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Impact and survival strategies of *UMKM* in cakung sub-district during the covid-19 pandemic

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Abstract : *UMKM* (MSMEs) or *Usaha Mikro Kecil dan Menengah* (Micro, Small and Medium Enterprises) are productive business units that can be carried out by individuals or business entities in all economic sectors. *UMKM* have driven Indonesia's economy and development. Through *UMKM*, new jobs are created, there is an increase in tax revenue, an increase in GDP (Gross Domestic Product) as well as its contribution to exports and the creation of fixed capital/investment. The number of *UMKM* in Indonesia is 64.19 million, where the composition of micro and small enterprises is very dominant, namely 64.13 million or around 99.92 percent of the total business sector. The covid-19 pandemic has made the economy in the world, including in Indonesia, fall into a crisis. *UMKM*, which is usually able to survive when hit by an economic crisis, turned out to be the sector that was affected during the pandemic. The difficulties faced by *UMKM* players during the covid-19 pandemic are declining sales, difficulties with capitalization, obstacles to product distribution and difficulty in obtaining raw materials. During the Covid-19 pandemic, there were restrictions on activities so that *UMKM* players had to carry out the right strategy to continue to do business in this situation. E-commerce is carried out to continue to serve consumers and also so that the business being managed can survive. In addition to e-commerce, innovating makes business people or business actors, including *UMKM*,still able to survive during the Covid-19 pandemic. The government provides support incentives for *UMKM* through the National Economic Recovery (PEN) program in 2020 and continued in 2021. The purpose of this study was to determine the impact of the covid-19 pandemic on the businesses of *UMKM* Cakung players, and to determine the effect of e-commerce, innovation, government policies on the survival position of *UMKM*

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Cakung. The sample of this study was 35 *UMKM* Cakung players who were randomly selected. Data analysis was carried out descriptively and by regression and correlation. The results showed that the covid-19 pandemic had an impact on the businesses of *UMKM* Cakung players. E-commerce and innovation partially have no effect on the survival position of *UMKM* Cakung, but government policies affect the survival position of *UMKM* Cakung . Simultaneously, e-commerce, innovation and government policies have an influence on the survival position of *UMKM* Cakung.

Keywords: *UMKM*, e-commerce, innovation, government policy, survival

1. Introduction

UMKM (Usaha Mikro Kecil dan Menengah) are stand-alone productive business units, which are carried out by individuals or business entities in all economic sectors, so that *UMKM* can be explained as companies that are owned and managed by an individual or owned by a small group of people with a certain amount of wealth and income. According to Amir Uskara (2021)[1], *UMKM* are small businesses that help the Indonesian economy. It is said to help because through *UMKM* it will form new jobs, as well as increase foreign exchange through business entity taxes. Meanwhile, according to Dedy Romero (2019)[2], *UMKM* are an economic activity or activity that drives Indonesia's development, such as the manufacturing industry, agribusiness, agriculture, and also human resources. The number of *UMKM* in Indonesia is 64.19 million, where the composition of micro and small businesses is very dominant, namely 64.13 million or around 99.92 percent of the total business sector (https://umkm-id.com)[3].

The Covid-19 pandemic that has hit the world since 2019 has caused tremendous shocks to the sustainability of *UMKM*. The *UMKM* sector, which is usually able to survive when hit by an economic crisis, turned out to be the sector that was affected during the pandemic. Almost all *UMKM* are affected by the economic crisis due to this global pandemic. According to the Ministry of Cooperatives and SMEs of the Republic of Indonesia (*Kementrian Koperasi dan Usaha Mikro Kecil Menengah*), at the beginning of the pandemic alone, there were around 37,000 *UMKM* that reported that they were seriously affected by this pandemic. 82.9% of these *UMKM* feel the negative impact of the covid-19 pandemic. The difficulties faced by *UMKM* players during the covid-19 pandemic are declining sales, difficulties with capitalization, obstacles to product distribution and difficulty in obtaining raw materials.

