

THE IMPACT OF THE COVID-19 PANDEMIC ON HOUSEHOLD INCOME, CONSUMPTION, AND SAVING

Saranda Tafa *, Roberta Bajrami **, Gezim Shabani *, Adelina Gashi *

* AAB College, Prishtina, the Republic of Kosovo

** Corresponding author, AAB College, Prishtina, the Republic of Kosovo

Contact details: AAB College, St. Elez Berisha, No. 56 Fushë Kosovë Industrial Zone 10000, Prishtina, the Republic of Kosovo



Abstract

How to cite this paper: Tafa, S., Bajrami, R., Shabani, G., & Gashi, A. (2022). The impact of the COVID-19 pandemic on household income, consumption, and saving [Special issue]. *Corporate & Business Strategy Review*, 3(2), 296–305.

<https://doi.org/10.22495/cbsrv3i2siart11>

Copyright © 2022 The Authors

This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0).

<https://creativecommons.org/licenses/by/4.0/>

ISSN Online: 2708-4965

ISSN Print: 2708-9924

Received: 01.06.2022

Accepted: 16.12.2022

JEL Classification: E3, G5, D1

DOI: 10.22495/cbsrv3i2siart11

The primary factors that were initially assumed to contribute to a decline in household income were job losses, which affect the decrease in consumption (Organisation for Economic Co-operation and Development [OECD], 2020; Doerr & Gambacorta, 2020). Kosovo's government has taken measures of social distancing, having a major impact on households such as the impact of dismissal due to the closure of businesses indefinitely. This regime is continuing from the different waves of COVID-19 variants and the family income as it goes and decreases. Therefore, the purpose of this study is to measure the impact of the COVID-19 pandemic on household income including household consumption and savings for the years 2020–2021. The study uses a quantitative research method, thus, for primary data collection, the online questionnaire is used. The latent variable in this paper is the COVID-19 pandemic, while the factors that determine the latent variable are: savings, job loss, family income before the pandemic, and consumption expenditures. The study concludes that COVID-19 has a negative and significant impact on family income, saving, job loss, and consumption expenditures. The results from the structural equation modeling (SEM) are significant and the likelihood ratio (LR) test is 47.46. These findings and those of Martin, Hallegatte, and Walsh (2020), Dossche, Kolndrekaj, and Slacalek (2021), and Bundervoet, Davalos, and Garcia (2021) are consistent.

Keywords: COVID-19, Family Income, Savings, Consumption, SEM Model

Authors' individual contribution: Conceptualization — S.T., R.B., G.S., and A.G.; Methodology — R.B.; Software — S.T. and R.B.; Validation — S.T.; Formal Analysis — R.B.; Investigation — S.T. and R.B.; Resources — S.T., G.S., and A.G.; Data Curation — S.T. and A.G.; Writing — Original Draft — S.T., R.B., G.S., and A.G.; Writing — Review & Editing — S.T., R.B., G.S., and A.G.; Visualization — S.T. and A.G.; Supervision — S.T. and R.B.; Project Administration — S.T. and R.B.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

1. INTRODUCTION

Due to the COVID-19 pandemic, advanced economies have collected a large stock of household savings, far above what has previously been observed.

Because of their size, the savings collected since early 2020 have the potential to shape the post-pandemic recovery, but the main concern is whether households will spend heavily once pandemic-related limitations are lifted and customer

confidence returns, or whether other factors will take their place (Attinasi, Bobasu, & Manu, 2021). There are many reasons why the COVID-19 pandemic has affected consumer expenditure, including the following (Corcoran & Waddell, 2020): first, consumers' inability to travel, dine out, or stay in hotels due to stay-at-home orders limited economic activity across a number of industries; second, even in the absence of official restrictions, some people have avoided going out in public for fear of contracting the virus or unintentionally spreading it; and third, uncertainty naturally restrains spending, and the recent rise in unemployment and the unpredictability in the stock market have added to this feeling.

Developments in household disposable income (HDI) offer a convenient window into the effect of COVID-19 on households. The HDI is the amount of money accessible for saving and final consumption. On the other hand, in comparison to the time prior to the pandemic, the HDI shows whether households have been able to retain their levels of material well-being, or at least their capacity to maintain present levels of consumption and wealth (Organisation for Economic Co-operation and Development [OECD], 2020).

In the fourth quarter of 2020, the EU household saving rate continued to rise significantly year over year, increasing by +6.6 percentage points (p.p.) over the previous quarter. The EU's household final consumption spending was 7.0% lower than it was a year earlier, while the household gross disposable income was 0.6% higher in the fourth quarter of 2020 (compared to the fourth quarter of 2019). These factors together account for the majority of this increase (Eurostat, 2021).

At the first appearance of the COVID-19 pandemic, the International Monetary Fund (IMF) considered that the crisis caused by this disease would be an economic collapse for the global economy. Forecasts found that the global economy will shrink by 6.3% which is the biggest crisis since the Great Depression. According to data from the IMF, Kosovo in 2020 suffered economic losses of 5.34%, Albania had an economic decline of 3.5%, and North Macedonia by 4.53%. In 2021, the economic recovery of these countries begins with 5% growth in Albania, 4.5% in Kosovo, and 3.8% in North Macedonia. This economic growth has not yet returned these countries to the economic level of 2019. Part of the factual situation of the root is the households from which it affects consumption and savings. The virus caused unprecedented losses in jobs and labour income and, also reduced household spending, however, extraordinary fiscal support more than offset these income losses, so on balance, household income increased (Schembri, 2021).

