

THE EFFECT OF THE NATURE OF THE FINANCING ACTIVITY ON INTEREST RATES AND MURABAHA RATES IN THE EMERGING ECONOMY

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Abstract

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This study aimed to get acquainted with the impact of the nature of financing activity on the interest rates and Murabaha rates prevailing in commercial banks and microfinance institutions (MFIs) in Jordan, as the main object of microfinance activity is to reduce poverty and unemployment (Lal, 2018). The study used the descriptive and analytical approach to evaluate the extent of variation in interest rates among different financing sectors. The study used a t-test for independent samples to test the extent of statistically significant differences between the interest rates and Murabaha rates between the three types of activity; the one-way analysis of variance (ANOVA) test was also used to test the variance in interest rates between the MFIs. The study found statistically significant differences between fixed interest rates, declining interest rates imposed by MFIs, and interest rates in commercial banks, and between Murabaha rates used in MFIs and Murabaha rates in Islamic banks. Fixed interest rates, declining interest rates, and Murabaha rates were higher in MFIs than the commercial banks and Islamic banks which oppose the main object of a microfinance institution that is helping poor families and small institutions gain access to financial services, The study found statistically significant differences between the interest rates of the MFIs themselves. The study recommended tightening control over the microfinance sector or capping its interest rates (Heng, Chea, & Heng, 2021) to match the interest rates and Murabaha rates in it along with the cost of obtaining funds and operational costs in these institutions.

Keywords: Microfinance, Banks, Interest, Murabaha, Jordan

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1. INTRODUCTION

The concept of microfinance emerged as a satisfying financial market need for borrowers who cannot turn to traditional financing markets such as

commercial, Islamic, and financing companies and others, as this category represents a large proportion of the members of any society, as the diversity of its needs characterizes it (Abdul-Majeed Alaro & Alalubosa, 2019; Nabi, Islam, Bakar,

& Nabi, 2017). The small size of the sums required to finance these needs. Many states and organizations have considered this market as one of the means of development, reducing poverty and unemployment (Lal, 2018). Therefore, it has many means of support to enable it to achieve the goals for which it was found. Thanks to the emergence of this type of financing activity to Dr. Muhammad Yunus, Nobel Peace Prize winner, who has found such activity in Bangladesh to help the poor.

In Jordan in specific and might be in other parts of the world microfinance became part of the problem and not part of the treatment. Thousands of women are unable to pay their monthly installments and became prosecuted; hundreds of them go to prison. The local government and charitable organization, as well as international charitable organizations, intervened to cover their overdue installment. The reason of situation is that borrowers are, in general, of low level of education and unable to understand the lending clauses especially the interest rates and interest calculations.

The microfinance activity's main objective was to help the poor improve their living conditions by establishing some small enterprises and meeting some of their living requirements. However, some criticisms have become directed towards it, the most important of which is the high-interest rates on the loans it grants.

The study aims to test the extant difference between interest rates and the Islamic lending approaches (the Murabaha rates) in microfinance institutions (MFIs) and commercial banks, and to achieve this objective it raised the following research questions:

RQ1: Are there differences between fixed interest rates of MFIs and interest rates of commercial banks?

RQ2: Are there differences between decreasing interest rates of MFIs and interest rates of commercial banks?

RQ3: Are there differences between Murabaha rates of MFIs and Murabaha rates of Islamic banks?

RQ4: Are there differences between interest rates of MFIs?

The importance of this study comes from its subject. It deals with interest rates and Murabaha rates of MFIs which has been talked about a lot over the past years due to the inability of many borrowers from MFIs, especially women, to fulfill their financial obligations, which is considered by some to be the reason for the exaggeration of interest rates on loans and the services they provide. These rates are compared to the interest rates and Murabaha rates which commercial and Islamic banks charge.

The study collected the data about interest rates from the website of the Central Bank of Jordan and Murabaha rates from the websites of Islamic banks and MFIs. Then it performed the statistical analysis using the Statistical Package for Social Sciences (SPSS) software, and it finds that MFIs charge higher interest rates and Murabaha rates than commercial banks and Islamic banks and it recommends imposing effective control over the MFIs and reviewing the legislations that governed their activities.

Below there are some of the terms used in the study and their definitions.

Murabaha rates of MFIs: The percentage that the client of MFIs pays based on Islamic Murabaha (Fofana, 2018) is paid on the amount of financing.

Interest rates of commercial banks: The average interest rates on the amounts granted by commercial banks during the year (Belke & Dreger, 2019). It is calculated on a decreasing basis, usually according to the statistics of the Central Bank of Jordan (Central bank of Jordan, n.d.).

Murabaha rates of Islamic banks: They are the rates of profits that Islamic banks add to Murabaha contracts obtained on their websites (Quadir, 2020).

Murabaha rates of MFIs: They are the profit rates that MFIs add to Murabaha contracts as obtained from their publications and their websites (Fofana 2018).

Fixed interest rates of MFIs (flat interest rate): The interest is calculated at fixed rates on the entire value of the loan when granted to the borrower. Its percentage and value remain constant throughout the life of the loan (Elia, 2006).

Decreasing interest rates of MFIs: The interest is imposed on loans at fixed rates when granted but is calculated based on the loan balance when the installment or payment is due (Elia, 2006).

Commercial bank: It is "the institutions that accept deposits from individuals and organizations on-demand or on time, and then uses them to open accounts and grant loans with the intention of profit" (Banking Law No. 28 of 2000, Article 2).

Islamic bank: The bank is licensed to conduct banking business following Islamic Sharia provisions (Banking Law No. 28 of 2000, Article 2).