During the covid-19 pandemic, there were restrictions on activities, which caused consumer behavior to change. Consumers do more activities at home by utilizing digital technology. Business people need to anticipate this. Business people develop e-commerce to continue to serve consumers and also so that the managed business can survive, E-commerce is a process of buying and selling products electronically from business people to consumers and

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from companies to companies with computers as business transactions. In addition to e-commerce so that business people or business actors can still survive during the co-19 pandemic, business actors innovate in their business. Many innovations are made by business actors so that their products can be more efficient, effective and sellable in the market. Business actors in the *UMKM* sector also innovate and create contemporary products that suit the needs of the community, and always improve and maintain product quality so that consumers are more satisfied. The innovations made are adjusted to the conditions of the co-19 pandemic, such as making strong packaging for food products that must be sent to consumers. Government policy is also an important point that helps many *UMKM* players. The government has provided support incentives for *UMKM* through the National Economic Recovery (PEN) program in 2020 and continued in 2021. The realization of PEN to support *UMKM* amounting to IDR 112.84 trillion has been enjoyed by more than 30 million *UMKM* in 2020. The National Economic Recovery Program to support *UMKM* in 2020 was recorded to have successfully cushioned support for the business world, especially for the informal sector and *UMKM* to survive the impact of the Covid-19 pandemic. Support incentives for *UMKM* through the National Economic Recovery Program (PEN) provide a number of stimuli through loan initiation restructuring policies, additional capital assistance, electricity bill payment relief and other financing support.

Jackpreneur is a platform for the creation, facilitation and collaboration of *UMKM* development through the entrepreneurial ecosystem. Jackpreneur can take the form of long-term cooperation or other forms of activities that have the potential to develop business skills and independence, by collaborating between the DKI provincial government, the world of education, the business world, the community, institutions and/or other parties. By joining the Jackpreneur program, *UMKM* players can develop their business because of the various facilities, training and mentoring available, as well as business actors can get easy access to business capital and can collaborate with various Jackpreneur partners and the DKI Jakarta provincial government. In Cakung sub-district, East Jakarta, there are *UMKM* that have joined the Jakpreneur program.

Based on this background, a study was conducted entitled "Impact and Survival Strategies of *UMKM* in Cakung District during the Covid-19 Pandemic". The objectives of this research are:

1. To determine the impact of the covid-19 pandemic on the businesses of MSME players in Cakung sub-district.
2. To determine the effect of e-commerce on the survival position of MSME players in Cakung sub-district during the Covid-19 pandemic.
3. To determine the effect of innovation on the survival position of MSME players in Cakung sub-district during the Covid-19 pandemic.
4. To determine the effect of government policies on the survival position of MSME players in Cakung sub-district during the Covid-19 pandemic.

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5. To determine the effect of e-commerce, innovation, government policies together on the survival position of MSME players in Cakung sub-district during the Covid-19 pandemic.

2. Literature Review

2.1 *UMKM* and Survival Strategies

The definition of *UMKM* according to Law of the Republic of Indonesia No. 20 of 2008[4] concerning Micro, Small and Medium Enterprises Chapter 1 Article 1 is a productive business owned by individual businesses and or individual business entities that meet the criteria of micro, small and medium enterprises. Small businesses are productive businesses that stand alone, which are carried out by individuals or business entities that are not subsidiaries of companies that are owned, controlled, or are part of either directly or indirectly from medium or large businesses that meet the criteria for small subsidiary businesses. A medium-sized business is a stand-alone productive economic business, which is carried out by an individual or business entity that is not a subsidiary or branch of a company that is owned, controlled or is part of either directly or indirectly with a small business or large business with a total net worth or annual sales.

UMKM play an important role in the Indonesian economy. The role of *UMKM* contributes to the expansion of employment opportunities and labor absorption, the growth of gross domestic product (GDP), the provision of safety nets, especially for low-income people to carry out productive economic activities, as well as their contribution to exports and the creation of fixed capital/investment. *UMKM* have been able to absorb around 97% of the workforce in Indonesia. *UMKM* in supporting the Indonesian economy are 61.07% of the formation of gross domestic product (GDP), 14.37% in terms of non-oil and gas exports and 60.42% of fixed capital creation/investment (Ministry of Cooperatives and MSMEs, 2019)[5].

UMKM have advantages including labor-intensive, high durability, simple product types but using special skills. *UMKM* also have disadvantages including limited capital, low quality human resources, limited mastery of technology, poor financial management. *UMKM* have advantages over large companies including the ability to create jobs, close relationships in their companies, and flexibility to market conditions. The strengths, weaknesses and advantages of *UMKM* mean that they can survive in difficult times such as during the economic crisis.