The pandemic prevention measures at the international and national levels, such as social isolation and business closures, have disrupted the supply chain and decreased household income and consumption. As a result, developing nations, which are dependent on exporting services and have external and fiscal weaknesses, have suffered. Bosnia and Herzegovina, Serbia, and North Macedonia are likely to face milder recessions with reductions of 3.2%, 3%, and 4.1%, respectively, compared to pre-COVID-19 estimates, whereas

Montenegro, Albania, and Kosovo are expected to experience harsher shocks with a drop in gross domestic product (GDP) of over 8 p.p. (Gjermani & Lika, 2020).

Regarding this, governments implemented measures to safeguard their vulnerable healthcare systems in response to the rapid spread of the coronavirus in the Western Balkans. These included buying medical supplies and equipment, converting hospitals into COVID-19 centers, turning concert and sporting venues into temporary field hospitals, raising salaries for medical staff, and altering work schedules to protect the staff. Governments also responded in the second half of March with lockdowns and partial shutdowns, which led to the closure of borders, schools, restaurants, and businesses as well as bans on mass gatherings, limitations on internal movement, and the implementation of curfews (OECD, 2020).

The Ministry of Finance, Labor, and Transfers believes that it is necessary to begin the second phase of addressing the challenges brought on by the COVID-19 pandemic after bringing the situation with COVID-19 under control and supplying the required numbers of vaccines. As a result, the ministry suggested various actions to accomplish the following goals: employment and economic formalization, with a particular emphasis on enhancing the participation of women and young people in the economy; enhancing the composition of GDP by favoring specific economic sectors, particularly those involved in the production, and enhancing the trade balance of the nation; balanced and all-encompassing economic growth that is ensured to be accompanied by an increase in important welfare metrics; preserving long-term viability and reducing the country's budgetary vulnerabilities through greater cooperation with the donor community, restraint of domestic debt growth, and maximization of benefits to households and the economy.

The Economic Recovery Package was 420 million euros, where 190 million euros were from the state budget, whereas 230 million euros were financing from borrowing (Government of the Republic of Kosovo, 2020).

Taking into account the serious consequences of the COVID-19 pandemic, as presented above, the state of Kosovo has taken the necessary measures to support economic agents in all its dimensions. Behind these developments, special attention is paid to the income of citizens to ensure their livelihood. In this regard, the main purpose of this study is to analyze the impact of the COVID-19 pandemic on household income, household consumption, and household savings.

The following research questions are formulated for this study:

RQ1: Has the COVID-19 pandemic had a negative impact on household income?

RQ2: Has the COVID-19 pandemic had a negative impact on household consumption?

RQ3: Has the COVID-19 pandemic had a negative impact on household savings?

The 4.4% economic growth experienced by Kosovo in 2019 and comparable growth in prior years was largely driven by consumption and state spending; as a result, while public spending has been impacted by lower tax revenue due to company

inactivity, consumption has been less affected. In Kosovo, about 30% of all occupations are in the public sector, where the average pay is significantly higher than in the private sector. As a result, public sector wages are a significant contributor to consumption (Luka, 2020).

For the Kosovar context, Ziberi, Rexha, and Gashi (2021) researched the effects of the COVID-19 pandemic on personal consumption expenditures (PCE). A sample of 233 respondents to an online survey that was distributed at random via social media was used for the study's primary data collection. According to the study's findings, the COVID-19 pandemic affected personal consumption spending in the Republic of Kosovo by changing consumer preferences from luxury to basic goods. According to the study, citizens will become aware of their previously planned spending as soon as the anti-COVID-19 actions are made public.

Christelis, Georgarakos, Jappelli, and Kenny (2020) used data from the Consumer Expectations Survey, which interviews 10,000 households monthly across the six largest economies in the euro area, and discovered significant differences in pandemic-induced financial concerns of households across population subgroups and countries, with financial concerns being substantially greater for younger, female, and low-income people in places where the first wave of the pandemic hit. The study also emphasizes a significant portion of the decrease in total household spending in 2020, demonstrating that fiscal measures will be most successful in stabilizing total consumption and promoting economic recovery if they focus on the most vulnerable populations with the most pressing financial issues.

The research is divided into the following sections. Section 1 shows the scope of the study. Section 2 shows the literature review. Section 3 shows the research methodology used to convey this study, and Section 4 shows the empirical results that this study has collected. Section 5 presents the discussion. Lastly, Section 6 concludes this paper and shows recommendations for future research.

2. LITERATURE REVIEW

The primary sources of the initial assumptions for a decline in household income were job losses, which will have an impact on consumption (OECD, 2020; Doerr & Gambacorta, 2020). Clothing and footwear, furniture and home appliances, vehicle purchases, package vacations, and personal care services are all expected to come to an end completely. Recreation and culture, hotels, and restaurants, as well as the cost of operating individual automobiles, are expected to decrease by 50%. The calculations anticipate a decrease in spending across the economy rather than just a small decrease in a few key areas (OECD, 2020). Szustak, Grado, and Szewczyk (2021) research and evaluate the pandemic's effects on household finances in Poland in comparison to other CEE nations (such as the Czech Republic, Slovakia, and Hungary), placing a focus on changes in households' savings levels. Multiple linear regression is used in the study to identify the variables that affect

the amount of household savings. The study comes to the conclusion that these variables are distinct in each of the nations under consideration and affect the gross saving rate at a different level.

Martin, Hallegatte, and Walsh (2020) assess the socioeconomic effects of COVID-19 on people by estimating the direct effects of distance on household income, savings, consumption, and poverty using a microeconomic model. The study comes to the conclusion that there are two periods: a crisis period, in which some people face a decline in income and can utilize their savings to continue consumption; and a recovery period, in which households save to top off their drained savings to pre-crisis levels.

Dossche, Kolndrekaj, and Slacalek (2021) investigate the impacts of the COVID-19 pandemic on labor income, consumption, and saving of specific euro area families using multiple household-level statistics. Because of the underlying disparities in their economic systems, the study discovers that the pandemic has affected the economies of the euro area in distinct ways.

