Household Financial Management Behavior During Pandemic Covid 19

Liliek Nur Sulistiyowati[1], Robby Sandhi Dessyarti[2]

[1,2] Management Department, Faculty Economics and Business, Universitas PGRI Madiun, Indonesia

e-mail: [1]liliek1702@gmail.com, [2]robbeyvan@gmail.com

Abstrak

Pandemi Covid 19 menimbulkan dampak luar biasa bagi sektor perekenomian di Indonesia termasuk pada perubahan komposisi dalam pengelolaan keuangan rumah tangga. Penelitian ini bertujuan untuk melihat dampak pandemi *Covid-19* terhadap manajemen keuangan rumah tangga. Penelitian ini mengambil target populasi rumah tangga yang tinggal di Madiun dan sekitarnya. Teknik pengambilan sampel yang digunakan adalah sampel acak klaster/wilayah. Jumlah sampel sebanyak 384 responden yang terdistribusi secara proporsional pada 5 (lima) yaitu Kota Madiun, Kabupaten Madiun, Kabupaten Ponorogo, Kabupaten Magetan dan Kabupaten Ngawi sehingga sampel yang diambil dapat menggeneralisasi populasi rumah tangga yang ada di Madiun dan sekitarnya. Metode pengumpulan data dengan menggunakan wawancara langsung dengan menggunakan kuesioener terstruktur. Pendekatan penelitian menggunakan pendekatan kuantitatif dengan menggunakan teknik analisis anova satu arah. Kesimpulan yang diperoleh dari hasil penelitian adalah pandemi *Covid-19* berpengaruh signifikan terhadap perilaku manajemen keuangan rumah tangga di Madiun dan sekitarnya. Rata-rata dari perilaku yang berhubungan dengan manajemen keuangan rumah tangga menunjukkan sebelum pandemi Covid 19 sebesar 83, 27 sementara saat pandemi covid 19 sebesar 73,34. Hasil ini menunjukkan aktifitas ekonomi rumah tangga lebih sering dilakukan sebelum pandemi dibandingkan dengan saat pandemi.

Kata Kunci : Pandemi, *Covid-19*; Manajemen Keuangan Rumah Tangga

Abstract

The COVID-19 pandemic has had a tremendous impact on the economic sector in Indonesia, including changes in the composition of household finances. This study aims to assess the impact of the COVID-19 pandemic on household financial management. This study takes the target population of households living in Madiun and its surroundings. The sampling technique used was cluster random sampling. The number of samples is 384 respondents who are proportionally distributed into 5 (five), namely Madiun City, Madiun Regency, Ponorogo Regency, Magetan Regency, and Ngawi Regency, so that the sample taken can generalize the household population in Madiun and its surroundings. Methods of data collection include direct interviews using structured questionnaires. The research approach uses a quantitative approach using one-way ANOVA analysis techniques. The conclusion obtained from the results of the study is that the COVID-19 pandemic has a significant effect on household financial management behavior in Madiun and its surroundings. The average behavior related to household financial management shows that before the COVID-19 pandemic it was 83.27, while during the COVID-19 pandemic it was 73.34. These results show that household economic activities are carried out more often before the pandemic than during the pandemic.

Keywords : Pandemic, Covid-19, Household Financial Management

1. Introduction

In the early 2020s, the world was "crowded" by a virus called CORONA VIRUS 19 which was first discovered in Wuhan, China. This very fast virus spreads throughout the world and has a tremendous impact on all aspects of human life. The Covid-19 pandemic till now has affected approximately 210 countries with more than 200 million confirmed cases and more than 4 million deaths worldwide including in Indonesia. In Indonesia, data until August 2021 shows that more than 3.5 million people have been infected Covid-19 with a death rate of more than 100,000 people.

Covid-19 is not only a global pandemic and public health crisis, but also really affected the global economy and financial markets. The Covid-19 pandemic has paralyzed the global economy since the beginning of 2020. The global recession due to Covid-19 is the deepest since the end of World War II. The global economy got contraction by 3.5% in 2020 according to the April 2021 *World Economic Outlook* Report published by the IMF, 7% loss

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relative to the 3.4% growth forecast back in October 2019. While nearly every country covered by the IMF posted negative growth in 2020 .The decline was more effected to the poorest parts of the world (Noy & Doan, 2020). Shocks spread through three main channels: (i) disruption of global value chains, (ii) restrictions on international mobility that affecting economies and activities differently depending on each country's spread out and preparedness; and (iii) reduction of cross-border remittances (Yeyati & Filippini, 2021).