Microfinance institutions (MFIs): They are foreign, international, and private institutions that practice microfinance activities and are included in the Central Bank's classification (Hossain, Galbreath, Hasan, & Randøy, 2020).

The rest of the paper is structured is as follows. Section 2 reviews the relevant literature. Section 3 provides the analysis methodology that has been used to conduct the empirical research. Section 4 presents the result of the statistical analysis. Section 5 discusses the result and Section 6 concludes the paper.

2. LITERATURE REVIEW

2.1. Banks in Jordan

The bank is defined as "the company licensed to conduct banking business according to the Law's provisions, including the foreign bank branch. As for the Islamic bank, it is the company that is licensed to conduct banking business according to Islamic Sharia" (Banking Law No. 28 of 2000, Article 2), and the commercial bank is defined as "the facility that accepts deposits from individuals and organizations on-demand or on time, then uses them to open accounts and grant loans with the intention of profit" (Banking Law No. 28 of 2000, Article 2). The banking sector in Jordan consists of thirteen commercial banks, three Islamic banks, and eight branches of foreign banks. Seven are commercial, and one is Islamic (Central Bank of Jordan, n.d.a).

Despite the old existence of banks in economic life, their spread, and their expansion, they are still unable to meet the desires and needs of all segments of society for two basic reasons, the first of which is the lack of resources available to banks for loan purposes compared to the needs of borrowers, and the second is that they profit seeking organizations based on interest in commercial banks, Murabaha in

Islamic banks, where commercial banks add an interest rate to the principal of the loan, considering that the interest represents “the price paid for the use of money” (Islamic Development Bank, 2009, p. 15). And this interest rate is affected by many internal factors of the bank, such as the bank’s operating expenses, the equity index, the loan index, the size of the bank, and a number of external factors such as the currency exchange rate, the rate of growth in the gross domestic product, and the inflation rate (Al-Ali, 2012); the spread of financial institutions, their branching, and the diversity and convenience of the services they provide, which are supposed to lead to the ease with which individuals interact with them, and their access to their services at prices within their financial capabilities called financial inclusion.

2.2. Microfinance institutions

Microfinance institutions (MFIs) are entities that seek to provide financial services for that segment of the population in the developing world that does not have ready access to formal financial services. This population is often called the underserved. These are primarily the working poor, many of whom live on one or two dollars a day and are either self-employed or operate a microbusiness. Many wage earners are also very poor, and though not self-employed or operating a microbusiness, also need such financing. The working poor also need a safe place to save. Most of these people work in the informal sector, which in poorer countries may comprise 80% or more of employment. Poor people have a number of ways to secure financing from family and friends, from moneylenders, and from traditional financing schemes such as ROSCAs (rotational savings and credit associations, which are well known in Africa). However, they usually have not had access to formal financial institutions such as banks either for borrowing or, perhaps more important, as a safe place to save (Lieberman, 2019), MFIs are defined as institutions that are distinguished by their commitment to assisting poor families and small enterprises in gaining access to financial services (Nourani, Malim, & Mia, 2020). Thus, it gives this goal priority over other goals such as profitability, directing investment towards specific sectors, or mobilizing savings to finance government operations and achieve them. MFIs are distinguished by their clients being families and small enterprises, and those who face difficulties in dealing with traditional financing institutions, and difficulties in providing the necessary guarantees, and the level of spread of this activity varies from one region to another in the world, and this activity is practiced by formal and semi-formal institutions, in particular, and this activity is characterized by a high

operational cost, and the benefits are the main component of the income of MFIs (Hardy, Holden, & Prokopenko, 2002).

Microfinance is concerned with building permanent local financing institutions. Microfinance does not always offer solutions, as it is not considered the best tool for everyone or in all circumstances, setting a ceiling for interest rates hurts the poor and makes it difficult for them to obtain loans, so it is acceptable that microfinance benefits are higher than the benefits of commercial banks and are proportional to the money costs used in lending. Still, microfinance providers should not work to impose high interest. Poor people pay for covering the lenders’ inefficiency (Elia, 2006).

2.2.1. Interest in microfinance institutions

The main operations of banks and financing institutions, in general, are based on the concept of interest. The interests of microfinance are characterized by the following: the interest rate is the cost that the borrower pays on a loan, and it is usually specified, but its real cost to the borrower depends on how its payments are calculated and on whether the loan is associated with additional payments such as compulsory savings, or fees paid in advance, and the same nominal interest may be the same. Different actual interest is equivalent to higher than the nominal interest, depending on how the interest is calculated and how the payments are arranged, as they can be fixed as a percentage. In this case, it is called a flat interest (flat rate), or decreasing, as will be explained later. MFIs use different methods to calculate interest on loans, including the straight-line (flat-rate) method, where interest is calculated according to the price agreed upon when granting credit and the value is added to the principal of the loan, and the installment is fixed and represents the total loan and interest divided by the number of loan installments. As for the decreasing interest, it is withdrawn according to the agreed interest rate, but according to the balance of the loan on the due date of the interest payment, and it can be calculated in advance according to the due dates of the payments and added to the principal of the loan. The total gets equal installments, or it is calculated when each installment is due and added to the installment value.