A study by Almeida et al. (2021) analyses the impact of the COVID-19 crisis on EU household income taking into analysis also the fiscal policy measures taken by the EU member states. The study draws the conclusion that the COVID-19 epidemic is expected to have a considerable impact on households' disposable income in the EU, with lower-income households being particularly hard hit. Also, their study highlights the importance of policy intervention, in the impact of the crisis and suggests that the pandemic's negative effects on poverty will be significantly mitigated by the use of discretionary fiscal policy measures, which will reduce the extent of the income loss (from 9.3% to 4.3% for the average equalized disposable income).

The COVID-19 pandemic had an unequal impact on the employment and earnings of different laborers, consequently affecting households' per capita income and income inequality, thus the impact of the pandemic lies specifically on the employment and earnings of different laborer types (Zhang, Lu, Yin, & Zhao, 2021).

According to a study by Bundervoet, Davalos, and Garcia (2021), COVID-19 affects households in poor nations in terms of employment, income, food security, and learning. According to the findings of this study, which used data from 34 countries with a combined population of almost 1.4 billion, 36% of respondents stopped working in the immediate wake of the pandemic, over 64% of households reported income declines, and over 30% of kids were unable to continue their education during school closures. The study also highlights that during the COVID-19 pandemic, the self-employed and casual workers — the most vulnerable workers in developing countries — bore the brunt of the pandemic-induced income losses.

The tragic effects of the coronavirus pandemic on the labor market are revealed in a study by Bontan, Hoffmann, and Vera-Cossio (2020) using a household survey of 230,540 respondents in seventeen developing nations. The research also comes to the conclusion that existing inequality is being worsened by the monotonically diminishing link between job loss and business closure within

income prior to the epidemic. Beyond income inequality, the effects of the labor market on inequality also include food security and nutrition.

Another study by Fajardo-Gonzalez, Molina, Montoya-Aguirre, and Ortiz-Juarez (2021) highlights three findings: first, a distributive-neutral forecast places 117 million people in extreme poverty and a distributive-regressive projection places 168 million people in extreme poverty, which may better reflect how the shock affected poor and vulnerable households. Second, a simulation of the potential effects of a temporary basic income with an investment of 0.5% of developing nations' GDP over a period of six months reveals that this sum would significantly reduce, at least temporarily, the rise in global poverty in both the \$1.90- and \$3.20-a-day thresholds; however, poverty would still rise significantly in the world's poorest regions. Third, the study of income-support initiatives in 41 nations reveals that they might have, at least temporarily, reduced the overall rise in poverty in upper-middle-income nations, but they might not have been adequate to reduce the rise in poverty at any poverty level in low-income nations.

Nationally, during the lockdown period between March and May 2020, the simulation results estimate declines in household income by 33% on average, thus the urban population experienced the largest decline, averaging 40% during this period (Diao, Rosenbach, Spielman, & Aragie, 2021).

Gopal and Malliasamy (2022) analyse the transformation of savings and spending of rural households during COVID-19 in the case of Malaysia. A Likert scale was utilized in the questionnaire to elicit the study variables, and structural equation modeling was utilized to analyze the data after it was gathered. According to the study, all types of savings during COVID-19 had a favorable and significant link with rural residents' savings intentions.

Jin, Zhao, Song, and Zhao (2021) investigated if and how consumer preferences for saving are affected by public health situations (vs. spending). To evaluate the hypotheses, the study used two online surveys and techniques including stepwise regression analysis and bootstrapping. The study concluded that materialism plays a moderating role between risk perception and an individual's willingness to save (vs. spend); people who are more materialistic have a lower willingness to save (vs. spend) when they perceive the risks of the pandemic. The study found that the severity of emergencies has a significant positive impact on the population's willingness to save (vs. spend). The COVID-19 pandemic is creating a new reality worldwide. Western Balkans economies could seize the opportunities arising from this new reality. The global economy and production networks will tend to become more resilient to shocks after the pandemic. Western Balkan economies can also emerge stronger if they change as the world is changing (Jovanović et al., 2021).

A study by Kim, Koh, and Zhang (2020) examines the short-term impact of COVID-19 on consumption spending and its underlying mechanisms, using individual-level monthly panel data from Singapore. The study concludes that the COVID-19 pandemic reduced consumption spending by almost a quarter during its peak, with

a larger response from households with above-median wealth. The study also emphasizes the link between consumption spending and risk-aversion, the national lockdown, increased economic uncertainty, and lower income. Given that the primary cause of this is the income decline, which accounts for about a third of the decline in consumption spending among households that have suffered income losses due to the pandemic, it is likely less likely that the income channel is what is causing the overall decline in consumption.

Using a survival analysis of COVID-19 incidence in Kosovo, Bajrami, Gashi, and Hashani (2021) found that while some covariates, such as diabetes prevalence and hospital beds per thousand, have highly statistically significant coefficients, others, such as the stringent index, total cases, GDP per capita (an economic variable), respondent's age, and handwashing facilities, do not. This suggests that these covariates are not significantly influencing the hazard ratio.

A study by Hashani, Ziberi, and Bajrami (2022) targeted individual use in the Western Balkan nations. Results were drawn using ordinary least squares (OLS), fixed-effect, random-effect, and Hausman-Taylor estimator. The findings show that a key factor in economic growth is private consumption. By increasing their household consumption, individuals and households have a direct impact on the country's GDP growth.

Hoti and Kurhasku (2022) investigate how remittances from the diaspora affect social and economic outcomes and how they can support the emerging economy in battling the COVID-19 pandemic. According to the findings, remittances were higher than ever throughout the pandemic and were vital in helping families in Kosovo pay for necessities during the country's economic difficulties.

