



Determinants Of Loan Repayment During COVID-19 Pandemic: Evidence From OMO Microfinance Institution

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ABSTRACT

Default occurs when principal or interest payments are 90 days or more past due. The objective of this study was to examine factors that influence loan repayment among clients of OMO Microfinance Institution in Werabe City during the COVID-19 pandemic. The study attempted to understand how far the economic slowdown related to COVID-19 affected the loan repayment performance of MFI clients in least-developed countries like Ethiopia, incorporating religiosity and religious knowledge as explanatory variables in addition to the borrower's personal characteristics and loan characteristics that have been used as explanatory variables in most previous studies. To achieve this objective, explanatory and descriptive research designs were employed with a quantitative approach. The primary data was based on a systematic random sample of 302 borrowers who had borrowed between the years 2018 and 2021. A bivariate analysis was used to identify the association between the loan repayment performance of borrowers and explanatory variables. After identifying variables having a significant association with the dependent variable, the study employed a binary logistic regression model. Results of the study revealed that educational level, long repayment period, large family size, loan size, and borrower's business condition resisting the effect of COVID-19 had significantly negative associations with borrowers becoming defaulters, whereas absence of religious knowledge, being unmarried, taking interest-based loans, borrowing for consumption, and client's tendency towards loan diversion had significant positive associations with borrowers becoming defaulters. The study suggests that MFIs should offer facilities to help borrowers cope with economic slowdowns due to crises like COVID-19, ensuring loan repayment performance. It also recommends interest-free loans to enhance overall performance. The study also emphasizes the importance of helping borrowers understand their rights and obligations based on their religion, ensuring they fulfill their loan commitments.

Keywords: Culture; COVID-19; Loan Repayment Status; Loan Default and Borrowers; Religion Knowledge.

1. Introduction.

Microfinance institutions provide financial services to low-income people, particularly the poor, both in rural and urban areas of most developing countries, who lack access from conventional banking due to poverty (Geremew, 2019). Poor people generally lack access to formal financial services at conventional banks due to high interest rates, collateral requirements, and difficult application procedures (World Bank, 2020). The ability to obtain a loan from a microfinance institution without putting up financial collateral except bail bondsman has made it possible for most of the poor to participate in micro-credit and engage in

economic activities(Khan & Rahaman, 2007).

According to Chomen(2021)access to MFI service increases performance generating income of the poor and improves ability to pay for living standard facilities(Hermes & Hudon, 2018). Furthermore MFI plays a great role in women's empowerment(Ahmad, 2020). This institution significantly increases the level of production and they can play a great role on a country's gross domestic product through increasing access to formal savings accounts, which are used by the poor to finance and expansion of pre-existed businesses(Oshora et al., 2021). Nevertheless the performance of MFIs is influenced by loan default problems. A study on loan default by client and its associated factors is important to suggest possible ways to overcome the problem and streamlining the role of MFIs on poverty reduction and overall economic development.

There are several factors affecting loan repayment performance of clients in MFIs. Poor client business performance and associated declining cash inflow and revenue (Dubale & Beshir, 2020), among other are the major factors that challenged many financial institutions operating in least developing countries prone to natural and social calamities that disrupt normal business operations. During 2020 many of MFI clients flunk at risk of insolvency, because many business entities are forced to stop their operations through COVID-19 restriction and some of them disturb their supplier chain, after all, they lose their potential to make revenue(World Bank, 2020). On the other hand, natural disasters negatively affect the economic performance of MFIs through their impact on agricultural sector clients. As a result, these clients are unable to repay their liability(Gallagher et al.,2017)and(Sseruyange & Klomp, 2021).