According to a report from the Organization for Economic Co-operation and Development (OECD), the Covid-19 pandemic affected the economy from the supply and demand side. From the supply side, companies reduce the supply of raw materials and unhealthy labor and supply chains are also experiencing constraints. From the demand side, there is a lack of demand and decreased consumer confidence in a product. The OECD also mentioned that *UMKM* have a significant impact on this Covid-19 condition. With these conditions, *UMKM* are required to look for options so that their businesses can survive the Covid-19 pandemic. These options can be in the form of changing the way of selling, from selling on-site to selling online,

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making it easier for consumers to pay, for example, no longer with cash but through m-banking or e-wallet, making new innovations for their products or for their promotions or participating in government programs that ease the burden on *UMKM*, for example credit restructuring.

The survival strategy applied by the company is closely related to the company's ability to survive. The ability to survive is more owned by small businesses because the nature of the business itself is directly managed by the owner, so it is flexible in adapting to environmental changes and has speed and determination.

2.2 E-Commerce

In the current Covid-19 period, people and businesses are unable to interact directly due to the implementation of large-scale social restrictions (PSBB) as well as operational restrictions on working hours, which have an impact on *UMKM* in direct buying and selling transactions and a decrease in sales turnover. With this condition, one of the ways that *UMKM* business actors can continue to carry out their business activities and can reach many consumers and expand their network is by utilizing online sales or e-commerce.

E-commerce is the process of buying and selling products electronically by consumers and from company to company using computers as business transactions. E-commerce which was originally an online retail sales mechanism, now has a broader meaning. E-commerce has created a new digital marketplace with more transparent pricing, ease of access, a global marketplace with highly efficient trading. Implementing and utilizing e-commerce is an option because it is a learning process to improve quality and quantity, can reach new markets or consumers who were not previously targeted, create new networks and relationships. For *UMKM* players, using e-commerce can be more efficient and assisted in promotion, so e-commerce is one of the strategies chosen to survive in the midst of the Covid-19 pandemic.

2.3 Innovation

According to Wikipedia[6], innovation can be defined as the process and/or result of the development of utilization/mobilization of knowledge, skills and experience to create or improve new products, processes, and/or systems, which provide meaningful or significant value. So one of the goals of innovation is to create new conveniences for human life through the discovery or new development of innovative ideas that are successfully realized. An innovation is also closely related to product innovation. The objectives of innovation include increasing productivity, improving and improving the quality of products or services, meeting customer needs. The benefits of innovation include being able to display unique qualities, can increase the productivity of self and employees in the workplace, can help existing businesses to compete with other businesses.

Innovation is a concern for a company, because in the industry if innovation is not carried out, it will increase the risk faced by the company. Innovation is always needed by companies, both for industrial products and for consumer goods, because it is always expected that there will be changes or progress from the products offered. In the era of competition and also during the

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covid-19 pandemic, the competence of a company is determined by the company's ability to innovate, both related to product innovation to find new or modified products, as well as process innovations that can produce the same product at a lower cost, as a result of the use of new, more advanced technology.

2.4 Government Policy

With the current condition of Indonesia being hit by the covid-19 pandemic, *UMKM* still have the potential to dominate the domestic market, but the large number of *UMKM* affected by the covid-19 pandemic can hamper national economic growth. For this reason, the government has set special policies for *UMKM* to help them during this pandemic.

The government is prioritizing support for *UMKM* in the COVID-19 handling program and the National Economic Recovery (PEN). This prioritization can be seen from the special budget allocation to support*UMKM*. In 2020, the government allocated IDR 123.46 trillion out of IDR 695 trillion specifically to support*UMKM*. The next government policy is to restructure *UMKM* loans in the form of relaxation of asset quality assessment and postponement of principal and interest subsidies. The government provides low-interest working capital loans by placing state money in the form of deposits and / or government giro at partner commercial banks, amounting to IDR 30 trillion rupiah placed by the government in partner commercial banks for 6 months. Not only that, the government also provides guarantees for working capital loans for *UMKM* players The government also provides other support to help *UMKM* during the pandemic. The issuance of *UMKM* final income tax incentives borne by the government and productive assistance for micro businesses. The government stipulates that *UMKM* with an income of IDR 4.8 billion a year do not need to pay Final Income Tax. There is also the provision of productive micro business assistance (BUM). In addition to financing, the government also encourages *UMKM* workers to take advantage of the Pre-Employment Card Program.