There is a deep decline in the short term on the the trading sector. Goods Trading fell rapidly, adding to the economic downturn in various countries, reflecting a decline in demand for goods as a result of being disrupted by restrictions related to Covid-19 (Indonesia, 2021). So predictably, due to travel restrictions, services trading still low like pre-pandemic levels. The crisis also has an impact on weakly health care systems and critical health literacy (Rasheed, Rizwan, Javed, Sharif, & Zaidi, 2021). One of them is marked by an increase in the *bed occupancy ratio* (BOR) and ICU services that exceed capacity due to the increase in the number of COVID-19cases in various countries, including in Indonesia. All sectors of the economy seem to be "paralyzed", especially in the tourism sector, public transportation, MSMEs (UMKM), agriculture, industry and others affected by Covid-19. Significant income reductions, rising unemployment, and disruption in the transportation, service and manufacturing industries are among the consequences of the disease mitigation measures that have been implemented in many countries. (Adegboye et al., 2021). Covid-19 effects on a family income decreasin and one of the main impacts is an increase in additional health costs. (Agustin et al., 2021).

Millions of companies face existential threats. Nearly half of the world's 3.3 billion global workforce is at risk of losing their livelihoods. Informal economy workers are particularly vulnerable as the majority do not have social protection and access to quality health care and have lost access to productive assets. (ILO, FAO, IFAD, & WHO., 2020). Without tools to earn an income during the lockdown, many are unable to feed themselves and their families. For most, no income means no food, or, at the very least, less food and less nutritious food.

The pandemic has affected the entire food system and has put its weakness. Border closures, trade restrictions and zoning measures have prevented farmers from accessing markets, including to buy inputs and sell their produce, and agricultural workers from harvesting crops, thereby disrupting domestic and international food supply chains and reducing access to healthy and safe diet. The pandemic has destroyed jobs and put millions of livelihoods at risk. When workers lose their jobs, fall sick and also die, the food security and nutrition of millions of women and men are under threat, they are in low-income countries, especially the most marginalized populations, which include small-scale farmers and indigenous peoples, will get the hardest hit during their life.

Steps to deal with the pandemic conditions have been taken such as *lockdown, social distancing*, and travel restrictions taken by the Government after going through a thorough analysis to determine how it impacts the livelihoods of tens of millions of workers in Indonesia. To suppress the Covid-19 increasing rate, the government implemented a policy with the slogan "*STAY AT HOME*" which caused almost all lines of work to be affected due to the decline in the economy which resulted in decreased household income or income. (Endrianti & Laila, 2016). It is the same with family finance which is the smallest social unit in society which must have economic stability to meet daily needs. The economic stability of a family lies in its financial management. (Trisnaningsih & Widyasari, 2010).

The pandemic caused by Covid-19, which lasts for a long time and poses many risks, will have an impact on changes in the composition of household financial management in line with the research of (MD et al., 2020). During the pandemic overall there was a decrease in spending of around 25% to 35% except for food. (Huato & Chavez, 2021). According to (Hanspal, Weber, & Wohlfart, 2020) in their research, they explained that households with lower middle incomes were greatly affected by Covid-19 and influenced changes in household financial decision making. Even according to (Rodhiyah, 2012) household needs when detailed are very many types, from meeting daily needs, preparing for education costs, saving and much more.

During the pandemic, more than 90% of respondents stated that they had shifted their consumption habits and most of their consumption was focused on health products by (Fujiki, 2021) and (Rahul Kumar & Abdin, 2021). This is also relevant to the findings of (Fox & Bartholomae, 2020) where the pandemic has placed very strong pressure on household financial stability and at the same time dramatically changed their consumption behavior. The long-lasting Covid-19 pandemic has also made

other household members look for side jobs to keep their finances stable (Gade, Goli, & G, 2021).

Several previous studies have shown inconsistent results related to household financial management behavior during the COVID-19 pandemic. This could be a research gap. The first gap that appears is the influence of financial knowledge on household financial behavior. Some researchers state that financial knowledge has a positive effect on household financial management (Ersha Amanah, Dr. Dadan Rahadian, S.T., M.M, Aldila Iradianty, S.E., 2016; Novianti & Salam, 2021). However, there are researchers who state that financial knowledge has no effect on household financial management behavior or has a negative effect (Agustin et al., 2021; Endrianti & Laila, 2016; Irine Herdjiono, 2016). The next gap that appears is that there is no consensus regarding indicators that measure household financial behavior.

This study aims to assess the impact of the COVID-19 pandemic on household financial management. The research took place in Madiun and its surroundings. The choice of Madiun as the object of study was based on several considerations. As for Madiun and its surroundings, they consist of five districts and cities as research samples. Madiun and its surroundings are one of the agglomeration areas related to Covid 19 mapping. Madiun and its surroundings are one of the agglomeration areas affected by the COVID-19 pandemic. These results can be seen in several districts or cities that have been in the red zone for a long time.

Literature Review and Hypotheses Formulation
Financial Management

A business management that is engaged in the funds allocation that are selective and wise to achieve company's goals (Bradley, 1974). Financial management is also the implementation of planning and control management functions (Howard, 1953). Financial management can also be interpreted as all activities related to how to obtain funds, manage funds so that company goals can be achieved. (Massie, 1986).

