and also process reliability. The utilization of financial technology such as internet platform and e-commerce from leading company can act as one of the primary ways for the business to survive; it will make the business not only survive but also expand the current range of business into a new level. Utilization of technology also play an integral part according to the indicators which are innovative and technology solutions; will give a better impact toward the survival of SMEs especially during the pandemic.

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