2.5 Framework and Hypothesis

F. Emiliani et.al (2021)[7] with the research title "Analysis of *UMKM* Empowerment during the Covid-19 Pandemic" produced the right *UMKM* empowerment strategy by conducting e-commerce, digital promotion, maintaining customer relationship marketing and improving the quality of product and service services. Research from Evi Suryani (2021)[8] entitled "Analysis of the Impact of Covid-19 on *UMKM* (case study at home industry klepon at Kota Baru Driyorejo)" provides results that Covid-19 has an impact on the decline in sales in the home industry. LIPI (2020)[9] conducted a Survey of *UMKM* Performance during the Covid-19 Pandemic which resulted in the conclusion that 94.69% of *UMKM* experienced a decline in sales during the Covid-19 pandemic and the strategies of *UMKM* during the Covid-19 pandemic were looking for new markets, cheap raw materials and also asking for payment delays. Based on literature review and several previous studies, a framework is made as follows:

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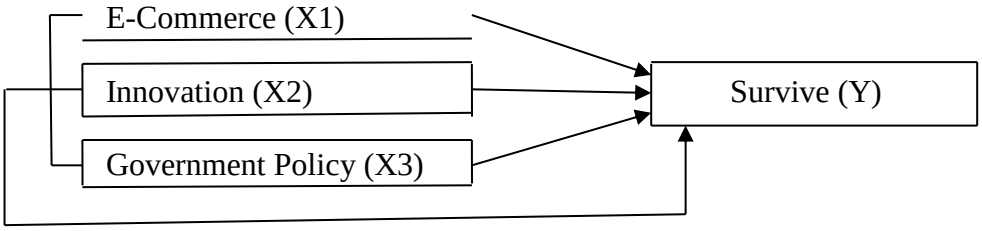

Figure 2.1 framework

The hypothesis of this study:

H1 : E-commerce has a significant and positive effect on the survival position of *UMKM* Cakung players during the Covid-19 pandemic.

H2 : Innovation has a significant and positive effect on the survival position of *UMKM* Cakung players during the Covid-19 pandemic.

H3 : Government Policy has a significant and positive effect on the survival position of *UMKM* Cakung players during the Covid-19 pandemic.

H4 : E-commerce, innovation and government policy have a significant effect on the survival position of *UMKM* Cakung players during the Covid-19 pandemic.

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3. Research Method

This research is quantitative research. Based on the research objectives, this research is a correlation study because the relationship between the variables used will be seen. The object of this research is *UMKM*. The population of this research is *UMKM* Cakung players who are registered as Jakpreneurs Cakung East Jakarta. The number of *UMKM* Cakung registered as Jakpreneurs is 78 *UMKM*. With a simple random sampling technique, a sample around 30 *UMKM* was taken. This number is sufficient for research because it meets 30% of the population.

3.1 Data and Variables

The data used in this research is primary data. Data was collected by randomly distributing questionnaires in the form of googleforms to *UMKM* Cakung players. The data includes demographic data, general data on*UMKM*, data on the condition of *UMKM* before covid and during covid, as well as data on the perceptions of *UMKM* actors towards e-commerce, innovation, government policies related to the survival of these *UMKM* actors. To obtain this data, a questionnaire was made in the form of open questions, namely for demographic data, general *UMKM* data and *UMKM* condition data. Meanwhile, the *UMKM* perception data is made in closed questions which refer to the respondent's agreement based on a linkert scale, namely value 1 for the answer strongly disagree (STS), value 2 for the answer disagree (TS), value 3 for

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the neutral answer (N), value 4 for the answer agree (S) and value 5 for the answer strongly agree (SS).

The variables used in this study include independent variables and dependent variables. The independent variables used for descriptive analysis are gender, age, marital status, type of business, length of business, number of workers, sales, costs and profits. The independent variables used for relationship analysis are e-commerce variables (X1) formed from 12 questions, innovation (X2) formed from 6 questions, government policies (X3) formed from 10 questions. The dependent variable is the variable of staying afloat (Y) which is composed of 6 questions.

3.2 Data analysis

Data analysis in this study is divided into 2, namely descriptive analysis and correlation regression analysis. Descriptive analysis provides an overview of the demographic characteristics of respondents, namely age, gender and marital status. An overview of the respondents' businesses is also part of the descriptive analysis, namely the type of business, length of business and number of workers. It also focuses on seeing an overview of sales, costs and profits before the covid period and during the covid period. Regression and correlation analysis will show how the relationship between variables, be it the pattern of the relationship or the closeness of the relationship. In this analysis, a hypothesis test will also be carried out which shows whether the independent variable has an effect on the independent variable. The stages of correlation regression analysis are as follows:

3.2.1 Validity test and reliability test

If the variables used are built from several questions, it is necessary to test the validity and reliability of the questions used, so that it can be seen whether the questions have measured what will be measured (variables) and the consistency of the respondents' answers to these questions. The validity test uses the Pearson coefficient (r) The calculated Pearson r coefficient value will be compared with the r value obtained from the table for a significance level of 5% and a sample of n so that the degree of freedom is (n-2). If the value of rcount> rtable, it is said that the questions made are valid. To measure reliability, Cronbach's Alpha is used. It is said to be reliable if the value of Cronbach's Alpha> 0.6.