A study by Teshome(2020)showed increasing loan default in Ethiopian MFIs and based on the study of six MFIs concluded that on average 27.1% of clients defaulted there loan although the average in sub Saharan Africa were about 10% (Chikalipah, 2018). Recently, Alibhai et al., (2021)concluded that the percentage of borrowers in arrears climbed dramatically across all institutions in Ethiopia. The analysis of data from 11 MFIs accounts for over 90% of outstanding microfinance loans. The average share of loans that were more than 30 days past due (PAR 30) increased from 5.7 % in June 2020 to 8.8 %, whereas the longer-term (PAR 90) indicator increased from 5.1 % to 6.9 %, both of which were slightly higher than the continental average for African MFIs. According toBorko, (2017)the financial sustainability of OMO microfinance institutions is affected by their risk of default. Similarly, the review of financial report of OMO MFI's Werabe branch showed that 30% of borrowers experienced default in the year between 2018 to 2021 (financial report of OMO MFI Werabe branch). This triggered an effort to identify how far COVID 19 related measures affected the loan repayment performance of MFI clients. Studies on the economic behavior of individuals have identified that religious knowledge is among the factors affecting loan repayment behavior, but very few studies have examined the extent to which religious knowledge and religiosity affect the loan repayment performance of clients in MFIs. Hossain (2012)indicated that borrowers' religious knowledge has an effect on loan repayment. Gyapong et al.,(2021)concluded that failure to select committed clients with religious knowledge poses a challenge to this institution.

Numerous studies on loan repayments have been conducted by different authors. They reveal that loan repayment is influenced by a number of demographic, economic, and loan-related (institutional), and natural-related factors. The major gaps in the empirical review were inconsistencies regarding many predictors, missing some variables, and some variables yielding mixed results in previous studies, such as gender, age, marital status, educational status, family size, loan size, and repayment period, as explained in the empirical summary, which needs further investigation. Furthermore, this study includes new variables that have not been previously investigated in the context of Ethiopian MFIs, such as product type, natural disasters, religion, religious knowledge, and COVID-19. Again, the purpose and utilization of loans are examined in this study because there is insufficient empirical research on these variables. This study examines the determinants of loan repayment. Through sought to bridge this gap by demonstrating how all of the above variables influence loan repayment success regardless of the client's business type. Therefore, this study attempts to identify determinants of loan repayment in Ethiopian MFIs, evidence from clients of OMO MFI at the Werabe branch.

2. Literature Review.

People living in poverty need a variety of financial services to manage their finances, operate enterprises, and build assets. However, the majority of the poor are unable to acquire credit from banks due to collateral concerns. According toMader, (2017), microfinance has emerged as a respectable replacement for unofficial credit and a potent and effective strategy for reducing poverty among those who are economically productive. Microfinance is the provision of a wide range of financial services to the underprivileged and low-income population, who are excluded from regular banking sectors (Geremewe, 2019).However, this institution faces problems with client-defaulted loans, and credit discipline is a major challenge in microfinance(Prathap et al., 2018). Based on Limbe et al., (2020)defaulted loans are considered non-performing if the borrower fails to make the scheduled payments within a specific timeframe. Aregawi, (2015)provides a definition of non-performing loans (NPLs) as those where interest and/or principal payments are overdue by 90 days or more, or if interest payments of 90 days or more have been capitalized, refinanced, or deferred through an

arrangement. According to Carl & Duho,(2023), credit risk is the first and most common challenge faced by microfinance institutions. Studies have shown that credit risk in MFIs is explained by client-related, business-related, loan-related, and other systematic risk factors. To date, very few studies have been conducted to understand the systemic factors in microfinance loan default. Hence, this study was conducted to test the factors that widely affected all clients of MFIs in addition to client-, firm-, and loan-related factors commonly used in previous studies to explain the rate of loan default in MFIs. Moreover, the current study introduces religiosity and religious knowledge as factors affecting borrowers' loan repayment performance because studies(Trautmann, 2022) on the economic behavior of individuals have witnessed the fact that religiosity and religious knowledge are among the relevant factors explaining individual economic behavior.

2.1. The Borrower's Gender and Loan Repayment

According to theCalcagnini et al., (2015), gender is one of the most important factors influencing loan repayment. Shahriar et al., (2019)examined gender differences in loan repayments and found that women are more trustworthy than men and are more likely to repay their loans, regardless of any control measures. Shiferaw (2017);Tian & Li, (2017)finds that female borrowers default more frequently than the male borrowers do. However, Godquin(2004)indicated that there is no conclusive proof that female borrowers repay their loans more successfully than male borrowers. These arguments are due to a lack of knowledge or uncertainty regarding the impact of gender differences on loan repayment, which motivated researchers to include this variable.

H_0 : Gender has no significant effect on loan repayment.