The interest rate in microfinance is influenced by the administrative expenses ratio, the loan loss ratio, the cost of funds ratio, the capitalization rate, the expected income from investments, and collectible loans (Consulting Group to Assist the Poor [CGAP], 2002). Thus, the mechanism of calculating interest in MFIs can be expressed in the following equation:

$$\text{Interest rate} = (\text{administrative expenses} + \text{bad debt expense} + \text{cost of funds in investment} + \text{capitalization rate} - \text{income from investment}) / (\text{value of loan portfolio} - \text{doubtful debts}) \quad (1)$$

2.2.2. Interest pricing structure

The nominal interest rate on the loan does not reflect the real cost that the borrower pays for the MFIs, sometimes the MFIs intend to deduct the interest value from the principal of the loan in advance, and sometimes they require depositing

an amount from the principal of the loan in the institution, and the interest may also be calculated steadily on the entire value. The loan when granted or based on the balance required from the borrower on the due date of the installment or the payment, and some fees may be added under different names, such as application fees,

administrative services, and delay penalties, all of which increase the interest rate paid by the borrower over the nominal interest announced by the institution. Sometimes the interest is charged monthly because some loans are seasonal or less than a year, and in order to explain some aspects related to the interest rate structure, suppose that a lending institution granted a loan of 1000 dinars with a nominal interest of 3% for four months, then this percentage means 36% annually if calculated on a decreasing basis, meaning 56.3% if it was calculated on a fixed basis on the entire value of the loan when it was granted and collected on monthly payments with installments, meaning 63.8% if it was calculated on a fixed basis on the entire value of the loan, but deduct the amount in advance from the principal of the loan when it was paid to the borrower. There are more complex ratios if we take into account the superposition of monthly interest, and what is added to the loan in terms of fees and sometimes administrative expenses (CGAP, 2012), many countries have adopted the principle of setting a ceiling for interest on MFIs' loans to protect the poor. Still, the study indicates that experience has shown that this limits MFIs' development, as high operating costs characterize these loans and set

prices. Interest limits the development of these institutions and pushes MFIs to focus on less poor borrowers due to the low cost of their loans, and what encourages MFIs to raise interest rates is that the concern of the poor who are small business owners is getting the loan more than they focus on the interest rate on it (Kneiding & Rosenberg, 2008).

2.3. Microfinance in Jordan

Microfinance services began to appear in Jordan when the Noor Al Hussein Foundation started its activities in this field in 1990. Then the Jordanian Hashemite Fund followed in 1992. The Development Network, which is a network of MFIs in Jordan, is a non-profit institution established in 2007 and registered with the Ministry of Industry and Trade to replace the Microfinance Association. The Microfinance Association in Jordan (Development Network) consists of eight entities (MFIs) and all of them are members in the consulted group to assist poor (CGAP). Table 1 below shows the sector progress in microfinance operation in Jordan until the end of 2017.

Table 1. Evolution of the microfinance sector in Jordan

<i>Item</i>	<i>2016</i>	<i>2017</i>	<i>Growth rate</i>
Loan portfolio size (million dinars)	206	227	10%
Number of active borrowers	390193	417302	7%
Number of effective loans	406559	413198	2%
The average size of outstanding loans (dinars)	502	549	8%
Number of branches	175	186	6%
Percentage written off debts (%)	0.08%	0.86%	0.06%

Source: Prepared by the researcher based on CGAP (2017), including its member companies.

The above network report indicates that the volume of microfinance activity witnessed a growth of 21% annually during the period 2014-2016 but decreased to 10% during the year 2017 (CGAP, 2017).

The financing sources for MFIs worldwide refer to the results shown in Table 2 below for Jordan.

Table 2. Size of donor financing provided to microfinance companies in Jordan

<i>Year</i>	<i>Funding size (dollar)</i>	<i>Equivalent financing amount (Jordanian dinars)*</i>	<i>Growth rate</i>
2013	119268394	84501657	-
2015	203852302	144429356	71%
2017	276188716	195679705	35%

Note: * An equivalent price (0.7085 dinars/dollar) was approved.

By comparing the amount of funding provided by donors as it is at the end of 2017 with the size of existing loans as mentioned in Table 2, it becomes clear that the percentage of funding provided by donors is about 86%, and that the volume of donor financing has increased during the period 2013-2015 by 71%, and during the period 2015-2017 by 35%, and the researcher was unable to reach any indicators on the size of the fund provided by donors to the microfinance sector in Jordan in both the reports and statistics of the Central Bank nor in the Development Network report for the year 2017.

The microfinance sector is subject to the Microfinance Companies Regulation No. 5 of 2015, which came into effect on June 1, 2015, granted the Central Bank the powers to license, supervise, and control the microfinance sector's work and required it to issue the necessary instructions to

implement the provisions of the system, the Instructions on Licensing and Existence of Microfinance Companies No. 62 of 2016, which cover the areas of microfinance standards, granting financing by the provisions of Islamic Sharia, requirements for licensing and the cessation of doing business, and the solvency standards for members of the board of directors and Sharia supervision, the financial Consumer Protection Instructions for the Microfinance Sector No. 15 of 2018, whose instructions dealt with product design, responsible pricing, protection of clients from lending risks, credibility, disclosure, and transparency, as well as the borrower's right to know the actual interest rates, costs, and fees associated with lending. It began to be implemented in early October 2018.

2.4. Previous studies

The study of Heng et al. (2021) examined the effectiveness of the interest rate cap on microfinance loans to protect microfinance borrowers in Cambodia from exploitation or abuse. The findings suggest that although nominal interest rates are lower as intended by the cap, there are some signs of circumvention of the cap through enlarged non-interest fees and some short-term negative impact of the cap on small borrowers. Loan-related commission fees have increased across all MFIs threefold. Nonetheless, if the interest rate cap is to be maintained to protect consumers from usury rates, the non-binding cap coupled with a stronger consumer protection safeguard seems to be a better alternative. Several policy options can help protect borrowers from excessive interest rates and limit the negative impact of the interest rate cap. These include enhancing the consumer protection framework and fostering healthy competition and efficiency in the microfinance industry.