3.2.2 Classical assumptions

The classical assumptions consist of:

1. Normality test, which shows whether in the regression model, confounding or residual variables have a normal distribution or not. Normality testing is done with the Kolmogorov-Smirnov test which is carried out on the residual value. This test is done by looking at the sig. (2-tailed) value. If the data has a significance level greater than 0.05 or 5%, it can be concluded that the data is normally distributed.
2. Multicollinearity test, which shows whether there is a correlation between the independent variables in the regression model. Multicollinearity can be seen from the tolerance value or VIF

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(Variance Inflation Factor). No multicollinearity occurs if the tolerance value> 0.10 or the VIF value < 10.

3. Heteroscedasticity test, shows whether in a regression model there is inequality of variance from the residuals of one observation to another. The heteroscedasticity test can be seen using the scatterplot graph. If the scatterplot graph forms a spread pattern, heteroscedasticity does not occur.

3.2.3 Multiple linear regression and correlation

The regression line equation in this study is:

$$Y = A + B_1X_1 + B_2X_2 + B_3X_3$$

With: A = constant B1, B2, B3 = correlation coefficient

X_1 = e-commerce X_2 = innovation

X_3 = government policy Y = survive

The correlation coefficient r shows the closeness of the relationship between the independent variables (X_1, X_2, X_3) and the dependent variable (Y). If the value of r is closer to 1, the relationship between the independent variables (X_1, X_2, X_3) and the dependent variable (Y) is very close and positive. Meanwhile, if the value of r is closer to -1, the relationship between the independent variables (X_1, X_2, X_3) and the dependent variable (Y) is very close but negative. The coefficient of determination r^2.100% shows the percentage of influence of the independent variables (X_1, X_2, X_3) on the dependent variable (Y).

3.2.4 Hypothesis testing

1. Partial test or t test, using the following hypothesis:

H_0: the independent variable (X_i) has no effect on the dependent variable (Y)

H_1: independent variable (X_i) affects the dependent variable (Y)

With a significance level of $\alpha = 5\%$ with the number of samples n and the degree of freedom df = n - 3. then the t_{table} value is obtained. Decision: if $-t_{table} < t_{count} < t_{table}$ then H_0 is accepted or stated that there is no effect of the independent variable on the dependent variable. But if $-t_{count} < -t_{table}$ or $t_{count} > t_{table}$ then H_0 is rejected, see H_1 or independent variable affects the dependent variable.

2. Simultaneous test or F test using the following hypothesis:

H_0: the independent variables used (X_1, X_2, X_3) together have no effect on the dependent variable (Y).

H_1: the independent variables used (X_1, X_2, X_3) jointly affect the dependent variable (Y).

With a significance level of $\alpha = 5\%$ with the number of samples n, the number of independent variables k, and the first degree of freedom $df_1 = k$, the second degree of freedom $df_2 = n - k$, the F_{tabel} value will be obtained. If the value of $F_{count} < F_{tabel}$ then H_0 is accepted or it can be said that the independent variables used together have no influence on the dependent variable. But if the value of $F_{count} > F_{table}$ then H_0 is rejected, see H_1 or it is said that the independent variables used together affect the dependent variable.

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4. Results and Discussion

The sample of this study was 35 *UMKM* Cakung players who were randomly selected from the population. The research results are divided into descriptive analysis and regression and correlation analysis.