Family Management

Family management is a process of utilizing family resources in the form of the family planning, managing, directing and controlling, who take role is a person, so must understand how to manage family finances properly and correctly. In financial management there are 2 concepts, namely balance and profit, also loss and cash flow. (Ramli & Apriyanto, 2020). Family management is directly held by housewives. (Sahusilawane & Sahusilawane,

2021). According to (Murari, 2019), women or housewives are more concerned and aware of financial problems. Housewives play a role in all aspects of the household, including in terms of food supply (Sahusilawane & Sahusilawane, 2021). During a pandemic like now, households are also directly affected, especially difficulties in meeting daily needs, direct assistance from the government is very helpful for people in need.(Huato & Chavez, 2021).

Family Financial Management Strategy

According to the reference by the Directorate of Family Economic Empowerment, the National Population and Family Planning Agency provides alternative explanations including: 1). Sources of income evaluation, 2). Recalculate the budget condition, this aims to reduce costs that are not really needed, so that the priority scale is actually implemented, 3). Using simpler financial statement recording. Spending in this case are divided into 3 groups, namely spending routine, spending mandatory, and routine expenses that can be saved, 4). Put aside for an emergency fund. This is very important for families who still have dependents, 5). If it is necessary to carry out productive activities with minimal costs, if possible, do protection by using insurance (Agustin et al., 2021). According to Yohnson (2004) in (Lucyanda, Mihardja, & Priyanto, 2020) financial planning is needed for all families, large and small. In making family financial planning, there are several things to consider, namely 1). Make short-term and long-term financial plans, 2). Share tasks with a partner, 3). Find trick for extra spending (Ramli & Apriyanto, 2020).

Financial management during the pandemic is different from before, including that people tend to use non-financial and non-cash services to break the spread of Covid-19. (Fujiki, 2021). And during the pandemic, although family incomes decline, people tend to spend their finances on health and insurance with a higher percentage because these steps are considered appropriate for current conditions (Gade et al., 2021). The pandemic period has changed the purpose of family financial planning and the percentage of the allocation of funds has also changed according to current conditions, the economy and health are two aspects of priority choices that are very important during a pandemic. In addition, the adoption of technology in financial services has become efficient during a pandemic. (Fox & Bartholomae, 2020).

Research Gap
Previous Research

The previous research used as a reference in this study can be seen in table 1.

Table 1. Previous Research

No	Name and Tittle	Variable	Analysis Tools	Research Result
1.	(Ramli & Apriyanto, 2020), Financial Management To Improve The Family Economy During the Covid-19 Pandemic	Family, Family Management, Planning and utilization, Implementation of family management	The research is qualitative using descriptive methods and documentary analysis.	The conclusion of this study is that good financial management is necessary and this can be achieved if there is a good understanding as well.
2.	(Arnesih, 2016), Household Financial Management Strategy (Based on Syariah Economics)	Financial Management, Household, Syariah Economics	This study uses a qualitative approach with a descriptive method. The analysis technique used is descriptive analysis and content analysis.	Generally Financial management in the household is very important, because it is one of the Determining in financial adequacy of the family owned by each household, and the family financial health measurement.
3.	(Rodhiyah, 2012), Family Financial Management Towards a Prosperous Family	Prosperous Family, Financial Management.	The analysis used is descriptive analysis	Managing family finances is really important because family finances in quantity and quality can beneficial for families to achieve a family prosperity.

Hypotesis

The formulation of the research hypothesis is as follows:
There is a difference in the average behavior of household financial management before and during the Covid-19 pandemic.

2. Research Methodology
Research Approach

This research approach uses a quantitative method approach. The selection of quantitative methods is based on the following considerations:
a) The study uses a survey method to collect data, which will later quantitatively display the tendency of attitudes and opinions from samples taken from some members of the population.
b) This research requires research instruments to analyze numerical data and interpret things that are directly related to the trends in the research (Bungin, 2005).

Research subject

According to (Martono, 2014) research subjects are the parties that are sampled in a study which includes the characteristics of the subject including the population, sample and sampling technique used. So the subjects of this research are households in Madiun and surroundings. Then the research focused on household behavior in financial management during the pandemic. Researchers will identify changes in household behavior in financial management before and during the Covid-19 pandemic. Behavior changed, one of which relates to setting financial priorities before and during the Covid-19 pandemic.

Instrument Development

In this study, a structured questionnaire was used as the main research instrument. Research questionnaires have an important role as an instrument of data collection by using *face-to-face interviews* (Ghozali, 2008). The research questionnaire was prepared based on the main grand theory chosen by the researcher in describing the behavior of household financial management in Madiun City and its surroundings during the Covid-19 pandemic.

The behavior of household financial management refers to the daily activities of households in economic activities. The behavior of household financial management consists of 20 indicators that describe daily household activities, namely traveling to the mall (shopping center), shopping at traditional markets, shopping at modern markets, visiting public service facilities, and visiting tourist attractions. Other financial management behaviors include eating at restaurants, eating at home, seeing a doctor or using health services at a hospital or health center, consuming health supplements, and consuming traditional drinks for health. Other behaviors include using public transportation for transportation; using a motorbike or private car; working from an office; working from home; using online communication services while working (zoom, Google meet); using non-cash payment facilities; always using cash; online health

consultations; studying from home (school or online lectures); and worshiping in public places of worship (churches and mosques).

