Analysis of Income Determinants of Start *Up Coffee Shop Business in* Semarang City During The Covid-19 Pandemic

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Article Info	Abstract
	.The researcher decided to conduct research by focusing on the analysis of the determinants of business income in a coffee shop start-up business, namely a coffee shop that is new to startup or has just been established and or is 3 years old in the city of Semarang. This study uses a purposive sampling method with the research sampling technique is Start Up Coffee Shop as many as 70 respondents based on Roscoe theory. The independent variable is derived from each of the factors that affect operating income according to production theory, supply theory and digital economic theory namely the variables of venture capital (X1) , length of business (X2) , work experience (X3), working hours (X4) , labor (X5) , and technology (X6) . While the dependent variable is operating income (Y). The data analysis technique used multiple regression analysis. The results showed that the variables of working capital (X1) , labor (X5), and technology (X6) had a significant positive effect on operating income. While the variables for length of business (X2) , work experience (X3), working hours (X 4) does not have a positive effect on the income of a coffee shop start-up in Semarang City. This is the result of research before the existence of covid 19. Meanwhile, when there was covid 19, the only variable that had a positive effect on operating income was the technology variable (X 6).

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INTRODUCTION

A start-up is a business that has been established and is still in the development stage. Septian (2018) said they also use media and technology more to promote and offer the products they sell. According to Nugraha and N (2017), *start-up businesses* can create and open new opportunities for young people, especially for those who are ready to adapt and follow changes from traditional markets to *online markets* . According to Rudi Hardiansyah (2019) the development of the *start-up* itself happened because of encouragement from the government through the national 1000 *start up movement.* This was done to build a digital ecosystem in Indonesia which was carried out by the Ministry of Communication and Information in collaboration with a company under the KIBAR flag.

The potential for the growth of the *start-up business* which is quite extraordinary above must now face the reality, towards the end of 2019 in the city of Wuhan, China, a new type of disease emerged, namely the SARS-CoV-2 virus. or the corona virus (Covid -19) which resulted in the cessation of socio-economic activities in many areas. country to Indonesia. The inhibition of social and economic activities of the community has weakened and slowed the economic growth of the Indonesian state. Burhanuddin, CI and Abdi (2020) said the presence of Covid-19 in the community was a concern for many people. The rapid spread of this new virus has resulted in numerous citizen deaths affecting every country exposed.

Efforts to reduce these cases must also be taken by the Indonesian government by issuing several policies in stages, including the 2020 Presidential Regulation concerning the determination of public health emergencies related to Covid-19 with the existence of Large-Scale Social Restrictions (PSBB). in areas that are included in the red zone until the policy is enforced. The Java-Bali Community Activity Restriction (PPKM) will be implemented starting in July 2021. Efforts made from upstream to downstream are none other than controlling the corona virus in order to immediately restore health and economic conditions as well as community activities as

before. Although there are other impacts that are felt by the community with the PSBB and PPKM, namely office activities and travel outside the city are limited, face-to-face learning is eliminated, entrepreneurs who lose customers must go out of business.

The suppression of the number of cases of this new virus, is changing pattern of community activity that requires to stay at home (*stay at home)* and do work and other activities from home (*Work from Home / WFH)* . Prapti (2018) said that over the last twenty years the world economy has undergone many changes after the emergence of the *digital economy* . Since this pandemic, the acceleration of the use of technology in all aspects of community needs has increased sharply, including in the economic field. Business activities are faced with difficult situations and an adaptation process is needed to maintain business stability.

Operating income is an important thing in running a business. This is very important for entrepreneurs because that is where businesses can benefit from running a healthy and stable business. This argument is reinforced by the opinion of Kusnadi, SM, & Irmadariyani (2000) which states that income is an increase in assets that can cause additional capital but is not caused by additional capital from the owner or third party but by the sale of goods and or services to certain parties. So that in running a business, it is very important for an entrepreneur to know the determinants or factors that affect business income.

Theories that can affect business income in research include production theory, supply theory and digital economic theory. In production theory, production activities cannot be continued to the stage of the production process if the availability of raw materials does not exist. This certainly greatly affects the business cycle. If the availability of goods is not produced, there will be no supply and demand process or buying and selling transactions that can generate and even increase the income of a business or business. According to Gaspersz (1996) inputs in production theory are divided into several types or characteristics, namely labor, capital or capital, materials or raw materials, land, information and managerial aspects or entrepreneurial abilities. Meanwhile, according to Robert S. Pindyck, Daniel L. Rubienfeld (2007)

states that there is one additional element in modern production theory, namely technology.

The theory of supply described by Hidayati (2019) says that supply is a condition in which a number of goods or services are later offered (sold) at the current price level. From the point of view of economic theory, supply is defined as all the quantity of goods or services offered (sold) at the price level in the market at a certain time. Wilson Bangun (2017) said that supply is the opposite of demand, where producers want at high prices the number of offers up an item increases, and vice versa at low prices the number of offers up an item decreases. Thus, the law of supply is a law that describes the relationship between price and the quantity supplied of an item. If the price increases, the quantity supplied of an item also increases, and vice versa (ceteris paribus). The shift in supply is caused by factors other than the price of the good itself, which affect the quantity supplied of a particular good. According to Wilson Bangun (2017), the following factors influence supply, namely the price of related goods, production costs and technology.

The concept related to digital economy or digital economy theory was first introduced by Tapscott Don (1998) who argued that sociopolitical and economic systems have characteristics as an intelligence space including information, as access to information instruments, information processing and communication

capacity. Becker (1964) , concluded that the high level of human resources and human potential determines the development of an innovative economy based on technology and digital knowledge. In the opinion of Schumpeter, J., & Backhaus (2003) , the constraint of the concept of economic growth and economic development is a special form of organization of scientific progress that ensures competitive advantage and technological progress. According to Nurul Amalia Sari (2019) The digital economy is changing the global economy, enabling small industries to become micro industries with their elasticity and dynamics. Reedy, J., Schullo, S., & Zimmerman (2000) argue that another digital economy concept is the digitization of information and ICT infrastructure (Technology, Information and Communication). This concept is often used to explain the global impact of ICT not only on the internet but also on the economy.