4.1 Descriptive analysis

Descriptive analysis of this study includes an overview of the demographics of respondents (*UMKM* Cakung), namely gender, age and marital status and an overview of *UMKM* businesses, namely length of business, type of business, number of workers, sales, costs, profits, conducting e-commerce, innovation, taking part in government programs. The demographic characteristics of *UMKM* Cakung show that there are 31 female and 4 male They are aged between 24 years and 61 years with an average age of 46.97 years and a standard deviation of 8.449 years. According to their marital status, 30 *UMKM* Cakung players are married and 5 are divorced (widow/widower). *UMKM* Cakung players have been in business for 4.63 years with an average number of workers in their business of 1.91 people. The type of business of 21 respondents is in the culinary sector, 4 respondents in the daily necessities sector, 4 respondents in the handicraft sector and 6 respondents in other fields (e.g. services). Based on this description, it can be seen that most *UMKM* actors are women with ages in the productive age category, most of whom are married. The type of business that is engaged in is mostly culinary with the number of workers around 2 people, which shows that their business is not too big, and on average these *UMKM* players have existed before the Covid-19 pandemic.

Before the Covid-19 pandemic, the conditions of sales, costs and profits of *UMKM* Cakung players were as follows:

Table 4.1 Table of sales conditions, costs, profits of *UMKM* Cakung before the covid-19 pandemic

	Number of respondents with sales	Number of respondents with costs	Number of respondents with profits
<1million	7	12	14
1- < 5million	18	15	10
5-10millionn	4	5	9
>10 million	6	3	2

From table 4.1, it can be seen that most *UMKM* Cakung players are micro business actors whose sales and profits are still below 5 million rupiah.

During the Covid-19 pandemic, the conditions of sales, costs and profits of *UMKM* Cakung players were as follows:

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Table 4.2 Table of sales conditions, costs, profits of *UMKM* Cakung during the Covid-19 pandemic

	Number of respondents with sales	Number of respondents with costs	Number of respondents with profits
<1million	21	18	20
1- < 5million	8	11	14
5-10 million	6	6	1
>10 million	0	0	0

Table 4.2 shows that there are no *UMKM* Cakung players whose sales, costs and profits are above 10 million rupiah. The number of *UMKM* Cakung players whose sales, costs and profits are less than 1 million ruiah has increased from the time before the Covid-19 pandemic. This shows that the COVID-19 pandemic has an impact on the businesses of *UMKM* Cakung players.

UMKM Cakung players before the Covid-19 pandemic had carried out e-commerce, innovation and took part in government programs. There is an increase in the number of *UMKM* Cakung players who innovate and take part in government programs during the Covid-19 pandemic. This can be seen from the following table:

Table 4.3 Table of *UMKM* Cakung that conduct e-commerce, innovation, take part in government programs

	Before the Covid-19 pandemic			During the Covid-19 pandemic		
They do	e-commerce	innovation	Government Programs	e-commerce	innovation	Government Programs
Yes	26	18	13	28	22	18
No	9	17	22	7	13	17

Based on table 4.3, it can be seen that *UMKM* Cakung players are trying to innovate and take part in government programs such as credit restructuring for capital for the sustainability of their businesses. This also shows that the covid-19 pandemic has an impact on the businesses of *UMKM* Cakung players.

4.2 Regression and Correlation Analysis

In regression and correlation analysis, we will see how the relationship pattern between the variables of e-commerce (X_1), innovation (X_2), government policy (X_3) with the variable of staying survive (Y). In addition, the closeness of the relationship will also be seen. Hypothesis testing is carried out to see the effect of e-commerce variables (X_1), innovation (X_2), government policy (X_3) on the variable of staying survive(Y), either partially or simultaneously. The e-commerce variable (X_1) is formed from 12 questions, the innovation variable (X_2) is formed from 6 questions, the government policy variable (X_3) is formed from 10 questions and variable

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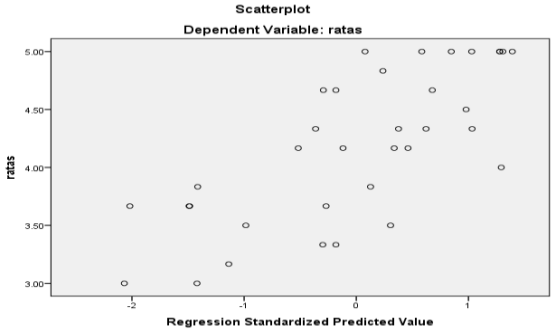
of staying survive (Y) is formed from 6 questions. The results of the validity test with the Pearson correlation coefficient (r) at a significance level of 0.05 and free degree (35-3 = 32) is 0.345, indicating that the correlation value for each question in the variables of e-commerce, innovation, government policy and staying survive > 0.345 which indicates that the questions are valid or can measure the variables. As for the reliability test, the Cronbach's Alpha value for e-commerce = 0.937, for innovation = 0.864, government policy = 0.890 and stay put = 0.772. All Cronbach's Alpha values are > 0.6 or all the variables are reliable.