The research questionnaire used a *semantic differential* scale. According to Umar (2008) *the semantic differential* scale is a scale that measures attitude measurement, but the form is not multiple choice, but arranged in a continuum line, where the most negative answers are placed on the far left, while the most positive answers are on the far right. In measuring this scale, the data obtained is data that has an interval scale. In this study, the measurement scale used started from very rare answers (scale 1) to very often (scale 8). After collecting data, the next step is to test the validity and reliability of research instrument (Ghozali, 2008).

According to (Santoso, 2016), the instrument validity test uses the *Pearson bivariate* correlation method. To determine whether it is valid or not, it is done by testing the significance of the correlation. If the significance test is less than 5% (0.05) then the item or factor is *valid.* After testing the validity of the instrument, the next step is to test the *reliability of the instrument*. The reliability test serves

No	City/Regency	Number of family (SP 2020)	Procentage (%)	Sample (KK)
1	Madiun city	72.738	8.3%	32
2	Madiun Regency	186.088	21.1%	81
3	Magetan Regency	167.703	19.0%	73
4	Ponorogo Regency	237.330	26.9%	103
5	Ngawi Regency	217.514	24.7%	95
	TOTAL	881.373	100.0%	384

to test the consistency of the measuring instrument, whether the instrument used is reliable and remains consistent if the test is repeated. Reliability testing in this study used the *Alpha Cronbach* method. If the *Cronbach Alpha* coefficient value is more than 0.6 then the research instrument is declared to have high reliability. (Sugiyono, 2013).

Data collection

This research is a form of survey research. According to (Neuman, 2003) survey research is a quantitative research in which the researcher will ask several respondents about opinions, beliefs about an object or behavior being studied. The data collection procedure in this study used a *face-to-face interview* technique with a structured questionnaire.

Population and Sample

The population in this study is households living in the Madiun area and its surroundings.

Samples were taken from some members of the population, namely households in the Madiun area and its surroundings. The sampling technique used was cluster random sampling (*cluster random sampling*). The cluster random sample is based on the population area where in this study the sample is distributed based on the regency around Madiun. The sample in each sub-district is proportional to the number of households in each district (Ghozali, 2008). There are 5 (five) regencies/cities in the area around Madiun which were taken as sample areas including Madiun City, Madiun Regency, Mageten Regency, Ponorogo Regency and Ngawi Regency

Meanwhile, to find out the number of samples per regency/city that will be used in accordance with (Umar, 2008) with the following formula:

Sample N= $Z^2 \cdot P (1-p)/e^2$ …………. (1)

Note:
Z= Z value in the confidence interval (CI = 95% so Z = 1,96)
P= desired population variation (p=0.5, therefor 1-p =0.5)
e= desired sample error (*sampling error*), that is 5%
n= number of samples

Based on the above formula, the number of samples taken in this study is:

n $= 1.96^2 * 0.5*-0.5 / (0.05)^2$
   $= 3.84 * 0.25 / 0.0025$
   $= 384$ sample.

By using a cluster random sample, the distribution of the sample in each district/city can be seen in table 2.

Table 2. Sample Composition by Regency/City

Source: Processed Data (2021)

Data Analysis

The analysis technique in this study uses Analysis of Variance (ANOVA). ANOVA is a statistical analysis technique that examines the differences in the mean within groups (groups). The group here is the type of treatment. ANOVA is a statistical test procedure that is almost the same as the average difference test (*t test*). The advantage of the Anova test is that it can test differences in treatment of more than two groups. This is different from the average difference test with the t test which only tests the average difference of the two groups. The type of ANOVA used in this study is one-way ANOVA (*Oneway ANOVA*). One-way ANOVA is used because the number of dependent variables is one (Ghozali, 2008).

Steps for the One-Way ANOVA Test

The first step in conducting a one-way ANOVA study is to make the assumptions that the data were chosen at random, the distribution was normal, and the variance was homogeneous.

Make hypothetical sentences next (H0 and H1). Hypothesis testing in ANOVA only uses one type of hypothesis, namely the two-tailed hypothesis. Two-way hypothesis test (*two tail*) means to find out whether there is a difference in the average or not, by not testing more specifically where the difference lies.

The statistical hypothesis used is:

➢ H0: $\mu 1 = \mu 2 = \mu 3 = \ldots = \mu n$; which means there is no difference in the n treatment groups

➢ H1: $\mu 1 \neq \mu 2 \neq \mu 3 \neq \ldots \neq \mu n$; which means that there is an average difference in the n treatment groups.

Next, determine the degree of freedom and the variability of the entire sample. Typically, dof, DB, or v are used to indicate the degree of freedom.