The theory above is very relevant to research and current conditions, during the COVID-19 pandemic, the internet-based economy has given a new color to world development, including Indonesia. The results of the 2019 Susenas data processing show that the proportion of internet users in Indonesia has grown rapidly in recent years and reached 43.52% in 2019. According to Temasek/Bain (2019) , the rapid growth of internet users is expected to grow into a giant digital economy in Asia. Southeast in 2025.
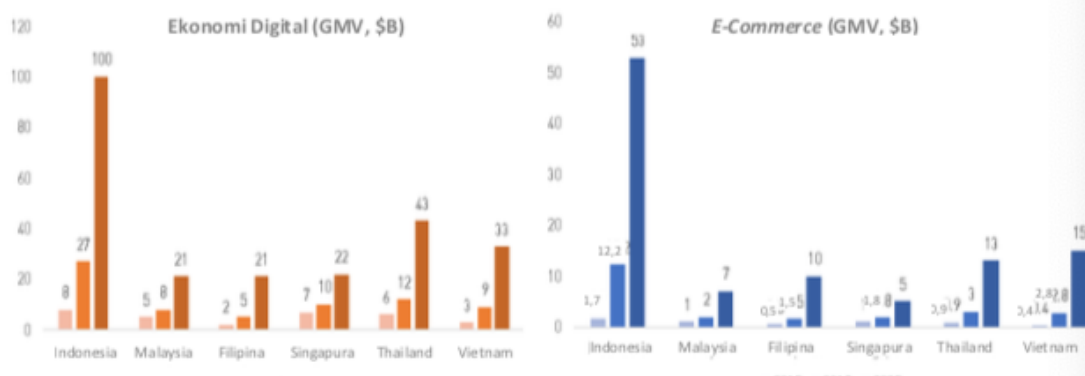

Figure 1 . 1Market Size of the Digital Economy and E-commerce in Southeast Asian

In the current state of the COVID-19 pandemic, *online sales* can be an alternative or solution. Another thing that can be an alternative to increase business income is to utilize technology with various *(online) social media platforms* , including *Instagram, Facebook, Whatsapp,* store provider applications (*websites*) and even *other e-commerce* .

This surprising event in the health and economic fields attracted the attention of researchers to conduct research in the economic field, especially in terms of the factors that affect the business income of *coffee shop start-up entrepreneurs.* An entrepreneur certainly needs to know things like the above to determine a strategy in optimizing his business for profit, especially for novice entrepreneurs or *start-ups.* Business management in the midst of the existing potential, namely increasing coffee consumption and opening *coffee shop startups* , requires comprehensive research on whether these businesses are able to survive in the midst of the COVID-19 pandemic and are still feasible to run. become a *start-up* business that has good business projections and must be maintained.

In the research that has been done by several previous researchers, there are differences in the results of research between previous researchers and current research which are summarized in the research gab table as follows:

Table 1. 1Research Gap Research

No	Study	Results	Research Gap
1	Analysis of the Effect of Capital, Length of Business and Labor on Income of Micro, Small and Medium Enterprises in East Langowan District (Polandos et al. 2019)	The results showed that the venture capital variable had a positive and significant effect on the income of MSME entrepreneurs in East Langowan District. The variable length of business and labor has no significant and significant effect on the income of MSME entrepreneurs in East Langowan District.	Based on the researcher's analysis of previous research, there are several different research results, including: There are differences in the results of research conducted by Polandos et al. 2019 and Deiral Diandrino, 2018 state that the length of business variable has no significant and significant effect on operating income, while research conducted by Trio Agung Wijaya Santoso, 2019 shows the results that the length of business variable has a significant effect on the level of operating income.
2	Analysis of factors that influence income levels in Micro, Small and Medium Enterprises (Case Study of Micro Enterprises in the Food and Beverage Sector in Kedungkandang District, Malang City) (Trio Agung Wijaya Santoso, 2019)	The results of this study indicate that the number of workers, the number of customers and the length of business have a significant effect on the income level of micro, small and medium enterprises in Kedungkandang District, Malang City.	There are differences in the results of research conducted by Polandos et al. 2019 states that the labor variable has no significant and significant effect on operating income while the research conducted by Trio Agung Wijaya Santoso, 2019, Deiral Diandrino, 2018, Wahyu Bagas Setiaji, 2019, Gestry Romaito Butarbuta, 2017 shows the results that the labor variable has a positive effect and significant to the level of operating income
3	Analysis of Factors Affecting the Income of MSME Coffee Shops in Malang City (Deiral Diandrino, 2018)	The results of the study show that the variables of capital, length of formal education and labor have a significant influence on the income of MSME Coffee Shops. While the variable length of business does not have a significant effect on the business income of MSME Coffee Shops in Malang City.	The object of research is currently devoted to entrepreneurs or SMEs Start Up (businesses that are only 3

4	Analysis of the income determinants of tofu micro and small industries in Trunan Tidar Selatan, Magelang Selatan, Magelang City (Revelation Bagas Setiaji, 2019)	The results in the study show that business capital, labor and work experience have a positive and significant effect.	years old in the process of being established) There are differences in the current research conditions and situations, namely the COVID-19 pandemic, which entrepreneurs have never experienced before.
5	Analysis of the factors that affect the income of typical food businesses in the City of Tebing Tinggi (Gestry Romaito Butarbuta, 2017)	The results of the study show that the amount of capital, labor and length of work have a significant effect on increasing the value of income for Lemang specialties in Tebing Tinggi City.	