In their study, Cantó et al. (2022) evaluated the COVID-19 effects on household income and the government's policy responses in April 2020 in four significant and severely affected EU countries (Belgium, Italy, Spain, and the United Kingdom). The results indicate that economic poverty grew across the countries as a result of the pandemic, according to household surveys associated with COVID-19.

A total of 493 participants/families, including 364 males and 129 females, were participants in the research carried out by Celik, Ozden, and Dane (2020). In order to gather information about household characteristics during the COVID-19 pandemic such as income, total expenses, and other expenses, an online survey was employed as the research instrument. According to the study's findings, the COVID-19 pandemic has significantly affected the income and expenses of families from various countries.

Using a Monthly Basic Current Population Survey (CPS), Feinberg et al. (2022) gathered income data from a sizable representative sample of American families. The findings indicate that early in the pandemic, government policy successfully counteracted its effects on incomes, resulting in a decrease in poverty and an increase in low incomes across a variety of demographic and geographic groupings.

Hanspal, Weber, and Wohlfart (2020) examined the impact of the COVID-19 outbreak on household

income using surveys of a representative sample of more than 8,000 US homes, particularly for young people and those with lower incomes.

By analyzing online survey data from 442 respondents, Kansime et al. (2021) evaluated the effects of the pandemic on household income in Kenya and Uganda, two countries in East Africa. According to the findings, the COVID-19 issue caused income shocks for over two-thirds of the respondents.

Baker, Farrokhnia, Meyer, Pagel, and Yannelis (2020) use Gallup Daily Tracker Data to evaluate how household consumption responds to epidemics by analyzing household transaction-level financial data. Their research revealed that households started drastically altering their usual spending patterns in several important categories as the number of instances rose. Firstly, spending rose radically, particularly in the retail sector, on food and credit cards.

Georgarakos and Kenny (2022) measure the effect of COVID-19 on family consumption by using the Consumer Expectations Survey (CES), a new high-frequency online panel survey of consumer expectations and behavior in the euro area. The results demonstrated that consumer spending is causally affected by simple and true information treatments on government support policies, particularly by increasing expenditure on large items.

Zhang et al.'s (2021) empirical observations of how the COVID-19 epidemic has impacted families' saving choices offer insight into this discussion. The COVID-19 pandemic's effects on Chinese household saving practices were assessed in the paper. According to this study, households in the worst-hit cities would save more during the disaster, but tended to save less once it subsided.

Li, Song, Peng, and Wu (2020) used data from the China Household Finance Survey (CHFS). Their findings show households' liquidity constraints become serious after the outbreak of COVID-19. Meanwhile, the deterioration of individuals' liquidity significantly increases their willingness to save and reduces their consumption.

The following research hypotheses were drawn for this study:

H1: The COVID-19 pandemic has had a significant negative impact on household income.

H2: The COVID-19 pandemic has had a negative impact on household consumption.

H3: The COVID-19 pandemic has had a negative impact on household savings.

3. RESEARCH METHODOLOGY

For the analysis of this paper, narrative methods were used, through which a brief description was made about the effects of the pandemic in different categories in Kosovo and econometric methods for the analysis of empirical results.

To determine the effects of the pandemic on household income, a survey was initially conducted which is structured in two parts. The first part deals with the demographic questions of the survey (age, gender, location, family members) and the second part of the survey deals with the substantive questions of the topic:

- *q9* ("Your family's monthly income has changed as a result of the COVID-19 pandemic");

- *q10* ("Your family's monthly income was higher before the COVID-19 pandemic period");

- *q11* ("At least one of your family members lost their job as a result of the COVID-19 pandemic");

- *q12* ("Your family savings were higher before the COVID-19 pandemic");

- *q14* ("Average monthly consumption expenditures were higher before the pandemic");

- *q15* ("The COVID-19 pandemic negatively affected the standard of your family living").

The variables *q9*, *q10*, *q11*, *q12*, *q14*, and *q15* are variables that define the latent variable. The model from which the latent variable is measured is the structural equation model (SEM).

The data was gathered between September and December of 2021 through an online survey. Only families with members employed by privately held institutions and businesses were authorized to participate in the study, which limited the makeup of the complaints. The researchers utilized Slovin's formula — $n = N/(1 + Ne2)$ — to increase the sample's representativeness. The sample included 507 families. The statistics on all Kosovo families were provided by the Kosovo Statistics Agency. Both the SEM model analysis and the descriptive data analysis were performed using Stata software (Table 2 and Appendix).

In the table below, the descriptive statistical data, from which we see that there are a total of 507 respondents surveyed, are presented. The survey consists of answers from the Likert scale, where 1 is "I completely agree", while 4 means "I do not agree at all". Question *q11* is the only one that needs a "yes" or "no" response.

The selection sample is spread in all cities of the Republic of Kosovo and the households that are employed in private institutions are surveyed.

Table 1. Descriptive statistics

Variable	Observations	Mean	Std. dev.	Min	Max
<i>q9</i>	507	2.043393	0.9165209	1	4
<i>q10</i>	507	2.025641	0.926836	1	4
<i>q11</i>	507	0.7376726	0.4403342	0	1
<i>q12</i>	507	1.91716	0.8106513	1	4
<i>q14</i>	507	2.43787	0.8674994	1	4
<i>q15</i>	507	1.946746	0.8191895	1	4

Source: Authors' calculations.

4. RESULTS

According to the IMF, economic growth in Kosovo decreased by 6% in 2020 and increased by 4.5% in 2021, which does not return to the economic situation in 2019. The difference of -1.5% in

economic growth still reflects compared to 2019. This root also reflects in the reduction of family savings. From 2019 to 2020, savings have decreased by 2.98% and the decrease continues in 2021 compared to 2019 by about 1%.