The variation inside the group and the variance between groups should then be calculated. Create a F table, a F count, compare the two, and then come to a decision.

The formula for calculating the F value (F test) is as follows:

$$F = MST/MSE \ldots \ldots .. (2)$$

Whereas:

F : Count coefficient ANOVA
MST : Mean Square Treatment
MSE : Mean Square Error

The test statistic for the ANOVA test is calculated F or F value. Where the decision to test the hypothesis is to compare the calculated F value with the value in Table F or by looking at the significance value of the test obtained. If the calculated F value is greater than F table or if the test significance value is < 0.05, it can be concluded that reject Ho. The conclusion obtained from rejecting Ho is that there is an average difference between each treatment group.

In this study, the dependent variable is the behavior of household financial management. The behavioral variable of household financial management is interval scale. Meanwhile, the independent variable is the research time period. The independent variables are divided into 2 (two) categories, namely the period before the Covid-19 pandemic or before the new normal era and after the new normal era or during the Covid-19 pandemic. One-way analysis of variance (*oneway anova*) aims to see differences in household financial management behavior before the Covid-19 pandemic and during the Covid-19 pandemic.

3. Analysis and Discussion
Respondents Characteristics
Characteristics of respondents based on age can be seen in table 3

Table 3. Respondents' Characteristics Based on Respondents Age

No	Respondent Ages	%
1	17-25 years old	83.1%
2	26-35 years old	6.8%
3	36-45 years old	6.5%
4	46-55 years old	3.6%
	TOTAL	100.0%

Source: Resource Data, processed (2021)

Based on table 3, most of the respondents were aged 17 to 25 years (83.1%), then 26-35 years old (6.8%), 36-45 years (6.5%) and the smallest was 46-55 years old (3.6%).

Characteristics of respondents based on education can be seen in table 4.

Table 4. Respondents Characteristics Based on Respondents' Education

No	Respondent Education Strata	%
1	Graduated from High School	81.8%
2	Diploma	1.3%
3	Bachelor degree (S1)	13.5%
4	Post Graduated (S2/S3)	3.4%
	TOTAL	100.0%

Source: Research Data, processed (2021)

Based on table 4, most of the respondents graduated from High School or Vocational High School (81.8%), then graduated from Bachelor Degree (13.5%), graduated post-graduate (S2/S3) with a percentage of 3.4% and the smallest graduated from diploma (1.3%).

Characteristics of respondents by occupation can be seen in table 5

Based on table 5, most of the respondents were students and housewives (74.20%), next private employees (13.8%), entrepreneurs (5.2%) and civil servants (2.6%).

Table 5. Characteristics of Respondents Based on Respondents' Occupations

No	Occupation	%
1	Designer	0.9%
2	Teacher	1.0%
3	House wife	74,20%
4	Privatve workes	13.8%
5	University student	1.8%
6	Trader / seller	0.5%
7	Civil servants	2.6%
8	Enterprenuers	5.2%
	TOTAL	100.0%

Source: Reserch Data, processed (2021)

Covid-19 Information Media

Sources of information regarding Covid-19can be seen in table 6

Table 6. Covid-19 Information Media

No	Information sources about Covid-19	%
1	Doctor/Midwife/Nurse	2.3%
2	Journal	0.8%
3	Social Media (Fb, IG, Twitter, Tiktok)	74.2%
4	Media Online (Website)	1.3%
5	TV	15.6%
6	Friends/Relatives	0.8%
7	Public figure (Head chief, Head RT/RW)	0.6%
8	Whatapps	4.4%
	TOTAL	100.0%

Source: Reserch Data, processed (2021)

The main sources of information regarding Covid-19came from social media (Fb, IG, Twitter and Tiktok) at 74.2%, then from television (15.6%), whatsapps (4.4%), information from doctors/midwives and nurses (2.3%) and from the media online (website) by 1.3%.

Attitude During Covid-19
Health Protocol Obedience

Respondents' behavior related to compliance with health protocols during the Covid-19 pandemic can be seen in Table 7. Assessment using a *semantic differential* scale from 1 to 8. The scale ranges from very disobedient (scale 1) to very obedient (scale 8).

Table 7. Health Protocols Obedience During the Covid-19 Pandemic

No	Behavior Related to Health Protocol	Average
1	Using mask	6.31
2	Using hand sanitizer or disinfectant	5.81
3	Washing hand about 20 second	5.56
4	Avoiding crowd	5.79
5	Physical distancing 1 meter while out from home	5.65
6	Avoiding shake hands	5.80
	TOTAL	5.82

Source: Research Data, processed (2021)

Based on table 7, the average level of respondents' obedient behavior related to health protocols is 5.82 from a maximum scale of 8. This shows that on average respondents have a compliance scale with health protocol behaviors that is quite compliant. The highest level of obedience to the health protocol was wearing a mask (mean adherence score 6.31). The next highest level of compliance was using hand sanitizer or disinfectant (mean compliance score 5.81), avoiding shaking hands (compliance score 5.80) and avoiding crowds (compliance score 5.79). The lowest score of compliance level was washing hands for 20 seconds (compliance score 5.56) and maintaining a minimum distance of 1 meter while outside the house (compliance score 5.65).