2.2. The Borrower's Gender and Loan Repayment

According to a study conducted byAslam et al., (2020) it was found that younger borrowers exhibit a higher likelihood of defaulting on loans. Aslam stated that, older borrowers tend to possess traits such as wisdom, risk aversion, knowledge, and responsibility, which make them less likely to default. These findings were further supported by the research conducted by(Dubale & Beshir, 2020). However, Melese & Asfaw (2019)revealed no significant difference in mean default rates based on age among the borrowers in the study area.

H_0 : Age has no significant effect on loan repayment

2.3. Educational level and loan repayment status

According to various studies by Garba et al., (2015), Gudde (2018)and Melese & Asfaw (2019) it has been concluded that there exists a positive relationship between educational level and clients' repayment performance. These researchers argue that as individuals attain higher levels of education, they are better equipped to access, evaluate, and comprehend new production techniques and technologies within their businesses. As a result, they are more likely to generate higher revenue and, subsequently, demonstrate improved loan repayment capability. However, an alternative perspective is raised by Reta (2011), who found no significant association between educational level and loan repayment performance.

H_0 : Educational level has no significant effect on loan repayment

2.4. The Borrower's marital status and Loan Repayment

Research shows that there is a difference in loan repayments between married and single borrowers. Married persons feel a high responsibility or maturity to respond, while single borrowers are significantly more likely to default than married borrowers, and they explain this by claiming that singles are less responsible(Baklouti, 2013). In contrast, Dinh & Kleimeier(2007)and (Wongnaa, 2013)concluded that married individuals are more likely to default because they have many dependents (such as children), and Regasa (2020)concluded that there is no significant difference between the two groups. Because of this contradiction, researchers were interested in including marital status as a variable.

H_0 : Marital status has no significant effect on loan repayment.

2.5. The borrower's family size and loan repayment

Family size is studied as a determinant factor of loan repayment by different authors likeDubale & Beshir, (2020) and Gudde (2018)The results of the study indicated, there is a negative relationship between family size and loan repayment status and they explained that a larger family, needs also large and to fulfil these need their house head incurs higher expenses than small membered family borrowers. However, Bayat and Kiliswa (2014) explain a positive and significant relationship between family size and loan repayment. On the other hand, Reta (2019) and Asfaw (2020)found there is no statistically significant difference between defaulters and non-defaulter clients. Diplomatic results were also obtained for age.

H_0 : Family size has no significant effect on loan repayment.

2.6. The borrower's religion and loan repayment

Ergener(2020) draws the conclusion that religion and economic activity are closely related. Siala, (2013)reports that most respondents concur that religious belief can make a difference when it comes to debt repayment.

H₀: Religion has no significant effect on loan repayment.

2.7. Religious knowledge and loan repayment

Borrowers' loan repayment status is significantly influenced by their religious knowledge. Nawai, & Shariff, (2012) found that religious knowledge significantly influences loan repayment status, suggesting that selecting dedicated clients with religious beliefs can enhance lending policy implementation.

H₀: Religion knowledge has no significant effect on loan repayment

2.8. Loan Size and Loan Repayment

Studies show a positive relationship between loan size and loan repayment (Kiliswa & Bayat, 2022; Asfaw, 2020), while others show a negative association. Kiros (2023) findings show no significant effect between loan size and loan repayment performance.

H₀: Loan size variation has no significant effect on loan repayment.

2.9. Purpose of loan and loan repayment

The purpose of the loan is one of the main factors that affect loan repayment, according to empirical evidence, and it is also the main criteria for loan approval. In some cases, the purpose of the loan by itself is a case for failure. As explained by Ibrahim and Zareba (2015), business borrowers have a good track record of loan payback.

H₀: Purpose of loan has no significant effect on loan repayment.

2.10. Loan utilisation and loan repayment

The proper use of credit is required to meet the goals and objectives of both credit disbursement and credit receipt, as well as to increase income. In this regard, various authors have attempted to determine the effect of loan utilisation on loan repayment. According to Asnake, (2015) clients of MFIs are mostly adults but less educated people who rely on vulnerable smallholding agriculture. They use loans for both productive and unproductive purposes, despite the fact that this organisation favours productive activities. Client borrowing intentions deviate to some extent from actual loan usage implying loan diversion which may result in loan default.

H₀: Utilisation of loan has no significant effect on loan repayment.