Table 2 displays the descriptive data from the respondents' responses using percentages. When asked if the COVID-19 pandemic had an impact on family income, 72.4% agreed, while 27.6% disagreed. When asked about their family's monthly income prior to the COVID-19 pandemic, 67.7% of respondents replied that it was higher, while 32.3% claimed it was not. When asked if they had more savings before the pandemic, 76.9% of respondents claimed they did, while 23.1% said they did not have more savings before the pandemic. When asked about job losses within the family, 73.8% of

respondents said that at least one family member lost their job because of the pandemic, while 26.2% said that no one lost their job. According to 45.5% of respondents, their consumption was higher before the pandemic, whereas 55.5% disagreed and strongly disagreed with the claim that there was more consumption prior to the pandemic. When it comes to the standard of living, 78.5% of respondents believed the pandemic had a negative impact whereas the rest of the respondents do not believe that the pandemic negatively affected their standard of living.

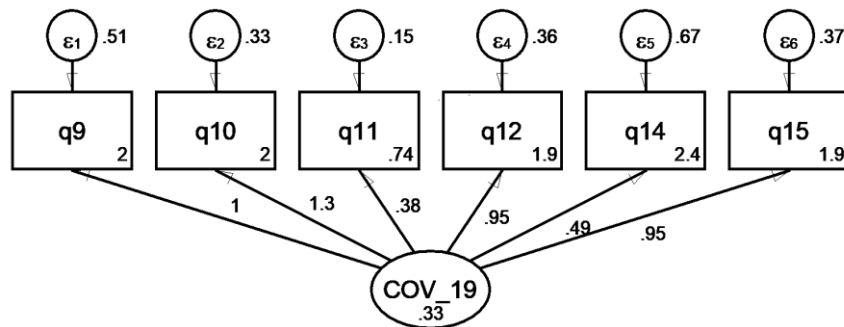
Table 2. Descriptive statistics (in %)

Questions	Strongly agree (1)	Agree (2)	Disagree (3)	Strongly disagree (4)
q9	31.6%	40.8%	19.9%	8.3%
q10	35.7%	32.0%	26.4%	5.9%
q12	34.3%	42.6%	20.1%	3.0%
q14	17.9%	27.6%	47.1%	7.3%
q15	31.6%	46.9%	16.8%	4.7%
q11	Yes (0)		No (1)	
	73.8%		26.2%	

Referring to the first figure of the SEM, we see the correlation of the variables *q9*, *q10*, *q11*, *q12*, *q14*, and *q15* with the latent variable which determines the effects of the COVID-19 pandemic on family income.

COVID-19 is the latent variable used in this research. In this case, the latent variable is determined by factors shown through questions *q9*-*q15*. Moreover, a latent variable is this study's dependent variable.

Figure 1. Structural equation model — Path and estimations of SEM



According to Table 2, we see that the results from the SEM model show the impact of the COVID-19 pandemic on household income in the Republic of Kosovo.

Empirical results from the SEM model show that the COVID-19 pandemic has had a negative impact on household income. The question on whether incomes have changed as a result of the COVID-19 pandemic (*q9*), according to the results, is a constant question and its results are significant. Since revenues have changed from the effects of the pandemic, *q10* confirms that revenues were higher before the COVID-19 pandemic than after it,

according to the SEM model, results are significant. Most of the surveyed households stated that at least one of their family members lost their job, then show a significant impact in terms of savings, according to the results of the SEM model, household savings decreased as a result of increased spending on consumption and job loss.

The analysis of these results confirms the hypotheses of this paper that the COVID-19 pandemic had negative effects on household income (*H1*), negative effects on consumption (*H2*), and negative effects on savings (*H3*).

Table 3. SEM model

Variables	SEM
Dependent variable (latent)	COV_19
<i>Independent variables</i>	
q9	1 (constrained) (0.000)***
q10	1.273787 (0.000)***
q11	0.3835906 (0.000)***
q12	0.9487917 (0.000)***
q14	0.494223 (0.000)***
q15	0.9530569 (0.000)***
No. of observations	507
Log. likelihood	-3190.515
LR test	47.46 (0.000)

Note: p-values are shown in parenthesis; *, **, and *** show significance at 10%, 5%, and 1% levels.

Source: Authors' calculations.

5. DISCUSSION

According to OECD (2020), the COVID-19 pandemic caused numerous employees around the world to lose their jobs. As a result, many families were forced to spend all of their income on groceries and forgo travel, vacations, and dining out. People's reluctance to spend money on other items increased the negative impact of the decrease in household income, lengthening the economic decline in the OECD countries. The results of this study are similar to ours as they demonstrate how the COVID-19 pandemic has impacted family income, led to at least one job loss in the family, decreased spending, and forced these families to use their savings to pay for expenses as a result of the crisis. Our study's findings support those of Almeida et al. (2021), who looked at how the COVID-19 pandemic affected household income and savings in EU countries. The results show that the COVID-19 pandemic significantly affects income and savings. The research carried out by Zhang et al. (2021) on family income inequality and employment inequality is pertinent to our findings. Moreover, the findings of Bundervoet et al. (2021) and Bontan et al. (2021) are also pertinent as they determined that there are disparities in employment losses in some industries and income. Reduced household income is a result of businesses being closed and job losses. The findings in this paper are pertinent to Kim et al. (2020) in regard to consumption as their study found that the pandemic has an impact on reducing family expenses. Kosovo recently overcome a severe crisis due to remittances, which skyrocketed during the pandemic despite the country's weak economy (Hoti & Kurhasku, 2022).

6. CONCLUSION

This paper analyses the impact of COVID-19 on household income in Kosovo. The methods used for the analysis of this paper are mainly empirical methods using the SEM model, as the latent variable in this paper is COVID-19.