The study by Baraton and Leon (2019) examines the effect of bank distance on the loan strategy of a microfinance institution. It investigated whether the distance between a borrower of a microfinance institution and the closest bank influences loan conditions provided by the microfinance institution. It uses an original panel dataset of 32,374 loans granted to 14,834 borrowers provided by one of the largest MFIs in Madagascar between 2008 and 2014. It was found that the closer a bank is located to a given microfinance institution borrower, the larger the loan obtained and the less collateral required. It was also found that the effect is stronger for clients that could be more easily caught by banks.

The study by Lieberman (2019) discusses the growth of commercial microfinance. It specifies that the forty-year path of microfinance to its current position encompasses four key phases with several critical components: 1) developing the business model and demonstrating profitability and scalability, 2) developing a deep supporting ecosystem and institutional capacity, 3) “cracking” mainstream international capital markets, and 4) transformation and commercialization, the main leitmotif throughout has been the importance of targeted subsidies. More than the success of microfinance on purely commercial terms, the role of subsidies — not for market-distorting price reductions, but rather for innovation, benchmarking, and infrastructure and capacity building — is perhaps the most salient feature of microfinance in fostering emerging business models that aim for social impact. Over time, however, the subsidy element in microfinance has diminished considerably, and most commercialized MFIs operate at present without substantial subsidies. Ray, Mahaparta, and Nath (2019) studied the effect of the borrower’s wealth, indebtedness, financial culture, the nature of his use of the loan, and the return on investing loan funds on the indebtedness of borrowers from MFIs in India. The study concluded that although there are positive effects of microfinance activity, it also has negative effects. For example, India’s microfinance market began to suffer from the problem of debtors’ inability to repay in 2011, as the rate of failure to repay debts increased and suicide rates among borrowers.

Maikanbara, Aderemi, and Maulida (2019) examine the demographic characteristics of microfinance borrowers and their perception of Islamic microfinance. The study revealed a statistically significant difference between the beneficiaries’ perception of Islamic microfinance and their demographic age, marital status, religion, and education level. Meanwhile, no significant difference was found in their gender, region, occupation, and monthly household income. This study constitutes a great implication on Islamic microfinance’s potential role in serving the financial needs of underprivileged poor, unbanked individuals, low-income earners, and small businesses. Hence, the policymakers should employ proactive measures to raise the awareness of Islamic MFIs and strengthen their wider operation. They should also ensure the implementation of proper and adequate governance for the institution to exhibit its mandate.

Abdelkader and Salem (2013) studied the emerging Islamic microfinance sector in the Middle East and North Africa (MENA) region, specifically how they compare with conventional institutions in terms of technical efficiency. They use a non-parametric DEA model for the period 2005–2010; they found no significant differences in the efficiency of the two groups, and conclude therefore that religion and more specifically the use of Sharia-compliant products do not affect the efficiency of MFIs in the MENA region. Nowadays Islamic finance is gaining considerable attention from regulators, financial service providers as well as other financial inclusion stakeholders. Nevertheless, it is still a nascent sector and many efforts must be done to build sustainable business models with a broad range of different products to meet the needs of Muslim poor people.

Hardy, Holden, and Prokopenko (2002, p. 5) study defined MFIs as “institutions that are committed to helping poor families and small institutions gain access to financial services. Its clients are the majority of people, who face severe obstacles that prevent them from obtaining financing services from traditional financing institutions”, the services provided by MFIs have shown the problems they face, the best way to confront them, and that these institutions face difficulties represented in the divergence of places of existence. Their clients and their financial capabilities are low, and their presence in environments where it is difficult for companies to implement the Law to collect their rights. The study by Al-Ali (2012) aimed to identify the factors affecting the determination of the interest rate in the Syrian banking market and concluded that there is a direct relationship between the margin, the interest rate, the operating expenses index, the loan index, the existence of a weak direct relationship between the interest rate margin and the annual inflation rate, and the market share, to the existence of an inverse relationship between the interest rate margin and equity and the exchange rate, and the existence of a weak inverse relationship between the interest rate margin and the size factor. The bank took up from its presence, which achieves social justice by finding a neutral party that lends women and other small borrowers’ loans at low-interest rates. The study found that interest rates in MFIs are high and recommended that MFIs should reconsider their interest rates. It must adhere

to its social responsibility not only as stipulated by the Law but rather to what its vision and mission impose on it. CGAP (2002) has taken up factors affecting interest rates of MFIs administrative operating expenses, loan losses, funds costs, and required capitalization rate, minus income from other investments, if any, and studied the case (Microfin) of a US company as an example of where MFIs estimated administrative expenses by 25% of the total loans granted, the cost of obtaining funds at 21%, the required capitalization rate of 16%, and the income from other investments. Mwangi (2016) test the effect of interest rates on the financial products of MFIs in Kenya and concluded that MFIs in Kenya provide their services to poor communities and focus on using some unconventional methods in their operations, and that the interest rates in them are often the lowest of traditional lending institutions, and that borrowers prefer the Kenya Women's Fund because they have lower interest rates compared to other MFIs.