2.11. Repayment period and loan repayment

According to Asgedom et al., (2015) a short loan term has a negative effect on loan repayment. In other words, a longer loan period increases the likelihood that a group loan will be repaid (Muhammad et al., 2019). Due to the fact that borrowers can earn income and meet their responsibilities on time, they can have sufficient time to pay. On the other hand, Woolcock (2008) and Belayneh (2016) conclude that long repayment has a significant negative relationship with repayment, and they explain that long periods create carelessness in borrowers.

H₀: Repayment period has no significant effect on loan repayment

2.12. Loan type and loan repayment

Kariuki & Ngahu, (2016) firmly acknowledged that occasionally, customers fail to repay loans and that interest rates on loans are sensitive to the risk of the borrower defaulting. Baele et al., (2014) looked at the default rates on conventional and Islamic principle-based loans, and they found Islamic loans had lower default rates than conventional. Shown, that Islamic loans exhibited significantly lower default rates when compared to conventional loans. This ground-breaking revelation shows the effectiveness and reliability of Islamic financial practices in minimizing loan defaults.

H₀: Loan product type has no significant effect on loan repayment.

2.13. Natural catastrophe and loan repayment

According to Wassie et al., (2019), the success of microfinance activities is mostly determined by client income; agricultural clients of MFIs in Ethiopia are significantly affected by the risk of drought in rural areas. Furthermore, Gromowski (2018) states that natural disasters have a significant impact on loan repayment performance in Hurricane Harvey. Catastrophes have caused great damage to properties, causing people to lose their homes and companies. Similarly, natural disasters have a major impact on student loan repayment performance in the United States (Lustig, 2020). Additionally, Walker et al., (2023) state that natural catastrophes have a major impact on equity ratios and solvency through uncollected loans. They also find a significant impact on financial institution net-income-to-assets and net-income-to-equity ratios as a result of uncollected loans.

H₀: Natural catastrophe has no significant effect on loan repayment.

2.14. COVID-19 and loan repayment

Fatima(2022) argue that many clients of MFIs have been forced to stop their operations or have made the decision to temporarily cease operations; over all, they lose their potential to make revenue. They were also directly and indirectly affected by supply chains and diminished demand for products and services offered by microfinance clients, resulting in clients being unable to repay their loans. Also Zhang et al.,(2020) explain that the COVID-19-induced economic downturn has a detrimental impact on MFIs financial performance. They argue that low-income households and microenterprises are less able to meet their debt commitments as a result of the pandemic-induced economic downturn. Similarly, according to the World Bank (2020), MSEs in Ethiopia were severely hampered by public health regulations for much of 2020, limiting their ability to service existing debts.

H₀: COVID-19 has no significant effect on loan repayment.

3. Methodology and research methods

The study used a descriptive and explanatory research design. A questionnaire survey of a random sample of 302 was conducted to collect primary data which were required to answer the research hypothesis. Descriptive statistics and a binary logistic regression model were employed for data analysis. The study first examined the association between loan repayment performance of clients and the hypothesised explanatory variables. The results of the tests of association show that gender, occupational status of their family members, implementation of religious rules, specific purpose of loan, rounds of accessing the loan, contribution by the government or by MFI related to occurrences of natural calamity, religion, and natural disasters hadn't an association with the loan repayment status of borrowers. So a binary logistic model developed at the beginning of the study was re-specified to enable examining the effects of explanatory variables that showed statistically significant association with the dependent variable, which included demographic, natural disaster, and loan-related aspects of factors, which were considered independent variables as follows:

$$Y_i = \text{logit } p = \alpha + \beta_1 RK + \beta_2 MS + \beta_3 EL + \beta_4 COV19 + \beta_5 RP + \beta_6 LS + \beta_7 PT + \beta_8 FS + \beta_9 PL + \beta_{10} UL + \beta_{11} AG + \epsilon_i$$

4. Results and discussion

The study first tried to identify the loan repayment performance in the sample and the result is summarized in table 1.

Table 1. Overall loan repayment status

No	Question	Yes	No	Total
1	Is your repayment situation according to the credit term given by OMO MFI?	177 (61 %)	113 (39 %)	290(100%)

Source: computed based on survey, 2021

Regarding the result of the loan repayment status of the respondents, about 61% of clients were found paying with loan repayment schedules, suggesting the fact that the majority of the study sample had not defaulted on their loan amidst the COVID 19 crises.