This paper has two main limitations: first, selective samples in this paper are only families who are employed in the private sector (various economic activities), this research are not included families who have income from their private businesses, families which have a family member employed in public institutions. Second, in this paper, families are not differentiated according to income levels (low, medium, and high).

Referring to the limitations of this paper, the results of the analysis from the SEM model show that COVID-19 pandemic has a significant negative impact on household income and a consistent variance from the measurement model. Negative income impacts are reflected in declining household savings as a result of declining incomes following the COVID-19 pandemic, rising costs, and job losses. On average in every family, one of the family members has lost his job

The SEM model is stable, as the variables are correlated with each other and the results from the SEM model are significant. The LR test of model stability is 47.46 and is significant.

The paper is very important for future research because it serves as an initial reference basis for fostering further research on the impact of the COVID-19 pandemic on household income. Future work of this nature could be extended to other household income variables, the analysis of the differentiation of household income strata, and the measurement of poverty levels as a result of the COVID-19 pandemic. Future research on this phenomenon can use additional econometric methods. OLS, fixed-effect, random-effect, and GMM are the methods that are most typically employed to perform this research using secondary data from the World Bank, the IMF, and other relevant sources. The latent nature of the dependent variable in this investigation makes SEM the most suitable model to employ. In the event that the dependent variable in subsequent research can be measured, Logit or Probit are the most suitable models to use. This establishes a strong foundation for that research.

REFERENCES

1. Almeida, V., Barrios, S., Christl, M., Poli, S. D., Tumino, A., & van der Wielen, W. (2021). The impact of COVID-19 on households' income in the EU. *The Journal of Economic Inequality*, 19, 413-431. <https://doi.org/10.1007/s10888-021-09485-8>
2. Attinasi, M. G., Bobasu, A., & Manu, A.-S. (2021). *The implications of savings accumulated during the pandemic for the global economic outlook* (ECB Economic Bulletin 5/2021). European Central Bank. Retrieved from https://www.ecb.europa.eu/pub/economic-bulletin/focus/2021/html/ecb.ebbox202105_01~f40b8968cd.en.html
3. Bajrami, R., Gashi, A., & Hashani, M. (2021). Survival analysis of COVID-19 incidence in Kosovo. *Anale. Seria Informatică*, 19(1), 71-73. Retrieved from <https://anale-informatica.tibiscus.ro/download/lucrari/Vol19/19-1-10-Bajrami.pdf>
4. Baker, S. R., Farrokhnia, R. A., Meyer, S., Pagel, M., & Yannelis, C. (2020). How does household spending respond to an epidemic? Consumption during the 2020 COVID-19 pandemic. *The Review of Asset Pricing Studies*, 10(4), 834-862. <https://doi.org/10.1093/rapstu/raaa009>
5. Botta, N. L., Hoffmann, B., & Vera-Cossio, D. A. (2020). *The unequal impact of the coronavirus pandemic: Evidence from seventeen developing countries*. Inter-American Development Bank. Retrieved from <https://doi.org/10.18235/0002451>
6. Bundervoet, T., Davalos, M. E., & Garcia, N. (2021). *The short-term impacts of COVID-19 on households in developing countries: An overview based on a harmonized data set of high-frequency surveys* (Policy Research Working Paper). <https://doi.org/10.1596/1813-9450-9582>
7. Cantó, O., Figari, F., Fiorio, C. V., Kuypers, S., Marchal, S., Romaguera-de-la-Cruz, M., ... Verbist, G. (2022). Welfare resilience at the onset of the COVID-19 pandemic in a selection of European countries: Impact on public finance and household incomes. *Review of Income and Wealth*, 68(2), 293-322. <https://doi.org/10.1111/roiw.12530>
8. Celik, B., Ozden, K., & Dane, S. (2020). The effects of COVID-19 pandemic outbreak on the household economy. *Journal of Research in Medical and Dental Science*, 8(4), 51-56. Retrieved from <https://www.jrmds.in/articles/the-effects-of-covid19-pandemic-outbreak-on-the-household-economy.pdf>
9. Christelis, D., Georgarakos, D., Jappelli, T., & Kenny, G. (2020). *How has the COVID-19 crisis affected different households' consumption in the euro area?* (Research Bulletin No. 84). European Central Bank. Retrieved from <https://www.ecb.europa.eu/pub/economic-research/resbull/2021/html/ecb.rb210527~b7370d7722.en.html>
10. Corcoran, E. W., & Waddell, S. R. (2020). *Economic impact of COVID-19: Income, consumption, and the COVID-19 pandemic*. Federal Reserve Bank of Richmond. Retrieved from https://www.richmondfed.org/publications/research/coronavirus/economic_impact_covid-19_06-18-20
11. Diao, X., Rosenbach, G., Spielman, D. J., & Aragie, E. (2021). *Synopsis: Assessing the impacts of COVID-19 on household incomes and poverty in Rwanda: A microsimulation approach* (Rwanda SSP Policy Note No. 2). International Food Policy Research Institute (IFPRI). <https://doi.org/10.2499/p15738coll2.134484>
12. Doerr, S., & Gambacorta, L. (2020). *Covid-19 and regional employment in Europe* (BIS Bulletin No. 16). Bank for International Settlements. Retrieved from <https://www.bis.org/publ/bisbull16.pdf>
13. Dossche, M., Kolndrekaj, A., & Slacalek, J. (2021). *How has COVID-19 affected income, consumption and saving inequality in the euro*. European Central Bank. Retrieved from https://www.gesis.org/fileadmin/upload/dienstleistung/daten/amtl_mikrodaten/europ_microdata/Abstracts_2021/035_Kolndrekaj-Aleksandra___Dossche_Maarten___Slacalek_Jiri.pdf
14. Eurostat. (2021, May 10). Impact of COVID-19 on household consumption and savings. Retrieved from <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20210510-1>
15. Fajardo-Gonzalez, J., Molina, G. G., Montoya-Aguirre, M., & Ortiz-Juarez, E. (2021). *Mitigating poverty: Global estimates of the impact of income support during the pandemic* (Development Futures Series Working Papers). UNDP. Retrieved from <https://reliefweb.int/sites/reliefweb.int/files/resources/UNDP-DFS-Mitigating-Poverty-Global-Estimates-of-the-Impact-of-Income-Support-during-the-Pandemic.pdf>
16. Feinberg, M. E., Mogle, J. A., Lee, J.-K., Tornello, S. L., Hostetler, M. L., Cifelli, J. A., ... Hotez, E. (2022). Impact of the COVID-19 pandemic on parent, child, and family functioning. *Family Process*, 61(1), 361-374. <https://doi.org/10.1111/famp.12649>
17. Georgarakos, D., & Kenny, G. (2022). Household spending and fiscal support during the COVID-19 pandemic: Insights from a new consumer survey. *Journal of Monetary Economics*, 129, S1-S14. <https://doi.org/10.1016/j.jmoneco.2022.02.007>
18. Gjermeni, E., & Lika, A. (2020). *COVID-19 impact in the Western Balkans: Deep-dive in Albania and how the pandemic impacted the SDG's*. UNICEF. Retrieved from https://statswiki.unicef.org/download/attachments/256970723/Albania%20COVID_03042021.pdf?version=1&modificationDate=1618840161302&api=v2
19. Gopal, S., & Malliasamy, P. (2022). Transformational impact of COVID-19 on savings and spending patterns of Indian rural households. *SAGE Open*, 12(1). <https://doi.org/10.1177/21582440221079885>
20. Government of the Republic of Kosovo. (2020). Economic recovery package. Retrieved from <https://mf.rks.gov.net/desk/inc/media/379199A4-66AC-4095-BF61-F1184FF5169C.pdf>
21. Hanspal, T., Weber, A., & Wohlfart, J. (2020). *Income and wealth shocks and expectations during the COVID-19 pandemic* (SAFE Working Paper No. 279). <https://doi.org/10.2139/ssrn.3577217>
22. Hashani, M., Ziberi, B., & Bajrami, R. (2022). The rule of thumb: Private consumption as a driving force of the economic growth of Western Balkan countries. *Journal of Governance & Regulation*, 11(3), 54-60. <https://doi.org/10.22495/jgrv11i3art5>
23. Hoti, H., & Kurhasku, E. (2022). Social economic outcomes of remittances from the diaspora and their role in managing the COVID-19 pandemic in the emerging economy [Special issue]. *Journal of Governance & Regulation*, 11(1), 252-261. <https://doi.org/10.22495/jgrv11i1siart6>
24. Jin, X., Zhao, Y., Song, W., & Zhao, T. (2021). Save for safe: Effect of COVID-19 pandemic on consumers' saving and spending behavior in China. *Frontiers in Psychology*. Advance online publication. <https://doi.org/10.3389/fpsyg.2021.636859>