In this study the researchers chose the city of Semarang as the object of research because the city of Semarang has various potentials that are quite good in terms of developing and accelerating urban development in Central Java. Judging from the many developments and improvements that are quite significant, one of the tourist attractions in Semarang City is the Old City. This is followed by the proliferation *of start-up business developments coffee shops* that have sprung up in the city of Semarang. The data on the development *of coffee shop startups* that are in the same family with restaurants and restaurants from the Semarang City Culture and Tourism Office are quite dynamic, as shown in Figure 1.2 as follows:
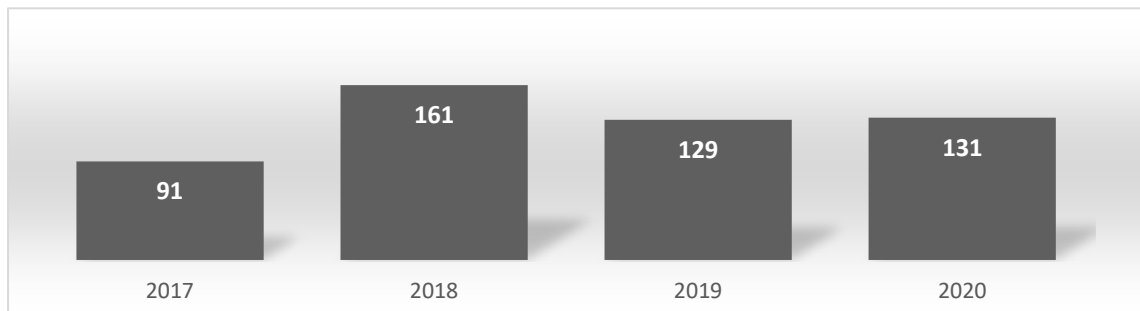

Figure 1. 2 Coffeeshop data in Semarang City
Source: Semarang City Culture and Tourism Office

With this potential, researchers want to see the growth *of the Semarang City coffee shop start-up business* during the COVID-19 pandemic. So that the stability of *the coffee shop startup business* still has a fairly good business projection and can also be an aspect of increasing Semarang City's regional income in terms of the factors that affect its business income. Analyzing the effect of business capital, length of business, work experience, working hours, labor and technology on the income *of coffee shop startups* in the city of Semarang. To find out the differences in the factors that affect the income *of coffee shop start-ups* in the city of Semarang before and during the COVID-19 pandemic.

RESEARCH METHODS

This study analyzes the determinants of the income *of a coffee shop start-up business* in the city of Semarang by using two variables, namely the independent variable, namely the variable that affects positively or negatively which is called the X variable and the dependent variable is the

variable that affects. influenced by the independent variable called variable Y. Variable Y in this research is *startup income coffee shop* in the city of Semarang during the covid 19 pandemic , while the X variable or the independent variable (independent *variable*) consists of business capital, length of business, work experience, working hours, labor and technology.

The types and sources of data used in this study are primary data and secondary data. First, the researcher's primary data was obtained through questionnaires, interviews, observation and documentation as supporting evidence for the research results. The researcher's primary data was obtained directly from *a coffee shop business start-up* in the city of Semarang during the covid-19 pandemic by asking questions to each variable either through questionnaires or direct interviews related to the substance of the research.

The results of questionnaires and interviews that have been received by researchers from respondents will then be processed and will be presented as research results. Second, secondary data is supporting data obtained by researchers from various sources, including the Central Bureau of Statistics of the City of Semarang, Central Java, the Department of Culture and Tourism of the City of Semarang, the *International Coffee Organization* , the results of previous studies and research journals related to this research.

According to Suharyadi & Purwonto (2009) , the population is a possible collection of many people, various objects, and other sizes that are the object of attention. Sugiyono (2016) argues that population is a generalization of objects or subjects that have certain qualities and characteristics set by the author to be researched and conclusions drawn. The population in this study is all data about *startups coffee shop* in the city of semarang . Based on data from the Semarang City Department of Culture and Tourism, there are 131 *coffee shop populations* in 2020, while according to the observations of researchers in that year there were approximately 150 *coffee shop start-ups* that began to stand or operate to run their businesses.

In his book Sekaran (2010) says *the rule of thumb* in determining sample size in *multivariate research* including multiple regression analysis, calculating sample size can use the Roscoe technique, namely the sample size must be 10 times the number of variables studied. So the number of samples in this study were 70 respondents, with the following calculation formula:

N (number of samples) = 10 xn variables (independent+bound)

$$N = 10 \times (1+6)$$
$$N = 10 \times 7$$
$$N = 70 \text{ respondents}$$

The concept of sampling in this study is based on considerations or *purposive sampling* , namely non-probability sampling based on certain criteria or conditions. The provisions for the sample of the author's research object are as follows:

1) *Coffee shop* that has been established or operated for less than and or 3 years
2) *Coffee shop* with less than 30 employees
3) *coffee shops* that use online application technology as a sales medium

The research instrument and data collection method in this study used a questionnaire model measured by a Likert scale to facilitate data analysis by providing the following assessments:

1. Value 5, answer "strongly agree"
2. Value 4, answer "agree"
3. Value 3, the answer "quite agree"
4. Value 2, answer "disagree"
5. Score 1, answer "strongly disagree"

Data collection in this study used a field survey method. The research data was obtained by distributing questionnaires to *start a coffee shop* in the city of Semarang with predetermined criteria so that the data obtained were based on the appropriate sample.

The data analysis technique in this study used two analyzes, namely:

Descriptive and Quantitative Analysis . In the quantitative analysis of this research, several stages of data testing are required, including:

1. Data quality test

using Confirmatory Factor Analysis (CFA) Test, Validity Test and Reliability Test.

2. Classic assumption test

To find out that this research is free from classical assumptions, it is necessary to detect

classical assumptions with several assumption tests, including: detection of multicollinearity, heteroscedasticity, and normality. The autocorrelation test was not carried out because the data used was only for one observation period.