Loan repayment status by Demographic characteristics of the sample

Table 2 shows the result of the test of association between demographic predictors and the loan repayment status of borrowers.

Table 2; Association of demographic characteristics with loan repayment performance

Variables	Category	Loan repayment status of clients			χ^2	P-Value
		Defaulter	Non-defaulter	Total		
Gender	Female	36(32%)	74(42%)	110(38%)	2.90	0.089
	Male	77(68%)	103(58%)	180(62%)		
	Total	113(100%)	177(100%)	290(100%)		
Educational status of clients	Up to secondary	52(46%)	134(76%)	186(64%)	42.65	0.000
	Unable to read and write	60(53%)	31(18%)	91(31%)		
	A college Certificate and above	1(1%)	12(6%)	13(5%)		
	Total	113(100%)	177(100%)	290(100%)		
Marital status of	Married	58(51%)	168(95%)	226(78%)	76.1	0.000

clients	Single	55(49%)	9(5%)	64(22%)	9	
	Total	113(100%)	177(100%)	290(100%)		
Occupational status of family members	Occupied	36(32%)	138(76%)	174(60%)	2.7	0.071
	Idle/dependent	76(68%)	40(24%)	116(40%)		
	Total	112(100%)	178(100%)	290(100%)		

Source: computed based on survey, 2021

According to Table 2, 58% of male respondents and 42% of female respondents were non-defaulters. The defaulter category had 68% male and 32% female respondents. In general, there were fewer female defaulters, although the relationship between loan repayment and gender was not significant ($\chi^2 = 2.90$; $P < 0.089$). Results in Table 2 also showed educational status and loan repayment performances in the sample. Accordingly, of those in the non-defaulter category, 7% attended up to secondary school, and 6% were certified or above, but the remaining 18% were unable to read and write. Similarly, 53% of the sample in the defaulter category was unable to read and write, whereas 46 attended secondary school, and only 1% of defaulters had a college education. The results in general showed a positive association between educational attainment and loan repayment performance ($\chi^2 = 42.653$; $P < 0.001$). In terms of the relationship between loan repayment and marital status, Table 2 shows that 95% of the sample in the non-defaulter category was married, but only 51% of those in the defaulter category were. The association between repayment and marital status was found statistically significant ($\chi^2 = 76.189$; $P < 0.001$). Results in Table 2 also show that 76% of non-defaulter respondents were employed, whereas 24% were unemployed. Similarly, 32% were employed and 68% were unemployed defaulters. The employed group covers a considerable share of the non-defaulter group. The relationship between loan repayment and the employment position of borrowers was not statistically significant ($\chi^2 = 2.7$; $P = 0.071$).

Test of association for cultural variations

Table 3 shows the result of the test of association between cultural factors and the loan repayment status of borrowers.

Table 3: Test of association for cultural related regressor variables

Variables	Category	Loan repayment status of clients			χ^2	P-Value
		Defaulter	Non-defaulter	Total		
Religion	Others	36(31%)	58(33%)	94(32%)	0.026	0.872
	Muslims	77(69%)	119(67%)	196(68%)		
	Total	113(100%)	177(100%)	290(100%)		
Religious knowledge	Yes	42(37%)	130(73%)	172(59%)	37.612	0.000
	No	71(63%)	47(27%)	118(41%)		
	Total	113(100%)	177(100%)	290(100%)		
Religiosity	Yes	27(42%)	103(94%)	130(76%)	0.036	0.572
	No	36(58%)	6(6%)	42(24%)		
	Total	63(100%)	109(100%)	172(100%)		

Source: survey result, 2022

Table 3 showed that 67% of defaulters in the sample were Muslims and the remaining 33% were in other religions. Nevertheless the association between religion and loan repayment status was not statistically significant ($\chi^2 = 0.026$, $P = 0.872$). In terms of religious knowledge, the survey found that 73% of the non-defaulter sample reported to have religious understanding on debt commitment. In contrast, just 37% of respondents in the defaulters were religiously knowledgeable. The result in general showed significant association ($\chi^2 = 37.612$, $P < 0.001$) between religious knowledge and loan repayment status. Concerning the execution of religious norms by respondents, it was discovered that 94% of non-defaulter respondents were implementers, whereas just 6% have religious knowledge but do not implement it. Similarly, 42% and 58% of defaulter respondents were implementers and 58% were non-implementers, respectively. The results in general indicated a significant association ($\chi^2 = 0.036$; $P = 0.572$) between loan repayment status and religious knowledge implementation.