25. Jovanović, B., Ghodsi, M., van Zijverden, O., Kluge, S., Gaber, M., Mima, R., ... Mandić, M. (2021). *Getting stronger after COVID-19: Nearshoring potential in the Western Balkans*. The Vienna Institute for International Economic Studies. Retrieved from <https://wiiw.ac.at/getting-stronger-after-covid-19-nearshoring-potential-in-the-western-balkans-dlp-5814.pdf>
26. Kansiiame, M. K., Tambo, J. A., Mugambi, I., Bundi, M., Kara, A., & Owuor, C. (2021). COVID-19 implications on household income and food security in Kenya and Uganda: Findings from a rapid assessment. *World Development*, 137, 105199. <https://doi.org/10.1016/j.worlddev.2020.105199>
27. Kim, S., Koh, K., & Zhang, X. (2020). *Short-term impact of COVID-19 on consumption spending and its underlying mechanisms: Evidence from Singapore* (IZA Discussion Paper No. 13354). <https://doi.org/10.2139/ssrn.3627056>
28. Kosova Democratic Institut (KDI). (2020). *Pakoja fiskale emergjente*. Retrieved from <https://kdi-kosova.org/wp-content/uploads/2020/08/50-Analiz%C3%AB-e-Shkurt%C3%ABr-e-Pakos-Fiskale-Emergjente-ALB-02.pdf>
29. Li, J., Song, Q., Peng, C., & Wu, Y. (2020). COVID-19 pandemic and household liquidity constraints: Evidence from micro data. *Emerging Markets Finance and Trade*, 56(15), 3626-3634. <https://doi.org/10.1080/1540496X.2020.1854721>
30. Lluca, V. (2020). *The impact of COVID-19 on the economy of Kosovo*. Friedrich Naumann Foundation for Freedom. Retrieved from https://www.freiheit.org/sites/default/files/2021-05/broshura_eng.pdf
31. Martin, A., Hallegatte, M. M., & Walsh, B. (2020). Socio-economic impacts of COVID-19 on household consumption and poverty. *Economics of Disasters and Climate Change*, 4(3), 453-479. <https://doi.org/10.1007/s41885-020-00070-3>
32. Organisation for Economic Co-operation and Development (OECD). (2020a). *Statistical insights: How did the first wave of the COVID-19 pandemic affect the household sector and public finances?* OECD. Retrieved from <https://www.oecd.org/sdd/na/statistical-insights-how-did-the-first-wave-of-the-covid-19-pandemic-affect-the-household-sector-and-public-finances.htm>
33. Organisation for Economic Co-operation and Development (OECD). (2020b). *The COVID-19 crisis in the Western Balkans: Economic impact, policy responses, and short-term sustainable solutions*. OECD. Retrieved from <https://www.oecd.org/south-east-europe/COVID-19-Crisis-Response-Western-Balkans.pdf>
34. Schembri, L. (2021). *COVID-19, savings and household and household spending*. Bank of Canada. Retrieved from <https://www.bis.org/review/r210312a.pdf>
35. Szustak, G., Gradoń, W., & Szewczyk, Ł. (2021). Household financial situation during the COVID-19 pandemic with particular emphasis on savings — An evidence from Poland compared to other CEE states. *Risks*, 9(9), 166. <https://doi.org/10.3390/risks9090166>
36. Zhang, Q., Zhang, X., Cui, Q., Cao, W., He, L., Zhou, Y., ... Fan, Y. (2021). The unequal effect of the COVID-19 pandemic on the labour market and income inequality in China: A multisectoral CGE model analysis coupled with a micro-simulation approach. *International Journal of Environmental Research and Public Health*, 19(3), 1320. <https://doi.org/10.3390/ijerph19031320>
37. Zhang, Y., Lu, X., Yin, H., & Zhao, R. (2021). Pandemic, risk-adaptation and household saving: Evidence from China. *China Finance Review International*. Advance online publication. <https://doi.org/10.1108/CFRI-04-2021-0077>
38. Ziberi, B., Rexha, D., & Gashi, R. (2021). *The impact of COVID-19 on the consumers' behaviour: The case of Republic of Kosovo economy*. <https://doi.org/10.2139/ssrn.3816935>