Effectiveness of Health Protocols Compliance in Preventing the Spread of Covid-19

The level of effectiveness towards health protocols compiance to prevent the spread of Covid-19can be seen in Table 8. Assessment using a *semantic differential* scale from 1 to 8. The scale ranges from very ineffective (scale 1) to very effective (scale 8). Based on Table 8, the average level of effectiveness towards health protocols compliance in preventing the spread of Covid-19 is 6.02 from a maximum scale of 8. This shows the average level of effectiveness towards health protocols for compliance in preventing the spread of Covid-19is effective.

The highest level of effectiveness in preventing the spread of health protocols is wearing masks (average effectiveness score 6.15). The next highest level of effectiveness is avoiding shaking hands (effectiveness score 6.07), avoiding crowds (effectiveness score 6.05) and using hand sanitizer or disinfectant (average effectiveness score 5.99). The lowest score on the effectiveness level is maintaining a distance of at least 1 meter while outdoors (effectiveness score 5.89) and washing hands for 20 seconds (effectiveness score 5.98)

Table 8. Effectiveness towards Health Protocols Compliance in Preventing the Spread of Covid-19

No	Effectiveness Health Protocols Compliancein Preventing the Spread of Covid-19	Average
1	Using mask	6.15
2	Using hand sanitizer or disinfectant	5.99
3	Washing hand about 20 second	5.98
4	Avoiding crowd	6.05
5	Physical distancing 1 meter while out from home	5.89
6	Avoiding shake hands	6.07
	TOTAL	6.02

Source: Research Data, processed (2021)

Frequency of Leaving the House Before and After the New Normal (New Normal/1 August 2020)

Regarding the frequency of leaving the house before and after the new normal era, it can be seen in table 9

Table 9. Frequency of Going Out Before and After The New Normal (New Normal/1 Agustus 2020)

No	Frequency of Leaving the House compared to Before the New Normal (New Normal/1 August 2020)	%
1	Less	58.1%
2	More often	7.8%
3	Same	34.1%
	TOTAL	100.0%

Source : Research Data, Processed (2021)

Based on Table 9 the frequency of respondents leaving the house is less (58.1%) when compared to the era before the new normal, meanwhile 34.1% answered the same when compared to before the new normal era (new normal), the remaining 7.8% answered more often.

Instrument Validity Test

The instrument validity test was carried out on the indicators used in the questionnaire that measured behavior related to household financial management. There are 20 (twenty) behavioral indicators of household financial management which will be tested for validity. The instrument validity test was carried out by correlating the indicator scores with the total variable scores. The behavior of household financial management is divided into 2 (two) categories, namely before the new normal era starting on August 1, 2020 and the period after the new normal era during the Covid-19pandemic. Validity testing is carried out on behavioral indicators household financial management as measured using a semantic differential scale ranging from 1 to 8 which describes conditions ranging from very rare (scale 1) to very often (scale 8). The testing result of the validity of the instrument can be seen in table 10 and table 11.

Table 10. Instrement Validity Testing of Household Financial Management Behavior Before the New Normal Era (1 August 2020)

No	Behavioral Indicators of Household Financial Management	Correlation coefficient	Significance Level	Result
1	Hang out to Mall	0.756	0.000	Valid
2	Shopping at the traditional market	0.791	0.000	Valid
3	Shopping to minimarket/supermarket	0.770	0.000	Valid
4	Visiting public places (Samsat, Bank, Government offices)	0.754	0.000	Valid
5	Visiting tourist places	0.740	0.000	Valid
6	Eating in the Restaurant	0.754	0.000	Valid
7	Cooking/eating at home	0.584	0.000	Valid
8	Check with a doctor or use health services at a hospital/health center/clinic	0.752	0.000	Valid
9	Taking health supplements (vitamins, honey, propolis, etc.)	0.686	0.000	Valid
10	Consuming traditional drinks for health (herbs, herbal drink, etc.)	0.702	0.000	Valid
11	Using public transportation for means of transportation	0.583	0.000	Valid
12	Using a private car/motorcycle for transportation	0.681	0.000	Valid
13	Work regularly come to the office	0.585	0.000	Valid
14	Work from Home	0.506	0.000	Valid
15	Using online communication services for work (Zoom meeting/Google Meet, etc)	0.485	0.000	Valid
16	Using non-cash payment facilities (E Wallet, banking, Credit Card) for transactions	0.696	0.000	Valid
17	Always use cash in financial transactions	0.733	0.000	Valid
18	Online health consultation (Halodoc, online doctor, etc.)	0.608	0.000	Valid
19	Online school	0.495	0.000	Valid
20	Worship in public places of worship (mosques/churches, etc.)	0.726	0.000	Valid

Source: Research Data processed (2021)

Based on table 10, all indicators of household financial management behavior before the new normal era are valid. The results of the validity test using the correlation coefficient between the indicator score and the total score resulted in a test significance level smaller than (0.05 or 5%) which indicates the correlation coefficient is significant. So it can be concluded that all indicators of household financial management behavior before the normal era met the validity requirements.