Test of association regarding to loan related variables

Table 4 shows the result of the test of association between loan related predictors and loan repayment status of borrowers.

Table 4: Chi-square test of Loan related regressor variables

Variables	Category	Loan repayment status of clients			χ^2	P-Value
		Defaulter	Non-defaulter	Total		
Product type	Non-interest	40(35%)	85(48%)	125(43%)	4.482	0.034
	Loan with interest	73(65%)	92(52%)	165(57%)		
	Total	113(100%)	177(100%)	290(100%)		
Purpose of loan	For business	75(66%)	162(92%)	237(82%)	29.217	0.000
	For consumption	38(34%)	15(9%)	53(18%)		
	Total	113(100%)	177(100%)	290(100%)		
Loan Utilisation	Yes	51(45%)	165(93%)	216(75%)	83.931	0.000
	No	62(55%)	12(7%)	74(26%)		
	Total	113(100%)	177(100%)	290(100%)		
Repayment period	Reasonable	20(18%)	97(55%)	117(40%)	92.152	0.000
	Short	82(73%)	29(16%)	111(38%)		
	Long	11(10%)	51(29%)	62(21%)		
	Total	113(100%)	177(100%)	290(100%)		
Loan cycle	In one round	91(80%)	79(45%)	170(59%)	81.003	0.091
	In two round	20(18%)	68(38%)	88(30%)		
	In two round	2(2%)	30(17%)	32(11%)		
	Total	113(100%)	177(100%)	290(100%)		

Source: survey result, 2022

Table 4 shows that, among non-defaulter respondents, 52% took the conventional loan product, for which they are required to pay regular interest. Similarly, 65% of the sample in the defaulter category reported having an interest-based loan. It has been observed that the majority of the sample in both categories took loans for productive purposes. The association between loan repayment and product type was significant ($\chi^2=4.482$; $P < 0.005$). Table 4 also showed an association between purpose of the loan and loan repayment status ($\chi^2 =29.217$; $P < 0.001$).

Regarding to loan utilisation ratio of the respondent, non-defaulter respondent, 165(93%) used their loan for its intended purpose, while the remaining 12(7%) of borrowers use for other purpose, within defaulter respondents, 51(45%) of the respondents used their loan for its intended purpose and while, 62(55%) uses for other things. It implies that, the proportion of borrowers who used their loan for other action found to be more in the defaulter. The association between loan repayment and loan utilisation purpose found to be statically significant with a χ^2 of 83.931 and a P-value of 0.000.

In terms of repayment period, 97 (55%) of non-defaulter were average period borrowers, 29(16%) were short-term borrowers, and 51 (29%) were long-term borrowers. Similarly, within defaulter respondents, 20 (18%), 82 (73%) and 11 (10) of the respondents were average, short, and long period of time borrowers respectively, besides, it found that long period borrowers were less likely to default. The overall association between loan repayment period and repayment status was found to be statistically significant with a χ^2 of 92.152 and a P-value of 0.000.

Regarding to rounds of accessing loan, 79(45%) of non-defaulter respondents got a total of the loaned amount in one round, while 68(38%) were accessed in two rounds, and 30(17%) were in three rounds. Similarly, among the defaulter group, 91(80%) of borrowers accessed by one round, 20(18%) by two rounds and 2(2%) of the borrowers were accessed by three rounds, indicating that, there is more of the defaulter in one round borrowers. Generally, there is no significant association between loan accessing round and loan repayment.

Test of association loan repayment with natural calamity

Table 5 shows how natural and social calamities in the study area are associated with borrowers' loan repayment statuses.