3. Multiple Linear Regression Analysis

This study uses the following regression equation model:

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6)$$

$$Y = +\beta1. X1 +\beta2. X2 +\beta3. X3 +\beta4. X_4 +\beta5. X_5 + 6. X_6 e$$

Notes . :

X_1 = Working Capital

X_2 = Length of Business

X_3 = Work Experience

X_4 = Working Hours

X_5 = Labor

X_6 = Technology

Y = Operating Income

How much influence the independent variable has on the dependent variable is calculated using the multiple regression line equation. Meanwhile , the accuracy model of the sample regression function in estimating the actual value can be measured from *its goodness of fit* . Statistically at least it can be measured from the value of the coefficient of determination, the value of F statistics and the value of t statistics.

4. T-test difference test with related samples

In this study, a t-test difference is needed because the researcher wants to test whether there is a difference in the average of the two related samples, namely whether there are differences in the operating income of *coffee shop startups* before and during the Covid 19 pandemic. According to Ghozali (2018), if necessary, a t-test difference is needed. , then the test equipment must use *the paired sample t test.* Decision making in the t-test difference is significant operating income or not if the t-statistical value > from t table 5% or p-value <0.005.

RESULTS AND DISCUSSION

a) **Confirmatory Factor Analysis Test (CFA)**

Confirmatory Factor Analysis (CFA) is a factor analysis technique in which a priori based on known theories and concepts that are understood or determined in advance, a number of factors will be formed, as well as what variables are included in each factor formed and definitely the goal. The establishment of confirmatory factors (CFA) is intentionally based on theories and concepts, in an effort to obtain new variables or factors that represent several items or sub-variables, which are observed variables.

Table 1. 2 CFA Test Results for Operating Income Variables

Component Matrix							
Preparations Before Covid 19				Perception During Covid 19			
items	Component/Factor (1)	Components/ Factors (2)	Notes.	items	Component/Factor (1)	Components / Factors (2)	Notes.
A11	0.916	-	Very strong	A21	0.857	-	Very strong
A12	0.906	-	Very strong	A22	0.813	-	Very strong
A13	0.862	-	Very strong	A23	0.471	-	Currently
A14	0.842	-	Very strong	A24	0.437	-	Currently

Table 1. 3 CFA Test Results for Working Capital Variables

Component Matrix							
Preparations Before Covid 19				Perception During Covid 19			
items	Component / Factor (1)	Components / Factors (2)	Notes.	items	Components / Factors (1)	Components / Factors (2)	Notes.

B14	0.873	-	Very strong	B21	0.682	-	Strong
B12	0.766	-	Strong	B22	0.626	-	Strong
B13	0.766	-	Strong	B23	0.762	-	Strong
B11	0.759	-	Strong	B24	0.701	-	Strong
B15	0.659	-	Strong				
B16	0.567	-	At the moment				

Table 1. 4 CFA Test Results Variable Length of Business

Component Matrix

| | Preparations Before Covid 19 | | | | | Perception During Covid 19 | | | |
items	Components / Factors (1)	Notes:	Components / Factors (2)	Notes:	items	Components / Factors (1)	Notes:	Components / Factors (2)	Notes:
C15	0.818	Very strong	-0.142	Very low (-)	C24	0.816	Very strong	-0.383	
C16	0.791	Very strong	-0.132	Very low (-)	C21	0.685	Strong	0.520	Currently
C12	0.750	Very strong	0.101	Very low	C23	0.499	At the moment	-0.746	
C13	0.704	Very strong	0.280	Low	C22	0.468	At the moment	0.701	Strong
C14	0.525	At the moment	-0.747	Strong (-)					
C11	0.502	At the moment	0.679	Strong					

Table 1. 5 CFA Test Results Work Experience Variable

Component Matrix

Preparations Before Covid 19

items	Component/Factor (1)	Components/ Factors (2)	Notes.
H14	0.937	-	Very strong
H15	0.879	-	Very strong
D13	0.801	-	Very strong
D11	0.712	-	Strong
D12	0.676		Strong

Table 1. 6 CFA Test Results Variable Opening Hours

Component Matrix

Preparations Before Covid 19				Perception During Covid 19			
items	Component/Factor (1)	Components/ Factors (2)	Notes.	items	Component/ Factor (1)	Components/ Factors (2)	Notes.
E11	0.930	-	Very strong	E23	0.833	-	Very strong
E12	0.907	-	Very strong	E21	0.712	-	Strong
E13	0.514	-	Currently	E22	0.653	-	Strong
E14	0.502	-	S is				

Table 1. 7 CFA Test Results for Labor Variables

Component Matrix

Preparations Before Covid 19				Perception During Covid 19			
items	Component/ Factor (1)	Components / Factors (2)	Notes.	items	Component/ Factor (1)	Components / Factors (2)	Notes.
F12	0.790	-	Strong	F23	0.803	-	Very strong
F11	0.746	-	Strong	F21	0.731	-	Strong
F13	0.723	-	Strong	F22	0.406	-	S is
F14	0.656	-	Strong				

Table 1. 1CFA Technology Test Results

Component Matrix

Preparations Before Covid 19					Perception During Covid 19			
items	Component/Factor (1)	Notes.	Components/ Factors (2)	Notes.	items	Component/ Factor (1)	Components/ Factors (2)	Notes.
G12	0.865	Very strong	0.201	Low	G23	0.889	-	Very strong
G13	0.796	Strong	-0.380	Low (-) Currently	G22	0.851	-	Very strong
G11	0.782	Strong	0.428		G21	0.721	-	Strong
G15	0.117	Very low	0.711	Strong				
G14	0.499	Currently	-0.580	Medium (-)				

Extraction Method: Principal Component Analysis

Based on Confirmatory Factor Analysis (CFA) with parameter eigenvalue 1, the items/indicators that make up one factor are Perception of Income Before Covid, Perception of Income During Covid, Perception of Capital Before Covid, Perception of Capital During Covid, Perception of Work Experience, Perception of Opening Hours Before Covid , Perception of Opening Hours During Covid, Perception of Workers Before Covid, Perception of Workers During Covid, Perception of Technology During Covid. While the items/indicators that make up the two factors are Perception of Business Length Before Covid, Perception of Business Length During Covid and Perception of Technology Before Covid.