Kneiding and Rosenberg (2008) studied interest rates among MFIs in many countries. It concluded that there is a great disparity in the rates of these interests as their global average reaches 35%, while in some countries such as Uzbekistan it may reach 80%. It decreases in other countries such as Ethiopia to 9.4%, and Sri Lanka to 7.7%, rates are close to that in India, Nepal, and Senegal, and the main reason for the high-interest rates is the rise in operating expenses. The study also found that the size of loans, the expansion of the country, in which the program operates, the population density, and the state's general policy in terms of providing financing to MFIs, and the need for the market to money, regardless of the interest rate, are all factors affecting the determination of interest rates on loans of MFIs, based on the literature and to answer the research questions, the following hypotheses are formulated.

The first main null hypothesis is as follows:

H_{01} : There are no statistically significant differences between fixed interest rates of MFIs and interest rates of commercial banks at a significance level $\alpha \leq 0.05$.

The second main null hypothesis is as below:

H_{02} : There are no statistically significant differences between decreasing interest rates of MFIs and interest rates of commercial banks at a significance level $\alpha \leq 0.05$.

The third main null hypothesis is:

H_{03} : There are no statistically significant differences between Murabaha rates of MFIs and Murabaha rates of Islamic banks at a significance level $\alpha \leq 0.05$.

The fourth main null hypothesis is:

H_{04} : There are no statistically significant differences between fixed interest rates imposed by the different MFIs at a significance level $\alpha \leq 0.05$.

3. RESEARCH METHODOLOGY

3.1. Study methodology

The main objective of the study is to find whether there are significant differences in the interest rates and Murabaha between MFIs, commercial banks, and Islamic banks in Jordan. To achieve this objective, the commercial banks, Islamic banks operating in Jordan, the microfinance institution operating in

Jordan have been identified and classified based on the nature of their activities (traditional or Islamic), collecting the interest rates and Murabaha rates for both (banks and MFIs) during the period of the study, then the descriptive analysis of the data was performed to find the characteristics for each subgroup of the study sample (commercial banks' interest rates, Islamic banks' Murabaha rates, MFIs' interest rates, and MFIs' Murabaha rates).

The study relied on previous literature that dealt with this subject to form the theoretical framework and select variables, and the study used the descriptive-analytical approach and it used the following concepts:

The interest of commercial banks: Commercial banks adopt the decreasing interest method in calculating the interest due on loans and facilities granted to their clients. Interest rates for traditional banks have been obtained from the website of the Central Bank. It was found that they are divided into three ratios according to the type of facilities, which are loans, notes payable, and current debts. The average of the three percentages for each year was extracted, then the average interest rates for the entire study period were compared with the average interest rate ratios imposed by the microfinance companies.

The interest of MFIs: The microfinance companies adopt two calculating interest methods, the fixed interest method (flat rate). The interest decreasing method and the microfinance companies were divided according to the method they use from the two methods above, the type of products offered by the companies, the interest rates imposed on them, extract of the average interest rates imposed by the group of companies that use the fixed interest method, and the average interest rates imposed by a group of companies using the decreasing interest method, comparing the average ratios of each group with the average interest rates charged by conventional banks.

Murabaha rates of Islamic banks: The data on Murabaha rates in Islamic banks were obtained from the websites of Islamic banks, except for the Islamic International Arab Bank, where the Murabaha rates used by it were obtained directly from the bank, and Islamic banks impose different Murabaha rates according to the nature or duration of the financing. The average Murabaha rates for all the Islamic banks' products have been extracted. The Jordanian Islamic banking sector's average Murabaha rate compares with the microfinance companies' average Murabaha rates.

Murabaha rates of MFIs: Two of the microfinance companies deal with Islamic Murabaha, namely the Ithmaar Company and the Islamic Model Company for Microfinance, and they offer several Islamic financing products, and each product has its Murabaha rate. Each of the two companies' Murabaha rates was obtained from the website of the Central Bank of Jordan. Then, it computed the average of these rates to compare them with the average Murabaha rates in Islamic banks.

The study uses independent and dependent variables. The independent variables are the type of financing activity that includes the following three main dimensions:

Conventional finance: The activity carried out by commercial banks according to the Central Bank's classification in the banking sector guide is based on interest-based dealing (Mirakhor & Bao, 2013).

Islamic finance: This is what Islamic banks do regarding banking activities and activities consistent with the approved Islamic jurisprudence opinions (Banking Law No. 28 of 2000, Article 53).

Microfinance: The activity refers to the financial services provided to low-income individuals or groups who are typically excluded from traditional banking (Finca, n.d.).

The dependent variables are the interest rates and Murabaha rates in commercial and Islamic banks and MFIs (Prabowo & Jamal, 2017; Radzali, Muhammad Noor Habibi, Mohd Sabri, & Ismail, 2019). They are divided into the following types:

Interest rates of commercial banks: The percentage of what the borrower pays for using the money borrowed from a lender or lending institution (Mwangi, 2016).

Murabaha rates of Islamic banks: The Murabaha contract is defined as a contract based on knowing the price of the first commodity and increasing a profit on it, and the price and profit must be known, and the profit can be a lump sum or a percentage of the price of the commodity, and in

both cases, the increase over the price is called the Murabaha price that the funder charges (Department of Ifta, n.d.).

Interest rates of MFIs: The percentage that the borrower from the microfinance institution pays on the amount borrowed on a commercial basis may be fixed or decreasing (Elia, 2006; Ramírez Rocha, Cervantes Zepeda, & Bernal Ponce, 2019).

3.2. Study sample and population

The study sample consists of MFIs. The study population consists of all governmental institutions, foreign bodies, and civil organizations that practice microfinance activity in Jordan. The beginning of its activity dates back to 1999 when the National Microfinance Company was established, the study sample was intentionally chosen from the institutions classified by the Central Bank or by the Development Network for microfinance as MFIs as shown in Table 3 below.