Table 5: Chi-square test of natural related regressor variables

	Category	Loan repayment status of clients			χ^2	P-Value
		Defaulter	Non-defaulter	Total		
Natural disaster	No	39(35%)	51(29%)	90(31%)	1.047	0.306
	Yes	74(66%)	126(71%)	200(69%)		
	Total	113(100%)	177(100%)	290(100%)		
Covid-19	Yes	108(96%)	122(69%)	230(79%)	29.848	0.000
	No	5(4%)	55(31%)	60(21%)		
	Total	113(100%)	177(100%)	290(100%)		
Contribution by gov.t and MFI related to events	gain tax relief	22(20%)	16(25%)	38(21%)	35.621	0.070
	Aid from the Gov.t & NGO	2(2%)	7(11%)	9(5%)		
	Rescheduling of Repayment	30(27%)	21(32%)	51(29%)		
	Nothing	57(51%)	21(32%)	78(44%)		
	Total	111(100%)	65(100%)	176(100%)		

Source: survey result, 2022

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According to Table 5, among the non-defaulters, 126 (71%) borrowers were not affected by the natural catastrophe, while 51 (29%) of the respondents were challenged due to natural calamities in the area. The results also showed that among the defaulters, 39 (35%) faced no difficulties, while 74 (66%) of the borrowers faced obstacles from natural catastrophes such as drought, flood, chicken pox, and locusts that destroyed crops. However, the association between loan repayments and natural disasters is not statistically significant.

Table 5 shows that 69% of non-defaulters faced challenges due to COVID-19, while the remaining 31% did not. For defaulter borrowers, 96% faced obstacles, with only 4% unaffected. This suggests that a lower proportion of businesses in the defaulter group were untouched by the pandemic. Overall, there was a significant relationship between loan repayment and COVID-19 ($\chi^2 = 28.848$, $p < 0.001$). Regarding the contribution of government and MFI related to the occurrences of such events, it's found that 16(25%) of non-defaulter borrowers got tax relief advantage, while, 7(11%) supported by government and 21(32%) supported by NGO, lastly, 21(32%) of the borrowers didn't supported by the listed organisation. Similarly, among defaulter borrowers, 22(20%) of the respondents got tax relief advantage, 2(2%) of borrowers supported by gov.t. and NGO, 30(27%) of the borrowers advantaged by payment rescheduling and the remaining 57(51%) of the borrowers were didn't supports by any of them. However, it's found that a significant number of respondents who didn't supported by any of the aiding organisations were under the defaulter group. Inline, the association of loan repayment and loan round is insignificant

Result of Binary Logistic Regression

The binary logistic analysis was used to examine the impact of independent variables on the loan repayment performance of MFI clients during the COVID-19 pandemic. The results are summarised in Table 6 below.

Table 6: Results of the binary logistic regression

Variables	Category	B	S.E.	Wald	Sig.	Exp(B)
Age		0.042	0.033	1.6	0.206	1.043
Educational status	primary & high school	-4.235	2.092	4.096	0.043	0.014
	diploma &>	-8.653	2.502	11.965	0.001	0.002
Religious knowledge	Did not have	2.28	0.851	7.174	0.007	9.78

Marital status	Single	2.266	0.916	6.112	0.013	9.638
Family size		0.5	0.167	9.014	0.003	1.649
Loan size		7.401	2.426	9.306	0.002	1636.97
Product type	Interest bearing	2.597	0.82	10.033	0.002	13.418
Purpose of loan	For consumption	2.598	0.841	9.542	0.002	13.436
Utilisation of loan	Not use for intended purpose	3.859	0.92	17.6	0.000	47.417
Repayment period	Average	-0.217	0.854	0.065	0.799	0.805
	Long	-2.68	1.02	6.901	0.009	0.069
COVID-19	Not disturbed business	-3.482	1.049	11.027	0.001	0.031
Constant		-40.73	12.241	11.075	0.001	0

Source: survey result, 2022

Table 6, consistent with previous studies (Melese & Asfaw, 2019; Gudde Jote, 2018; Regasa, 2020), shows that educational level has a significant effect on loan repayment status of borrowers and the odd ratio of primary and high school educated borrowers was 0.014 ($P = 0.043$), and the odds ratio of diploma and above educated was 0.002 ($P = 0.001$). The estimated logit value sign was negative, indicating that primary and high schools as well as diploma and above educated borrowers were less likely to default than those unable to read and write. On the other hand, this shows that the likelihood of being a defaulter is higher for those unable to read and write.