The Component Matrix itself shows how much a variable is correlated with the factor to be formed. For Perception of Business Length Before

Covid and Perception of Business Length During Covid, although two factors are formed, it is not a problem to maintain one factor because the Component matrix value is still high at factor 1 for items C11, C14, C22 and C23. While in the Technology Perception variable before Covid, the problematic item is G15 which has a very small Component matrix value in factor 1, which indicates the correlation value is very small to be part of factor 1.

Validity test was conducted to determine whether a questionnaire was valid or not from each of these variables. In this study, the questionnaire contained 13 variables, of which 7 were in normal conditions while 6 were in the Covid-19 condition. One way to find out which questionnaires are valid and which are invalid, we must first find out the r table. The formula for r table is df = N-2 so 74-2 = 72, so r table = 0.2287.

b) Validity Test

Table 1. 9 Validity Test Results for Operating Income Variables

Preparations Before Covid 19				Perception During Covid 19				
items	R count (Test 1)	R count (Test 2)	R table	Notes.	items	R count (Test 1)	R count (Test 2)	R table	Notes.
A11	0.802	-	0.2287	Valid	A21	0.544	0.548	0.2287	Valid
A12	0.862	-	0.2287	Valid	A22	0.332	0.312	0.2287	Valid
A13	0.847	-	0.2287	Valid	A23	0.205	-	0.2287	Invalid _
A14	0.771	-	0.2287	Valid	A24	0.230	0.243	0.2287	Valid

Table 1. 10 Results of the Validity of Business Capital

Preparations Before Covid 19				Perception During Covid 19				
items	R count (Test 1)	R count (Test 2)	R table	Notes.	items	R count (Test 1)	R count (Test 2)	R table	Notes.
B11	0.604	-	0.2287	Valid	B21	0.430		0.2287	Valid
B12	0.642	-	0.2287	Valid	B22	0.344		0.2287	Valid
B13	0.599	-	0.2287	Valid	B23	0.484		0.2287	Valid
B14	0.717	-	0.2287	Valid	B24	0.420		0.2287	Valid
B15	0.547	-	0.2287	Valid					
B16	0.398	-	0.2287	Valid					

Table 1. 11 The results of the validity of the long effort

Preparations Before Covid 19				Perception During Covid 19				
items	R count (Test 1)	R count (Test 2)	R table	Notes.	items	R count (Test 1)	R count (Test 2)	R table	Notes.
C11	0.268	-	0.2287	Valid	C21	0.357	0.476	0.2287	Valid
C12	0.626	-	0.2287	Valid	C22	0.211	0.381	0.2287	Valid
C13	0.588	-	0.2287	Valid	C23	0.162	-	0.2287	Invalid _
C14	0.410	-	0.2287	Valid	C24	0.488	0.238	0.2287	Valid
C15	0.714	-	0.2287	Valid					
C16	0.659	-	0.2287	Valid					

Table 1. 12 Work Experience Validity Test Results

Preparations Before Covid 19				
items	R count (Test 1)	R count (Test 2)	R table	Notes.
D11	0.595	-	0.2287	Valid
D12	0.570	-	0.2287	Valid
D13	0.705	-	0.2287	Valid
H14	0.849	-	0.2287	Valid
H15	0.770	-	0.2287	Valid

Table 1. 13 Working Hours Validity Test Results

Preparations Before Covid 19					Perception During Covid 19				
items	R count (Test 1)	R count (Test 2)	R table	Notes.	items	R count (Test 1)	R count (Test 2)	R table	Notes.
E11	0.708	-	0.2287	Valid	E21	0.192	-	0.2287	Invalid _
E12	0.687	-	0.2287	Valid	E22	0.315	0.445	0.2287	Valid
E13	0.406	-	0.2287	Valid	E23	0.490	0.445	0.2287	Valid
E14	0.408	-	0.2287	Valid					

Table 1. 14 Labor Validity Test Results

Preparations Before Covid 19					Perception During Covid 19				
items	R count (Test 1)	R count (Test 2)	R table	Notes.	items	R count (Test 1)	R count (Test 2)	R table	Notes.
F11	0.488	-	0.2287	Valid	F21	0.315	0.366	0.2287	Valid
F12	0.509	-	0.2287	Valid	F22	0.187	-	0.2287	Invalid _
F13	0.547	-	0.2287	Valid	F23	0.395	0.366	0.2287	Valid
F14	0.392	-	0.2287	Valid					

Table 1. 15 Technology Validity Test Results

Preparations Before Covid 19					Perception During Covid 19				
items	R count (Test 1)	R count (Test 2)	R table	Notes.	items	R count (Test 1)	R count (Test 2)	R table	Notes.
G11	0.546	0.518	0.2287	Valid	G21	0.587	-	0.2287	Valid
G12	0.652	0.688	0.2287	Valid	G22	0.679	-	0.2287	Valid
G13	0.506	0.627	0.2287	Valid	G23	0.724	-	0.2287	Valid
G14	0.283	0.325	0.2287	Valid					
G15	0.056	-	0.2287	Invalid _					

From the results of the validity calculation in the table above, it can be seen that r count > r table there are 50 valid indicators and 5 invalid indicators (in the calculation it has been removed).

c) Reliability Test

In this study, a reliability test must be carried out to measure whether the questionnaire is consistent or not in the research used to measure the influence of the independent variable on the dependent. In the basic reliability test of statistical decision-making , the alpha value (Cronbach's Alpha) is measured on a scale from 0.00 to 1.00. If the scale is grouped into five classes with the same range, then the measure of the stability of the alpha value can be interpreted as follows:

1. Alpha value (Cronbach's Alpha) 0.00 to 0.20 means less reliable
2. value (Alpha Cronbach) 0.21 to 0.40 means somewhat reliable
3. value (Alpha Cronbach) 0.41 to 0.60 means quite reliable
4. value (Alpha Cronbach) 0.61 to 0.80 means reliable
5. Alpha value (Cronbach's Alpha) 0.81 to 1.00 means very reliable

Table 1. 16 Reliability Test Results Before Covid 19

Variable	Alpha Cronbach (Test 1)	Alpha Cronbach (Test 2)	Notes.
Income (Y)	0.922	-	Very Reliable
Working capital (X1)	0.817	-	Very Reliable
Length of Business (X2)	0.784	-	Reliable
Work Experience (X3)	0.864	-	Very Reliable
Working Hours (X4)	0.746	-	Reliable
Labor (X5)	0.694	-	Reliable
Technology (X6)	0.640	0.741	Reliable

Table 1. 17 Reliability Test Results During Covid 19

Variable	Alpha Cronbach (Test 1)	Alpha Cronbach (Test 2)	Notes.
Income (Y)	0.530	0.543	Reliable enough
Working capital (X1)	0.638	-	Reliable
Length of Business (X2)	0.496	0.548	Reliable enough
Work Experience (X3)	-	-	-
Working Hours (X4)	0.509	0.615	Reliable
Labor (X5)	0.474	0.535	Reliable enough
Technology (X6)	0.811	-	Very Reliable

In the results of the reliability test during covid 19 on the work experience variable, the results did not appear because the questions in the research questionnaire on these variables did not represent the conditions when Covid 19 and the covid 19 pandemic became the first experience for everyone. It can be concluded from the table above, the variables that are stated to be very reliable with an alpha value (Alpha Cronbach) 0.81 to 1.00 there are four variables, namely Business Income Before Covid 19, Business Capital Before Covid 19, Work Experience before Covid 19 and Technology During Covid 19. declared reliable with an alpha value (Alpha Cronbach) 0.61 to 0.80 there are 6 variables, namely Business Length before Covid 19, Working hours Before Covid 19, Labor Before Covid 19, Labor Before Covid 19, Business Capital during Covid 19, and Working Hours During Covid 19. While the variables that are stated to be quite reliable with an alpha value (Alpha Cronbach) 0.41 to 0.60, there are three variables, namely Business Income during Covid 19, Length of Business during Covid 19 and Labor during Covid 19.

A. Classical Assumption Deviation Detection Results

Before performing the regression analysis, the classical assumption was first detected on the variable data in the research model. In this study, researchers will perform 3 detections, namely normality detection, heteroscedasticity detection, and multicollinearity detection.

a) Normality Detect

Normality detection aims to test whether the confounding or residual variables in the regression model have a normal distribution or not. A good regression model has residuals that are normally distributed or close to normal. In the detection of normality using a significance level of = 5% by using the following hypothesis:

H_0 : residual is not normally distributed

H_1 : residual is normally distributed

The following are the results of normality detection:

Table 1. 1 8 Normality Detection Results

	sour . Signature (2-tail)
Kolmogorov-Smirnov	0.039

Source: Data processed, 2022

Based on the results of normality detection, the probability value of the normality test is 0.039, so it can be stated:

H_0 : rejected because alpha > 5% residual is normally distributed

H_1 : accepted because alpha < 5% residual is not normally distributed

b) Multicollinearity Detect

Multicollinearity detection aims to determine whether there is a high correlation between independent variables in the regression model. One indicator to measure multicollinearity is using VIF and Tolerance. If the VIF value exceeds 10 or the tolerance is less than 0.1, it is a sign of multicollinearity. The results of multicollinearity detection are as follows:

Table 1. 19 Multicollinearity Detection Results

Independent variable	Collinearity Statistics	
	Tolerance	VIF
constant		
Initial capital	0.682	1,467
Business Length	0.538	1,860
Work experience	0.573	1,746
Opening hours	0.612	1,634
Labor	0.646	1,548
Technology	0.555	1,802

Source: Data processed, 2022

From the output above, the value of VIF <10 and Tolerance>0.1 is obtained. So it can be concluded that there is no multicollinearity.

c) Heteroscedasticity Detection

According to Gujarati, D, N,. & Porter (2013) , heteroscedasticity detection aims to test whether in the regression model there is a variable inequality from the residual of one observation to another observation. To determine the presence or absence of heteroscedasticity in this study using the Glejser test with the following hypothesis:

H0: data does not contain heteroscedasticity

H1: data contains heteroscedasticity

The following are the results of heteroscedasticity detection:

Table 1. 20 Heteroscedasticity Detection Results

Independent variable	Non-standard coefficient		Standard Coefficient	T	Signature
	B	Std. Error	Beta		
constant	1,720	1,488		1.156	0.252
Initial capital	-0.075	0.058	-0.181	-1,290	0.202
Business Length	0.062	0.070	0.140	0.882	0.381
Work experience	0.121	0.071	0.262	1,704	0.093
Opening hours	-0.022	0.085	-0.039	-0.261	0.795
Labor	-0.122	0.094	-0.187	-1,291	0.201
Technology	-0.004	0.100	-0.006	-0.036	0.971

Dependent variable : Absolute Residual

Based on Table 5.19, the probability value for each independent variable is Business Capital, Length of Business, Work Experience, Opening Hours, Labor, Technology is greater than 0.05 which indicates there is no heteroscedasticity because the independent variable is not significant to the dependent residual.