The data used is valid and reliable. To perform regression and correlation analysis, the data must meet classical assumptions, namely normality assumptions, multicollinearity assumptions and heteroscedasticity assumptions. From the normality test using Kolmogorov-Smirnov, the asym.sig (2 tail) value = 0.426 > 0.05 is obtained, so it can be said that the normality assumption is met. The multicollinearity test uses the VIF value, where the VIF value for e-commerce (X_1) = 2.649, for innovation (X_2) = 1.671, for government policy (X_3) = 2.397. All VIF values are <10, indicating the multicollinearity assumption is met. Heteroscedasticity test using scatter plot as follows:

Figure 4.1 Scatter plot of heteroscedasticity test



The data points spread out not forming a pattern, indicating the assumption of heterokedasitisitas is met. All classical assumptions are met, so regression and correlation analysis can be carried out.

4.2.1 Multiple linear correlation regression

Multiple linear regression equations are formed based on the results of data processing as follows:

Table 4.4 Multiple linear regression coefficient table

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

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1	(Constant)	1.570	.447		3.511	.001
	e-dagang(X_1)	.082	.157	.103	.525	.603
	Inovasi (X_2)	-.034	.108	-.049	-.311	.758
	Kebijakan pemerintah (X_3)	.597	.163	.687	3.671	.001

a. Dependent Variable: tetap bertahan

$Y = 1{,}570 + 0{,}082\ X_1 - 0{,}034\ X_2 + 0{,}597\ X_3$

Which means:

1. If e-commerce, innovation and government policy are constant or equal to zero, then the survival of *UMKM* Cakung is 1.570 points/unit.
2. If e-trade increases by 1 point/unit, the survival of *UMKM* Cakung will increase by 0.082 points/unit assuming innovation and government policies are constant.
3. If innovation increases by 1 point/unit, the survival of UMKM *C akung* will decrease by 0.034 points/unit assuming constant e-commerce and government policies.
4. If government policy increases by 1 point/unit, the survival of *UMKM* Cakung will increase by 0.597 points/unit assuming constant e-commerce and innovation.

The correlation coefficient (r) shows the closeness of the relationship between the independent variables and the dependent variable, namely the closeness of the relationship between the variables of e-commerce, innovation, government policy on the variable in the survival of *UMKM* Cakung. The data processing results of this study are as follows:

Table 4.5 Correlation coefficient table and coefficient of determination

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.740[a]	.548	.504	.45541

a. Predictors: (Constant), e-dagang, inovasi, kebijakan pemerintah
b. Dependent Variable: tetap bertahan

From this table, it can be seen that the correlation coefficient value r = 0.740, which means that the relationship between e-commerce, innovation, and government policies on the survival of *UMKM* Cakung is close and positive, namely if e-commerce, innovation and government policies increase, the survival of *UMKM* Cakung will also increase.

The coefficient of determination (r^2.100%) shows the percentage of the influence of e-commerce variables, innovation, government policies on the variables of survival of *UMKM* Cakung. Based on the results of data processing in table 4.5, the determination coefficient value r^2.100% = 54.8%. This means that the survival of *UMKM* Cakung is 54.8% influenced by e-commerce, innovation and government policies, the remaining 45.2% is influenced by other variables.

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4.2.2 Hypothesis test

This hypothesis test is carried out to answer the researcher's conjecture formed based on the framework and also to see its suitability for research purposes. In this study, the hypothesis test was carried out partially (individually) with the t test and simultaneously (together) with the F test.

1. t-test

The t test was conducted to determine the effect of each independent variable, namely e-commerce, innovation, government policy on the survival of *UMKM* Cakung. The hypotheses for this t test (partial test) are as follows:

Hypothesis 1: H_0: e-commerce has no effect on the survival of *UMKM* Cakung during the Covid-19 pandemic.
H_1: e-trade has an effect on the survival of *UMKM* Cakung during the Covid-19 pandemic

Hypothesis 2: H_0: innovation has no effect on the survival of *UMKM* Cakung during the Covid-19 pandemic.
H_1: innovation affects the survival of *UMKM* Cakung during the Covid-19 pandemic

Hypothesis 3: H_0: government policy has no effect on the survival of *UMKM* Cakung during the Covid-19 pandemic
H_1: government policies affect the survival of *UMKM* Cakung during the Covid-19 pandemic

The results of data processing are shown in the following table.