Results in Table 6 also showed that religious knowledge is statistically significant predictor of loan repayment performance of borrowers during COVID-19 pandemic. The odds ratio of not having enough religious knowledge about loan commitments was 9.78 ($P = 0.007$). The estimated logit value sign was negative, and this indicates that borrowers who didn't have enough religious knowledge about loan commitments were 9.78 times more likely to default than those who were religiously knowledgeable. This is consistent with previous studies (Nawai, & Shariff, 2012; and Illori & Enahoro, 2015). Concerning the effect of marital status, Table 6 showed that single borrowers are more likely to be defaulter than their single counterparts as found in Baklouti, (2013).

The results in this regard show a significant positive impact of family size ($\beta = 0.5$, $P < 0.01$) on loan repayment. The interpretation of family size as a continuous variable differs from that of dummy variables coded as 0 and 1. In this scenario, beta values are utilized instead of odds ratios. Therefore, the outcome concerning the impact of family size on loan repayment indicates that for every additional unit increase in family size, respondents' loan repayment increases by a factor of 0.5. Put differently, as family size grows larger, loan repayment practices also tend to increase. This result is supported by Kiliswa & Bayat, (2022) but contradicts this finding by Asfaw (2020), Regasa (2020), and Gudde Jote (2018).

Table 6 also showed a significant positive impact of loan size ($\beta = 7.412$, $P < 0.001$) on loan repayment. Accordingly, the result for the impact of loan size on loan repayment implies that as loan size increases by one unit, the borrowers' loan repayment increases by 7.412 times. On the other hand, the larger the loan, the higher their loan repayment practice would be. This result is similar to those of Asfaw, (2020), and Kiliswa & Bayat, (2022). Similarly, the results found that loan product type is a significant predictor. The odds ratio of interest-bearing types of products was 13.418 with a p-value of 0.002. This indicates that borrowers with interest-bearing loan product types were 13.418 times more likely to default than borrowers with interest-free loan product types. This was found to be similar to the results of Kariuki & Ngahu (2016) and .

Regarding the purpose of the loan, the results in Table 6 showed that those taking a loan for consumption are more likely to be defaulters ($B = 13.436$, $P < 0.05$) than business loan borrowers. This was found to be similar to Sbaih et al., (2016), and Kibrom (2010). It's also indicated that borrowers who diverted the loan to other purposes were more likely to be defaulters ($\beta = 47.417$, $P < 0.001$) than borrowers who used their loans for their intended purpose. This can simply show us that borrowers who don't use their loans for their intended purpose were 47.417 times more likely to default than the borrowers who used their loans for their intended purpose. The results in this respect were found to be similar to those of Ibrahim, & Zareba (2015) and Asnake (2015).

5. Conclusions.

The study concluded that the majority of borrowers of OMO-MFIs at the Werabe branch, where the study was conducted, showed better loan repayment performance even during the COVID-19 pandemic. Based on the results of a binary logistic analysis conducted to identify the factors affecting the loan repayment performances of borrowers, the study concluded that an increase in educational qualification and having religious knowledge on loan commitment were found to be associated with better loan repayment status.

Conversely, lower educational qualifications and a lack of religious knowledge about loans among the borrowers are associated with their low loan repayment status. The study also concluded that, among the family-related characteristics of borrowers, marital status and family size are significant determinants of loan repayment status. Accordingly, the study indicated that being married is associated with the likelihood of showing better loan repayment status. Similarly, this study indicated a positive effect of family size on the loan repayment performance of borrowers.

Regarding loan characteristics, the study indicated a significant positive effect of loan size. It was also noted in the study that borrowers who took non-interest loans showed better loan repayment performances than their counterparts who took loans with interest. The other loan characteristics considered as explanatory variables in the study are loan purpose and the use of the loan, which both showed significant associations with loan default. The study found that taking a loan for consumption and diverting loan to other purposes are associated with loan default status of borrowers. The last predictor was COVID-19; it was a significant determinant of loan repayment. Many business operations were affected by the COVID-19 predictor due to this switching-off of the business and distraction of suppliers and customers. Suppliers and customers were also unable to provide products and services to customers, and businesses were unable to repay loans. The study suggests that MFIs should offer facilities to help borrowers cope with economic slowdowns due to crises like COVID-19, ensuring loan repayment performance. It also recommends interest-free loans to enhance overall performance. The study also emphasizes the importance of helping borrowers understand their rights and obligations based on their religion, ensuring they fulfil their loan commitments.

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