Table 3. Interest and Murabaha rates of MFIs

Institution	Type of activity (interest/Murabaha)	The number of products it offers	Average interest rates or Murabaha rates for the products offered by the company (%)
Ethmar	Murabaha	5	18.6
Alameen	Fixed interest	8	24.76
Alahleh	Fixed interest	3	21.20
National model for finance	Fixed interest	8	11.40
Typical for microfinance	Murabaha	9	12.8
Tamweelkom	Fixed interest	3	12.51
National Bank	Fixed interest	5	14.4
Vitas Corporation	Fixed interest	9	19.75
Fineca Company	Decreasing interest	5	27.4
Women's Fund	Decreasing interest	9	13.29

Source: Prepared by the researcher based on the data available on the websites of the MFIs.

3.2.1. Commercial banks

The study sample for commercial banks consists of all commercial banks operating in Jordan that consists of thirteen commercial banks, and seven branches for foreign banks. The study used the average interest rates in commercial banks published by the Central Bank for a period of twenty years that is, the period 1999–2018. Table 4 below shows the interest rates of commercial banks.

Table 4. Interest rates of commercial banks

Year	Interest rate (%)	Year	Interest rate (%)
1999	12.9	2009	9.09
2010	11.93	2010	9.18
2011	10.92	2011	8.94
2012	10.05	2012	9.27
2013	9.53	2013	9.45
2014	8.45	2014	9.31
2015	8.43	2015	8.32
2016	8.84	2016	8.62
2017	9.38	2017	9.21
2018	9.23	2018	8.91

Source: Prepared by the researcher based on the data from the Central Bank of Jordan (n.d.).

3.2.2. Islamic banks

The study sample for Islamic banks included four Islamic banks operating in Jordan, where the Murabaha rates were limited to the Murabaha product only because this product is the closest to what the MFIs offer, whether in terms of the size or

duration of financing. Table 5 below shows the sample of Islamic banks and their products' Murabaha rates.

Table 5. Murabaha rates in Islamic banks

Bank	The product	Profit rate (%)
Islamic Bank	Small and medium enterprises	5.76
	Affiliates of trade unions	5.14
	Teachers' Union affiliates	4.64
	Associates of other sectors	5.64
Al Rajhi Bank	Personal financing	6.75
	Auto financing	5.5
	Financing against a mortgage	7.25
Safwa Islamic Bank	Home finance	6.1
	From one to four years, the lifetime of the financing	7.125
Islamic International Arab Bank	Four to seven years of financing life	7.375
	From one to four years	3.5
	From one to five years	4
	From one to six years	5

Source: Prepared by the researcher based on the data of the Central Bank of Jordan (n.d.).

3.2.3. The study period

The study period started from 1999 because microfinance operations started in Jordan in 1999, and ended in 2018 because the study was performed during the year 2020 when the financial sector was partially closed due to COVID-19 and there were no financial statements available for 2019.

3.3. Statistical approach

The study used the t-test for two independent samples to test the first, the second, and the third hypotheses (H_1 , H_2 , and H_3), because it is the most suitable statistical approach to test “the extent of differences between the means of two independent samples” (Newbold, Carlson, & Thorne, 2007, p. 372). As for the fourth hypothesis, which aims to identify the extent of differences between the interest rates imposed by the various microfinance companies, the study used one-way analysis of variance (ANOVA) because it considers the best method for testing the differences between the means of more than two samples (Al-Tal & Al-Nuaimi, 2005). The study also used Levene’s test to test the homogeneity of study variables, where homogeneity availability is a condition for using the two statistical tests referred to above.

3.4. Data sources

The study relied on the following primary and secondary sources to obtain the data needed to achieve its goals.

The primary sources are sources that include books and scientific journals. They have been used to form the theoretical framework for the study, especially about the emergence of MFIs, traditional and Islamic banks, the objectives of each of them, and the controls of their work.

The secondary sources were represented by the information available on the international information network and used to obtain MFIs, the type of financing (traditional or Islamic) that they provide, the interest rates and the profit rates on these products, the interest rates and the Murabaha rates in the traditional and Islamic banking sector.

4. RESULTS

The statistical analysis of the study data and the result of hypotheses testing is shown below.

4.1. The result of H_{01} testing

The study use a t-test for independent samples to test H_{01} and Table 6 shows the results of this test.

Table 6. T-test results for differences between fixed interest rates of MFIs and interest rates of commercial banks

Institutions	Descriptive statistics					Inferential statistics				
	Number	Mean	Std. Dev.	Range	Median	Levene's test	Sig. level	Adj. degrees of freedom	t-value	Sig. level
Fixed interest of MFIs	34	20.97	6.35	29.00	21.24	11.75	0.000	45.68	9.89	0.000
Interest of commercial banks	21	9.05	2.36	12.90	9.21					

Source: Prepared by the researcher based on the results of the study data analysis.

Table 6 above shows the mean values of fixed interest rates in MFIs and the mean value of interest rates in commercial banks. Levene’s test results assume that the variation in the fixed interest rate between MFIs and commercial banks is equal and reviewing the value of the test, which is equal to 11.75, shows interest rates of MFIs and interest commercial banks are not equal based on the test significance level value of 0.000 as this value was less than 0.05. In this case, it necessitates that the degrees of freedom are adjusted and procedure t-test by relying on the modified degrees of freedom in order to overcome the problem of unequal variance between the two classes whose averages were compared notes the t-value calculated using the modified degrees of freedom has reached 9.89. This value expresses a difference statistically

significant between fixed interest rates of MFIs and interest rates of commercial banks. This is because the significance level value accompanying the t-test reached 0.000 and which is less than the significant level, and accordingly, the null hypothesis (H_{01}) was rejected. The alternative hypothesis was accepted, which states there is a difference between the fixed interest rates for both MFIs and commercial banks. The difference favored the MFIs, whose average fixed interest value was 232% higher than commercial banks’ fixed interest rate.