APPENDIX

Table A.1. Descriptive statistics

		<i>Age</i>	<i>Gender</i>	<i>Location</i>	<i>Family members</i>
N	Valid	507	507	507	507
	Missing	0	0	0	0
Mean		2.30	1.30	1.32	3.36
Median		2.00	1.00	1.00	4.00
Mode		2	1	1	4
Std. deviation		0.620	0.459	0.468	0.869
Variance		0.384	0.210	0.219	0.755
Variable coding: Age — 1 > 18; 2-18 until 35; 3-36 until 50; 4-51 until 64; 5 ≥ 64. Gender: 1 — Female; 2 — Male. Location: 1 — Urbane; 2 — Rural. Family members: 1-2 members; 2-3 members; 3-4 members; 5 > 4 members.					

Source: Authors' calculations.

Table A.2. Analytic statistics

		q9	q10	q11	q12	q14	q15
q9	Pearson correlation	1	0.522**	0.288**	0.391**	0.294**	0.372**
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000
	N	507	507	507	507	507	507
q10	Pearson correlation	0.522**	1	0.380**	0.534**	0.261**	0.491**
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000
	N	507	507	507	507	507	507
q11	Pearson correlation	0.288**	0.380**	1	0.321**	0.198**	0.372**
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000
	N	507	507	507	507	507	507
q12	Pearson correlation	0.391**	0.534**	0.321**	1	0.080	0.502**
	Sig. (2-tailed)	0.000	0.000	0.000		0.073	0.000
	N	507	507	507	507	507	507
q14	Pearson correlation	0.294**	0.261**	0.198**	0.080	1	0.250**
	Sig. (2-tailed)	0.000	0.000	0.000	0.073		0.000
	N	507	507	507	507	507	507
q15	Pearson correlation	0.372**	0.491**	0.372**	0.502**	0.250**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	
	N	507	507	507	507	507	507

Note: ** Correlation is significant at the 0.01 level (2-tailed).

Source: Authors' calculations.

Table A.3. SEM model for the measurement of the variables

Iteration 0: Log likelihood = -3191.8949						
Iteration 1: Log likelihood = -3190.5336						
Iteration 2: Log likelihood = -3190.515						
Iteration 3: Log likelihood = -3190.515						
Structural equation model: Number of obs. = 507						
Estimation method = ml						
Log likelihood = -3190.515						
(1) [q9]COV_19 = 1						
OIM						
Coef.		Std. Err.	z	P > z 	[95% Conf. interval]	
Measurement						
q9 ≤						
COV_19	1 (constrained)					
_cons	2.043393	0.040664	50.25	0.000	1.963693	2.123092
q10 ≤						
COV_19	1.273787	0.0984249	12.94	0.000	1.080878	1.466697
_cons	2.025641	0.0411216	49.26	0.000	1.945044	2.106238
q11 <						
COV_19	0.3835906	0.0419898	9.14	0.000	0.3012922	0.4658891
_cons	0.7376726	0.0195366	37.76	0.000	0.6993815	0.7759637
q12 <						
COV_19	0.9487917	0.0837033	11.34	0.000	0.7847363	1.112847
_cons	1.91716	0.0359668	53.30	0.000	1.846666	1.987653
q14 <						
COV_19	0.494223	0.0770787	6.41	0.000	0.3431515	0.6452944
_cons	2.43787	0.038489	63.34	0.000	2.362433	2.513307
q15 <						
COV_19	0.9530569	0.085224	11.18	0.000	0.7860209	1.120093
_cons	1.946746	0.0363456	53.56	0.000	1.87551	2.017982
Variance						
e.q9	0.5122032	0.0380842			0.4427435	0.59256
e.q10	0.3281401	0.0342827			0.2673803	0.4027071
e.q11	0.1455214	0.0099299			0.1273045	0.166345
e.q12	0.3622566	0.0285091			0.310476	0.4226731
e.q14	0.6714064	0.0434568			0.5914138	0.7622186
e.q15	0.3734994	0.0297191			0.3195659	0.4365354
COV_19	0.3261507	0.0464015			0.2467844	0.4310413

Note: LR test of model vs. saturated: $\chi^2(9) = 47.46$, Prob. > $\chi^2 = 0.0000$.

Source: Authors' calculations.