The calculation of multiple linear regression analysis in this study uses the help of the SPSS (Statistical Product and Service Solution) program with the level of significance equal to alpha < 0.50. The results of the regression of the influence of the independent variable on the dependent variable are as follows:

B. Multiple Linear Regression Analysis Results

Table 1. 2Multiple Linear Regression Analysis Results

Independent variable	Non-standard coefficient		Standard Coefficient	T	Signature	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
constant	1.8214	2.4349		0.7480	0.4571	0.682	1,467
Initial capital	0.3571	0.0954	0.4263	3.7435	0.0004***	0.538	1,860
Business Length	0.0007	0.1148	0.0008	0.0059	0.9953	0.573	1,746
Work experience	-0.3141	0.1163	-0.3354	-2.6997	0.0088***	0.612	1,634
Opening hours	0.0514	0.1390	0.0444	0.3698	0.7127	0.646	1,548
Labor	0.4045	0.1541	0.3071	2.6252	0.0107**	0.555	1,802
Technology	0.3018	0.1645	0.2316	1.8353	0.0709*	0.682	1,467
n	74						
F -statistics	7,684						
Question F - statistics	0.000***						
R box	0.408						
Durbin-Watson	1,772						

Dependent variable : income

*) significant by 10%; *) significant by 5%; *) significant by 1%

a) Assessing the Goodness of Fit

To find out the accuracy of the regression function model in estimating the actual value or goodness of fit in this study , the researchers tested the coefficient of determination, the value of the k statistic and the value of the t statistic.

- **Coefficient of Determination (R^2)**

The coefficient of determination is used to measure how much the dependent variable can be explained by the independent variable. The value of the coefficient of determination can be measured by the value of R - square and adjusted R - square . The adjusted R-square value is preferred because the value of the coefficient of determination has been adjusted to the number of degrees of freedom

(df). Based on the results, the value of the coefficient of determination (R2) ^{which} is indicated by the value of R2 is $^{0.408}$. This value shows that the operating income variable is explained by the variables of Business Capital, Length of Business, Work Experience, Opening Hours, Labor, Technology by 40.8 percent. While the rest is explained by other variables outside the model.

- **Simultaneous Regression Coefficient (F-Test)**

Simultaneous regression coefficient or F-test indicates whether all independent variables included in the model have a simultaneous effect on the dependent variable. Testing can be done by comparing the calculated F value with the table F value. Testing can also be done by comparing the calculated F probability value, if the calculated F probability value is less than the significance level ($\alpha = 0.05$), it can be concluded that the independent variables jointly affect the dependent variable. Based on the results of the regression obtained the following results:

Table 1 . 22 F Test Results

F-statistics	Prob. (F-statistics)
7,684	0.000

Based on Table 5.21, the calculated F value is 7.684, then with a significance level of 95 percent ($\alpha = 0.05$) where df 1 = 6-1 = 4, and df2 = 74-6 = 68, F table = 2.51 is obtained. The F table value of 2.51 is less than the calculated F value of 7.684 (F count > F table), then H $_{0 is}$ rejected and H $_{1 is accepted}$. Similar results are also shown when comparing the calculated F probability value of 0.0000 < 0.05, it means that the independent variable simultaneously affects the dependent variable. So that together the variables of Business Capital, Length of Business, Work Experience, Opening Hours, Labor, Technology affect the variable of operating income.

- **Partial Regression Coefficient (t-test)**

The partial regression coefficient (t-test) basically shows how far the influence of one independent variable on the dependent variable by assuming the other independent variables is constant. The test is carried out by comparing the t-count value with the t-table, if the t-count value of a variable is greater than t-table, the independent variable has an influence on the dependent variable.

Table 1 . 23 T-Test Results

Independent variable	t	Sig.
constant	0.7480	0.4571
Startup Capital	3.7435	0.0004***
Business Length	0.0059	0.9953
Work experience	-2.6997	0.0088***
Opening hours	0.3698	0.7127
Labor	2.6252	0.0107**
Technology	1.8353	0.0709*

By using the significance level = 0.05 and the value of degree of freedom (df) = 74-6 = 68, the t-table value is 1.668. Next, compare the t-count value with the t-table value:

a) The t-count value of the Business Capital variable is 3.7435 > the t-table value is 1.668, besides the significance value of Business Capital is 0.0028 less than the 0.05 significance value. So it can be concluded partially that the Business Capital variable has a positive and significant effect on the income variable.

b) The t-count value of the length of business variable is 0.0059 < the t-table value of 1.668, besides the significance value of the length of business is 0.9953 more than the significance value of 0.05. So it can be partially concluded that the length of business variable has no significant effect on the income variable

c) The t-count value of the Work Experience variable is -2.6997 > the t-table value of 1.960, besides the significance value of Work Experience is 0.0088 less than the 0.05 significance value. So that it can be partially concluded that the work experience variable has a negative and significant effect on the income variable.

d) The t-count value of the Opening Hours variable is 0.3698 < the t-table value of 1.668, besides the significance value of Opening Hours is 0.7127 more than the 0.05 significance value. So it can be concluded partially that the Opening Hours variable has no significant effect on the income variable

e) The t-count value of the Labor variable is 2.6252 > the t-table value is 1.668, besides the significance value of Labor is 0.0028 less than the 0.05 significance value. So it can be concluded partially that the Labor variable

has a positive and significant effect on the income variable.

f) The t-count value of the Technology variable is 1.8353 > the t-table value is 1.668, besides that the Technology significance value is 0.0709 less than the 0.01 significance value. So that it can be partially concluded that the technology variable has a positive and significant effect on the income variable.