4.2. The result of H_{02} testing

Table 7 below shows the descriptive statistics of the data for H_{02} as well as Levene’s test results.

Table 7. T-test results for differences between decreasing interest rates of MFIs and interest rates of commercial banks

Institutions	Descriptive statistics					Inferential statistics				
	Number	Means	Std. Dev.	Range	Median	Levene's test	Sig. level	Adj. degrees of freedom	t-value	Sig. level
Decreasing interest of MFIs	14	19.47	7.42	25.40	17.40	18.40	0.000	14.77	5.09	0.000
Interest of commercial banks	21	9.05	2.36	12.90	9.21					

Source: Prepared by the researcher based on the results of the study data analysis.

Table 7 shows the mean values of decreasing interest rates of MFIs and interest rates of commercial banks. It also indicates Levene's test results, which assume that the variance of the decreasing interest rate of MFIs and commercial banks is equal by reviewing the value of a test. It turns out that it reached 18.40. This value shows that the variance of decreasing interest rates in microfinance institution and banks are not equal based on the test significance level value of 0.000, as this value was less than 0.05. Therefore, in this case, the degrees of freedom are adjusted and a different value for a t-test. Depending on the modified degrees of freedom, to overcome the problem of inequality between the two classes whose averages are compared, it is noticed that the t-value

calculated according to this amendment is 5.09, as this value expresses a difference statistically between the decreasing interest rates of MFIs and commercial banks because the value of the level of significance accompanying the t-test reached 0.000, which is less than 0.05 so that the significance of the difference was in favor of the MFIs whose average diminishing interest value was 215% higher than the average interest rates of commercial banks.

4.3. The result of H₀₃ testing

Table 8 below shows the descriptive analysis of the test results for H₀₃.

Table 8. T-test results for the differences between Murabaha rates of MFIs and Murabaha rates of Islamic banks

Institutions	Descriptive statistics					Inferential statistics				
	Number	Mean	Std. Dev.	Range	Median	Levene's test	Sig. level	Adj. degrees of freedom	t-value	Sig. level
Murabaha rates of MFIs	14	16.80	6.17	18.20	16.80	19.79	0.000	14.11	6.61	0.000
Murabaha rates of Islamic banks	13	5.68	1.23	3.88	5.64					

Source: Prepared by the researcher based on the results of the study data analysis.

Table 8 shows the mean value of Murabaha rates of MFIs and the Murabaha rates of Islamic banks. It also indicates the results of Levene's test which assumed that the variation in Murabaha rates of MFIs and Murabaha rates of Islamic banks is equal. By reviewing the value of Levene's test, it turns out that it reached 19.79. This value shows that the variation in interest rates, Murabaha rates of MFIs and the Murabaha rates of Islamic banks are unequal based on the value of the test significance level of 0.000 as this value was less than 0.05. Adjustment of degrees of freedom and calculation of a different value for a t-test depending on the modified degrees of freedom to overcome inequality of the two groups whose means are compared. It is noticed that the t-value calculated

according to this amendment amounted to 6.61, as this value expresses a difference statistically significant between Murabaha rates of MFIs and Murabaha rates of Islamic banks because the significance of the t-test is 0.000, which is less than 0.05 so that the significance of the difference was in favor of MFIs whose average Murabaha rates were higher than Murabaha rates of Islamic banks by 295%.

4.4. The result of H₀₄ testing

Table 9 below shows the descriptive statistics of the data for H₀₄, as well as Levene's test results.

Table 9. T-test results for the differences between fixed interest rates in MFIs

Institution	Descriptive statistics					Inferential statistics	
	Number	Mean	Std. Dev.	Range	Median	Levene's test	Sig. level
Alameen	8	24.78	4.81	12.00	22.80	1.14	0.360
Alahleeh	3	21.20	2.77	4.80	22.80		
Tamweelkom	3	15.48	5.11	9.24	18.00		
Vitas	10	19.56	4.00	12.90	20.25		
Fineca	5	27.40	6.45	16.50	29.50		
National Bank	5	14.40	5.94	15.00	16.00		

Source: Prepared by the researcher based on the results of the study data analysis.

It can be seen from Table 9 above that the mean values of fixed interest rates of MFIs and the Levene's test results assume that the variation in Murabaha rates of MFIs is equal and with a review of the value and the Levene's test result it turns out that it reached 1.14, and this value shows that the variation in fixed interest rates of MFIs is

considered equally based on the value of the test significance level of 0.360 as this value was greater than 0.05 indicating that there were no statistically significant differences.

In contrast, fixed interest rates of the six MFIs are under study as shown in Table 10 below.

Table 10. One-way ANOVA for differences between fixed interest rates between different MFIs

The source of the variation	Sum of squares	Degrees of freedom	Mean of squares	f-value	Sig. level
MFIs (between clusters)	649.14	5	129.83	5.34	0.001
Error (within groups)	680.94	28	24.32		
Total	1330.08	33			

Source: Prepared by the researcher based on the results of the study data analysis.