Table 4.6 Table of t-test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.570	.447		3.511	.001
	e-dagang(X_1)	.082	.157	.103	.525	.603
	Inovasi (X_2)	-.034	.108	-.049	-.311	.758
	Kebijakan pemerintah (X_3)	.597	.163	.687	3.671	.001

a. Dependent Variable: tetap bertahan

By using the significance level $\alpha = 5\%$, the number of samples 35, the degree of freedom df = n - 3 = 35 - 3 = 32, the t_{table} value = 2.0315 is obtained. For the first hypothesis, the t_{count} value for the e-commerce variable (X_1) is 0.525. The value of $-t_{table} < t_{count} < t_{table}$ (-2.0315 < 0.525 < 2.0315), so it was decided that H_0 was accepted, which means that the e-commerce variable has no effect on the survival of *UMKM* Cakung. For the second hypothesis, the t_{count} value for the innovation variable (X_2) is -0.311. The value of $-t_{table} < t_{count} < t_{table}$ (-2.0315 < -0.311 < 2.0315), so it was decided that H_0 was accepted, which means that the innovation variable has no effect on the

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survival of *UMKM* Cakung. For the third hypothesis, the t_{count} value for the government policy variable (X_3) is 3.671. The value of $t_{count} > t_{table}$ (2.0315> 3.671), so it was decided that H_0 was rejected, seeing H_1, which means that the government policy variable affects the survival of *UMKM* Cakung.

2. F test

The F test was conducted to determine the joint effect of e-commerce, innovation, government policies on the survival of *UMKM* Cakung. The hypothesis for the F test (simultaneous test) is as follows:

H_0: e-commerce, innovation, government policy together have no effect on the survival of *UMKM* Cakung during the Covid-19 pandemic.

H_1: e-commerce, innovation, government policy together affect the survival of *UMKM* Cakung during the co-19 pandemic.

The results of data processing are shown in the table below:

Table 4.7 F test table

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.780	3	2.593	12.504	.000[b]
	Residual	6.429	31	.207		
	Total	14.210	34			

a. Dependent Variable: tetap bertahan
b. Predictors: (Constant), e-dagang, inovasi, kebijakan pemerintah

By using a significance level of $\alpha = 5\%$ with a sample size of 35, the first free degree $df_1 = k = 3$, the second free degree $df_2 = n - k = 35 - 3 = 32$, the F_{tabel} value = 8.614 will be obtained. From table 4.7, it can be seen that the value of $F_{count} = 12.504$, where the value of $F_{count} > F_{tabel}$ (12.504> 8.614), it is decided that H_0 is rejected, see H_1, which means that the variables of e-commerce, innovation, government policy together have an effect on the survival of *UMKM* Cakung.

The results of this study indicate that e-commerce partially has no effect on the survival of*UMKM* Cakung during the Covid-19 pandemic. Descriptively, it can also be seen that many of these *UMKM* have used e-commerce before the Covid-19 pandemic.

Innovation also partially has no effect on the survival of *UMKM* Cakung during the Covid-19 pandemic. Descriptively, it can be seen that before the Covid-19 pandemic, some of these *UMKM* had made innovations to their businesses and some had not made innovations, the number was balanced. But during the Covid-19 pandemic, there was an increase in the number of these *UMKM* that innovated their businesses.

Government policies partially affect the survival of *UMKM* Cakung during covid-19. Descriptively, it can be seen that there has been an increase in the number of these *UMKM* taking part in government programs (participating in government policies) from before the covid-19 pandemic to the covid-19 pandemic. It seems that government policies for *UMKM* are really

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needed and utilized to be able to survive in running their businesses during the Covid-19 pandemic.

Together e-commerce, innovation, government policies affect the survival of *UMKM* Cakung during the Covid-19 pandemic. Conducting e-commerce, innovating and following government policies make it easier for *UMKM* players to continue to be able to do business in the covid-19 pandemic situation.

5. Conclusion

The conclusions of this research are:

1. The Covid-19 pandemic has an impact on the businesses of *UMKM* Cakung players
2. E-commerce has no effect on the survival of *UMKM* Cakung players during the Covid-19 pandemic.
3. Innovation has no effect on the survival of *UMKM* Cakung players during the co-19 pandemic
4. Government policies affect the survival of *UMKM* Cakung players during the Covid-19 pandemic
5. E-commerce, innovation, government policy together affect the survival of *UMKM* Cakung players during the Covid-19 pandemic.

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