Table 11. Instrement Validity Testing of Household Financial Management Behavior After the New Normal Era/Covid-19 Pandemic Period

No	Behavioral Indicators of Household Financial Management	Correlation coefficient	Significance Level	Result

No	Item			
1	Going to the Mall or shopping center	0.458	0.000	Valid
2	Shopping at the traditional market	0.693	0.000	Valid
3	Shopping at the modern market	0.712	0.000	Valid
4	Visiting public service places (Samsat, Banks, Government Offices)	0.638	0.000	Valid
5	Visiting tourist attractions	0.469	0.000	Valid
6	Eat at the restaurant	0.676	0.000	Valid
7	Cook yourself/eat at home	0.740	0.000	Valid
8	Check with a doctor or use health services at a hospital/health center/clinic	0.690	0.000	Valid
9	Taking health supplements (vitamins, honey, propolis, etc.)	0.742	0.000	Valid
10	Consuming traditional drinks for health (herbs, herbal drink, etc.)	0.725	0.000	Valid
11	Using public transportation for transportation (buses, trains, ships, planes, public transportation, taxis, online motorcycle taxis)	0.465	0.000	Valid
12	Using a private car/motorcycle for transportation	0.730	0.000	Valid
13	Work regularly come to the office	0.371	0.000	Valid
14	Work from home (Work from Home)	0.663	0.000	Valid
15	Using online communication services for work (Zoom meeting/Google Meet, etc.)	0.742	0.000	Valid
16	Using non-cash payment facilities (E Wallet, banking, Credit Card) for transactions	0.682	0.000	Valid
17	Always use cash in financial transactions	0.759	0.000	Valid
18	Online health consultation (Halodoc, online doctor, etc.)	0.549	0.000	Valid
19	Study from home (online school/college)	0.676	0.000	Valid
20	Worship in public places of worship (mosques/churches, etc.)	0.572	0.000	Valid

Source: Research Data, processed (2021)

Based on Table 11, the overall indicators of household financial management behavior after the new normal era / during the Covid-19 pandemic are valid. The results of the validity test using the correlation coefficient between the indicator score and the total score resulted in a test significance level smaller than (0.05 or 5%) which indicates the correlation coefficient is significant. So that it can be concluded that all indicators of household financial management behavior after the normal era / during the Covid-19 pandemic meet the validity requirements.

Instrument Reliability Test

After testing the validity of the instrument, the next step is to test the reliability of the instrument. The instrument reliability test aims to test the consistency of the measuring instrument in this case the research questionnaire. If the measuring instrument is consistent then if the measurement is carried out repeatedly it will still produce consistent data as well. Test the reliability of the instrument using the Cronbach Alpha method. The results of the instrument reliability test for measurements before the new normal era and after the new normal era (Covid-19 pandemic period) can be seen in Table 12.

Table 12. Instrument Reliability Test

No	Research Instruments	Cronbach Alpha Coefficients	Testing Decisions
1	Household Financial Management Behavior Before the New Normal Era	0.947	Strong reliability
2	Household Financial Management Behavior After the New Normal Era/During the Covid-19 Pandemic Masa	0.930	Strong reliability

Sources: Research Data, processed (2021)

Based on Table 12, the Cronbach Alpha coefficient value on the research instrument of household financial management behavior before the new normal era was 0.947, while the behavior of household financial management after the new normal era was 0.930. The resulting Cronbach Alpha

coefficient greater than 0.6 means that it shows a strong level of reliability from the research instrument.

Varians Analisys

The average behavior related to 20 household financial management shows that before the COVID-19 pandemic it was 83.27, while during the COVID-19 pandemic it was 73.34. These results show that household economic activities are carried out more often before the pandemic than during the pandemic.

This research is expected to answer the purpose of the impact of the Covid-19 pandemic on household financial management behavior in the Madiun and surrounding areas. To answer the objectives of this study, one-way analysis of variance (*one-way ANOVA*) was used as the analysis model. Hypothesis testing to test for differences in household financial management behavior during the period before the new normal era and after the new normal era/ Covid-19 pandemic period. The results of the analysis of variance can be seen in table 13

Tabel 13. Varians Analysis

No	Research Variable	F count	Significance Level	Conclusion
1	Household Financial Management Behavior Before and After the New Normal Era/Covid-19Pandemic Period	16.596	0.000	There is an effect of the Covid-19 pandemic period (before and after the new normal era) on household financial behaviour

Sources: Research Data, processed (2021)

Based on table 13, it shows that the results of the variance analysis resulted a reject decision the hypothesis 0 (H_0) which means that there is an influence of the Covid-19 pandemic to household financial management behavior. These results can be seen from the value of the significance level of the ANOVA test of 0.000 which is lower than the value of (5% or 0.05). This means that the Covid-19 pandemic period (before and after the new normal era) has an effect on household financial management behavior in Madiun and surroundings.