Table 10 above shows the results of one-way ANOVA for the differences between fixed interest rates between different MFIs and with an f-value review. The calculated value turns out to be 5.34. This value is statistically significant because the value of its level of significance of 0.001 was less

than 0.05, indicating that there are differences between fixed interest rates at the six MFIs studied. To determine which of the MFIs may differ in the interest rates, the Bonferroni test was performed and Table 11 illustrates the results of this test.

Table 11. The Bonferroni test results to identify MFIs that differ in fixed interest rates

SMA	Institution	Eligibility	Your financing	Vitas	Fineca	National Bank
24.78	Alameen					0.014
21.20	Alahleeh					
15.48	Tamweelcom				0.039	
19.56	Vitas					
27.40	Fineca					0.004
14.40	National Bank					

Source: Prepared by the researcher based on the results of the study data analysis.

Table 11 above shows the Bonferroni test result to identify which MFIs have a difference in fixed interest rates. Table 11 displays the test significance level values that were less than 0.05 to show that the institutions that differ in interest rate had a statistically significant difference. It is also evident that these differences were between the Alameen institution and the National Bank, as the value of the significance level of the difference between the two means was 0.014, and this value is less than 0.05 and indicates the existence of the difference so that the significance of the difference was in favor of the Alameen institution with the largest interest rate. Also, statistically, significant differences appeared between fixed interest rates between Tamweelcom and Fineca Corporation, where the value of the mean difference level was 0.039, which is a value less than 0.05 indicating the difference is statistically significant so that the significance of the difference was in favor of Fineca Corporation with the largest mean, as shown in Table 11 above.

A statistically significant difference also appeared between fixed interest rates between Fineca Corporation and the National Bank, as the value reached the significance level of the difference between the mean interest rates. Fixed benefits in the two institutions refer to 0.004, which is less than 0.05. It indicates the existence of a difference between the two institutions statistically significant. The difference was indicative of a preference for Fineca Corporation, whose mean fixed interest rates were the largest as shown in Table 11.

5. DISCUSSION

Based on the result of statical analysis and hypotheses testing the study finds that the fixed interest rates of MFIs are 232% higher than the interest rates of commercial banks which is represent a big obstacle to achieving the microfinance goal to serve poor people and increasing the financial inclusion. Decreasing interest rates of MFIs are 215% higher than those of commercial banks which also does not help in achieving microfinance goals in general.

Murabaha rates of Islamic products offered by MFIs are 295% higher than the Murabaha rates used in Islamic banks which contrast with the Muslim people's expectation of MFIs (Maikanbara et al., 2019).

The interest rates and Murabaha rates imposed by MFIs in Jordan are less than the global average interest rate, but at the same time are higher than the microfinance rates in some countries with similar economic conditions to Jordan, such as Ethiopia, Sri Lanka, Nepal, Senegal and India (Kneiding & Rosenberg, 2008) and the MFIs differ among themselves in terms of fixed interest rates that they charge on their products, and this indicates that the existence of a low level of competition between these institutions, which may be due to the market's need for such services or the weak financial literacy of borrowers from these institutions, and it might indicate that they differ in their efficiency which contrasts the result of Abdelkader and Salem's (2013) study.

The above results contradict the concept of microfinance as defined by Lieberman (2019) which indicated that MFIs are the institutions that are committed to assisting poor families and small establishments in accessing financial services, as they bear higher financial cost rates than commercial banks. And Islamic banks are taking advantage of their need for financing and their inability to access other financing institutions for many other reasons as identified by Elia's (2006) study. The main reasons for the high-interest rates on loans of MFIs globally, the most important of which is the high cost of obtaining funds and the high operating expenses, may not be a sufficient justification for the high-interest rates of MFIs in Jordan, where the percentage of funds provided by donors is 86% as the study of CGAP (2002) mentioned which support the idea of imposing interest rate cap on MFIs operations in Jordan (Heng et al., 2021). Six out of ten MFIs covered by the study use the fixed interest method in calculating interest, and this method includes deceiving borrowers most of whom are considered to be of low income and less educated people, as this method beard the borrower with interest rates higher than the rates stipulated in loan agreements.

6. CONCLUSION

The main object of microfinance is to provide financial services for that segment of the population in the developing world that does not have ready access to formal financial services. People in the most developing world are suffering from poverty and unemployment and the study findings showed microfinance interest rates and Murabaha

rates are much higher of MFIs than commercial banks and Islamic banks, so the study recommends that the pertinent authorities should impose effective control on the MFIs to reduce these rates and ensure that the interest rates and Murabaha rates are proportionate with the cost of obtaining the funds by MFIs.

People in Islamic countries perceived and valued the Islamic microfinance approaches and this required governments to discourage efforts to build sustainable business models with a broad range of different products to meet the needs of the Muslim poor people.

Pertinent authorities should take the policy options that can help protect borrowers from excessive interest rates and enhance the consumer protection framework such as interest rate cap, fostering healthy competition and efficiency in the microfinance industry.

Reviewing the current legislations related to the microfinance sector, as it was general and devoid

of details that would help the controlling authorities to carry out their duties.

The high microfinance interest rates in Jordan explain the phenomenon of MFIs women borrowers' inability to settle their debts that appeared in Jordan during the last years which is known as the *Gharemat* which led to the imprisonment of hundreds of Jordanian women borrowers from MFIs, which prompted some government agencies such as the Zakat Fund, and some organizations and non-governmental organizations, and even some Arab agencies, to pay the installments owed by these women.

The main limitation of the study is the limited number of MFIs and banks that use the Islamic finance approach in Jordan, so future studies in this area are suggested to be done in countries where many Islamic banks and Islamic microfinance are operating.

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