C. Discussion result

In this study, multiple linear regression analysis was used to determine the effect of the independent variables, namely Business Capital, Length of Business, Work Experience, Opening Hours, Labor, Technology on the dependent variable, namely business income. After processing the data, the multiple linear regression equation (in standardized coefficients) is obtained as follows:

Table 1 . 24 Results of Multiple Linear Regression Equation Data Processing (in standardized coefficients)

Independent variable	Standardized Coefficients Beta	t	Sig.
Startup Capital	0.4263	3.7435	0.0004***
Business Length	0.0008	0.0059	0.9953
Work experience	-0.3354	-2.6997	0.0088***
Opening hours	0.0444	0.3698	0.7127
Labor	0.3071	2.6252	0.0107**
Technology	0.2316	1.8353	0.0709*

Operating Income $_i$ + e
Business Capital $_i$ = 0.4263
Length of Business $_i$ + 0.0008
Work Experience $_i$ - 0.3354
Opening Hours $_i$ +0.0444
Labor $_i$ +0.3071
Technology $_i$ + 0.2316

From the equation of the model, it can be explained the influence of each independent variable on the dependent variable as follows:

a) **Business Capital Affects Operating Income**

The variable of working capital partially has a positive and significant effect on operating income because the variable of venture capital has a regression coefficient of 0.4263, but since the scale used is intercal, it can be said that the increase

in the capital variable will affect the increase in operating income. These results are in accordance with the hypothesis which states that there is a positive effect of working capital on operating income. This is also in line with the statement of the *coffee shop start-up manager* during the PPKM period, business capital is a major factor in business progress.

b) **Length of Business Affects Operating Income**

The length of business variable partially has no significant effect on income. The length of business variable has a regression coefficient of 0.0008. These results are not in accordance with the hypothesis which states that there is a positive effect of business duration on business income but accepts H_0 which has no effect because the COVID-19 pandemic condition is a new condition

experienced by every business actor, both old and new.

c) Work Experience Affects Business Income

The work experience variable partially has a negative and significant effect on business income. The work experience variable has a regression coefficient of -0.3354. These results are not in accordance with the hypothesis which states that there is a negative work experience effect on business income, meaning that accepting H_0 is not significant and has no effect on operating income because alpha > 5%.

d) Working Hours Affect Business Income

The working hours variable partially has no significant effect on income. The working hours variable has a regression coefficient of 0.0444. These results are not in accordance with the hypothesis which states that there is a positive effect of working hours on business income because working hours show alpha > 5% so that they accept H_0 which has no significant effect.

e) Labor Affects Operating Income

Labor variable partially has a positive and significant effect on income. The Labor variable has a regression coefficient of 0.3071, but considering the scale used is the Likert scale, it means that the addition of labor will increase the operating income. These results are in accordance with the hypothesis which states reject H_0 and

accept H_1 that there is a positive influence of labor on operating income. This finding is of course very important where during the Covid 19 pandemic many people lost their jobs, but precisely the existence of a coffee *shop business* can help alleviate labor problems, which can help absorb labor.

f) Technology Affects Operating Income

Technology variable partially has a positive and significant effect on income. The Technology variable has a regression coefficient of 0.2316, but considering the research scale used the Likert scale, it means that changes in technology will be able to increase operating income. These results are in accordance with the hypothesis which states reject H_0 and accept H_1 that there is a positive influence of Technology on Revenue. This result is certainly interesting, that entrepreneurs must continue to innovate current technology, so that their business is liked by consumers.

g) Differences Before Covid-19 and During Covid-19

The object that we examine in analyzing the difference between before the covid-19 pandemic and the time of the covid-19 pandemic is the perception of business actors on Business Income, Business Capital, Business Length, Work Experience, Opening Hours, Manpower, and Technology.

Table 1 . 25 Paired Samples Statistics

Paired Sample Statistics				
	mean	N	Std. Deviation	Std. Error Mean
A1	3.5878	74	0.76350	0.08876
A2	2.5808	74	0.64602	0.07510
B1	3.3893	74	0.60729	0.07060
B2	3.2128	74	0.56387	0.06555
C1	3.6465	74	0.56832	0.06607
C2	3.4053	74	0.55501	0.06452
E1	3.4257	74	0.66044	0.07677
E2	3.0068	74	0.74251	0.08632
F1	3.6250	74	0.57969	0.06739
F2	3.0203	74	0.73298	0.08521
G1	3.9966	74	0.58593	0.06811
G2	3.4464	74	0.70949	0.08248

On average, the coffee business actor's perception of all variables has a higher value in conditions before Covid-19 than conditions during Covid-19, meaning that the independent variable and the dependent variable are positively related, where when the independent variable increases, the dependent variable increases.

Table 1 . 3 Paired Samples Test

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean Difference	Std. Deviation	Std. Error Mean	95% Interval Difference Lower	Confidence of the Upper			
A1 - A2	1.00703	1.03517	0.12034	0.76720	1.24686	8.368	73	0.000
B1 - B2	0.17649	0.57502	0.06684	0.04327	0.30971	2.640	73	0.010
C1 - C2	0.24122	0.65311	0.07592	0.08990	0.39253	3.177	73	0.002
E1 - E2	0.41892	0.84207	0.09789	0.22383	0.61401	4.280	73	0.000
F1 - F2	0.60473	0.94634	0.11001	0.38548	0.82398	5.497	73	0.000
G1 - G2	0.55027	0.75489	0.08775	0.37538	0.72516	6.271	73	0.000

In the different paired sample t-test, all variables have significant differences before Covid-19 and during Covid-19 because the value of Sig. (2-tailed) < 0.05 and the highest difference value is found in operating income compared to other variables such as Business Capital, Business Length, Work Experience, Manpower, Manpower and Technology.

CONCLUSION

The COVID-19 pandemic, researchers can draw the first conclusion . While the length of business, work experience and working hours do not have a positive effect on the income of a coffee shop start-up business in Semarang City .

Second, there are differences in factors that affect the income of a coffee shop start-up in Semarang City before and during the COVID-19 pandemic, namely; Conditions prior to the COVID-19 pandemic , business capital, labor and technology had a positive effect on the business income of a coffee shop start-up in Semarang City. While the length of business, work experience and working hours do not have a positive effect on the income of a coffee shop start-up business in Semarang City. Conditions during the COVID-19

pandemic were only technology that had a positive effect on the income of a coffee shop start-up in Semarang City. Meanwhile, business capital, length of business, work experience, working hours and labor do not have a positive effect on the income of a coffee shop start-up business in Semarang City.

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