Discussion

Based on the results of the description analysis, it shows that the respondent's level of compliance with the health protocol is quite obedient, with an average score of 5.82 obey to the health protocol. The highest levels of obedience to health protocols were wearing masks (mean compliance score 6.31), using

hand sanitizers or disinfectants (mean compliance score 5.81), avoiding shaking hands (obedience score 5.80) and avoiding crowds (compliance score 5.79).

Meanwhile, when viewed from the effectiveness of the level of compliance with health protocols in preventing the spread of Covid-19, it resulted in effective conclusions, with an average score of effectiveness against health protocols in preventing the spread of Covid-19 of 6.02. The highest level of effectiveness in preventing the spread of health protocols is wearing masks (average effectiveness score 6.15), then avoiding shaking hands (effectiveness score 6.07), avoiding crowds (effectiveness score 6.05) and using hand sanitizer or disinfectant (average effectiveness score 5.99). The results of the variance analysis show that there is an influence of the Covid-19 pandemic on household financial management behavior. These results can be seen from the significance level of the ANOVA test of 0.00 which is lower than the value of (5% or 0.05). The conclusion of the tests produced during the Covid-19pandemic period (before and after the new normal era/Covid-19 pandemic period) affected the household financial management behavior in Madiun and surroundings.

The results of this study are relevant to previous research which stated that Covid-19 resulted in a decrease in family income and one of the main impacts was an increase in additional health costs (Agustin et al., 2021). The pandemic caused by Covid-19 will have an impact on changes in the composition of household financial management. (MD et al., 2020). According to (Hanspal et al., 2020) explaining that households with lower middle incomes are greatly affected by Covid-19 and affect changes in household financial decision making. Another relevant study stated that during the pandemic more than 90% of respondents said they had shifted their consumption habits and most of their consumption was focused on health products. (Fujiki, 2021) and (Rahul Kumar & Abdin, 2021). (Fox & Bartholomae, 2020) stated that the pandemic has placed very strong pressure on household financial stability and at the same time dramatically changed their consumption behavior. The Covid-19 pandemic has also made household members look for side jobs to keep their finances stable (Gade et al., 2021).

4. **Conclusion, Limitations and Suggestions**
Conclussion
Based on the analysis and discussion of the research results, the following conclusions can be drawn:
a) The average behavior related to household financial management shows that before the COVID-19 pandemic it was 83.27, while during the COVID-19 pandemic it was 73.34. These results show that household economic activities are carried out more often before the pandemic than during the pandemic.

b) The Covid-19 pandemic affects household financial management behavior in Madiun and surroundings
c) The level of compliance with health protocols is quite obedient, the highest is compliance with wearing masks, using hand sanitizers or disinfectants, avoiding shaking hands and avoiding crowds.
d) The level of effectiveness for compliance with the implementation of effective health protocols to prevent the spread of Covid-19, the highest is wearing masks, avoiding shaking hands, avoiding crowds and using hand sanitizers or disinfectants

Research limitations
Some of the research limitations that come up include:
a) The Covid-19 pandemic period caused limitations in data collection through face-to-face interviews, so that some of the data was collected using online interview techniques such as distributing questionnaires through Google Forms and some offline. The generalization process of research results is not perfect because data collection techniques cannot truly represent the research population.
b) There are no indicators that theoretically and empirically represent household financial management behavior during the Covid-19 pandemic. There have not been many previous studies that have discussed the influence of the Covid-19 pandemic on household financial management behavior.
c) The period of the Covid-19 pandemic has not ended so that it cannot provide an overview of the influence of the Covid-19 pandemic on household financial management behavior before and after the Covid-19 pandemic.

Suggestion
Some suggestions are given for the improvement of further research as follows:
a) In order for the selected sampling method to perfectly generalize to the population, it is necessary to collect research data through the face to face interview method while still paying attention to strict health protocols during the Covid-19 pandemic to obtain more comprehensive research data.
b) It is necessary to include several additional indicators regarding household financial behavior based on more comprehensive theoretical studies of relevant previous research.
c) Further research is needed to see the effect of the Covid-19 pandemic on household financial management behavior based on the latest conditions after the research was carried out considering the ongoing Covid-19 pandemic until now.

Contribution
The contributions obtained from this research are as follows:
a) Contribute to the behavioral theory of household financial management, particularly with regard to indicators that measure household financial behavior during the COVID-19 pandemic.
b) Provide an overview of the differences in household financial behavior as a result of the COVID-19 pandemic, where several daily household activities in economic activities have seen drastic changes as a result of social distancing.
c) Introducing new innovations in household financial behavior in response to the COVID-19 pandemic, such as working and studying from home, using online communication media (zoom or Google meet) to study and work, and increasing non-cash financial transactions (on line).

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